FOURTH INTERNATIONAL SCIENTIFIC CONFERENCE

KNOWLEDGE BASED SUSTAINABLE ECONOMIC DEVELOPMENT

ERAZ 2018

fakulteta za komercialne in poslovne vede

UNIVERZITET MEDITERAN
MEDITERRANEAN UNIVERSITY
MONTENEGRO

Association of Economists and Managers of the Balkans
UdEkoM Balkan

UNIVERSITY OF NATIONAL AND WORLD ECONOMY
1920
SOFIA

ФАКУЛТЕТ ЗА ПРИМЕЊЕНИ МЕНАЏМЕНТ ЕКОНОМИЈУ И ФИНАНСИЈЕ
МЕФ
mef.edu.rs

FOURTH INTERNATIONAL SCIENTIFIC CONFERENCE

ERAZ 2018

KNOWLEDGE BASED SUSTAINABLE ECONOMIC DEVELOPMENT

CONFERENCE PROCEEDINGS

Sofia, Bulgaria
June 7, 2018

Conference ERAZ 2018
Conference Proceedings – ***KNOWLEDGE BASED SUSTAINABLE ECONOMIC DEVELOPMENT***

Scientific Committee

1. Christian Tanushev, PhD, Associate Professor, Vice Dean for International Cooperation, Faculty of Management and Administration, University of National and World Economy, Sofia, Bulgaria
2. Dragoljub Janković, PhD, Associate Professor, Dean, Faculty of Business Studies, Mediterranean University, Podgorica, Montenegro
3. Evgenia Yazovskikh, PhD, Associate Professor, Marketing Department, Ural federal University named after the first President of Russia B.N. Yeltsin, Yekaterinburg, Russia
4. Tatjana Kovač, PhD, Assistant Professor, Vice Dean, Faculty of Business and Commercial Sciences, Celje, Slovenia
5. Vesna Milanović, PhD, Full Time Professor, Faculty of International Economics, University John Naisbitt, Belgrade, Serbia
6. Jelena Žugić, PhD, Associate Professor, Vice Dean for Academic Affairs, Finance and International Cooperation, Faculty of Business Studies, Mediterranean University, Podgorica, Montenegro
7. Ivana Simić, PhD, Full Time Professor, Faculty of Economics, University of Niš, Niš, Serbia
8. Galina Mladenova, PhD, Associate Professor, Vice Dean, Faculty of Management and Administration, University of National and World Economy, Sofia, Bulgaria
9. Dragana Bašić, PhD, Associate Professor, Head of the Department of Accounting and Business Finance, Faculty of Economics, University of Banja Luka, Bosnia and Herzegovina
10. Elvis Mujačević, PhD, Full Time Professor, Faculty of Tourism and Hospitality Management Opatija, University of Rijeka, Republic of Croatia
11. Tatjana Dolinšek, PhD, Assistant Professor, Faculty of Commercial and Business Sciences, Celje, Slovenia
12. Gabriela Lobonțiu, PhD, Associate Professor, Faculty of Engineering, Department of Engineering and Technology Management, Technical University of Cluj-Napoca, North University of Baia Mare Centre, Maramures, Romania
13. Edmond Hoxha, PhD, Full Time Professor, Department of Mineral Resources, Faculty of Geology and Mine, Polytechnic University of Tirana, Tirana, Albania
14. Slobodanka Krivokapić, PhD, Associate Professor, Faculty of Business Studies, Mediterranean University, Podgorica, Montenegro
15. Nadežda Fuksová, PhD, Assistant Professor, Slovak University of Technology, Institute of Management, Bratislava, Slovak Republic
16. Yovka Bankova, PhD, Assistant Professor, Department of Marketing and Strategic Planning, University of National and World Economy, Sofia, Bulgaria
17. Stefan O. Grbenic, PhD, Assistant Professor, Institute of Business Economics and Industrial Sociology, University of Technology, Graz, Austria
18. Denis Tomše, PhD, Assistant Professor, Faculty of Commercial and Business Sciences, Celje, Slovenia
19. Tomislav Brzaković, PhD, Associate Professor, Dean, Faculty of Applied Management, Economy and Finance, Belgrade, Serbia
20. Miodrag Brzaković, PhD, Associate Professor, Faculty of Applied Management, Economy and Finance, Belgrade, Serbia
21. Saša Virijević Jovanović, PhD, Associate Professor, Faculty of Applied Management, Economy and Finance, Belgrade, Serbia
22. Fadil Zendeli, PhD, Associate Professor, South East European University, Faculty of Public Administration and Political Sciences, Tetovo, Republic of Macedonia
23. Milica Nestorović, PhD, Assistant Professor, Faculty of Business Studies, University John Naisbitt, Belgrade, Republic of Serbia
24. Đurđica Vukajlović, PhD, Assistant Professor, Faculty of Applied Management, Economy and Finance, Belgrade, Serbia

Organizational Committee:
Vuk Bevanda, PhD, Associate Professor; Nikolina Vrcelj, PhD candidate; Nevena Vrcelj, PhD student; Pavle Brzaković, PhD student, Danijela Rutović, BSc; Ivana Mirčević, BSc; Uroš Mirčević, Ing.; Goran Stevanović, BSc; Ana Rusić, BSc

Published by:
Association of Economists and Managers of the Balkans - Belgrade, Serbia; Faculty of Business Studies, Mediterranean University - Podgorica, Montenegro; University of National and World Economy - Sofia, Bulgaria; Faculty of Commercial and Business Studies - Celje, Slovenia; Faculty of Applied Management, Economics and Finance – Belgrade, Serbia

Printed by: All in One Print Center, Belgrade

Belgrade, 2018

ISBN 978-86-80194-12-7

DOI: https://doi.org/10.31410/eraz.2018

CIP - Каталогизација у публикацији -
Народна библиотека Србије, Београд

338.1(082)
330.3(082)
336(082)
005(082)
007:004(082)

INTERNATIONAL Scientific Conference Knowledge Based Sustainable Economic Development ERAZ 2018 (2018 ; Sofija) (4)
Conference Proceedings / Fourth International Scientific Conference
Knowledge Based Sustainable Economic Development ERAZ 2018, Sofia, Bulgaria
June 7, 2018. - Belgrade [etc.] : Association of Economists and Managers of the Balkans [etc.], 2018 (Beograd : All in one print center). - XXVII, 910
str. : graf. prikazi, tabele ; 29 cm
Tiraž 100. - Napomene i bibliografske reference uz tekst. - Registar. -
Bibliografija uz svaki rad. - Abstracts.
ISBN 978-86-80194-12-7 (AEMB)
a) Економија - Зборници b) Привредни развој - Зборници c) Финансије -
Зборници d) Менаџмент - Зборници e) Информациона технологија - Зборници
COBISS.SR-ID 269456652

C O N T E N T S

AFRICAN UNION AND EUROPEAN SUSTAINABLE DEVELOPMENT PROJECTS: CROSS-CULTURAL TRAPS IN MULTICULTURAL TEAMS 2

Mary Ellen Toffle

PROBLEMS IN THE BUSINESS OF SMALL AND MEDIUM-SIZED ENTERPRISES AND ENTREPRENEURSHIP IN SERBIA 16

Marina Gajic Glamoclija

INEQUALITY PROBLEMS IN CENTRAL AND EASTERN EUROPE 22

Gyorgy Andor

FOREIGN DIRECT INVESTMENT AND REGIONAL DEVELOPMENT IN BULGARIA: A PANEL DATA ANALYSIS FOR THE PERIOD 2008-2016 35

Iva Raycheva

FOREIGN DIRECT INVESTMENT IN MACEDONIA – IS THERE DICRIMINATION IN PRACTICE? 40

Biljana Petrevska

MITIGATION OF REGIONAL DISPARITIES THROUGH CLUSTERS 47

Katarína Kráľová

Jana Sochuľáková

Dagmar Petrušová

INFLUENCE OF FOREIGN TRADE WITH CEFTA AND EU ON GDP OF B&H 55

Dijana Grahovac

Senad Softić

CROSS-BORDER REGIONS AS SUPPORTING STRUCTURES FOR RAISING COMPETITIVENESS IN EUROPE 65

Dagmar Škodová Parmová

Zuzana Dvořáková Líšková

Rostislav Kain

THE INFLUENCE OF MUNICIPALITY SIZE ON ITS EXPENDITURE- CASE STUDY FROM SLOVAKIA 79

Monika Vámošová

DYNAMICS OF LOANS AND DEPOSITS IN BULGARIA AND THE EURO AREA IN THE PERIOD 2007–2017 86

Aglika Kaneva

CHALLENGE FOR A NON-FINANCIAL DEFINED CONTRIBUTION SCHEME IN THE ALBANIAN RETIREMENT SYSTEM 97

Landi Gushi

INCOME RELATED ELASTICITY OF HEALTH EXPENDITURE: SOME EMPIRICAL EVIDENCE FOR BULGARIA 106

Nikolay Atanasov

RETIREMENT PROGRAMS FOR EMPLOYEES AS AN ELEMENT OF CORPORATE SOCIAL RESPONSIBILITY 115

Iwona Olejnik

Magdalena Stefańska

MICROFINANCE AND ECONOMIC GROWTH IN ALBANIA: AN ARDL APPROACH 125

Forcim Kola

Teuta Cerpja

FINDING THE EFFECTIVE FRONTIER FOR A PORTFOLIO OF RISK LOANS (ALBANIAN CASE) 137

Glediana Zeneli

Arsen Benga

BANKS IN THE SYSTEM OF FINANCING ECONOMY AND FINANCIAL MANAGEMENT IN BOSNIA AND HERZEGOVINA 147

Željana Vrućinić

THE PROFITABILITY OF BANKING SECTOR IN KOSOVO 160

Flamur Keqa

MOTIVES AND DETERMINANTS OF THE PROCESSES OF MERGERS AND ACQUISITIONS OF BANKS IN THE USA, EU, AND TRANSITIONAL ECONOMIES OF CENTRAL AND EASTERN EUROPE 169

Irena Lekoska

ECB LEGAL MEASURES ACCORDING TO THE FINANCIAL CRISES 176

Shkendije Nahi

Flamur Mrasori

DEVELOPING E-BANKING PLATFORM IN CONTEMPORARY WORLD 185

Zarko Radjenovic

Tatjana Boshkov

WILL THE INTERNATIONAL ACCOUNTING STANDARDS BOARD'S DECISION TO INTRODUCE 'THE EXPECTED LOSS MODEL' UNDER IFRS 9 CONTRIBUTE TO GREATER TRANSPARENCY OF FINANCIAL STATEMENTS INFORMATION? IS IT TRUE OR IS IT TOO EARLY TO ADDRESS THE QUESTION? 195

Hristina Oreshkova

ANALYTICAL SUPPORT FOR MANAGEMENT OF VENTURE FINANCING OF INNOVATIVE ENTERPRISES 211

Mykola Gorodysky

Hanna Khomenko

Olena Syvak

MULTIPLE REVENUE STREAMS MODEL OF WINERIES..... 222

Katarína Remeňová

Nadežda Jankelová

INVESTMENTS IN REPAIR OF OUTDATED METAL FORMING MACHINES AND EVALUATION OF THIS INVESTMENTS..... 230

Burim Fejzaj

Milan Vukcević

Mileta Janjić

IMPACT OF FINANCIAL STRUCTURE ON ECONOMIC RETURN (ROA - RETURN ON ASSET); CASE STUDY: WHOLESALE OF MOTOR VEHICLE PARTS AND ACCESSORIES (NACE: 4531)..... 237

Rodica Baciu (Boanta)

Petre BREZEANU

COMPARATIVE RISK ANALYSIS OF HUNGARIAN AND ROMANIAN TRADE AND SERVICE COMPANIES 252

Tibor Tarnóczi

Edina Kulcsár

CONTEMPORARY APPROACH TO THE ANALYSIS OF THE PURCHASING FUNCTION IN THE PRODUCTION COMPANY 266

Miroslav Cavlin

Radivoj Prodanovic

Pavle Pocuc

THE ROLE OF FIXED ASSETS IN THE DEVELOPMENT OF BUSINESS ACTIVITIES OF THE ORGANIZATION 273

Vuk Bevanda

Aleksandra Živaljević

Sara Stanić Jovanović

COMPARISON OF THE USE OF METHODS FOR INCREASING THE QUALITY AND PERFORMANCE OF PROCESSES IN THE SLOVAK ECONOMY..... 282

Pavol Gejdoš

Ľubica Simanová

THE PROSPECTS FOR IMPLEMENTATION OF BLOCKCHAIN TECHNOLOGY IN THE HOUSING SECTOR OF THE RUSSIAN FEDERATION 292

Stanislav Viktorovich Pridvizhkin

Ulyana Petrovna Degtyareva

CONSUMER PERCEPTIONS TOWARDS CRYPTO CURRENCIES 299

Ismail Metin

Enis Yakut

VARIETY OF THE BENEFICIAL OWNERSHIP CONCEPT 310

Sonja Cindori

Toni Janković

STRATEGIC COHERENCE AS AN ORGANIZATIONAL ADJUSTMENT PROCESS - CONCEPT AND MEASUREMENT OF THE PHENOMENON 316

Paweł Mielcarek

INTERDISCIPLINARY UNDERSTANDING OF A CRISIS: TOWARDS AN INTERNATIONAL CRISIS CLASSIFICATION MATRIX 323

Albena Björck

AN EMPIRICAL INVESTIGATION OF SCHOOL TO WORK TRANSITION USING THE GOMPERTZ MODEL 330

Ana Gorenca

DEVELOPING A PROJECT MANAGEMENT CULTURE IN INSTITUTIONS OF HIGHER LEARNING 340

Daniel Seelhofer

Christian Olivier Graf

Selina Guhl

EDUCATION FOR SUSTAINABLE DEVELOPMENT IN SERBIA AT THE ONSET OF THE FOURTH INDUSTRIAL REVOLUTION 354

Biljana Jovanović Gavrilović

Biljana Radivojević

COMPARATIVE PECULIARITIES OF THE LABOUR MARKET OF YOUNG SPECIALISTS IN RUSSIAN AND CHINA IN THE LAST DECADE 361

Evgeniya Yazovskikh

Zhao Qiogyu

THE SUCCESS OF PEER REVIEW EVALUATION IN UNIVERSITY RESEARCH FUNDING – THE CASE STUDY FROM SLOVAKIA 372

Alexandra Lešková

THE LEVEL AND POSITION OF STRATEGIC BUSINESS MANAGEMENT IN THE CZECH REPUBLIC, RUSSIA AND CHINA AND THEIR MUTUAL COMPARISON 383

Jarmila Straková

PREDICTION OF THE DEVELOPMENT OF THE CORPORATE ENVIRONMENT IN THE CZECH REPUBLIC FROM THE PERSPECTIVE OF TOP MANAGERS . 392

Jan Váchal

THE ROLE OF MANAGEMENT IN MANAGEMENT OF COMPANIES..... 401

Nevenka Nićin

Anka Bulatović

Vojislava Grbić

MANAGEMENT PROFESSIONALIZATION AS CONDITION FOR MODERNIZATION OF COMPANIES' MANAGEMENT DUE TO APPLICATION OF A PARTICIPATIVE DEMOCRATIC DECISION MAKING MODEL 409

Valentina Vukosavljevic Pavlovic

TALENT MANAGEMENT IMPLEMENTATION IN ACTIVITIES OF HUMAN RESOURCE MANAGEMENT 415

Julija Avakumovic

HUMAN RESOURCES AND THEIR PREPARATION IN THE SPHERE OF ENVIRONMENTALLY ORIENTED CRISIS MANAGEMENT IN THE CONTEXT OF A CIRCULAR ECONOMY..... 424

Jaroslav Bednárik

CHALLENGES IN FORMULATING AND IMPLEMENTING OF STRATEGIC HUMAN RESOURCE MANAGEMENT 430

Denada Olli

A STUDY TOWARDS THE VERIFICATION OF FACTOR ANALYSIS WITH MULTIDIMENSIONAL SCALING: MEYER AND ALLEN'S ORGANIZATIONAL COMMITMENT SCALE..... 438

Aslı Beyhan Acar

Nil Selenay Erden

COMPARISON BETWEEN MNCS AND DOMESTIC COMPANIES ON TRAINING AND DEVELOPING EMPLOYEES IN SERBIAN CONTEXT 447

Marko Slavkovic

Marijana Simic

MANAGER, MANAGERIAL STRESS AND SPORTS RECREATION 453

Ivica Nikolić

Jova Miloradić

THE INTERNSHIP, A CHANCE FOR COMPANIES, BUT ESPECIALLY FOR STUDENTS..... 460

Marius Calin BENEA

SALES PROMOTION IN THE FUNCTION OF CREATING CONSUMER SATISFACTION AND INFLUENCING CONSUMER ATTITUDES 466

Marina Guzovski

Mirko Smoljić

Marina Stanić

BEHAVIOURAL FACTORS TO ANALYZE THE READINESS FOR INDIVIDUAL CONSUMPTION 474

Maya Tsoklinova

Konstantin Kolev

ANALYSIS OF THE CONNECTION BETWEEN TELEVISION COMMERCIALS FOR BEER AND FOOTBALL..... 482

Nikola Vukčević

Luka Rakojević

APPLICATION OF SOCIAL NETWORKS IN EVERYDAY LIFE IN BOSNIA AND HERZEGOVINA 489

Zvezdan Stojanović

Fuad Hasanović

THE ROLE OF THE SOCIAL MEDIA IN THE TRADITIONAL MEDIA DEVELOPMENT IN ALBANIA..... 497

Holta Heba

POSSIBILITIES OF USING EDULARP IN EDUCATION IN SLOVAK REPUBLIC 506

Adriana Grenčíková

Dagmar Petrušová

Karol Krajčo

THE ROLE OF WOMEN IN THE CREATION OF KNOWLEDGE FOR THE FOURTH INDUSTRIAL REVOLUTION 513

Marijana Vidas-Bubanja

Snežana Popovčić-Avrić

Iva Bubanja

DEPENDENCE OF QUANTITATIVE MODELS OF MANAGEMENT ON IOT AND DIGITAL TRANSFORMATION..... 521

Milos Loncar

Marina Jovanovic Milenkovic

Milos Trkulja

STUDY ON THE DIGITIZATION LEVEL OF ROMANIAN ENTERPRISES..... 534

Catalin Gheorghe

SUSTAINABLE MARKETING STRATEGY - THE WAY TO GAIN PROFITS ON INTERNATIONAL MARKETS 542

Saša Virijević Jovanović

Vesna Pijevac

Vesna Filipović

THE USE OF TWITTER AS A MARKETING TOOL BY TOUR OPERATORS IN ANTALYA 551

Nur Undey Kalpaklioglu

Egemen Gunes Tukenmez

OECD MEMBERSHIP CHALLENGES FOR CROATIAN TOURISM; SUSTAINABLE PERSPECTIVES 560

Jasmina Gržinić

ANALYSIS AND FORECAST OF TOURIST NIGHTS IN CROATIA BY 2022 567

Justin Pupavac

Antonio Badurina

EXPLORING CONNECTIONS BETWEEN CULTURAL HERITAGE, TOURISM AND SUSTAINABLE DEVELOPMENT: THE CASE OF ROMANIA..... 575

Călin Vegheș

MANAGING DIVERSITY IN THE HOSPITALITY INDUSTRY OF SLOVENIA.... 582

Marija Rok

HUMAN RESOURCE MANAGEMENT IN HOSPITALITY, RESTAURANTS AND TRAVEL AGENCIES 592

Goran Pavlović

Nevena Vrcelj

NETWORK AND KNOWLEDGE SYSTEMS IN INDUSTRIAL AND TOURISM CLUSTERS..... 599

Tülay GÜZEL

Tarık YALÇINKAYA

EXAMPLES OF EUROPEAN TOURISM DESTINATIONS AND IMPORTANCE OF AGRICULTURAL LANDSCAPES 606

Anita Silvana Ilak Peršurić

HISTORICAL DESTINATIONS IN NORTH INDIA AND THEIR IMPACTS: AN ANALYTICAL STUDY (SPECIAL FOCUS ON DELHI) 616

Zeba Zarin Ansari

Ajay Kumar

Anton Vorina

SUSTAINABLE TOURISM IN THE PROTECTED AREAS OF BOSNIA AND HERZEGOVINA ON THE EXAMPLE OF THE NATURE MONUMENT "VRELO BOSNE" 637

Emir Temimović

DISTRIBUTION CHANNELS IN TOURISM IN THE MODERN APPROACH..... 644

Cuneyt MENGU

TO BE MACHO OR NOT TO BE THAT'S THE MATTER: BANKING AND TOURISM SECTORS 657

Ekrem Tufan

Sezer Deniz

İrem Ceylan Karagöz

Erhan Eren

Duygu Nedret Tüter

MASS MIGRATION - THE FASTEST GROWING CHALLENGE OF THE EUROPEAN UNION WITH SPECIAL REFERENCE TO CROATIA 665

Sanja Knežević

Anita Kulaš Mirosavljević

Lena Duspara

HOW THE LIFESTYLE AND STYLE OF THINKING OF THE ROMANIANS HAS CHANGED 100 YEARS AFTER THE GREAT UNION 673

Marius Calin BENEA

YOU ARE WHAT YOU PERCEIVE AND EAT 679

Ekrem Tufan

Atila Yüksel

Funda Eriş

Aydan Taştan

ONE SOLUTION OF INTERACTION WEB APPLICATION FOR USERS INTERCONNECTION..... 685

Nenad Kojić

Mustafa Levent

Natalija Vugdelija

THE NECESSITY OF APPLYING THE ECONOMY OF HARM AND BENEFIT OF EXPLOITATION OF ELECTRIC VEHICLES..... 692

Nada Kosanovic

Danijela Rakic

BIOLOGICAL TREATMENT AND BEST MANAGEMENT PRACTICES ON FOOD INDUSTRY WASTEWATER IN ALBANIA..... 701

Anisa Myrtaj (Rexhepi)

Ilirjan Malollari

Luljeta Pinguli

MONITORING OF ENVIRONMENTAL CONDITIONS IN THE REPUBLIC OF SERBIA AND APPLICATION OF THE POLLUTER PAYS PRINCIPLE..... 708

Milan Počuča

Jelena Matijašević-Obradović

EFFICIENT USE OF ENERGY AN IMPORTANT APPROACH IN MINIMIZING ENVIRONMENT AND OPERATIONAL COSTS IN ALBANIAN BREWERIES 715

Luljeta Pinguli

Ilirjan Malollari

Lorina Lici

Jonilda Llupa

DEVELOPMENT AND APPLICATION OF POTENTIAL ALTERNATIVE ENERGY SOURCES..... 724

Goca D. Jovanović

Slavko Božilović

THE RAPESEED CULTURE EVOLUTION IN ROMANIA IN THE CONTEXT OF CLIMATE CHANGE 728

Camelia Slave

Diana Vască Zamfir

THE COMPARISON OF REQUIREMENTS FOR A DISCLOSURE OF NON-FINANCIAL INFORMATION ACCORDING TO LEGAL REGULATIONS IN SLOVAKIA AND EU DIRECTIVES 736

Renáta Pakšiová

CRIMINAL OFFENSES AGAINST SECURITY OF COMPUTER DATA IN THE REPUBLIC OF SRPSKA ACCORDING TO THE CRIMINAL LAW OF 2017 746

Miodrag N. Simović

Dragan Jovašević

Vladimir M. Simović

LEGAL FRAMEWORK FOR RESISTANCE OF SPORTS FAN VIOLENCE (FOOTBALL) - EVENTS IN MONTENEGRO 752

Željko Spalević

Ljubiša Konatar

Žaklina Spalević

MEDIA TRIAL VS. FAIR TRIAL: ARE THE NEW MEDIA RESHAPING ADMINISTRATION OF JUSTICE? 764

Tulishree Pradhan

Shuvro Prosun Sarker

BUSINESS COMPANIES IN KOSOVO 772

Majlinda Belegu

EQUALITY AND CHALLENGES IN EMPLOYMENT RELATIONSHIP BASED ON KOSOVO LEGAL RESOURCES 781

Bashkim Rrahmani

GROUNDS AND PROCEDURE OF CHALLENGE OF ARBITRATORS IN INTERNATIONAL ARBITRATION 789

Mohammed Zaheeruddin

HUMAN TRAFFICKING FOR LABOUR EXPLOITATION AND THE ROLE OF WORK INSPECTION 802

Aleksandra Jovanović

Irena Šljivar Milijić

TRAFFICKING WITH HUMAN BEINGS, IDENTIFICATION AND THE PRINCIPLES OF NON PUNISHMENT FOR VICTIMS OF TRAFFICKING 808

Veton Vula

YEKATERINBURG AGGLOMERATION: ANALYSIS OF THE CITY-PLANNING AND REAL ESTATE MARKET SITUATION IN THE SEGMENT OF APARTMENT BUILDINGS IN VERKHNYAYA PYSHMA 817

Anna Loginova

Stanislav Pridvizhkin

ANALYSIS OF THE RISKS GENERATED BY CONCEALED WORKS IN THE FIELD OF CONSTRUCTION 824

Lidia NICULIȚĂ

Laurențiu RECE

Andreea Dora Bianca PIRONEA

MODULAR PRECAST METALLIC BALCONIES FOR BUILDINGS AND PROCESSES FOR MAKING THE SAME 840

Laurentiu RECE

Dragos VOICULESCU

Andreea Dora Bianca PIRONEA

COMPARATIVE ANALYSIS OF THE SHEAR FORCE RESISTANCE OF WELDED STEEL SECTIONS WITH FLAT WEBS TO CORRUGATED WEBS STEEL CROSS SECTIONS 851

Daniel Taus

Dorin Radu

EVALUATION OF STEADY-STATE OPERATION OF ENVIRONMENTAL CLIMATIC CHAMBER MEASURING TEMPERATURE AND RELATIVE HUMIDITY 858

Iska Kolaveri Spahiu

Dhurata Premti

Floran Vila

Anisa Dhroso

PERFORMANCE EVALUATION OF AN EXPERIMENTAL SYSTEM MEASURING ETHANOL CONCENTRATION 862

Erinda Piluri

Hasime Manaj

Ilirjan Malollari

Irakli Premti

THE FACTORS AFFECTING THE TREND OF FDI-S IN ALBANIA DURING THE LAST 5 YEARS 866

Blerta Dragusha

Erjola Barbullushi (Sakti)

CROWDFUNDING AND SOCIAL RESPONSIBILITY: CREATING ECONOMIC VALUE AND SOCIAL VALUE 868

Nadia Oliva

THE STRUCTURE OF MARGINAL COSTS: A PEDAGOGICAL REVIEW 869

Petar Stankov

ANALYSIS OF THE STRUCTURE OF BANK RECEIVABLES FROM THE BUSINESS SECTOR IN THE REPUBLIC OF SERBIA 872

Dragana Tadić Živković

ALTMAN Z-SCORE REVISED MODELS AS EARLY WARNING SYSTEMS FOR BANKRUPTCY EVALUATION OF ECONOMIC ENTITIES 873

Erjole Barbullushi

Blerta Dragusha

NON-FINANCIAL BACKGROUND OF FINANCIAL PERFORMANCE: EVIDENCE FROM CENTRAL AND EASTERN EUROPE 874

Gyorgy Andor

Tamas Toth

ENTERPRISE ARCHITECTURE AS A FACTOR TO ELIMINATE IMPACTS IN ENTERPRISE EXTERNAL ENVIRONMENT 875

Petra Pártlová

Jan Váchal

THE 40% CLUB: COMPANY PERFORMANCE QUALITY AND GENDER EQUALITY 877

Brikena Berisha

CORPORATE GOVERNANCE AND PERFORMANCE OF SME SECTOR IN KOSOVO 879

Saxhide Mustafa

CORPORATE SUSTAINABILITY: VALUE CREATION IN SUSTAINABLE MANUFACTURING 880

Damla Ozekan

CHANGING ROLE OF CFOS 882

Sinan Cifci

UNBUNDLING THE ROLES OF INSTITUTIONS AND HUMAN CAPITAL IN DEVELOPMENT: A GLOBAL EVIDENCE 883

Soner Gokten

Furkan Baser

Pınar Okan Gokten

THE IMPACT OF HUMAN CAPITAL ON SUSTAINABLE GROWTH - THE CASE OF REPUBLIC OF MACEDONIA - 884

Slagjana Stojanovska

Violeta Madzova

Margarita Matlievska

LEADERSHIP EFFECTIVENESS IN MODERN AGE 885

Vuk Mirčetić

Pavle Brzaković

Svetlana Vukotić

GOOD ORGANIZATIONAL GOVERNANCE AND DEVELOPMENT OF LEADERSHIP SKILLS IN SPORTS 886

Danica Pirsl

Andon Kostadinovic

MANIFESTATIONS AND SIGNIFICANCE OF “WORK EXPERIENCE” IN THE ORGANIZATION 888

Mária Héder

SUSTAINABLE MARKETING AS A COMPETITIVE ADVANTAGE AND A CASE STUDY ON GLASS SECTOR IN TURKEY 889

Evrim Ildem Develi

ACCESS AND METHODS OF MARKETING RESEARCH 891

Dina Lazarević
Nevena Ćurić
Katarina Radlovački
SIGNIFICANCE OF SOCIAL MEDIA MARKETING 893
Milena Sretić
Nemanja Stojković
Željko Ondrik
THE INFLUENCE OF THE EXTERNAL ENVIRONMENT ON THE FORMULATION OF MARKETING STRATEGY 895
Katarina Radlovački
Željko Ondrik
Nemanja Stojković
INTEGRATING CLOUD ENABLED SMART TECHNOLOGIES INTO EVENT MANAGEMENT 896
Saha Baygul Ozpinar
Alper Ozpinar
OFF-ROAD TOURISM: AN ALTERNATIVE WAY FOR SUSTAINABLE TOURISM IN ÇANAKKALE, TURKEY 898
Figen SEVİNÇ
Erol DURAN
INFORMATION AND COMMUNICATION TECHNOLOGIES IN SERBIA: GROWTH AND UNEVEN SPATIAL DEVELOPMENT 899
Aljoša Budović
Vojislav Đeđanski
EVALUATION OF INNOVATIVE ENTREPRENEURSHIP ECOSYSTEM: TECHNOLOGY AUDIT 901
Mehmet Şahin Gök
Erşan Ciğerim
Tuğkan Arıcı
ADAPTING A COMPANY'S STRATEGY IN THE DIGITAL TRANSFORMATION ERA 902
Christian Tanushev
BLACK BOX OF INDUSTRY 4.0: NEW OPPORTUNITIES FOR ENTREPRENEURSHIP ECOSYSTEM 903
Erşan Ciğerim
Tuğkan Arıcı
Mehmet Şahin Gök

IMPROVING TEACHING USING A GAME ENGINE 904

Natalija Vugdelija

Nenad Kojić

Nikola Mihajlović

CONTRACT ON GIVING INFORMATION AND ADVICE (CONSULTING CONTRACT)..... 906

Mario Vojnić Hajduk

CROSS-BORDER UNFAIR COMPETITION CASES IN ONLINE ENVIRONMENT – THE EU CONFLICT-OF-LAWS PERSPECTIVE IN TERMS OF LEGAL CERTAINTY AND PREDICTABILITY 908

Iveta Rohová

EUROPEAN BUSINESS EXCELLENCE MODEL ON SUSTAINABLE DEVELOPMENT..... 910

Vesna Miladinović

Katarina Lazović

Index of Authors

A

Adriana Grenčíková, 506
Aglika Kaneva, 86
Ajay Kumar, 616
Albena Björck, 323
Aleksandra Jovanović, 802
Aleksandra Živaljević, 273
Alexandra Lešková, 372
Alper Ozpinar, 896
Aljoša Budović, 899
Ana Gorenca, 330
Andon Kostadinovic, 886
Andreea Dora Bianca PIRONEA, 824, 840
Anisa Dhroso, 858
Anisa Myrtaj (Rexhepi), 701
Anita Kulaš Mirosavljević, 665
Anita Silvana Ilak Peršurić, 606
Anka Bulatović, 401
Anna Loginova, 817
Anton Vorina, 616
Antonio Badurina, 567
Arsen Benga, 137
Aslı Beyhan Acar, 438
Atila Yüksel, 679
Aydan Taştan, 679

B

Bashkim Rrahmani, 781
Biljana Jovanović Gavrilović, 354
Biljana Petrevska, 40
Biljana Radivojević, 354
Blerta Dragusha, 866, 873
Brikena Berisha, 877
Burim Fejzaj, 230

C

Călin Vegheș, 575
Camelia Slave, 728
Catalin Gheorghe, 534
Christian Olivier Graf, 340
Christian Tanushev, 902
Cuneyt MENGU, 644

D

Dagmar Petrušová, 47, 506
Dagmar Škodová Parmová, 65
Damla Ozekan, 880
Danica Pirsl, 886
Daniel Seelhofer, 340
Daniel Taus, 851
Danijela Rakic, 692
Denada Olli, 430
Dhurata Premti, 858
Diana Vască Zamfir, 728
Dijana Grahovac, 55
Dina Lazarević, 891
Dorin Radu, 851
Dragan Jovašević, 746
Dragana Tadić Živković, 872
Dragos VOICULESCU, 840
Duygu Nedret Tüter, 657

E

Edina Kulcsár, 252
Egemen Gunes Tukenmez, 551
Ekrem Tufan, 657, 679
Emir Temimović, 637
Enis Yakut, 299
Erhan Eren, 657
Erinda Piluri, 862
Erjola Barbullushi (Sakti), 866
Erjole Barbullushi, 873
Erol DURAN, 898
Erşan Ciğerim, 901, 903
Evgeniya Yazovskikh, 361
Evrim Ildem Develi, 889

F

Figen SEVİNÇ, 898
Flamur Keqa, 160
Flamur Mrasori, 176
Floran Vila, 858
Forcim Kola, 125
Fuad Hasanović, 489
Funda Eriş, 679
Furkan Baser, 883

G

Glediana Zeneli, 137
Goca D. Jovanović, 724
Goran Pavlović, 592
Gyorgy Andor, 22, 874

H

Hanna Khomenko, 211
Hasime Manaj, 862
Holta Heba, 497
Hristina Oreshkova, 195

I

Ilirjan Malollari, 701, 715, 862
Irakli Premti, 862
İrem Ceylan Karagöz, 657
Irena Lekoska, 169
Irena Šljivar Milijić, 802
Iska Kolaveri Spahiu, 858
Ismail Metin, 299
Iva Bubanja, 513
Iva Raycheva, 35
Iveta Rohová, 908
Ivica Nikolić, 453
Iwona Olejnik, 115

J

Jan Váchal, 392, 875
Jana Sochuľáková, 47
Jarmila Straková, 383
Jaroslav Bednárik, 424
Jasmina Gržinić, 560
Jelena Matijašević-Obradović, 708
Jonilda Llupa, 715
Jova Miloradić, 453
Julija Avakumovic, 415
Justin Pupavac, 567

K

Karol Krajčo, 506
Katarína Kráľová, 47
Katarina Lazović, 910
Katarina Radlovački, 891, 895
Katarína Remeňová, 222
Konstantin Kolev, 474

L

Landi Gushi, 97
Laurențiu RECE, 824
Laurentiu, RECE, 840
Lena Duspara, 665
Lidia NICULIȚĂ, 824
Lorina Lici, 715
Ľubica Simanová, 282
Luka Rakojević, 482
Luljeta Pinguli, 701, 715
Ljubiša Konatar, 752

M

Magdalena Stefańska, 115
Majlinda Belegu, 772
Margarita Matlievska, 884
Mária Héder, 888
Marija Rok, 582
Marijana Simic, 447
Marijana Vidas-Bubanja, 513
Marina Gajic Glamoclija, 16
Marina Guzovski, 466
Marina Jovanovic Milenkovic, 521
Marina Stanić, 466
Mario Vojnić Hajduk, 906
Marius Calin BENEA, 460, 673
Marko Slavkovic, 447
Mary Ellen Toffle, 2
Maya Tsoklinova, 474
Mehmet Şahin Gök, 901, 903
Milan Počuča, 708
Milan Vukcević, 230
Milena Sretić, 893
Mileta Janjić, 230
Milos Loncar, 521
Milos Trkulja, 521
Miodrag N. Simović, 746
Mirko Smoljić, 466
Miroslav Cavlin, 266
Mohammed Zaheeruddin, 789
Monika Vámošová, 79
Mustafa Levent, 685
Mykola Gorodysky, 211

N

Nada Kosanovic, 692
Nadežda Jankelová, 222

Nadia Oliva, 868
Natalija Vugdelija, 685, 904
Nemanja Stojković, 893, 895
Nenad Kojić, 685, 904
Nevena Ćurić, 891
Nevena Vrcelj, 592
Nevenka Nićin, 401
Nikola Mihajlović, 904
Nikola Vukčević, 482
Nikolay Atanasov, 106
Nil Selenay Erden, 438
Nur Undey Kalpaklioglu, 551

O

Olena Syvak, 211

P

Pavle Brzaković, 885
Pavle Pocuc, 266
Pavol Gejdoš, 282
Paweł Mielcarek, 316
Petar Stankov, 869
Petra Pártlová, 875
Petre BREZEANU, 237
Pınar Okan Gokten, 883

R

Radivoj Prodanovic, 266
Renáta Pakšiová, 736
Rodica Baciu (Boanta), 237
Rostislav Kain, 65

S

Saha Baygul Ozpinar, 896
Sanja Knežević, 665
Sara Stanić Jovanović, 273
Saša Virijević Jovanović, 542
Saxhide Mustafa, 879
Selina Guhl, 340
Senad Softić, 55
Sezer Deniz, 657
Shkendije Nahi, 176
Shuvro Prosun Sarker, 764
Sinan Cifci, 882
Slagjana Stojanovska, 884
Slavko Božilović, 724
Snežana Popovčić-Avrić, 513
Soner Gokten, 883
Sonja Cindori, 310
Stanislav Pridvizhkin, 817
Stanislav Viktorovich Pridvizhkin, 292
Svetlana Vukotić, 885

T

Tamas Toth, 874
Tarık YALÇINKAYA, 599
Tatjana Boshkov, 185
Teuta Cerpja, 125
Tibor Tarnóczi, 252
Toni Janković, 310
Tuğkan Arıcı, 901, 903
Tülay GÜZEL, 599
Tulishree Pradhan, 764

U

Ulyana Petrovna Degtyareva, 292

V

Valentina Vukosavljevic Pavlovic, 409
Vesna Filipović, 542
Vesna Miladinović, 910
Vesna Pijevac, 542
Veton Vula, 808
Violeta Madzova, 884
Vladimir M. Simović, 746
Vojislav Đađanski, 899
Vojislava Grbić, 401
Vuk Bevanda, 273
Vuk Mirčetić, 885

Z

Zarko Radjenovic, 185
Zeba Zarin Ansari, 616
Zhao Qiogyu, 361
Zuzana Dvořáková Líšková, 65
Zvezdan Stojanović, 489
Žaklina Spalević, 752
Željana Vrućinić, 147
Željko Ondrik, 893, 895
Željko Spalević, 752

P R E F A C E

Economic development refers to the improvement of activities in the economy, which leads to progressive changes in the socio-economic structure and the rising of living standards. Given that the objective of sustainable economic development is elimination of poverty, inequality and unemployment - thus leading to social inclusion and improvement of the quality of life; it is necessary in analysis of this important issue apply extremely multidisciplinary approach.

Faculty of Business Studies, Mediterranean University - Podgorica, Montenegro; University of National and World Economy - Sofia, Bulgaria; Faculty of Commercial and Business Studies - Celje, Slovenia; Faculty of Applied Management, Economics and Finance - Belgrade, Serbia and the Association of Economists and Managers of the Balkans have recognized following issue and organized in Sofia on June 7, 2018 at the Sofia City Hotel Fourth International Scientific Conference titled: ***Knowledge based sustainable economic development - ERAZ 2018***.

The conference objective was to bring together academic community (experts, scientists, engineers, researchers, students and others) and publication of their scientific papers for the purpose of popularization of science and their personal and collective affirmation. The unique program combined interactive discussion and other forms of interpersonal exchange of experiences and presentation of the latest scientific developments in following areas.

- Microeconomics and macroeconomics,
- Economic policy,
- International Economics and Trade,
- International Business,
- Economic diplomacy,
- Lobbying,
- Globalization,
- European business,
- Modern management and innovation,
- Business and Public Finance,
- Fiscal policy,
- Stock exchange and financial markets,
- Risk management,
- Insurance and reinsurance companies,
- Financial Management and Banking,
- Modern forms of entrepreneurship and investment,
- Investment Management,
- Enterprise and Learning,
- Women and Entrepreneurship,
- Corporate entrepreneurship,
- Agribusiness Strategy,
- Marketing and trade,
- Marketing services,
- Marketing of non-profit sector,
- Research in marketing,
- Marketing in education,
- Marketing in sport,
- Marketing in culture,
- Accounting and auditing,
- Quality management,
- Labor law,
- Business law,
- The role of the rule of law in the country's progress,
- Human rights and protection of minorities,
- Legal aspects of EU integration,
- Intellectual Property Law,
- The reform of corporate law in countries in transition,
- CEFTA,
- Ecology and energy,
- Renewable energy,
- Energetic efficiency,

- Information technology and business intelligence,
- The use and integration of new technologies,
- E-society and E-learning,
- Sustainable tourism,
- Hospitality

In the Conference Proceedings of the ERAZ 2018 conference **97 papers and 30 abstracts** have been published on more than **900 pages.**

Participation in the conference took **227 researchers with the paper** representing:

- 21 different countries,
- 80 different universities,
- 69 eminent faculties,
- 8 scientific institutes,
- 17 colleges,
- various ministries, local governments, public and private enterprises, multinational companies, associations, etc.

1. Albania
2. Bosnia and Herzegovina
3. Bulgaria
4. Croatia
5. Czech Republic
6. Greece
7. Hungary
8. India
9. Italy
10. Kuwait
11. Macedonia
12. Montenegro
13. Poland
14. Romania
15. Russia
16. Serbia
17. Slovakia
18. Slovenia
19. Switzerland
20. Turkey
21. Ukraine

Participating Universities:

1. Adnan Menderes University, Kuşadası, Turkey
2. Aleksandër Moisiu University of Durrës, Durrës, Albania
3. Alexander Dubček University, Trenčín, Slovakia
4. Alfa University, Belgrade, Serbia
5. American University of the Middle East, Kuwait
6. Ankara University, Ankara, Turkey
7. Balıkesir University, Balıkesir, Turkey
8. Bartın University, Turkey
9. Baskent University, Ankara, Turkey
10. Bucharest University of Economic Studies, Bucharest, Romania
11. Çanakkale Onsekiz Mart University, Çanakkale, Turkey
12. Educons University, Sremska Kamenica, Serbia
13. Eotvos Lorand University, Budapest, Hungary
14. Epoka University, Tirana, Albania
15. European University Brčko District, Bosnia and Herzegovina
16. European University of Tirana, Albania
17. Galatasaray University, Istanbul, Turkey
18. Gazi University, Ankara, Turkey
19. Gebze Technical University, Kocaeli, Turkey
20. Goce Delcev University – Shtip, Macedonia
21. Halic University, Istanbul, Turkey
22. Independent University in Banja Luka, Bosnia and Herzegovina
23. International Balkan University, Skopje, Macedonia
24. Istanbul Commerce University, Istanbul, Turkey
25. Istanbul Kultur University, Istanbul, Turkey
26. Istanbul University, Istanbul, Turkey
27. Jamia Millia Islamia University, Delhi, India
28. Jawaharlal Nehru University, Delhi, India
29. Juraj Dobrila University, Pula, Croatia
30. Kallos University, Tuzla, Bosnia and Herzegovina
31. Manisa Celal Bayar University, Manisa, Turkey
32. Marin Barleti University, Tirana, Albania
33. Masaryk University, Czech Republic
34. Medical University - Plovdiv, Bulgaria
35. Megatrend University, Belgrade, Serbia
36. Metropolitan University, Belgrade, Serbia
37. MIT University –Skopje , Macedonia
38. Neumann Janos University, Hungary
39. Partium Christian University, Oradea, Romania
40. Politehnica University Timișoara, Hunedoara, Romania
41. Polytechnic University of Tirana, Albania
42. Poznań University of Economics and Business, Poznań, Poland
43. Technical University in Zvolen, Zvolen, Slovakia
44. Technical University of Civil Engineering Bucharest, Bucharest, Romania
45. Telematic University Giustino Fortunato; Benevento, Italy
46. Transilvania University of Brașov, Brașov, Romania
47. University “Fan S. Noli”, Korce, Albania
48. University „Vitez“ Vitez, Bosnia and Herzegovina
49. University Business Academy, Novi Sad, Serbia
50. University of "Union - Nikola Tesla", Belgrade, Serbia
51. University of Agronomic Sciences and Veterinary Medicine of Bucharest, Bucharest, Romania
52. University of Banja Luka, Bosnia and Herzegovina
53. University of Belgrade, Serbia
54. University of Business Studies Banja Luka, Bosnia and Herzegovina
55. University of Debrecen, Hungary
56. University of Donja Gorica, Podgorica, Montenegro
57. University of Economics in Bratislava, Slovakia
58. University of Forestry, Sofia, Bulgaria

59. University of Ioannina, Greece
60. University of Kragujevac, Serbia
61. University of Messina, Italy
62. University of National and World Economy, Sofia, Bulgaria
63. University of Nish, Serbia
64. University of Novi Sad, Serbia
65. University of Primorska, Portorož, Slovenia
66. University of Prishtina
67. University of Sarajevo, Bosnia and Herzegovina
68. University of Shkodra „Luigj Gurakuqi“, Shkoder, Albania
69. University of South Bohemia, České Budějovice, Czech Republic
70. University of Ss. Cyril and Methodius in Trnava, Slovakia
71. University of Tirana, Albania
72. University of Vlora, Albania
73. University of Zagreb, Croatia
74. University Singidunum, Serbia
75. University Ss. Cyril and Methodius, Skopje, Macedonia
76. Ural federal University named after the first President of Russia B. N. Yeltsin, Russia
77. Uskudar University, Istanbul, Turkey
78. WB National University of Juridical Sciences, Kolkata, India
79. Zhytomyr State Technological University, Zhytomyr, Ukraine
80. Zurich University of Applied Sciences, Winterthur, Switzerland

Participating Faculties:

1. Economic Faculty, University of Shkodra „Luigj Gurakuqi“, Shkoder, Albania
2. Faculty for Finance, Banking and Auditing, Alfa University, Belgrade, Serbia
3. Faculty Futura, Belgrade, Serbia
4. Faculty of Applied Management, Economics and Finance, Belgrade, Serbia
5. Faculty of Arts and Communications, University of Donja Gorica, Podgorica, Montenegro
6. Faculty of Business Economics, Educons University, Sremska Kamenica, Serbia
7. Faculty of Business Management, University of Economics in Bratislava, Slovakia
8. Faculty of Business Studies, Belgrade, Serbia
9. Faculty of Business, Manisa Celal Bayar University, Manisa, Turkey
10. Faculty of Civil Engineering, Transilvania University of Braşov, Braşov, Romania
11. Faculty of Corporate Strategy, České Budějovice, Czech Republic
12. Faculty of Culture and Media, University "Megatrend", Serbia
13. Faculty of Economic Informatics, University of Economics in Bratislava, Bratislava, Slovakia
14. Faculty of Economics and Business, Neumann Janos University, Budapest, Hungary
15. Faculty of Economics and Business, University of Debrecen, Hungary
16. Faculty of Economics and Engineering Management in Novi Sad, Serbia
17. Faculty of Economics and Social Science, Partium Christian University, Oradea, Romania
18. Faculty of Economics and Tourism "Dr. Mijo Mirković", Juraj Dobrila University, Pula, Croatia
19. Faculty of Economics, East Sarajevo, Bosnia and Hercegovina
20. Faculty of Economics, Sarajevo, Bosnia and Herzegovina
21. Faculty of Economics, University "Fan S. Noli", Korce, Albania
22. Faculty of Economics, University of Banja Luka, Bosnia and Herzegovina
23. Faculty of Economics, University of Belgrade, Serbia
24. Faculty of Economics, University of Kragujevac, Serbia
25. Faculty of Economics, University of Nish, Serbia
26. Faculty of Economics, University of South Bohemia, České Budějovice
27. Faculty of Economy, AAB College, Prishtinë
28. Faculty of Economy, University of Prishtina
29. Faculty of Economics, Univesity of Novi Sad, Subotica, Serbia
30. Faculty of Engineering and Technology, American University of the Middle East, Kuwait
31. Faculty of Engineering Hunedoara, Politehnica University Timişoara, Hunedoara, Romania
32. Faculty of Finance and Accounting, University of National and World Economy, Sofia, Bulgaria
33. Faculty of Geography, University of Belgrade, Belgrade, Serbia
34. Faculty of Geology and Mining, Polytechnic University of Tirana, Albania

35. Faculty of Law for Commerce and Judiciary, University Business Academy, Sad, Serbia
36. Faculty of Law, Banja Luka, Bosnia and Herzegovina
37. Faculty of Law, Security and Management "Konstantin Veliki", University of "Union - Nikola Tesla", Belgrade, Niš, Serbia
38. Faculty of Law University „Vitez“, Vitez, Bosnia and Herzegovina
39. Faculty of Law, Masaryk University, Czech Republic
40. Faculty of Law, Niš, Serbia
41. Faculty of Law, University of Novi Sad, Serbia
42. Faculty of Law, University of Prishtina
43. Faculty of law, University of Zagreb, Zagreb, Croatia
44. Faculty of Management, Halic University, Istanbul Turkey
45. Faculty of Management, Poznań University of Business and Economics, Poznań, Poland
46. Faculty of Marketing, Bucharest University of Economic Studies, Romania
47. Faculty of Mass Media Communication, University of Ss. Cyril and Methodius in Trnava, Slovak republic
48. Faculty of Mechanical Engineering, Podgorica, Montenegro
49. Faculty of Natural Sciences and Mathematics, University of Sarajevo, Bosnia and Herzegovina
50. Faculty of Natural Sciences. University of Tirana, Albania
51. Faculty of Organizational Sciences, University of Belgrade, Serbia
52. Faculty of Political Science, Çanakkale Onsekiz Mart University, Çanakkale, Turkey
53. Faculty of Public Health, Medical University, Plovdiv, Bulgaria
54. Faculty of Security and Protection, Independent University in Banja Luka, Bosnia and Herzegovina
55. Faculty of Social and Economic Relations, Alexander Dubček University in Trenčín, Trenčín, Slovakia
56. Faculty of Sport, University of Nis, Serbia
57. Faculty of Strategic and Operational Management in Belgrade, Serbia
58. Faculty of Technical Sciences, University of Vlora, Vlore, Albania
59. Faculty of Tourism and Business Logistics, Goce Delcev University – Shtip, Macedonia
60. Faculty of Tourism and Hospitality Management, Opatija, Croatia
61. Faculty of Tourism Studies, University of Primorska, Portorož, Slovenia
62. Faculty of Tourism, Adnan Menderes University, Kuşadası, Turkey
63. Faculty of Tourism, Balıkesir University, Balıkesir, Turkey
64. Faculty of Tourism, Çanakkale Onsekiz Mart University, Çanakkale,Turkey
65. Faculty of Wood Sciences and Technology, Technical University in Zvolen, Zvolen, Slovakia
66. FEFA Faculty, Metropolitan University, Belgrade, Serbia
67. Integrated Business Faculty, Skopje, Macedonia
68. Iustinianus Primus Faculty of Law, University Ss. Cyril and Methodius, Skopje, Macedonia
69. Technical Faculty, Kallos University, Tuzla, Bosnia and Herzegovina

Participating Institutes:

1. Institute of Accounting and Finance, Debrecen, Hungary
2. Institute of Agriculture and Tourism, Poreč, Croatia
3. Institute of applied science in agriculture, Belgrade, Republic of Serbia
4. Institute of Business Economics, Budapest, Hungary
5. Institute of Technology and Business in České Budějovice, Czech Republic
6. International Management Institute, Zurich University of Applied Sciences, Winterthur, Switzerland
7. Riinvest - Institute for Development Research
8. Social Science Institute/Tourism Management, Canakkale Onsekiz Mart University, Turkey

Colleges:

1. Bartın Vocational school, Bartın University, Turkey
2. Belgrade Business School, Belgrade, Serbia
3. Çanakkale School of Applied Sciences, Çanakkale Onsekiz Mart University, Çanakkale, Turkey
4. College AAB, Pristina
5. College of Applied Sciences "Lavoslav Ružička" in Vukovar, Vukovar; Croatia
6. College of Law, United Arab Emirates

7. College of Slavonski Brod, Slavonski Brod, Croatia
8. Federal State Autonomous Educational Institution of Higher Professional Education “Ural Federal University named after the first President of Russia B.N. Yeltsin”, Yekaterinburg, Russian Federation
9. High Business School of Vocational Studies Leskovac, Serbia
10. High school for tourism, Belgrade, Serbia
11. Higher Colleges of Technology, United Arab Emirates
12. ICT College for vocational studies, Belgrade, Serbia
13. Károly Ihrig Doctoral School of Management and Business, University of Debrecen, Hungary
14. KIIT School of Law, Odisha, India
15. School of Business, Istanbul University, Istanbul, Turkey
16. School of Management and Law, Zurich University of Applied Sciences, Winterthur, Switzerland
17. Vocational College, Celje, Slovenia

Other Participating Institutions:

Academy of Sciences and Art of Bosnia and Herzegovina; Academy of Sciences of Albania, Tiranë, Albania; Central Bank of Kosovo; City Administration of Pančevo City, Serbia; Constitutional Court of Bosnia and Herzegovina; Edukos d.o.o., Banja Luka, Bosnia and Hercegovina; European Academy of Sciences and Arts; General Directorate of Metrology of Albania, Tirane, Albania; JKP ,,Beograd put“ – Belgrade, Serbia; Lab of Food Chemistry, Department of Chemistry, University of Ioannina, Greece; Labor Inspection, Nis, Serbia; Mercan Tourism, Istanbul, Turkey; Ministry of finance, Tax administration, Split, Croatia; Prosecutor's Office of Bosnia and Herzegovina; Provincial Secretariat for Economy and Tourism of AP Vojvodina, Novi Sad, Serbia; Russian Academy of Natural Sciences; Surčin Cultural Center, Surčin, Serbia

AFRICAN UNION AND EUROPEAN SUSTAINABLE DEVELOPMENT PROJECTS: CROSS-CULTURAL TRAPS IN MULTICULTURAL TEAMS

Mary Ellen Toffle[1]

DOI: https://doi.org/10.31410/eraz.2018.2

Abstract: *Volumes of text have been written about the necessity of cross-cultural communication in global organizations, particularly in business (Moran et al. 2007). Communication was reported to be an important core mechanism of support strategy processes for sustainable development (OECD 2001). The cooperation of stakeholders depends on it (GTZ Rioplus, 2006). Very little research has been done on effective sustainable development multicultural teams. Sustainable development project creation and implementation is highly impacted by cultural differences and communication differences. Members of international commissions need to be able to communicate with each other in creation and implementation of important sustainable development projects.*

The purpose of this study is to examine the state of cross-cultural communication involving two significant players in the arena of sustainable development: the African Union and the European Union. Cultural differences between the AU and EU are discussed and areas of communication breakdown are identified.

Some styles represented in the EU seemed to be more apt to promote misunderstandings and breakdowns in the communication process. Recommendations include comprehensive cross-cultural communication. Cross-cultural training to develop strategic communication beneficial to facilitating relationship formation, teamwork and coherence in project implementation is highly recommended. More research is necessary in methods for creating cultural synergy, solving problems in mindful ways and adjusting styles to fit the other team members.

Key words: *cross-cultural communication, African Union, European Union, sustainable development, multicultural teams*

1. INTRODUCTION

"Sustainable development is the pathway to the future we want for all. It offers a framework to generate economic growth, achieve social justice, exercise environmental stewardship and strengthen governance" (Ban Ki Moon, UN 2015).

These important words define the current drive towards sustainable development. The purpose of this work is to consider the challenges involved in the processes of project development that are inherent in the international context. Cross-cultural communication is at the backbone of all multicultural groups in the international arena. Incredibly diverse individuals, groups and countries find themselves in sustainable development committees, facing the challenges of communicating to get a job done. Cross-cultural communication studies can be found in many profession applications, such as business and education, but the area of sustainable development project team communication is considerably lacking in this area. Exploring the literature reveals

[1] University of Messina, Italy

that there is a massive quantity of research on the subject of cross-cultural communication, intercultural communication, cross-cultural studies, transcultural communication, both theoretical and specifically applied to different countries as well as professions. Regular cooperative development projects and teams have been studied, but there is very little written about sustainable project development team communication.

In recent times it has become obvious that the need for sustainable development is imperative for the survival of humanity. As seen in the above quote of Ban Ki Moon, sustainable development will define the future we all want. The success of sustainable development projects depends on many factors, but one of the most important is the ability to work effectively on multi-cultural teams.

Obviously, in order to work well on a team all team members need to be able to communicate with each other. The OECD and UNDP have studied the need for strategic communication in sustainable development. The OECD has defined the strategies for sustainable development as "a coordinated set of participatory and continuously improving processes of analysis, debate, capacity strengthening, planning and investment, which integrates the economic, social and environmental objectives of society, seeing trade-offs where this is not possible" (OECD, 2002). This quote demonstrates that communication is at the base of sustainable development. Terms such as "participatory", "processes of analysis", "debate", "planning" are all based on the ability of team members to communicate with each other and function effectively. Working effectively on a multicultural team can be challenging as well as frightening, but in general the payoff is high. According to various management reviews, multicultural teams are more effective, productive and creative (Hunt, Leyden and Prince, 2015). They also have more "cognitive flexibility" (Markman, 2015) which makes them better problem solvers.

Multicultural teams are obviously affected by cultural values and cultural communication styles. Many studies have been published on multicultural team building, effective team building, team communication, etc. The general consensus is that culture plays a significant part in the ability of a multicultural team to function.

Cultural challenges are manageable if managers and team members choose the right strategy and avoid imposing single-culture-based approaches on multicultural situations according to Brett, Behfar, Kern, (2006). These researchers identified four cultural differences that can create team conflicts. They cited direct vs. indirect communication; trouble with accents and fluency; differing attitudes toward hierarchy; decision-making norms in conflict.

Another study conducted by the East-West Center in Honolulu (1980) examined factors that influence International Cooperative Research and Development projects (ICRD). What they came up with can be applied to any sort of international cooperative group, especially in the sustainable development area. Important areas included project planning and organization; decision-making procedures; official language to be used; affiliation of members with outside groups; various types of communication, from face-to face to impersonal, to mention a few.

1.1 Factors that affect multicultural teams

Another researcher suggested that cross-cultural factors impact project stakeholder management and there is a lack of corresponding research on those factors (Luckmann, 2015). He cited the lack of cross-cultural knowledge sharing, cross-cultural intelligence, trust among stakeholders as being significant impact factors for a project. Additionally, the fact that Western

project management approach is mostly incompatible with approaches in other parts of the world has an effect on the success of international projects.

According to the German Rioplus Organization for Environmental Policy and Promotion of Strategies for Sustainable Development, strategic communication is a "prerequisite and an instrument of effective policy making and public participation: from formulating a vision, negotiating and decision-making, developing and implementing plans to monitoring impacts". They point out that communication provides exchange of information, builds consensus, encourages the creation of programs, implementation and action. They believe that it is necessary to encourage "delicate cooperation between government, civil society groups and the private sector." They add that this is the reason that the OECD and UNDP consider awareness raising and communication as essential part of the support strategy processes for sustainable development. They conclude that cooperation and collaboration among stakeholders are essential for the success of any sustainable development project.

In summary, sustainable development depends on multicultural groups, whether they be small projects in the private sector, or enormous endeavours such as the construction of the Nairobi-Mombasi Railway (China and Kenya) or African Union-European Union long-term projects. And functional multicultural teams depend on effective cross-cultural communication to be successful.

This reason this study has focused on the cross-cultural communication processes between the African Union and the European Union for this reason. The following section discusses the African Union and the difficulty of identifying a uniform culture.

1.2 The African Union

There are 54 countries on the African continent (UN, 2018) with a population of approximately 1.278 billion (UN estimate 2018). There is an estimated number of 3000 ethnic groups and more than 2000 languages. It is impossible and also incorrect to make cultural generalizations about the African continent. The African continent has been divided up by the African Union into several regional-political areas: north, south, east, west, central and the Diaspora (African Union, 1999). This study adopts the African Union division of Africa (African Union, 2018).

1.3 African Culture

The word "African culture" is a misnomer because geographical Africa and Diasporian Africa contain numerous cultures and subcultures. The first point to be aware of is that Africa has been undergoing dramatic changes in the past few years due to development, immigration and various ongoing conflicts. Trying to analyse all of the cultures present is a daunting project at best, if not impossible.

1.4 Cultural and Linguistic History of Africa

No discussion of African communication processes can be conducted without touching on the cultural and linguistic aspects of African history, especially the impact of colonialism. Linguistic and cultural groupings have been affected not just by the indigenous populations that were present before the age of colonialism but also by what followed. Apart from indigenous languages, the impact of the Anglophone, Francophone and Lusophone influences on communication styles in Africa are significant. Also the slave trade, both within Africa and

trans-Atlantic exerted a strong impact, coupled with continuing ethnic conflicts. Various scholars (Ali Mazrui, 1986; Mutua-Kombo, 2008; Karl Peltzer, 2006) point out that it is important to consider colonialism and other historical events in order to comprehend the African communication styles. Mazrui suggests that there are three main cultural influences in Africa: traditional indigenous culture, Islamic culture, and Western influence. Mutua-Kombo states that there is a conflict between the core values and beliefs of contemporary and traditional Africa and the historical influences forced by contacts with Europeans. Peltzer (1995) proposes three separate "groups" of Africa. The first group is traditional who have had little contact or influence with modernization. The second group seems to continue within modern and traditional cultures (i.e. working in the city during the week and returning to the extended tribal village on the weekends). The third group is modern and lives in a modern context and participate completely in the contemporary world (Peltzer, 1995, pp. 25). One can only assume that these three groups have changed in number since this research was carried out, with a growing number of transitional and modern group members and a diminishing number of traditional group members. Nwosu points out that Africans are able to manage the transitions and end up being able to communicate and interact within the three groups (Nwosu, 2008, pp. 176). The effort to grasp what African Culture actually is goes back to cultural identity. Many sociologists and philosophers have attempted to identify cultural patterns running through all modern African countries.

1.5 African cultural themes

There has been much discussion about African identity and what constitutes "traditional African culture". The next section summarizes various possibilities for understanding the cultural values that underlie African communication.

According to Lassiter (1999) there are shared cultural values in sub-Saharan Africa which still exist long after the advent of European contact. He says that traditional African culture consists of "generally widespread sub-Saharan core values, beliefs, cultural themes and behaviours as they existed prior to European contact". He believes that they can still be found more in rural areas and less in urban areas. These shared cultural values are influential because "many, if not most, fundamental thought processes and behaviours of contemporary sub-Saharan Africans are based and continue to be derived from" these cultural values.

There has been ongoing discussion on what African culture actually is, whether it can be defined and classified as "African culture" or whether it needs to be divided or sectioned by ethnicity, colonial linguistic roots, nationality, religion, degree of development, and so forth. The general consensus of the literature is that it is not advisable to generalize about African culture, but there are threads of commonality that can be studied and applied to achieve a better understanding of African communication. This consensus puts forth the idea of a common African culture known as "pan-African". Core African cultural values and patterns of cultural behaviour fall into this category. Lassiter (2000) stated that the motivation for identifying a common pan-African culture is based on the need to achieve "viable and sustainable African national and community development".

Another observation is that Africa is rapidly developing and modernizing, and therefore there may be more Western acculturation taking place. Also the fact that the African Union includes the millions of Africans that are part of the African Diaspora as AU members indicates the possibility of ongoing cultural exchange, interchange and change. Makgoba presented his ideas on the common cultural values of the African peoples (1997). He offered the thought that the

people of the African Diaspora maintain what is generally considered to be the Pan-African cultural identity, which by default defines core African values. He says that the shared values "include hospitality, friendliness, the consensus and common framework-seeking principle (Ubuntu), and the emphasis on community rather than on the individual." The community takes priority over the individual; long-term friendship and hospitality are important; the goal of finding consensus and a common frame work (Ubuntu) are three areas that he believes define African culture (Makgoba, 1997, pp 197-198). He says that African Diaspora peoples of African descent "are linked by shared values that are fundamental features of African identity and culture." He states that these values are present in "variations of African culture and identity…the existence of African identity is not in doubt" (1997 p 1997-198).

According to Obeng-Quaido from Ghana there are four important cultural thematic areas (1986). These cultural orientations involve work, the place and importance of the individual in society, the concept of time, and the human being's relationship with the spiritual world. He offers the following analysis.

Work orientation: Work is considered in terms of the benefits to the community. Africans are expected to provide for their extended family members who are less fortunate than they are.

Individual's place in society: The collectivist orientation is exemplified by the African proverb "I am because we are" demonstrates a strong focus on the group.

Concept of time: Time is not measured by schedules but by connections. Africans do not believe in being dependent on schedules. Time should be dedicated to relationships.

Relationship to the spiritual world: Obeng-Quaido refers to a comment made by Mbiti, a philosopher, who said that Africans are extremely religious but it is difficult to distinguish between the spiritual and secular world.

1.6 Communalism

Nwosu (2009) presented a thorough analysis of the African culture in terms of intercultural competence. He formulated a very useful table which furnished the cultural elements for comparison in this study. The dimensions that he suggested include self-orientation, relational orientation, time orientation, activity orientation and discourse orientation. First of all, self-orientation explains the formation of identity and what impacts identity. Communalism seems to be the strongest influence in the African self- identity. Nwosu says that there is a symbiotic relationship between the individual and group. Hierarchy, formality and distinct gender roles define how people interact with each other. He quotes Mbiti (1969) who wrote "whatever happens to the individual happens to the whole group, and whatever happens to the whole group happens to the individual" (p. 109) and "I am, because we are; and since we are, therefore, I am" (Mbiti, 1969, p 109). This value can be seen in various African languages, including in the Xhosa language (a person is a person through persons) and Ibgo ("a person who is not with his or her extended family must bury himself"). Therefore, the African personal identity is defined by taking part in a community and making personal decisions with the needs of the larger community in mind. The idea of communalism is very evident in traditional Africa and takes on the status of a religion in the same way that individualism in the West is elevated to a high, almost religious status (Taylor and Nwosu, 2001). The extent to which African culture is a communal culture is its focus on the "authenticity of community-presentation image" (Moemeka, 1996, p 198) which means that communication practices are influenced by how

different behaviours have an impact on the community image and not the way a behaviour could impact an individual. This fact, although seemingly insignificant, has a strong influence in procedures, communication and project implementation. To sum up, communalism is the ”soul and fibre of work, activity and social life in Africa” (Awa, 1988, p 136).

1.7 Social relations

Another area flowing from this orientation is that of social relations. According to Nwosu, relationships are built on a hierarchical lineal superstructure where people are not equal because of different reasons, including age, status and wealth. Friendship is considered to be a sort of obligation which includes various responsibilities and rights. The existence of the hierarchical superstructure can be seen by examining the language used to address various persons, the titles, and organized interactions. Blake (1993, pp. 8) stated that various linguistic structures can be observed which indicate the existence of rules guiding discourse. Deliberative, forensic and epideictic genres can be noted that are based on the respect for older people, the affirmation of hierarchical structural supremacy, certain rituals performed out of respect for the ancestors, the use of rituals in an array of life situations; relationships between siblings. Salutations, use of titles, names, etc. are strongly dominated by hierarchical values.

1.8 Time

Cultural perspectives on time have been an extensive topic of cross-cultural communication studies. How cultures manage and respond to time exerts a heavy impact on behaviours and human relations. The study of time and how it is viewed was started by Edward Hall (1959). He defined the use of time as polychronic (doing many things at once) or monochronic (doing one thing in at a time). Cultures will tend to focus more on the past, present or future and have a certain preferential focus. The dominant view of time will be felt in all areas of communication within a culture. The structure, content and urgency of communication are formed by the dominant cultural view of time in a particular culture (Burgoon, Stern and Dillman, 1995). African cultures tend to focus on the past. They see time as cyclical, with a strong focus on tradition and history. They are also polychronic in their orientation towards the use of time. This results in a tendency towards more flexibility. Nwosu says that the African idea of time is based on “how we communicate and how we connect with each other” (p.171). Being in a hurry can be seen as disrespectful, and this accounts for the (seemingly) time consuming rituals of greetings. Scheduling and obligations can be seen as a direct conflict to the formation of social ties. This is another challenge on multicultural teams.

1.9 Activity

Human activity, specifically work, is viewed differently by different cultures (Kuckholn and Strodbeck, 1961). A ‘being’ culture is one that considers that all human action is determined by destiny or fate. People define themselves by their relationships and connections, not by their jobs. A ‘doing’ culture is the opposite. People define and value themselves by their achievements, their function, their job. The typical expression “live to work or work to live” summarizes it. People in a ‘being’ culture work to live (Africa, South America, many parts of Asia, Middle East) whereas people in a ‘doing’ culture live to work (U.S.A, Germany, other countries in Northern Europe and other countries with Anglo-Saxon cultural roots). “Doing” cultures measure activity in terms of goals, purposes and success with tangible results. According to Nwosu, the African concept of work is not as clear-cut as that of the ‘doing’ culture: the difference between work and play, the role of employees, and interpersonal bonding

in the workplace are different. For the African worker, the job site can be considered a sort of home, where one develops strong relationships. The cultural value of communality is highly expressed on the job, because the worker is expected to take part in the lives of his co-workers. A worker who does not actively participate in the lives of co-workers according to cultural expectations can be considered a threat to the social balance of the communal order. On the other hand, "doing" cultures do not expect the same intensity of involvement and supervisors and workers are expected to focus on the job to be done, not the relationship to be made. This is another area where problems can arise in multicultural teams.

1.10 Verbal and non-verbal communication

Nwosu (2005b) states that the African communication style is primarily indirect and nonlinear. It tends to use a narrative style where the story begins somewhere, breaks off and goes to another related subject and later returns to the main narrative. A related area is that of the call-response, where the speaker calls on the audience to respond and express their support. This aspect supports the communal approach to life. Call-response communication promotes "harmony, unity, unison, agreement and an assurance that we all together in our thinking" (Nwosu 2008, p 174).

1.11 Discourse orientation

Discourse orientation or who has the responsibility for the communication, listener or speaker, can be very important in the communication process. These two types of discourse orientation are referred to as listener-responsible style and speaker-responsible style (Hinds 1987). In the African communication style, the listener is responsible for the communication. It is the responsibility of the listener to understand what the speaker is saying. The resulting reliance of nonverbal symbols is due to the fact that often messages are indirect. How the listener reacts is very specifically linked to the need to avoid losing face and minimizing conflicts.

A speaker-responsible culture (U.S. and other related cultures) will tend to come off as offensive in a listener-responsible culture. "Telling it like it is" which appears frequently in American speech would not be appreciated in the African culture. Certainly, it is important for members of cultures involved in the communication process to be aware of the others' discourse orientation. However, it is important to point out that in some areas of Africa, direct speaker-responsible communication is more favoured and it is necessary to be aware of which discourse style is most utilized.

A speaker-responsible culture and a listener-responsible culture are on opposite ends of the spectrum. The member of a speaker-responsible culture will not be able to read innuendos, interpret body language and signals, and may interpret indirectness not as a way to be polite but as a way to be evasive, if not blatantly dishonest. The speaker-responsible cultural member needs to be told everything directly and is not able to intuit meanings, or at least the meaning intended by the other speaker. Listener-responsible cultural members can feel frustrated because they feel that they are not being listened to, and therefore not respected.

Another discourse area is whether a culture favours indirect or direct communication. Some of the most significant cross-cultural communication challenges in multicultural teams can be seen in this area of indirect-direct communication. The use of an indirect or direct communication style can result in great misunderstandings and general lack of esteem on the part of both parties. In a given communication context, there is a large space for miscommunication. The team

member from the culture that uses the indirect communication style potentially will see the direct communicator as rude, offensive, and disrespectful. The tendency could be to stop listening. On the other hand, the team member from the direct communication style culture can feel that their counterparts are not listening, not interested, and even lying because they are "not being honest".

2. Methods

The method included a thorough search of pan-African cultural values, cross-cultural differences between the African Union and various EU member countries. The idea for the research was taken from the 5th African Union-European Union Summit which was located in Abidjan, Ivory Coast on November 29-30, 2017. There were 55 leaders from the African Union and 28 European Union Member States represented. One of the most important outcomes was the issuance of a joint statement on the situation of migrants in Libyan refugee centres, and alleged slave trade of migrants. A committee was formed to search for solutions. The following analysis was based on the members' ending speeches on the Libya Migrant Crisis on December 14, 2017. Unfortunately, it was impossible to access videos of the actual committee meeting, but the final statements were available on the internet. The members of the committee represented several different countries, all of which could be considered culturally quite different from any African nations.

It is obviously dangerous to generalize because people do not always demonstrate the so-called national cultural values of their home country. People tend to become more "international" and often temper what may have been a strong value and dilute it, so to speak. Generalising is always a risk; because it can lead to stereotyping. However, the point is that every international committee or multicultural team faces cross-cultural challenges. This particular committee was used to illustrate that point. The information about the home cultures of the members of the AU-EU Commission was taken from various sources, including Hofstede (2018), various area sources (Moran 2007; Lewis, 2010; CIA Factbook; 2018; Quintessential, 2018).

3. Results and Discussion

An analytical table (below) was set up to evaluate selected cultural orientations and discourse styles taken from the research on pan-African culture. The countries involved are those represented by the team members: Italy (Mogherini), Sudan (El-Fadil), Swing (USA), Turk (Austria), and Poland (Tusk). The transcripts from the concluding speeches from the committee furnished the text to be analysed, and can be found in the text boxes below. The first speaker considered is Ms. Federica Mogherini, EU High Representative for Foreign Affairs and Security
https://www.youtube.com/results?search_query=african+Union+EU+statement+december+2017+mogherini).

"*We decided to establish this Task Force during the EU-AU Summit in Abidjan last 28 November. It is, I believe, a turning point in our work to safe and to protect lives of migrants, in particular inside Libya but also along the routes, and dismantling the traffickers' networks. (...) Thanks to the IOM, and supported by the European Union, already 16.000 people have been able to voluntarily return from Libya to their home countries. We have worked and we commit now to work even more on the reintegration projects to help them return not only safely but also in a dignified manner, with a future in their communities of origin. It is a work that has started one year ago. It has produced this result, 16.000 people already in one year. And now*

we committed to work towards providing assistance to additional 15.000 migrants under the emergency voluntary humanitarian return by February next year. (...) I would also like to announce today that EU makes available additional €100 million to support the work of IOM and UNHCR on the ground to allow them to continue the operations...".

Ms. Mogherini focuses on the concepts of protection, saving lives and helping migrants. She demonstrates a humanitarian focus intermingled with achievement. She calls attention to the fact that it is the work of the committee to save lives, help migrants return home safely, etc. She was very clear in her description but focused on generalities. She also calls attention to the achievements of the group demonstrating the Italian cultural value of "bella figura" (Toffle, 2007).

One can only imagine that after many years in the international arena Ms. Mogherini has taken on a more neutral communication style. But she definitely focuses on actions completed and actions to be done.

The next speaker is Mrs. Amira El-Fadil, the African Union Commissioner for Social Affairs Amira speech https://www.youtube.com/watch?v=GuKgZxet3AY: *"(…) I can say that the cooperation and the partnership between us here started way before this ..especially with the European Union…. We have a joint plan of action on migration…we were working together on creating lasting solutions for migration in Africa….we are accelerating our processes as partners working together for a long time…. We are working together, the African Union, the European Union, the United Nations…..We have started by having our first meeting in Addis Ababa on 4 December 2017. We agreed on the structure through which we are going to work, which is a three level structure. This is the political level of this partnership. The second level is a working level which is going to be led from Addis Ababa, the HQs of the African Union, and the third one which is an operational level which is going to be led by our liaison office for Libya which is based now in Tunisia. (...) When it comes to the issues of the traffickers, tracing these networks and the criminals, and bringing them to justice, we are also using our continental cooperation between the two continents. And we are using our own AU institutions that are already engaged on this issue. They will work very closely with our counterpart to make sure that these criminals will be brought to justice and be cracked down. (...)*".

Mrs. El-Fadil is from Sudan but her orientation seems to be quite pan-African. She stresses relationship, working together, partnership, long term association. She also wants to show top-notch organization as she explains the structure of the partnership. She mentions 'continental cooperation' to convey working together. Then she also stresses that the AU had already been working on 'these problems'. The focus on hierarchy comes through in her explanation of the three- level structure. There is no mention of a schedule for implementation, or dates of actions already accomplished. She mentions the date of December 4, 2017 as the beginning of the relationship of the team in this particular aspect a project which has been going on for an undetermined time, giving the impression of fluid time. She is not very clear in her explanations, which may be due to problems with the English language, or due to the pan-African cultural tendency for the listener to be responsible for the communication, therefore there is no need to explain clearly. Her emphasis on relationships and being together strongly indicate the pan-African 'being' culture. Her tone is quite interesting, however. It almost seems apologetic bordering on defensive as if she wants to show that the AU had been doing its job adequately before. The fact that she mentioned the structural plan seemed to be a response to the need to appear well-organized and state-of-the-art.

She seemed to be defending the AU when she said "we are using our own AU institutions that are already engaged in this issue". Which can be inferred to the ongoing fear on the part of the EU that the AU is not carrying out its objectives fast enough. The next speaker is Mr. William Lacy Swing Director General of the International Organization for Migration (http://www.youtube.com/watch?v=tAcUjSz_BsE): "*We believe, and I have shared with her an operational plan for the 15.000 (people) that we want to bring home - not just bring home, not just evacuate, but to help them to reintegrate back into the society with dignity -, we will reach the figure of 15.000, I would hope according to that plan, in the next couple of weeks. There are a few bottlenecks that we are still clearing up but they are fairly minor questions of discussion, dialogue and try to get more aircrafts in, and so forth. We are very pleased with that. We have also, thanks to the very generous support of the EU and its Member States, been able to set up an important operation in Agadez, in Northern Niger. (...) The second aspect, of course, is the one of reintegration that requires some more work. We are working on it. We have to augment what we are doing now, and do it as speedily as possible so that people coming back are welcome properly and given a real chance to get life started again. And then thirdly, I guess I would say, perhaps the most important element in the future is to try to get the international presence restored in Libya. (...)*".

Mr. Swing is from the U.S.A. His speech is very direct, informal and focuses on results, indicating an action culture with a strong future orientation. He uses vernacular language (bottleneck) which may tend to exclude non-native speakers. He focuses on the effective use of time by listing activities finished with a timeline. He also shows the tendency to evaluate oneself positively, a typical American characteristic that can prove irritating to cultures that prefer to demonstrate modesty. He also demonstrates the "get-the-job-done so typical of Americans. He does use the first- person plural perhaps to convey a sense of teamwork. He also clearly communicates goals and following steps indicating a future focus. The strong focus on work and doing can be seen in the fact that he uses the word 'work' twice in sequence. It is very much like a military report that outlines different actions accomplished.

The next speaker is Mr. Volker Turk UNHCR Assistant High Commissioner for Protection (https://www.youtube.com/watch?v=VbOMJcipnBA&t=44s): "*Libya is in an extremely difficult situation as we speak. And the solidarity with Libya is first and foremost what has to be in our minds. Libyan people suffer – over a million Libyans were in need of humanitarian assistance. There are some 200.000 people internally displaced in Libya. And amongst all of this, you also have this very, very complex mixed migratory flow through Libya, from different parts of Africa and from the Middle East, trying to reach safety. (...) But we also need the solidarity from Europe when it comes to helping Niger for example. We are going to host people. In these circumstances, we need to find a third country resettlement solution for them. So we are grateful for what Europe has offered so far. We need to sustain it and we need to make sure that we apply it as flexibly as possible because it is an exceptional situation which requires exceptional measures. (...)*".

Mr. Turk conveys sympathy for all the players in the situation. He is trying to avoid accusing Libya of human rights violations by focusing on solidarity with Libya. He seems to be extremely cross-culturally savvy which can be seen as he skillfully avoids saying anything that could incite conflicts. He addresses all players in a rather informal and sensitive manner. As he speaks, he seems to be trying to build consensus and elicit participation from all parties involved. He also indirectly states that it is a very significant problem ('exceptional situation, exceptional measures'). He seems intent on defusing any sort of conflict that could arise.

The final speaker, who was not in this committee meeting, is the President of the European Union, Donald Tusk, but it is necessary to examine what he said. "*As you know, the European Union is Africa's biggest partner and closest neighbor. Its biggest investor, its biggest trading partner, its biggest provider of development aid and humanitarian assistance as well as its biggest contributor in peace and security. And this summit demonstrated our determination to reinforce our partnership even more*" (Consilium Europa, 2017)

Mr. Tusk's comment seemed to express the EU's attitude toward the AU. Although the quote was very general, it could be interpreted in two ways. A listener with a direct communication style from a speaker-responsible culture would interpret it as a neutral summary of a relationship. A listener with an indirect communication style from a listener-responsible culture could interpret it as a veiled threat, or a reminder of superiority, or at the least an indication of being patronized.

Obviously what listeners hear and how they interpret what they hear can constitute two different worlds.

This table summarizes the differences in cultural orientations and values in the team members of the Libya Migrant Crisis Committee on December 14, 2017.

Orientations	Poland	Italy	USA	Austria	Pan African
Communalism, collectivism and individualism	Moderately individualism (60 Hofstede)	individualistic (76 Hofstede)	Very individualistic (91 Hofstede)	Moderately individualistic (55 Hofstede)	Highly communal (beyond collectivist)
Social relations	Relationships and consensus important	Relations important	Relations important but not determinant of business	Do not need personal relationship to do business; consensus important	Hierarchical superstructure Strong connections
Time	Fluid time but punctuality valued	Combination of time both fluid and a resource	Time is money	Punctuality and time is a resource	Time is fluid
Activity	Strong work ethic/doing	Moderately being	Doing culture	Doing culture	Being culture
Communication	Indirect, formal	Indirect Formal	Direct Informal	Direct	Indirect, Formal
Discourse (listener or speaker responsible)	Good listeners, slow to respond	Speaker responsible	Speaker responsible	A mix	Listener responsible

Figure 1. Summary table of Libya Crisis Committee Meeting cultural orientations and communication styles.

4. Conclusions

Significant differences exist in cultural values and therefore communication. As the OECD so aptly put it, two-way communication is the "lifeblood" of any strategy (OECD 2001). Without it, sustainable development projects will fail. This research demonstrated the great differences that exist between the EU and AU cultural communication styles and how important it is to be aware of communication differences in multicultural or international teams. Communication breakdowns can occur from seemingly innocent differences, ranging from choice of words, tone of voice, cultural assertions and assumptions. Most people are not aware of how cultural values influence behaviour and also communication style. Cross-cultural training should be part of the preliminary formation of multicultural teams that will work together on sustainable development projects.

It should be ongoing and allow times of reflection between team members to be sure that they understand each other. It should not be taken for granted that the message of the speaker is interpreted by the listener in the way intended. Team members also need to understand the power of nonverbal communication and learn to interpret it from the cultural point of view of the other members. More research should be done on cultural communication styles applied to sustainable development multicultural teams. The EU should examine its own communication style as an institution, and ask itself how ethnocentric it may be in its approach to the African Union. New approaches that are more Afro-centric should be developed, with the intention of creating cultural synergy, solving problems in mindful ways and adjusting styles to fit the other team members. Ika expressed it well: cross-cultural project management issues are common and the effort to implement typical Western project management processes unavoidably create enormous political, organizational and cultural obstacles. And the" most formidable of these obstacles are cultural ones." Approaches must be modified according to the countries involved (Ika, (2010), Stuckenbruck & Zomorrodian, 1987, p. 174) African project management needs to be created according to African cultures, social norms, communication styles and values.

Mary Ellen Toffle, *M.I.M. has been conducting research in English Language and Translation and Cross-Cultural Communication at the University of Messina, Italy, since 2011. She has taught Medical English and medical intercultural competence at the University of Pavia, and English for Social Work, Legal English, English for International Relations, English for Public Administration and English for Psychology at the University of Messina. She has extensive experience in international consulting and management training which she has conducted in the U.S.A. and Europe. She also conducts research and works as an internationalization consultant with the Fondazione Cecchini Pace Istituto Transculturale per la Salute in Milan, Italy, where she assists in translation and transcultural linguistic research in the mental health field. She participates in humanitarian research and service projects in Africa and Bosnia. Her research areas of interest include the use of the English in terrorist recruitment, Immigration in Sicily, African Immigrant Idioms of Distress and sustainable development multicultural teams. Recently she has been admitted to a Ph.D program in Cognitive Science where she is researching de-radicalization and is in the process of creating de-radicalization programs for young people exposed to terrorist programming.*

Further reflection on the beginning quote of Ban Ki Moon, "Sustainable development is the pathway to the future we want for all. It offers a framework to generate economic growth, achieve social justice, exercise environmental stewardship and strengthen governance" is in order. This paper has attempted to illustrate the magnitude of the challenge of communication on sustainable development teams. The main hope for the future of the world lies in our ability to communicate effectively in a harmonious and equitable manner with all people. Cross-cultural communication in sustainable development multicultural teams is essential.

References

Awa, N. 1988. Communication in Africa: Implications for development planning. Howard Journal of Communication, 1(3), 131-144.

Blake, C., 1993. Development communication revisited: An end to Eurocentric visions. Development, 3, 8-11.

Brett, J., Behfar, K., Kern, M., 2006. Managing multicultural teams. Harvard Business Review, 84 (11) November, pp. 84-91.

Burgoon, J., Stern L., and Dillman, L, 1995. Interpersonal Adaptation; Dyadic interaction patterns. Cambridge University Press: Cambridge MA.

CIA World Factbook, 2018. https://www.cia.gov/library/publications/the-world-factbook. (accessed 08.04.2018).

European Council, 2017. Remarks by President Donald Tusk at the press conference of the 5th African Union-European Union Summit. http://www.consilium.europa.eu/en/press/press-releases/2017/11/30/remarks-by-president-donald-tusk-at-the-press-conference-of-the-5th-african-union-european-union-summit/ (accessed 10.03.2018).

GTZ RIOPLUS Environmental Policy and Promotion of Strategies for Sustainable Development. 2006. Strategic communication for sustainable development. Federal Ministry for Economic Cooperation and Development. Schneller Druck: Reutlingen.

Hall, E.T. 1959. The Silent Language, New York: Doubleday.

Hinds, J. 1987. Reader Versus Writer Responsibility: A New typology. In U. Connor & R. B. Kaplan (Eds.), Writing Across Languages: Analysis of L2 Text (pp. 141-152). Addison Wesley: Reading, MA.

Hofstede, G., 2018. Country Comparison. https://www.hofstede-insights.com/country-comparison/ (accessed 21.03.2018).

Hunt, V., Layton, D., Prince, S., 2015. https://www.mckinsey.com//business-functions/organization/our-insights/why-diversity-matters (accessed 12.03.2018).

Ika, L. A., 2012. Project management for development in Africa: why projects are failing and what can be done about it. Project Management Journal, 43(4), 27–41.

Ika, L. A. 2005. The management of development assistance projects: Past, present, and future. Perspective Africaine, 1(2), 128–153.

Kluckhohn, F. R., & F. L. Strodtbeck, 1961. Variations in value orientations. Row, Peterson: Evanston, IL.

Kohls, L. R., 1981. Developing intercultural awareness. Sietar Press: Washington, D.C.

Lassiter. J.E., 2000. African Culture and Personality: bad social science, effective social activism or a call to reinvent ethnology? African Studies Quarterly, Volume 3, Issue 3.

Lewis, Richard D. 1996. When cultures collide: managing successfully across cultures. N. Brealey Publisher: London.

Luckmann, Patrick L. Towards identifying success factors for cross-cultural project customer engagement: a literature review. Procedia Computer Science 64 (2015) 324-333.

Makgoba, M.W., 1997. MOKOKO, the makgoba affair: A reflection on transformation. Vivlia: Florida Hills.

Markman, Art. 2015. Why people with multicultural experience are more creative. https://www.fastcompany.com/3043220/why-people-with-multicultural-experience-are-more-creative (accessed 19.03.2018).

Marquardt, M.J., Kearsley, G., 1999. G. Technology-based learning. Boston: St. Lucie Press, 1999.

Mazrui, A., 1986. The Africans: a triple heritage (documentary). London, British Broadcasting Corporation.

Mbiti ,J., 1969. African religions and philosophy. Heinemann: Ibadan, Nigeria.

Moemeka, A. 1996. Interpersonal communication in communalistic societies in Africa. In Gudykunst, S. Ting-Toomey,and N. Tsukada (Eds.) Personal communication across cultures (pp. 197-216) Sage: Thousand Oaks.

Moon, Ban Ki, 2015. New Agenda for Development Must Be 'Tuned' to Leading Challenges of Decent Jobs, Inclusive Growth, Governance, Peace, Climate Change, Says Secretary-General. https://www.un.org/press/en/2013/sgsm15273.doc.htm (accessed 20.03.2018).

Moran, Robert T., Philip R. Harris, and Sarah V. Moran, 2007. Managing cultural differences. Elsevier/Butterworth-Heinemann: Amsterdam.

Muriithi, N., & Crawford, L., 2003. Approaches to project management in Africa: Implications for international development projects. International Journal of Project Management, 21(1), 309–319.

Mutua-Kombo, E. 2008. Expanding worldviews in US classrooms: Educators experiences from Rwanda. Paper presented on intercultural competence, Wichita State University, Wichita, Kansas.

Nwosu, P. 2009. Understanding Africans' Conceptualization of Intercultural Competence in Deardorff, D. Ed. The Sage Handbook of Intercultural Competence. Sage: Thousand Oaks, pp. 158-178.

Obeng-Quaido, I., 1986. A proposal for new communication research methodologies in Africa. Africa Media Review, 1, pp. 89-98.

OECD, 2000. Environmental Communication – Applying Communication Tools towards Sustainable Development, Paris.

OECD, 2001. Strategies for Sustainable Development. Practical Guidance for Development Co-operation, Paris Communications, Paris.

One World Nations Online. http://www.nationsonline.org/oneworld/african_languages.htm (accessed 16.03.2018).

Peltzer, K. 2006. Personality and person perception in Africa. In L.A. Samovar, R.E. Porter, and E.R. McDaniel (Eds.) Intercultural Communication: a reader, pp. 135-141. Wadsworth: Belmont, CA.

People of Africa, 2018. African Holocaust. http://www.africanholocaust.net/peopleofafrica.htm (accessed 15.03.2018).

Qwintessential, 2018. Country guides and profiles. http://www.kwintessential.co.uk/resources/guides/ (accessed 03.04.2018).

Rosenhauer Shand, Mike, 2017. Time to Reset African-European Relations. https://www.crisisgroup.org/africa/255-time-reset-african-union-european-union-relations (accessed 16.03.2018).

Stuckenbruck, L. C., & Zomorrodian, A., 1987. Project management: The promise for developing countries. International Journal of Project Management, 5(3), 167–175.

Toffle, M.E. 2007. Doing Business in Europe: Italy. In Moran, Robert T., Philip R. Harris, and Sarah V. Moran. Managing Cultural Differences. pp 561-572 Elsevier/Butterworth-Heinemann: Amsterdam.

Tusk, Donald 2017. http://www.consilium.europa.eu/...conference...african-union-european-union-summit/pd) (accessed 20.03.2018).

Wilson, Kathleen, 1980. Factors influencing the management of international cooperative research and development projects. https://www.eastwestcenter.org/publications/publications (accessed 18.03.2018).

Youker, R., 1999. Managing international development projects: Lessons learned. Project Management Journal, 30(2), p.p. 6–7.

PROBLEMS IN THE BUSINESS OF SMALL AND MEDIUM-SIZED ENTERPRISES AND ENTREPRENEURSHIP IN SERBIA

Marina Gajic Glamoclija[2]

DOI: https://doi.org/10.31410/eraz.2018.16

Abstract: *The development of small enterprises is vital for the healthy economy of each country and the development of entrepreneurship, as they provide greater business incentives, employment and income.*
Not all important obstacles have been overcome for the intensive development of the SME sector, strengthening its competitiveness and innovation. In particular, this refers to high fiscal actions, unfair competition recruited from the gray economy, and often from abroad, difficult collection of receivables, inaccessibility of public procurements, monopoly in many business sectors, tax and inspection procedures, complicated, slow and expensive procedures for obtaining building and use consents and permits for connection to infrastructure networks, corruption, municipal fees, etc.
In terms of access to funding sources, significant steps have been taken recently, especially with incentive micro loans for beginners, start up loans, as well as various incentives for local communities, but funding is still at the top of the scale of the biggest problems and needs of State incentives are still relatively modest, insufficient and limited, and bank loans are too expensive and inaccessible to most of the SMEs.
No operational mechanisms have been created for the establishment of risk capital funds, there is no support for the so-called "business angels" and the practice of developing partnerships with foreign and domestic companies and cooperators is also missing.
The procedure and speed of the adoption of new legislation, the number of by-laws and administrative procedures, which are often mutually uncoordinated, unspecified and assigned to a large number of public office holders - represent a limiting factor in accelerating the growth of SME.
As a result of these occurrences, confusion and additional costs in time and capital are often confronted with most small businesses, who have a fairly limited human resources.[3]

Key words: *SME, entrepreneurship; Serbia*

1. Introduction

In most small and medium-sized enterprises, the greatest problem is the lack of funds, and then the lack of legislation with accompanying regulations. Numerous research in this sector shows that the greatest problem is the lack of funds at 38.5%, and insufficient and poor regulation at 27.5%, which is somewhat higher than previous research, in 2005 (36% and 21% respectively).

[2] Executive Director for Economic, Legal and Commercial Affairs, JKP „Beograd put“ – Belgrade, Serbia
[3] These estimates were also confirmed in the analysis of the survey research of the situation, problems and needs of the SME sector, which was organized by the Republic Agency for Development of SME, and in 2016, conducted by 13 regional agencies / centers in the areas covered, with the participation of 1404 respondents. Business ntities covered by the survey employ a total of 14,485 employees or 13 workers per company average. The conducted survey covered all the important aspects of this sector’s development: market, financial, technological, innovation, need for non-financial support, etc.

Relatively smaller importance of the obstacles are the lack of market information and the lack of qualified workforce (9.4%), non-compliance with standards (7.1%) and lack of information on technologies (4.1%). Chart 1.

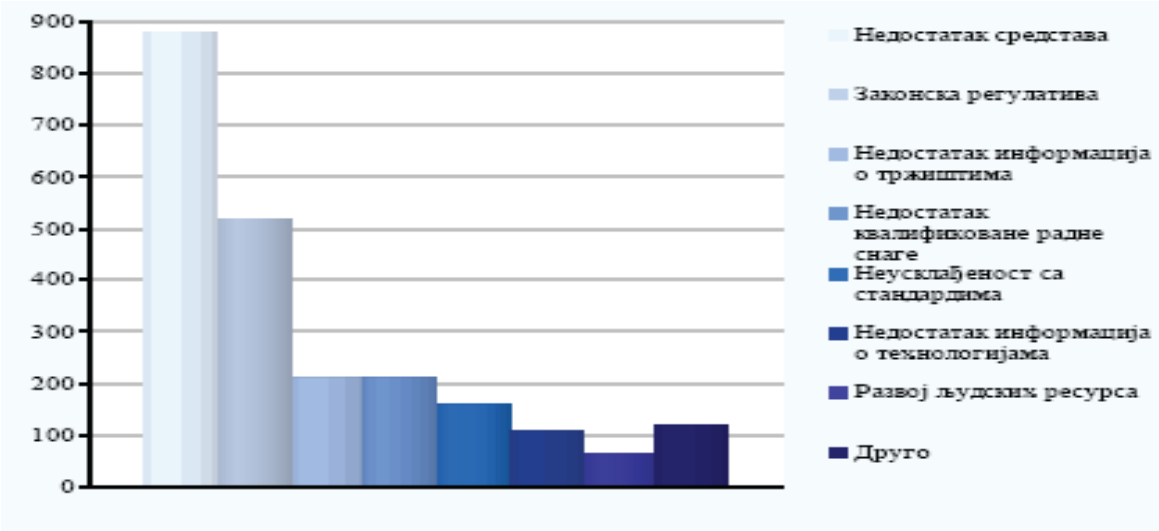


Chart 1: The greatest business problem, Source: Survey of the Republic Agency for Development of Small and Medium-sized Enterprises and Entrepreneurship

The leading place for the lack of funds and regulations among the problems was determined by all surveyed firms, regardless of the size, activity to which they belong, and the territorial schedule. Oscillations occur mainly within lower ranked problems. In the case of micro companies and entrepreneurs, the problems of financing and the lack of skilled workers in relation to the average of the surveyed firms are more prominent.

However, many obstacles to the accelerated development of this sector have not been removed. Above all, it is still an inadequate climate of entrepreneurship in all areas, especially local ones. Most of the young and educated staff are hesitant to against the risks of going for a new job and entrepreneurial ventures that are uncertain. Such an approach is favorable by the considerable participation of the gray economy, the overall and significant fiscal actions, the inaccessibility of public procurements, monopolies, the difficulty of collecting receivables, excessive administration and inadequate tax administration. The biggest discouragement are complicated and costly administrative procedures. At the state level, development of risk capital funds and other more favorable sources of financing for SME is missing.

No permanent dialogue between representatives of SME and relevant institutions at national and local level has been established about problems, needs and appropriate measures and support instruments. The development programs of this sector are not in line with the privatization and restructuring processes. A significant problem is that the development of business cooperation between small and large companies is neglected.

The level of knowledge and skills of entrepreneurs still lags considerably behind the needs of creating a competitive, export-oriented SME sector. Reform processes aimed at overcoming this situation are initiated, but require a longer period of time. The greatest progress has been made in preparation for the study of entrepreneurship within the secondary vocational education and the increased number of private high schools and colleges and faculties that focus precisely on acquiring entrepreneurial knowledge. In informal education, which needs to ensure the

implementation of lifelong learning principles and compensate for the shortcomings of formal education, certain initial results are achieved, but the overall situation is unsatisfactory.

Access to SME funding sources is still largely limited. The backbone of the SME sector financing continues to be the Development Fund of the Republic of Serbia, where the incentive credit lines of the Ministry of Economy and Regional Development are implemented through special programs. Despite some changes, bank loans are still very expensive and inaccessible to the majority of interested SMEs.

The establishment of appropriate regulations in the area of capital risk is lacking, which limits the development of microcredit and guarantee funds at regional and local levels, as well as other sources of financing that are in line with the real possibilities of this sector.

2. STRENGTHENING THE INNOVATION CAPACITY OF THE SERBIAN ECONOMY

The low level of innovative activities of the Serbian economy is the main brake on economic development in the modern international market, where the highest ranking is given to knowledge-based conditions and high-end technology. At the same time, it affects the unrecognizability of the economy and distorts national competitiveness with all the negative consequences on the domestic market and future development. The desire to introduce technologically more intensive production processes and the production of technologically new products requires large investments and educated workforce. According to internationally valid criteria, the Serbian economy is in the process of creating the initial conditions of this system even without an organized system and final solutions within innovative activities.

Serbian economy as a whole is characterized by a low level of activity and a lack of sufficient business innovation, the absence of an innovative network. The lack of research and modest resources directed at this sector, poor reputation of domestic products, insufficient support in financial terms and infrastructure, the inadequacy of laboratories and research capacities, as well as the absence of a significant factor - the innovation network - are key issues for slow development of entrepreneurial activities.

Strengthening of innovative capabilities is one of the key factors and preconditions for rapid development of the sector of small and medium-sized enterprises in Serbia. One of the conditions for this is the availability of appropriate and qualified workforce, as well as directing more significant resources into innovative projects.

3. MODERNIZATION OF SME BUSINESS METHODS

The development of information technologies made information systems available to smaller companies, i.e. small and medium-sized enterprises. In the world, the business of these companies, as well as the big ones, has become unimaginable without information systems in recent years. In our country, even larger companies do not use information systems in their business or are insufficiently used, and only some small and medium-sized enterprises have recently become aware of the importance of using information systems for successful and efficient business.

Famous futurist Chuck Martin, author of the book " Net Future: The 7 Cyber Trends That Will Drive Your Business, Create New Wealth and Define Your Future", has recognized seven

revolutionary trends that will strongly affect the traditional way of doing business and change it from the ground.

The three most important trends Martin is writing about:

Trend 1: Cyber economy is a reality. The proof is that the population using the Internet is profiled by the youngest to the broader strata of consumers. The most common online price is the lowest of all offered on the market. The offer that cannot be resisted is due to a sudden reduction in the costs of marketing, storage and distribution for companies operating on the Internet. An example are the books that can be purchased via the Amazon.com world bookstore - a virtual bookstore without a warehouse, which only forwards the orders to the distributor and can compete with any real business.

Trend 2: Networked workforce brings new quality. To increase efficiency, common, networked labor, through the integration of the Internet, intranets and extranets is being used more. Networked workers become a qualitatively new workforce and have a better insight into the needs of users, that is, the needs and jobs that appear in a networked environment. They are closest to the user and can decide on their jobs more and more independently. The role of entrepreneurs and managers is significantly changing and is different from traditional understanding of hierarchical management. Workforce is scattered and new technologies need to be used for remote management: e-mail, mobile digital phone, tele-conferences, video conferencing and other network services.

Trend 3: *Open business companies are emerging*. By "open business", it refers to companies that connect suppliers, customers, and networked workforce through extranet.

Such extended enterprise opens data and functions and offers "self-service" to the user. An example is Federal Express, which has enabled its customers to order shipping services online. The driver receives an order to collect and deliver the shipment directly from the application, based on an online order. Through this approach, the company's services are transformed: from the offer of products, it switches to offering a platform for doing business.

In the world, almost all companies have accepted these trends and use the Internet in all forms of business, from marketing to trading of all types of goods and services. In our country, this type of business is still not at the desired level, although some companies, both large and small and medium-sized, see the great advantages of the Internet and e-business and are trying to use them, in accordance with their capabilities.

Perhaps the reason for avoiding the transition of our businesses (especially small and medium-sized) to e-business is that relatively few people have access to the Internet. In the USA, at the end of 1997, about 18% of all households were connected to the Network (in 1996 it was only 13%, and already the Internet was a mass media), while in 1999 there were about 55 million Americans on the Network. In the USA, the Internet has long since switched to commercial use. The revenues of Internet companies, especially their investments, are measured in millions of dollars. (Bill Gates, in his book „Business @ The Speed Of Tought“, said that the Internet will change business over the next 10 years more than it has changed over the last 50 years. Include in the footnote)

Data, for example, shows that out of 340 analyzed small and medium-sized enterprises in Serbia, and in the sectors of agriculture, metal and services, 60% does not have a digital strategy

at all. The remaining 40% who do have a strategy mainly refer to the purchase of computers and the use of some forms of business digital communication. This was shown by the latest research by the Center for Digital Transformation within the Serbian Chamber of Commerce.

Small and medium-sized enterprises in Serbia do not have enough digital education and financial resources, and therefore the process of digitization of these companies is significantly slowed down. Another important problem is the linking of SMEs with digitalization carriers in Serbia. It is necessary to create a "map of the path" of digitization and the beginning of the implementation of technological solutions.

4. CONCLUDING REMARKS

Entrepreneurship is a significant development factor for Serbian economy, and is underdeveloped in development policy. All resources for its faster development exist and are rapidly being created. The education system at all levels allows for a significant increase in knowledge about entrepreneurship, small and medium-sized enterprises. The education system for employees and the unemployed for a new business should be constantly expanded and it should become a permanent activity of educational and consulting institutions.

Coordination of all activities in the accelerated development of SMEs must be carried out by state authorities. They need to coordinate and accelerate the activities of local communities that are visible lately. A significant contribution to these processes is provided by the Chamber of Commerce through its associations.

By giving stronger support to the SME sector, through adequate regulation, the state will create the appropriate and necessary climate for entrepreneurship in Serbia, which is not recognizable enough today.

By removing the expressed obstacles to entrepreneurship and SMEs, the most significant of which is reflected in the work, and above all in the availability of necessary resources for future entrepreneurs and small business owners - a strong base for the expansion of SMEs will be created.

Particular attention should be paid to stimulating innovation in this sector because they will represent a development engine in the future, as well as the application of modern technologies and artificial intelligence. The possibilities and flexibility of entrepreneurs as holders of these activities should be used here.

As companies whose competitive advantage is reflected in speed, flexibility and sensitivity to consumer needs, small businesses can significantly contribute to the development of the market economy. New, small enterprises are creators of new products and services, which have significantly changed the lives of people, significantly contribute to the changes in the economic structure. They today represent the most flexible forms of business and are the most sensitive to responding to consumer needs. In this sense, they represent the most sensitive part of every economy.

Literature

1. Ilic S., Small enterprises in Serbia, Megatrender, Belgrade, september 2017
2. *Reports of the Republic of Serbia on small enterprises* - based on the EU Questionnaire, Belgrade, 2013
3. Jelasic R., « *Financing of small and medium-sized enterprises in Serbia »*, Belgrade, October 6-7, 2013
4. Zivkovic,M., »*Entrepreneurship«*, ***FPE Bar*** 2016
5. Paunovic B., « *Development of SMEs in the Republic of Serbia »*, Ministry of Economy and Privatization, 2003
6. *Program for development of business incubators and clusters in the Republic of Serbia 2007-2010*, Republic of Serbia, Ministry of Economy
7. *Strategy for development of small and medium-sized enterprises and entrepreneurship in the Republic of Serbia 2003 - 2008* - Ministry of Economy and Privatization, Republic of Serbia
8. Trifunovic, D., *Report on the SME sector in 2016*, PKS, 2016
9. Zivkovic, M. Dragicevic, T., „*Motives to start an entrepreneurial venture*“, Megatrend review vol.2, Belgrade 2015
10. www.oecd.org

INEQUALITY PROBLEMS IN CENTRAL AND EASTERN EUROPE

Gyorgy Andor[4]

DOI: https://doi.org/10.31410/eraz.2018.22

Abstract: *In this paper, the evolution of income inequality in five Central and Eastern European (CEE) post-socialist countries, members of the European Union (EU) – the Czech Republic, Hungary, Poland, Slovakia, and Slovenia – is examined. The similarities of political and economic changes in these countries allow an integrated analysis of their income inequality developments. Moreover, as these countries represent a unique group around the border between high-income and upper-middle-income countries, the paper can also contribute to the debate on inequality in countries at different levels of economic development. It focuses on several relating and often contradictory theories and empirical evidence from the past few years, trying to offer a comprehensive picture of the progress of inequality in this region.*
After a short introduction, the theories about the relationship between inequality and growth are summarized. Then the empirical evidence about income inequality in CEE countries is presented and compared with EU-wide data. Finally, some concluding remarks close the paper.

Key words: *Inequality; Economic growth; Central and Eastern Europe*

1. INTRODUCTION

The relationship between economic growth and income inequality is far from straightforward. Inequality can have a positive impact on economic growth because income differentials provide incentives and reward personal effort, risk-taking and innovation. It also promotes growth by stimulating savings. Nevertheless, income inequality can act against growth by reducing aggregate demand (Carvalho and Rezai 2014); fueling financial instability (Rajan 2011; Acemoglu 2011); hampering investment (Bardhan 2005; Dabla-Norris et al. 2015) and middle class risk-taking (Boushey 2011); impeding the swift upgrade of skills and education, reducing productivity (Stiglitz 2012); delay socioeconomic mobility (Krueger 2012; Corak 2013). (Bubbico and Freytag, 2018) The cumulative effect is controversial.

Inequality in Europe is an especially complex question because it has at least three different dimensions: within member states, between member states, and in the European Union (EU) as a whole.

Finally, inequality issues among CEE countries are particularly difficult to understand because of the parallel effects of transition from a centrally planned economy to a market economy, globalization, and the EU's convergence mechanisms.

[4] Eotvos Lorand University, Institute of Business Economics; Neumann Janos University, Faculty of Economics and Business; Budapest, Hungary

2. CONTRASTING THEORIES ABOUT THE RELATIONSHIP BETWEEN INEQUALITY AND GROWTH

2.1 Kuznets curve

As Nobel Prize winner Simon Kuznets originally stated, as an economy develops, a natural pattern of economic inequality occurs, driven by market forces which, at first, increase inequality, and then decrease it. The simple explanation for this phenomenon is that in order to grow countries have to shift from agricultural to industrial sectors. While there are little variations in agricultural incomes, industrialization leads to large differences in incomes. However, in a growing economy education offers greater opportunities to everybody to learn, through which the inequality decreases. Besides, the part of the population with lower income gains enough political power to force anti-inequality and welfare policies on governments. Kuznets believed that inequality followed an inverted U-shape: the Gini coefficient rises with economic development and then falls with increased per-capita income.

In light of new evidence, the pioneering work of Kuznets has been questioned. The period of about 1950 to 1960, when Kuznets' work was born, has been seen as exceptional from several aspects, and these resulted in, at least in part, false conclusions. The decrease of inequalities measured at that time in the most-developed countries does not necessarily continue.

2.2 Piketty's theory

Works by Piketty gave a new impulse to research on economic inequality and growth. His works focuses mostly on wealth concentration and distribution over the past century in high-income countries, and on the long-term evolution of inequality. He argues that the rate of return on capital in developed countries is persistently greater than the rate of economic growth, and that this will cause wealth inequality to increase in the future as well. (Piketty, 2014)

Piketty and Saez (2014) build their review, and interpretations of their observations, on three basic time-series (Fig. 1, 2, and 3). First, they find that whereas income inequality was larger in Europe than in the USA a century ago, it is currently much larger in the US (this is true for every inequality metric not only for the share of total income going to the top decile in Fig. 1)

Gyorgy Andor *is an associate professor of Institute of Business at Eotvos Lorand University, Budapest, Hungary (ELTE). He graduated in Engineering at Budapest University of Technology and Economics, then in Economics at the Corvinus University of Budapest. He also has got dr. univ. degrees from both universities. He got his PhD in Economics from the Budapest University of Technology and Economics.*

He teaches business economics and public economics courses in several bachelor and master programs in ELTE. Besides teaching, he is the head of Department of Finance and Accounting, Institute of Business, ELTE.

His main research area is the corporate finance, investment, public finance, inequality, and higher education. He is member of several scientific committees and boards, and often presenter at international conferences. He published books and journal articles, e.g., in journals like Emerging Markets Review, Energy Efficiency, Engineering Economist, Finance Research Letters or Quantitative Finance.

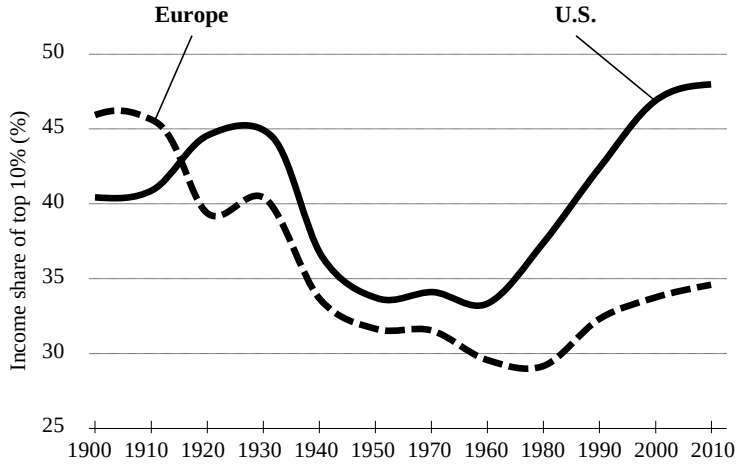


Fig. 1 Income inequality in Europe and the United States, 1900 to 2010. The share of total income accruing to top decile income holders was higher in Europe than in the United States from 1900 to 1910; it was substantially higher in the United States than in Europe from 2000 to 2010. (Piketty and Saez, 2014)

On the eve of World War I (WWI), in the early 1910s, the top decile income share was between 45 and 50% of total income in most European countries. At the same time, the top decile income share was slightly above 40% in the United States. In the early 2010s, inequality ordering between Europe and the United States was reversed. That is, the top decile share in Europe is currently almost one-third smaller than what it was one century ago. In the United States, where the top decile income share in 1910 was lower than in Europe, it is now close to 50%, higher than it has ever been in U.S. history. (Piketty and Saez, 2014)

Regarding wealth inequality, they observe the same inequality reversal between Europe and the United States. That is, the share of total net private wealth owned by the top 10% of wealth holders was notably larger in Europe than in the USA one century ago, while the opposite is true today (Fig. 2).

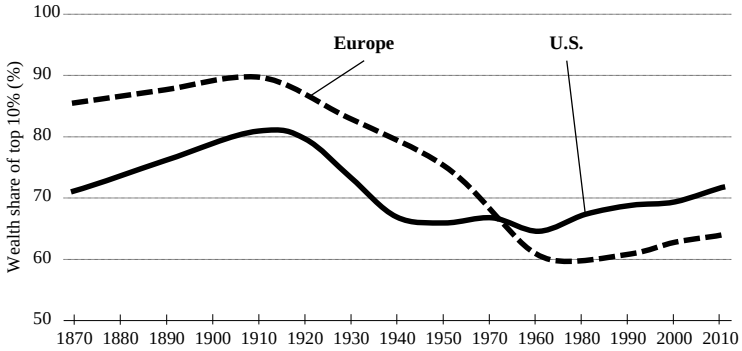


Fig. 2 Wealth inequality in Europe and the United States, 1870 to 2010. The share of total net wealth belonging to top decile wealth holders became higher in the United States than in Europe over the course of the 20th century. (Piketty and Saez, 2014)

According to Fig. 2, the top decile wealth share typically falls in the 60 to 90% range, whereas the top decile income share is in the 30 to 50% range. While the bottom 50% wealth share is always less than 5%, the bottom 50% income share is generally between 20 to 30%. Or, in other

words, members of the bottom half of the population (wealth-wise) own less than one-tenth of the average wealth, while members of the bottom half of the population (income-wise) earn about half the average income. Next, in contrast to income inequality, US wealth inequality levels have still not regained the record levels observed in Europe before WWI. Although wealth concentration has been high throughout U.S. history, there has always been a large fraction of U.S. aggregate wealth – about 20 to 30% – that did not belong to the top 10%. As the wealth share of the bottom 50% has always been negligible, the remaining 20 to 30% fraction corresponds to the share owned by the 40% "wealth middle class", that is, there has always been a wealth middle class in the United States. In contrast, wealth concentration was so extreme in pre-WWI Europe (the top decile wealth share was close to 90%) that there was basically no wealth middle class. The middle 40% wealth holders in Europe were almost as poor as the bottom 50% wealth holders. However, between 1914 and about 1970, the top decile wealth share fell dramatically in Europe, from about 90% to 60%. It has been rising since the 1970s-80s, and is now close to 65%. In other words, the wealth middle class now commands a larger share of total wealth in Europe than in the United States – although this share has been decreasing lately on both sides. According to Piketty and Saez, modern US inequality is based more on a very large rise of top labor incomes than upon the extreme levels of wealth concentration that characterized the wealth-based societies of the past. In 1913 Europe, top incomes were predominantly top capital incomes (rent, interest, and dividends) coming from the very large concentration of capital ownership. Top US incomes today are composed about equally of labor income and capital income. This generates approximately the same level of total income inequality, but it is not the same form of inequality. (Piketty and Saez, 2014)

Third, as to wealth-to-income ratios, they also find large historical variations, again with striking differences between Europe and the United States (Fig. 3). This ratio is of critical importance for the analysis of inequality, as it measures the overall importance of wealth in a given society, as well as the capital intensity of production.

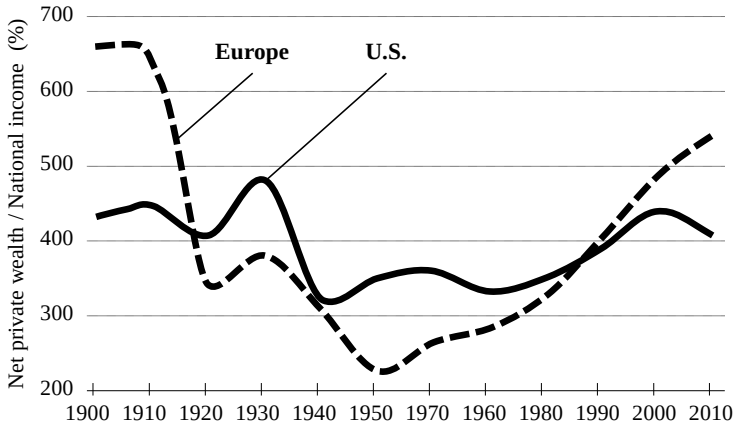


Fig. 3 Wealth-to-income ratios in Europe and the United States, 1900 to 2010. (Piketty and Saez, 2014)

In Europe, the aggregate wealth-income ratio has followed a typical U-shaped pattern over the past century: on the eve of WWI, net private wealth was about equal to 6 to 7 years of national income; then fell to about 2 to 3 in the 1950s; finally it is now back to about 5 to 6. The US pattern is also slightly U-shaped but it is flatter: net private wealth has generally equaled about 4 to 5 years of national income. The fall of European wealth-income ratios following the 1914–1945 shocks can be well accounted for by three main factors: direct war-related physical

destruction of domestic capital assets; lack of investment (a large fraction of 1914–1945 private-saving flows was absorbed by the enormous public deficits induced by war financing); and a fall in relative asset prices (real estate and stock market prices were both historically very low in the immediate postwar period, partly due to rent control, nationalization, capital controls, and various forms of financial repression policies). (Piketty and Saez, 2014)

The comparison between Figs. 1 and 3 is underlined by Piketty and Saez. Although both figures have two U-shaped curves, these are clearly different. The United States is the land of booming top labor incomes: the U-shaped pattern for income inequality is mostly driven by the large rise of top labor incomes in recent decades. Europe is the land of booming wealth: the U-shaped pattern for aggregate wealth-income ratios comes from concentration of wealth. These are two distinct phenomena, involving different economic mechanisms and different parts of the developed world. (Piketty and Saez, 2014)

2.3 Kuznets waves

Milanovic (2016) has introduced the concept of 'Kuznets waves', with cycles of increases and decreases of inequality with development. Milanovic identifies a second Kuznets curve in the US, with inequality rising again. This process is driven by technological change, disruption of organized labor and globalization, with decline of the middle class and lower taxes on capital.

Milanovic offers an alternative to the two theories mentioned above. While Kuznets argues that high levels of inequality are the temporary side-effect of the development process, Piketty says that high levels of inequality are the natural state of modern economies. Milanovic suggests that both are mistaken. He thinks that inequality tends to flow in cycles. In the pre-industrial period inequality rises as countries enjoy a spell of good fortune and high incomes, then fall as war or famine drags average income back to subsistence level. With industrialization, the forces creating Kuznets waves changed. Technological advance, globalization and policy shift all works together in mutually reinforcing ways to produce dramatic economic change. Workers are reallocated from farms to factories, average incomes and inequality soar and the world becomes unprecedentedly interconnected. Since then, the rich world has been riding a new Kuznets wave, propelled by another era of economic change. Technological progress and trade work together to squeeze workers, he says; technology made in foreign economies undermines the bargaining power of rich-world workers directly, and makes it easier for firms to replace people with machines. Workers' declining economic power is compounded by lost political power as the very rich use their fortunes to influence candidates and elections. (Economist, 2016)

Milanovic expects rich-world inequality to keep rising, in the USA especially. This can be followed by pro-equality trends built on a combination of inequality stabilizers like political change, pro-unskilled labor technological innovations, dissipation of rents acquired during technological change, and greater attempts to equalize ownership of assets. (Bubbico and Freytag, 2018)

2.4 Other recent contributions

Nowadays many studies argue that the relation between inequality and growth is variable: it changes over time and with level of development. For example, Alesina and Rodrik (1994), Bertola (1993), Persson and Tabellini (1994) argue that more inequality causes lower level of economic growth, through highly distortionary taxation. (Bubbico and Freytag, 2018)

Ostry et al. (2014) do not find evidence of a trade-off between growth and equality, showing that redistributive policies have no adverse effects on growth. Dabla-Norris et al. (2015) show that growth is more robust if the income share of lower quintiles increases, compared to an increase of the top quintile. The poor and the middle class matter the most for growth via a number of interrelated economic, social, and political channels. (Bubbico and Freytag, 2018)

Some results suggest that in the short and medium term, an increase in income inequality has a significant positive relationship with subsequent economic growth (Forbes 2000; Barro 2000), while in other cases the negativity of this relationship has been confirmed (Aghion et al 1999). (Bubbico and Freytag, 2018)

World Bank (2016) shows that while levels of inequality at a global scale have gone down, the average person lives now in a more unequal country than in the late 1980s. This view looks at inequality as the price developed countries have to pay for growth in poor countries through trade and globalization channels. Due to effects of globalization and technological changes, returns for skilled occupations and returns on capital are higher (Krueger 2012) because technological changes have been skill-biased, increasing the wage gap. (Bubbico and Freytag, 2018) Violante (2008) also argues that the main reasons explaining the growing inequalities in wages are skills-biased technological change, by which new technologies increase the relative productivity of high-skilled workers, and also the demand for them and their wages. Blau and Kahn (2009) claim that trade specialization also may have a dampening effect on the wages of low-skilled workers in developed countries.

Increasing inequality is also seen as the result of declining labor market regulation and minimum wage compression. Finally, reduced distributive capacity and effort by governments under severe budget constraints can also contribute to this phenomenon (Nolan 2016). (Bubbico and Freytag, 2018)

3. CONTRASTING EMPIRICAL EVIDENCE ABOUT INCOME INEQUALITY – EVERYTHING DEPENDS ON THE PERIOD OF TIME AND/OR THE COUNTRIES OBSERVED

If we go back to Piketty's evidence (see Fig. 1), it is obvious that inequality has been growing during the last 50 years both in the USA and in Europe. However, we cannot be as confident as we look at the last 100 years. During this period income inequality has been either growing or declining, maybe growing in the USA and declining in Europe.

Taking shorter periods of time, empirical results are also a bit contradictory. Fig. 4 shows the recent results (Darvas 2016) about the developments in inequality in 28 countries of the EU compared with similar results for the USA. This is an example of a reference into the main text of the paper (Beck & Ralph, 1994).

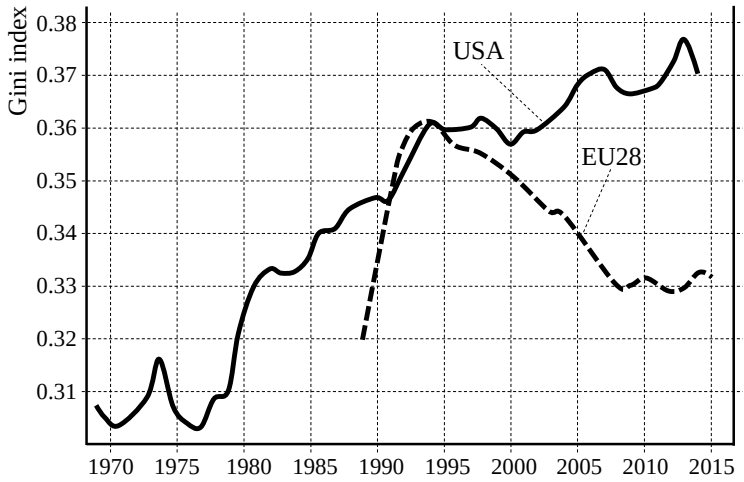


Fig. 4 Gini index for disposable household income for the USA and for 28 countries of EU, 1970 to 2015. Darvas (2016) Sources: US data is from the Standardized World Income Inequality Database (SWIID) from Solt (2016), EU28 data is from Darvas (2016)

As Fig. 4 indicates, there was a sharp increase in income inequality in 28 EU countries in between 1989 and 1993 reaching the inequality level in the USA at that time. It was caused by the significant output declines in the CEE countries during their transition from socialist to market-based economies. As their income declined, people in these countries became even poorer relative to citizens in the rest of EU, and EU-wide income inequality therefore increased. After 1994, inequality declined steadily until 2008, and has remained relatively stable. In contrast, income inequality in the USA increased almost continuously from the late 1970s until 2013.

However, while the Gini index increased considerably (by more than 1 Gini point) in 15 EU countries and practically did not change in six other countries from 1994 to 2008, the EU-wide Gini index decreased due to declines by more than 1 point in seven countries. More importantly, the EU-wide income inequality decrease was almost entirely due to the convergence of average incomes: people in poorer regions of the EU increased their income relative to richer regions. According to Darvas (2016), this process stopped with the crisis, mostly because of some decline in some southern European member states (e.g. Italy and Greece).

As far as the CEE countries are concerned, EU-SILC data (and results of Eurofound 2017 study) are used in the rest of the paper. EU-SILC is a database on income, poverty, social exclusion and living conditions in the EU, coordinated by Eurostat, with data drawn from different sources at the national level. This paper (like Eurofound 2017) uses EU-SILC data over the period 2005–2014 (income referring to 2004–2013), which is available for 24 EU countries (all EU Member States except Bulgaria, Croatia, Malta and Romania). The EU-SILC is a yearly survey of all private households and their current members residing in the territory of the countries at the time of data collection. Following the Eurofound's classification we examine the Czech Republic, Hungary, Poland, Slovakia, Slovenia from among Central and Eastern European (CEE) countries.

First of all, Fig. 5 shows a picture about the economic convergence of the CEE region.

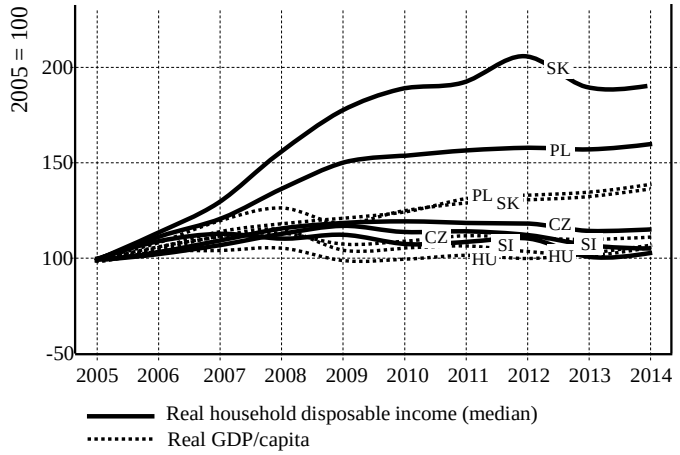


Fig. 5 Changes of real household disposable median incomes and real GDP per capita for CEE countries, 2005=100 (HU: Hungary, PL: Poland, SI: Slovenia; SK: Slovakia; CZ: the Czech Republic), 2005 to 2014. Sources of data: EU-SILC, Eurofound (2017)

In CEE countries in general, household disposable income grew relatively more than GDP per capita. The discrepancies between the two indicators may be due to a combination of factors. Nolan et al (2016) identified some of them: price adjustments (since GDP is adjusted by the GDP deflator and household income by the consumer price index); the national income concept (since GDP refers to domestic output and household income to income inflows to resident households); data sources (since GDP arises from national accounts and household income typically come from surveys); household size (given that GDP is divided by the total population and household income is divided by – equalized – household size); levels of inequality (since growth in median household disposable income will be more modest than in GDP per capita or average household income if incomes grow relatively faster at the top of the income distribution). (Eurofound 2017)

Fig. 6 provides a more detailed picture of income convergence between EU Member States using country-level data on average household disposable income from the EU-SILC. It confirms the view that convergence between EU Member States is mainly driven by the catch-up of eastern European countries. (Eurofound 2017)

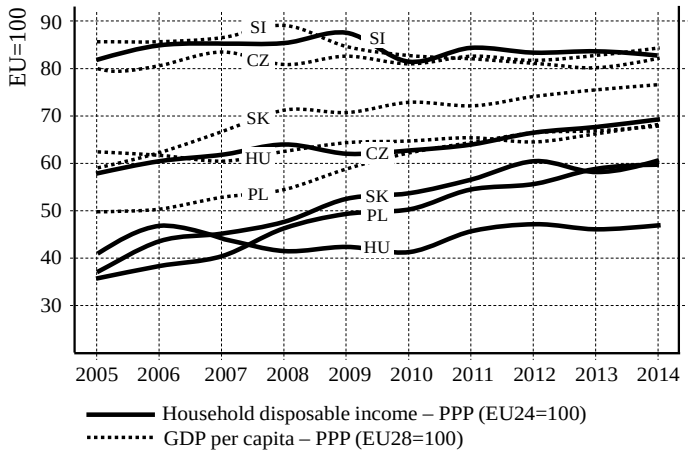


Fig. 6 Changes of real household disposable median incomes and real GDP per capita of CEE countries relative to those of EU24 and EU28 (HU: Hungary, PL: Poland, SI: Slovenia; SK: Slovakia; CZ: the Czech Republic), 2005 to 2014. Sources of data: EU-SILC, Eurofound (2017)

Results shown in Fig. 5 and Fig 6 are in line with classical theories of economic growth, which would predict a process of convergence in GDP per capita and income levels due to higher investments in lower income countries (a catch-up effect), where capital is scarcer and therefore returns to capital investment are higher. This process of convergence should be stronger among countries that share a similar economic and institutional setting, such as is the case of the EU (Sachs and Warner, 1996). Eurofound (2017)

The next figure shows the development of unemployment in CEE countries and in the whole EU. The labor market trends were strongly shaped by the impact of the Great Recession. Before the crisis, when CEE countries experienced a rapid catch-up process with fast economic growth, employment levels also rose in CEE countries. With the Great Recession economic activity was negatively affected across all countries but especially in the CEE countries. However, some CEE countries recovered rapidly and managed to continue their catch-up process. Eurofound (2017)

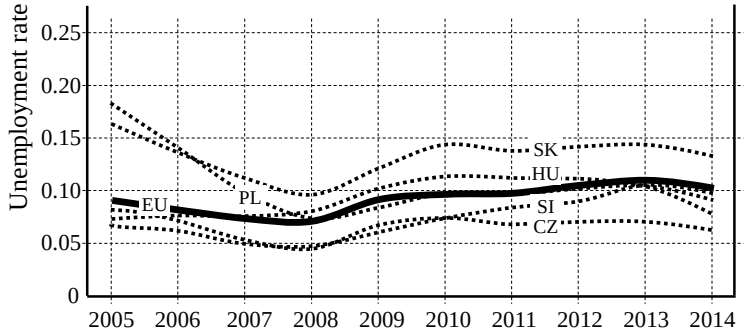


Fig. 7 Changes of unemployment rate of CEE countries and EU as a whole (HU: Hungary, PL: Poland, SI: Slovenia; SK: Slovakia; CZ: the Czech Republic), 2005 to 2014. Sources of data: EU-SILC, Eurofound (2017)

The figures below introduce a panoramic view of inequalities across CEE countries comparing them to of EU-wide development. EU-SILC data and Eurofound (2017) not only map inequality trends in household disposable income, but also in the different sources of income, and the role played by changes in unemployment, family pooling of resources, and redistribution by the welfare state. The following income measures are used in this paper (Eurofound 2017):

1) Monthly labour income among workers: This refers to the monthly labour earnings of workers, without adjusting for hours worked.
2) Annual labour income among active individuals: This adds those currently unemployed to the picture and therefore includes individuals with no labour income. Inequality levels will increase notably, depending on unemployment rates.
3) Annual labour income among all working-age individuals: This adds those currently inactive to the picture and further increases the possibility of including individuals with no labour income. Inequality levels will increase even further and this will be highly influenced by the inactivity rates.
4) Market income among households: This measure adds the income from capital and also private transfers between households. Inequalities are expected to be higher since capital is generally more unevenly distributed than labour income (the effect of private transfers is less clear).
5) Disposable income among household: This measure takes into account the effects of the welfare state through the tax and benefit system. Since the welfare state redistributes income across individuals and families in a generally progressive way, inequalities should be notably lower than in the previous measure.

Of course, inequality levels vary across countries, but the different sources of income are similarly related everywhere: inequality is lower for monthly earnings among workers and widens notably when unemployed and especially inactive people are added, to be reduced again when income is pooled at the household level and especially when it is redistributed by the state. Fig. 8 presents inequality data for CEE countries and for the EU as a whole among three different populations: workers, the active population and the whole working age population. Inequalities in monthly earnings among workers are relatively low in CEE countries. As expected, labor income inequalities widen notably once the analysis includes active and inactive people who do not earn labor income, with cross-country differentials mainly depending on the number of unemployed and inactive people. (Eurofound 2017)

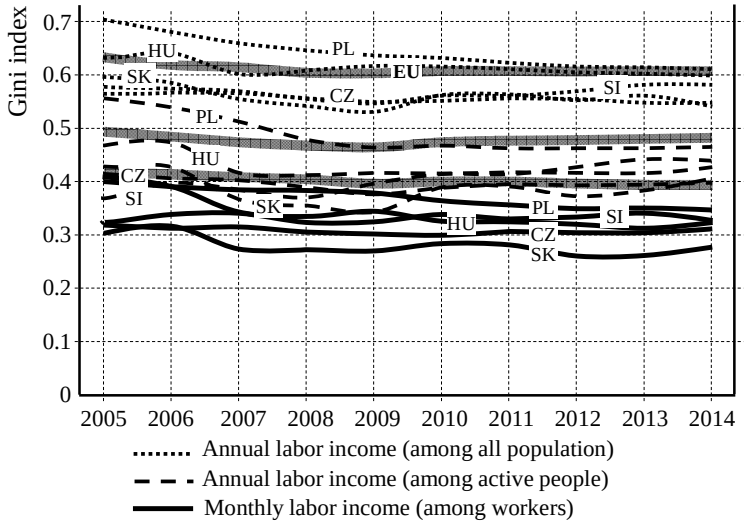


Fig. 8 Gini indexes (annual labor income for all and for active population, and monthly labor income for workers) and EU averages (HU: Hungary, PL: Poland, SI: Slovenia; SK: Slovakia; CZ: the Czech Republic), 2005 to 2014. Sources of data: EU-SILC, Eurofound (2017)

The inequalities in annual labor earnings among working age individuals are shown in the last figure (Fig. 8). In Fig. 9 such curves are presented where it is also taken into account that most individuals pool their income at the household level. In EU as a whole, pooling of personal annual labor income at household level reduces the inequality indicator by around 22% during the period 2005-2014 (Eurofound 2017). This effect is larger in CEE countries (except Hungary which is at the average) by around 27-32%.

Beside the effect of household pooling, the household-level analysis also considers the capital income of households. Nevertheless, capital incomes hardly have any practical effect on results. (Eurofound 2017)

Finally, the redistributive effects of the welfare states are taken into consideration. Welfare states are able to correct inequalities in market income through taxes and benefits that redistribute income across individuals and households. European welfare states, in average, reduce market income inequality by almost 30%. The CEE states typically play an even bigger role, except for Poland which is below the EU average. It is particularly true in the cases of Slovenia and Hungary where welfare states reduce inequality almost by 42%. Eurofound (2017)

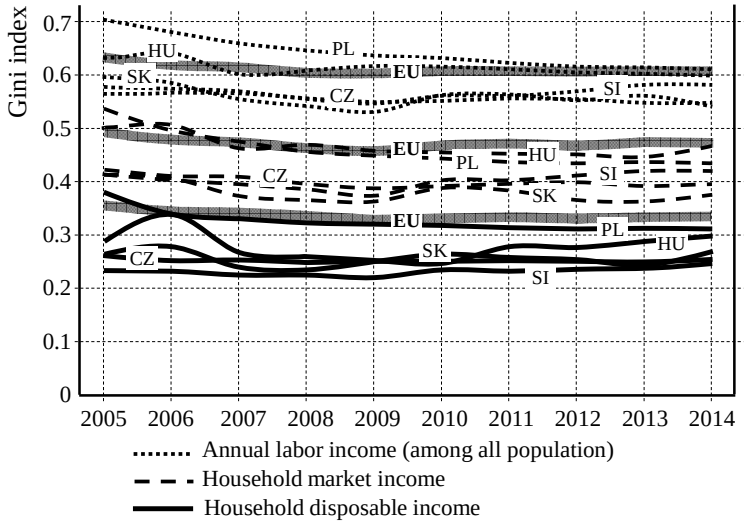


Fig. 9 Gini indexes (annual labor income for all population, household market and disposable income) and EU averages (HU: Hungary, PL: Poland, SI: Slovenia; SK: Slovakia; CZ: the Czech Republic), 2005 to 2014. Sources of data: EU-SILC, Eurofound (2017)

Curves in Fig. 9 can be grouped into two levels: for Poland and Hungary where household disposable income inequality is intermediate, and for Slovenia, the Czech Republic and Slovakia where household disposable income inequality is relatively low. Compared to the whole Europe, CEE countries have relatively low inequality levels among the workforce, but they generally move up the inequality ranking once unemployed and inactive people are included in the analysis. The family pooling of resources generally plays a strong role in reducing inequalities, while the state has a relatively important role in Slovenia, Hungary and the Czech Republic. (Eurofound 2017)

Summarizing the results presented in the above figures, we can conclude that no notable inequality problem is detectable in the CEE region using EU-SILC data in the period of 2005 to 2014.

However, somewhat different results are presented by Inchauste and Karver (2018). They claim that within-country inequality has increased in most of today's EU countries, particularly in CEE. They divide CEE countries into three groups: CEE South (Romania and Bulgaria), CEE North (Estonia, Latvia and Lithuania), and CEE Continental (Slovenia, Slovakia, Hungary, Czech Republic, Poland and Croatia) which is almost the same as defined in the Eurofound (2017) study except Croatia. They use own estimation using the Standardized World Income Inequality Database (SWIID) version 6.1 (2017). Inchauste and Karver examine data from 1989 to 2015. They find that Gini index of CEE Continental countries has increased from about 24.5 to about 28.0 during 1989 to 2015.

4. CONCLUSION

The relation between economic growth and income inequality is very complex. It is true for Europe as a whole with the three dimensions of its inequality: within member states, between member states and in the European Union (EU) as a whole. However, it is especially valid for the CEE countries where the transition process and EU convergence have been running parallel with the general effects of globalization which also influences inequality developments in these countries.

Taking into consideration the empirical evidences of recent studies we cannot detect any deep inequality problem in the CEE region relative to other developed regions of the world. Nevertheless, there are slightly different research results depending on the examined period, the dataset used and the income indexes analyzed.

REFERENCES

[1] Acemoglu, D., 2011. Thoughts on inequality and the financial crisis. *In AEA meeting*, Denver (Vol. 7).

[2] Aghion, P., Caroli, E., & Garcia-Penalosa, C., 1999. Inequality and economic growth: the perspective of the new growth theories. *Journal of Economic literature*, 37(4), 1615-1660.

[3] Alesina, A., & Rodrik, D., 1994. Distributive politics and economic growth. *The quarterly journal of economics*, 109(2), 465-490.

[4] Bardhan, P., 2007. Poverty and inequality in China and India: Elusive link with globalisation. *Economic and Political Weekly*, 3849-3852.

[5] Barro, R. J., 2000. Inequality and Growth in a Panel of Countries. *Journal of economic growth*, 5(1), 5-32.

[6] Bertola, G., 1993. Market structure and income distribution in endogenous growth models. *American Economic Review*, 83(2), 1184-99.

[7] Blau, F. D. and Kahn, L. M., 2009, 'Inequality and earnings distribution', in Salverda, W., Nolan, B. and Smeeding, T. M. (eds.), The Oxford handbook of economic inequality, Oxford University Press, Oxford.

[8] Boushey H., 2011. The Endangered Middle Class: Is the American Dream Slipping out of Reach for American Families? Testimony before the U.S. Senate Committee on Health, Education, Labour, and Pensions, May 12, 2011

[9] Bubbico, R L and L Freytag, 2018. *Inequality in Europe*, European Investment Bank, January 2018.

[10] Carvalho, L., & Rezai, A., 2015. Personal income inequality and aggregate demand. *Cambridge Journal of Economics*, 40(2), 491-505.

[11] Corak, M. 2013. Income inequality, equality of opportunity, and intergenerational mobility. *J. Econ. Perspect*. 27, 79–102.

[12] Dabla-Norris, M. E., Kochhar, M. K., Suphaphiphat, M. N., Ricka, M. F., & Tsounta, E., 2015. Causes and consequences of income inequality: a global perspective. International Monetary Fund.

[13] Darvas, Z., 2016. Brexit vote boosts case for inclusive growth. Bruegel Blog Post. http://bruegel.org/2016/07/brexit-vote-boosts-case-forinclusive-growth/

[14] Economist, 2016. *The new wave - Globalisation and inequality*, The Economist, Apr 2nd 2016

[15] Forbes, K. J., 2000. A Reassessment of the Relationship between Inequality and Growth. *American economic review*, 869-887.

[16] Inchauste, G. and J. Karver, 2018. *Understanding Changes in Inequality in the EU Background to "Growing United: Upgrading Europe's Convergence Machine"*, World Bank report 2018 January, World Bank Group

[17] Krueger, A., 2012. The rise and consequences of inequality. Presentation made to the Center for American Progress, January 12th. Available at http://www. americanprogress. org/events/2012/01/12/17181/the-rise-and-consequences-of-inequality.

[18] Milanovic, B., 2016. Global Inequality: A New Approach for the Age of Globalization, Harvard University Press.

[19] Nolan, B., Roser, M. and Thewissen, S., 2016, GDP per capita versus median household income: What gives rise to divergence over time?, *Oxford INET Working Paper Series*, No. 2016-03.
[20] Ostry, M. J. D., Berg, M. A., & Tsangarides, M. C. G., 2014. Redistribution, inequality, and growth. International Monetary Fund.
[21] Persson, T., & Tabellini, G., 1994. Is inequality harmful for growth?. *The American Economic Review*, 600-621.
[22] Piketty, T. 2014. Capital in the Twenty-First Century, Harvard University Press, ISBN 9780674430006, April.
[23] Piketty, T. and E. Saez, 2014. Inequality in the long run, Science 23 May 2014: Vol. 344 no. 6186 pp. 838-843.
[24] Piketty, T. and G. Zucman, 2014. Capital is back: Wealth-income ratios in rich countries, 1700-2010. *Q. J. Econ*. 129, in press
[25] Rajan, R. G., 2011. Fault lines: How hidden fractures still threaten the world economy. Princeton University Press.
[26] Sachs, J. and Warner, A. M., 1996. Economic convergence and economic policies, *NBER Working Paper No. 5039*.
[27] Solt, F, 2016, The Standardized World Income Inequality Database
[28] Stiglitz, J. E., 2012. The price of inequality: How today's divided society endangers our future. WW Norton & Company.
[29] Violante, G. L., 2008, 'Skill-biased technical change', in Blume, L. and Durlauf, S. (eds.), The new Palgrave dictionary of economics, Palgrave Macmillan.
[30] World Bank, 2016. Poverty and shared prosperity, taking on inequality.

FOREIGN DIRECT INVESTMENT AND REGIONAL DEVELOPMENT IN BULGARIA: A PANEL DATA ANALYSIS FOR THE PERIOD 2008-2016

Iva Raycheva[5]

DOI: https://doi.org/10.31410/eraz.2018.35

Abstract: *The paper presents selected results from an empirical analysis of the interrelation between the regional level of economic development and foreign direct investment (FDI) stock in the regional economies for the period 2008-2016 in Bulgaria. Data from the regional statistics of the Bulgarian National Statistical Institute has been utilized. Panel data regression models have been estimated for this purpose using variables for the real regional Gross domestic product and a selection of determinants of the regional development. This way the models control for other variables in order to evaluate the net effects of the FDI influx on the level and growth of the regional labour productivity for the chosen period.*

Key words: *Foreign direct investment, regional growth, Bulgaria.*

1. INTRODUCTION

As is well known, foreign direct investment (FDI) has a large share in the internationalization of economic activity. They are one of the most important aspects of globalization.[6] In this area, the largest studies are made by researchers like Sala-I-Martin [7] and Barro[8]. Their techniques are applied when looking for growth determinants between regions in a given country. Regional imbalances are a problem that affects every country. States are making a lot of effort to create a regional policy that balances growth and brings about convergence between regions.

The problems related to the economic development of the regions in Bulgaria during the period of market transformation of the Bulgarian economy are constantly in the focus of economic research and analysis. Essentially, attention was focused on these processes in relation to the country's integration into the EU in 2007, when a significant targeting of European pre-accession funds to support regional development was realized.

The main idea of this study is to investigate the relationship between the regional level of economic development and the foreign direct investment (FDI) stock in the regional economies for the period 2008-2016 in Bulgaria. The country consists of 28 areas with different growth and development. From there, there are immense differences between them, with many determinants describing their growth. One of the most significant is the inflow of foreign capital, which has an ambiguous influence on regional development. Therefore, this study

[5] University of National and World Economy; address: UNWE, Studentski Grad, 1700 Sofia, Bulgaria

[6] Bajo-Rubo O., Diaz-Mora C. and Diaz-Lora C. ´ N, Foreign Direct Investment and Regional Growth:An Analysis of the Spanish Case. Regional Studies, Vol. 44.3, pp. 373–382, April 2010

[7] Sala-I-Martin, X. "I Just Ran Two Million Regressions". *AEA Papers and Proceedings* 87 (1997): 178-83.

[8] Barro, R.J. and X. Sala-I-Martin. "Convergence across States and Regions". *Brookings Papers on Economic Activity*
1 (1991): 107-82.

makes this connection more complicated by controlling determinants to be able to prove the relevance of the relationship and measure it. Taking into account the studies of the above-mentioned authors, the impact of FDI on growth is expected to be clear and fundamental.

2. INFORMATION BASIS OF THE STUDY

The data used in the current study is provided basically from the information system INFOSTAT of National Statistical Institute of Bulgaria. The utilized statistical data is annual on the demographic and socio-economic conditions at the regional level. Some of used variables are taken directly from the platform. The other are transform for the aim of the research. The all data is collected for all 28 areas of Bulgaria during 2008-2016.
The dependent variable is represented from:

- GDP by economic area and sector over the period per employed 2008-2016

It is transform from two variables. First is GDP by economic area and sector over the period and second is employed. GDP per employed is a key economic indicator for measuring regional growth.

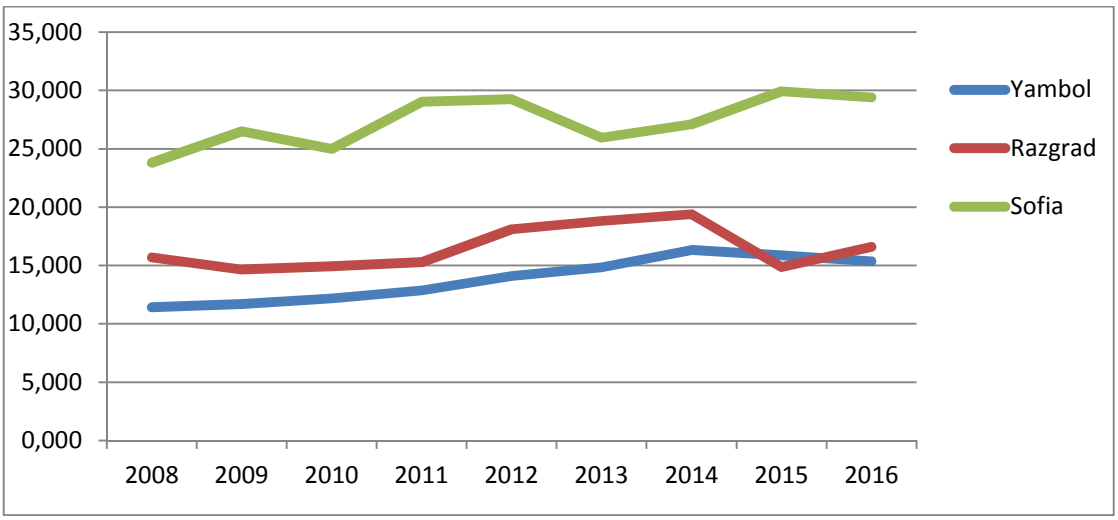


Figure 1: Dynamics of the GDP by economic area and sector over the period per employed 2008-2016 for Yambol, Razgrad and Sofia

Figure 1 shows the dynamics of real GDP per capita GDP for the period 2008-2016 for three regions of Bulgaria.

- Sofia Region is the representative of the regions with the highest levels of real GDP per employee.
- Razgrad is one of the districts in Bulgaria with average levels of real GDP per employee.
- Yambol is an area characterized by low levels of indicator values. In all three areas there is an increase in real GDP per employee between 2008 and 2016.
- In Yambol and Razgrad the highest values of the indicator are in 2014. As between 2008 and 2014, both real GDP growth rates were seen as a real GDP growth rate. After this

Iva Raycheva *is a PhD student at University of National and World Economy, Sofia, Bulgaria. Her interests are in the field of panel research and panel data. She explores regional investment and GDP. She works as project manager in Bulgarian Online Research in the field of online marketing research.*

period, the indicator falls in both regions, as in 2015 the levels in Razgrad are lower than those in Yambol. In 2016 Yambol again managed to overtake Razgrad.

- In the region of Sofia there have been downturns and ups and downs, but the general trend of growth is preserved.

Independent variables were selected to control socio-economic determinants. They are :

- Foreign direct investment in non-financial enterprises (Thousand FDI stock at 31.12, per employed in the district)
- Average annual gross salary of employees (AS, bgn)
- Solved crimes against the person and property (SC, % of those registered during the year in the district)
- Economic activity coefficient, population 15-64 years (EA, %)
- Net enrollment ratio, basic school V-VIII (NE, %)

This study explores the relationship between the regional level of economic development, which is represented by the real regional Gross domestic product of the population employed and the FDI of the employed by the population in the regional economies for the period 2008-2016 in Bulgaria. Panel data regression models[9] have been estimated for this purpose using variables for the real regional Gross domestic product and a selection of determinants of the regional development. This way the models control for other variables in order to evaluate the net effects of the FDI influx on the level and growth of the regional labour productivity for the chosen period.

3. A PANEL DATA ANALYSIS OF FOREIGN DIRECT INVESTMENT AND REGIONAL DIVELOPMENT

To take into account the **panel nature of the data**, groups of dummy variables were created and included in the model - for time and for the districts:

- one time-independent dummy, "fixed" for each district;
- one district-independent dummy, "fixed" for each year.

After evaluating a fixed-effect model and a random-effects model, the **Fixed-Effect** model was best selected. Due to the presence of autocorrelation and heteroscedasticity, during the diagnosis and the fact that in the fixed effects model there are regression coefficients that are statistically insignificant, a "fixed effects" model with recalculated robust assessments was chosen for the best. The specification of the "fixed effects" model with recalculated robust standard errors has the following form:

$$\ln Y_{it} = \beta_0 + \beta_1 \ln K_{it} + \beta_2 \ln AS_{it} + \beta_3 \ln SC_{it} + \beta_4 \ln EA_{it} + \beta_5 NE_{it} + \\ + \beta_6 \ln Y_{it-1} + \sum_{r=2}^{28} \delta_r DR_{rt} + \sum_{s=2}^{9} \lambda_s DT_{it} + \varepsilon_{it} \quad (1)$$

In Table 2. the results of the model are presented.

[9] Jeffrey M. Wooldridge, Introductory Econometrics a modern approach, 5th edition, *Michigan State University*, 2009 South-Western, Cengage Learning,2013

Variables	***Regression coefficients***		***Student's test***	***Sig(t)***
	B	***SE(B)***		
Constant β_0	2.169	0.271	8.016	<0.000
β1 K[i,t]	0.010	0.006	1.790	0.075
β2 AS[i,t]	0.001	0.0005	1.954	0.0523
β3 SC[i,t]	0.001	0.001	1.109	0.2689
β4 EA[i,t]	-0.005	0.002	-2.940	0.004
β6 NE[i,t]	0.001	0.002	1.109	0.2689
β7 Log [GDPpe]_1	0.266	0.07	3.824	0.0002
Зависима променлива: Ln(GDPper[i,t]) N.T=224				

Table 2 The results of the multifactor model with fixed effects with recalculated robust standard errors

where the delta coefficients measure the fixed effects for the districts (without one chosen for the reference unit) and the lambda coefficients measure the fixed effects for the years (excluding t = 0 for 2008). In Table 3.1. the model results obtained using specialized econometric software (Gretl) are presented.

Tests on the parameters for the region "dummy" variables and the years "dummy" variables show that the zero hypothesis of negligible delta and lambda parameters can be rejected at 5% risk (p-value = 0.000 <0.05), which means , that their inclusion in the model has a statistically significant effect for increasing explanatory ability.

Student's tests on the parameters β0, β1, β2, β3, β4, β5, β6 and β7 suggest that five regression coefficients of the equation are statistically significant due to the fact that Sig (t) <α = 0,1.These are the coefficients in front of:

- Constant variable,
- Foreign direct investment in non-financial enterprises (Thousand FDI stock at 31.12, per employed in the district),
- Average annual gross salary of employees (AS, bgn),
- Economic activity coefficient, population 15-64 years (EA, %),
- Lag variable for real GDP per employed.

$$\ln Y_{it} = 2.169 + 0.010 \ln K_{it} + 0.001 \ln AS_{it} + 0.001 \ln SC_{it} - 0.005 \ln EA_{it} + 0.001 NE_{it} +$$

$$+0.266 \ln Y_{it-1} + \sum_{r=2}^{28} \delta_r DR_{rt} + \sum_{s=2}^{9} \lambda_s DT_{it} + \varepsilon_{it} \qquad (2)$$

From the obtained results, the following conclusion can be drawn for the period 2008-2016:

- at the unit higher level of annual regional investment (represented by the variable Foreign direct investment in non-financial corporations as of 31.12 on employed by the population), the regional GDP per employed increased on average by 0,010%.
- at the unit higher level of the "Average annual gross salary of employees under labor and employment relationship", the regional GDP per employed increased on average by 0,001%.
- at the unit higher level of the "Economic activity coefficient - 15 - 64 years ", the regional GDP per employed decreased on average by 0,005%.
- The coefficient for the lag dependent variable is statistically significant at a very low risk of error. Its relatively high value shows strong momentum in changing regional GDP.

This conclusion is valid when eliminating changes in average GDP per employed under the influence of factors during the survey period.

4. CONCLUSIONS

The presented empirical results are indicative about the objectively existing interrelations between regional level of economic development and foreign direct investment (FDI) stock in the regional economies for the period 2008-2016 in Bulgaria. The inclusion of the selection of determinants in the model controls the assessment of the net effects of FDI inflows on the level and the growth of regional labor productivity for the period 2009-2016. It is established at the unit higher level of annual regional investment, the regional GDP per employed increased on average by 0,0140%.

REFERENCES

[1] Jeffrey M. Wooldridge, Introductory Econometrics a modern approach, 5th edition, *Michigan State University*, 2009 South-Western, Cengage Learning,2013
[2] Detailed information in Suikova, Y., et al., Statistical Survey of Addictions, Univ. "Holding", S., 2002
[3] Stamova I., STATISTICAL SURVEY OF FACTORS REGIONAL GROWTH IN BULGARIA FOR THE PERIOD 2000-2015, Autoreferate, UNWE, Sofia, 2018
[4] Stamova, I., V. Boshnakov, "Dependence of regional GDP on investments: empirical analysis through classical production function", "Scientific works of UNWE", S. 2018
[5] Bajo-Rubo O., Diaz-Mora C. and Diaz-Lora C. ´ N, Foreign Direct Investment and Regional Growth: An Analysis of the Spanish Case. Regional Studies, Vol. 44.3, pp. 373–382, April 2010
[6] Sala-I-Martin, X. "I Just Ran Two Million Regressions". AEA Papers and Proceedings 87 (1997)
[7] Barro, R.J. and X. Sala-I-Martin. "Convergence across States and Regions". Brookings Papers on Economic Activity (1991)

FOREIGN DIRECT INVESTMENT IN MACEDONIA – IS THERE DICRIMINATION IN PRACTICE?

Biljana Petrevska[10]

DOI: https://doi.org/10.31410/eraz.2018.40

Abstract: *The subject of research of this paper presents the foreign direct investment in the Republic of Macedonia. The purpose of the research of this paper is to show whether there is discrimination between domestic investment in the Republic of Macedonia and foreign investments in the country. The first part is an introduction which explains the topic of the research, while the second part focuses on the legal and institutional framework for foreign direct investment in the Republic of Macedonia. The third part of the paper explains the conditions for attracting foreign direct investment in the Republic of Macedonia. The fourth part of the paper analyzes and gives answers for the discrimination between foreign and domestic investment in the practice of the country. Finally, the fifth part of the paper is the conclusion.*

Key words: *investment, domestic investment, foreign direct investment, portfolio investment, discrimination.*

1. INTRODUCTION

Investments directly affect the increase of competitiveness and employment in any economy, which simultaneously contributes to the creation of income or gross domestic product (GDP) which will satisfy the needs of present generations of citizens, but also it provides a steady development and improves living conditions for future generations.

In this sense, an important instrument of economic policy of any country that is most suitable for employment growth is the increase in total investment in the economy, and in this framework and foreign direct investment. However, in doing so, interference of objectives with instruments politics is the case when the instrument attracting foreign direct investment is a victim of politics. That is, the policy objective becomes an instrument to attract foreign direct investment, no matter how much it will cost. Then, politicians spend huge resources to attract foreign investors (for example, they build special zones for foreign investment with their complete infrastructure equipment), they change the legislation (e.g. in labor law they reduce workers' rights, because this measure foreign investors often look for), they are introducing subsidies (for example, salaries of foreign investment), they reduce minimum wages (because foreign direct investors are looking for that measure), they are providing tax exemptions for foreign investment etc. Therefore, if we make a calculation, it appears that the domestic economy has lost more than it gained. On the other hand, the same goal of increasing employment could be achieved with the expenditure of considerably less resources. However, politicians in this case indicate that they realized "objective" (and not the policy instrument) which they promised to the citizens before the elections in the country.

[10] Iustinianus Primus Faculty of Law, University Ss. Cyril and Methodius, Skopje, Macedonia

The subject of research of this paper represent foreign direct investment in the Republic of Macedonia. The purpose of the research of this paper is to show whether there is discrimination between domestic investment in the Republic of Macedonia and foreign investments in the country. The methodological approach of this paper covers the method of case study, induction and deduction, the concretization method, the method of classification, the method of description, method of compilation and qualitative method.

2. LEGAL AND INSTITUTIONAL FRAMEWORK FOR FOREIGH DIRECT INVESTMENT IN THE REPUBLIC OF MACEDONIA

2.1. LEGAL FRAMEWORK FOR FOREIGH DIRECT INVESTMENT IN THE REPUBLIC OF MACEDONIA

The main legislation today in the Republic of Macedonia that is regulating business and is attracting foreign direct investment are: *the Law for Foreign Exchange and the Company Law*. In addition, investment conditions for foreign legal and natural persons are defined and dealt with a number of other laws and regulations, such as: *the Law on Securities, the Law on Protection of Competition, the Law against Unfair Competition, the Law on Technological Industrial Development Zones, the Law on State Aid Control, the Law on Income Tax, the Banking Law, the Law of Obligations Act, the Investment buildings Law, the Law on Construction Land, the Law on Ownership and Other Real Rights, etc.* However, *Laws that are passed today in the Republic of Macedonia are recognizable and should remain stable and they should not change often*. In fact, the legal framework which determines the conditions for foreign direct investment - FDI, general rules and norms are regulated by the Law for Foreign Exchange and the Company Law, and the specific conditions in certain activities are regulated by the laws that regulate these activities. [1]

Apart from laws and bylaws, the Republic of Macedonia on a bilateral basis concludes *agreements on promotion and mutual protection of investments, stating the basic principles of "fair and equitable treatment" and "full protection and security" of foreign direct investments by the host country.* [2] Also, the legal framework for foreign direct investments in the Republic of Macedonia was determined by provisions of the Stabilization and Association Agreement with the European Union. [3]

2.2. INSTITUTIONAL FRAMEWORK FOR FOREIGH DIRECT INVESTMENT IN THE REPUBLIC OF MACEDONIA

The institutional framework with legislative powers in the field of foreign direct investment - FDI in the Republic of Macedonia covers a lot of entities. Since the framework that is associated with foreign direct investment - FDI is regulated through several laws and regulations, the responsibility for their implementation and control of the implementation is delegated to individual institutions that have authority in a particular area, so here are the following: Ministry of Economy (as creator of the policy to attract foreign direct investment - FDI), the Minister who in charge of attracting foreign investment, the Ministry of Finance, Ministry of Transport and Communications, Ministry of Agricultural, Forestry and Water Management and others, then the Central Bank of the Republic of Macedonia, the Commission for Securities, Geodetic Administration, the Cadaster, etc.

On the other hand, the attraction of foreign direct investment - FDI presumed involvement of multiple jurisdictions or institutions for policy for foreign direct investment - FDI, or for

providing various services and support to foreign investors. Thus is formed a whole group of actors and institutions dealing with attracting foreign direct investment - FDI in the Republic of Macedonia, which includes the Agency for Foreign Investment (Invest-Macedonia), Directorate for Technological Industrial Development Zones, Agency for development and investments, then local authorities, the Council of foreign investors in the Republic of Macedonia, the National Council for entrepreneurship and competitiveness, and numerous NGOs.

However, the practice of various countries who have good success in attracting foreign direct investment - FDI is known that the institutional framework for foreign direct investment - FDI, although on the one hand have to involve a greater number of relevant institutions at the same time it should be concentrated on the least possible number of institutions (institutions for foreign investors are "restore that need to knock"). That opposition usually surmounted by creating a so-called "one-stop-shop-institution" for foreign direct investment - FDI, which should be responsible to guide foreign investors through the maze of national laws, rules and competent institutions. The Republic of Macedonia introduced this legal system that allows investors to register their business after 4 hours of submitting the application (in practice it still takes 1-2 days). [4]

3. THE CONDITIONS FOR ATTRACTING FOREIGN DIRECT INVESTMENTS IN THE REPUBLIC OF MACEDONIA

As in many countries seeking to attract foreign direct investment – FDI, in the Republic of Macedonia the legal framework that is "responsible" for it, is based on four key principles: (a) national treatment to foreign investors (they are treated the same as domestic investors); (b) the maximum effective protection of property rights (both domestic and foreign investors) [5]; (c) building a stable legal and institutional environment; and (d) transparent functioning of the institutions. The last two principles are a process and not a single act, but an integral part of the legal framework that creates conditions for attracting foreign direct investment - FDI. [6]

Foreign direct investment - FDI in the Republic of Macedonia are free, except in some sectors (military equipment, trade in weapons, drugs, historical monuments and cultural heritage). Foreign investors need to register with the Ministry of Economy each investment and its amendments. Foreign investors can invest in existing businesses to establish their own businesses or have joint ventures, under the same conditions as domestic investors. All registered foreign investments are protected against nationalization. The transfer of profits and other offerings is free, after they meet any tax liabilities towards the Republic of Macedonia.

Foreign investors may acquire real estate in the Republic of Macedonia, in accordance with the provisions of a special law or international agreement under the condition of reciprocity. Registration or sale of the property is carried out in the Central Registry. Foreign nationals acquired real estate can sell to domestic citizens if the real estate is registered in the register.

Foreign investors in the Republic of Macedonia, as well as domestic, may write down and trading in securities only through authorized participants (brokers) of the capital market. Also, they can acquire domestic securities that are not traded in the market only initial public offerings, private placements and in cases of non-trade transactions (compensation, inheritance, pledge, repo transactions, and gifts). Foreign investors have equal treatment in concluding insurance contracts with domestic companies for life insurance.

Attracting foreign direct investment - FDI depends on several aspects, which are formulated as a convenience for foreign investors. In this sense, in the Republic of Macedonia there are rules for avoiding double taxation and exemption of foreign investments from taxation if they are in the free economic zones. But for foreign investors more important is the existence of a predictable and transparent legal environment without administrative obstacles. [7] Thus, in an analysis of the attractiveness of the Republic of Macedonia for foreign direct investment - FDI made by the Advisory Council for Foreign Investments (FIAS) concludes that reforms in the Republic of Macedonia are mostly satisfying "on paper", but there are still large gap between theory and practice. In this sense, often mentioned barriers for foreign investors in the Republic of Macedonia are: assumed high political risk, the lack of infrastructure, underdeveloped financial market, the high degree of corruption, bureaucracy, underdeveloped institutional infrastructure, poor governance and relatively poor quality of workforce (human capital). [8]

4. IS THERE DISCRIMINATION IN PRACTICE BETWEEN THE FOREIGH AND DOMESTIC INVESTMENT IN THE REPUBLIC OF MACEDONIA?

At the beginning of this section the question that arises is: Should the regime applicable to domestic investors be the same for foreign investors or foreign investors should have beneficiary treatment? The answer is very clear: the regime should be the same for domestic and foreign investors, because more favorable treatment of foreign investors versus domestic investors ruins the legal regime in a country, and forced domestic investor to make redistribution or outflow of capital abroad. Also the phenomenon of "traveling with a return ticket (round-tripping), which means that the domestic capital is out of the country and returns "disguised" as a foreign capital in order to

Biljana Petrevska *was born on 23.12.1983 in Skopje. In 2002 she enrolled the Faculty of Economics - University of St. Cyril and Methodius in Skopje, where she completed the studies in June 2006 with an average 9.7 and she has been named as one of the best students in her generation. In October 2006, she enrolled the postgraduate studies in Monetary Economics at the same faculty, where after passing the nine exams with an average 9.9, she successfully defended the thesis topic: "Managing the short-term assets and liabilities of the banks", and in June 2009 she gained a scientific degree: Master of Sciences in the field of Monetary Economics. In February 2013, Biljana Petrevska successfully defended the thesis topic: "Risks in the banking sector in the Republic of Macedonia – between the legislation and practice", and she gained a scientific degree: PhD. Today Biljana Petrevska as an Assistant Professor is actively involved in the educational process at the Faculty of Law "Iustinianus Primus" - University of St. Cyril and Methodius in Skopje, and she participates in the teaching, and also conducting colloquiums and exams in the following subjects: Applied Economics, Economic policy (at the undergraduate studies), Fundamentals of Marketing, Business Environment, Banks, investment funds and stock exchanges, Insurance, Right of settlement systems and execution of commercial transactions (clearing and settlement), Marketing and Media, and Marketing and Public Relations - (at the postgraduate and master studies). Moreover, in parallel with the execution of work commitments, Biljana Petrevska continuously expended her knowledge by attending: seminars, conferences, courses and schools in the country and abroad. Biljana Petrevska had actively participated in the preparation of 51 research papers that are published in national and international books and reviews. Biljana Petrevska has excellent knowledge of English and Serbian language, and has a basic knowledge of French language and also she has knowledge of computer techniques.*

have access to benefits in the country, is possible. However the most serious possible consequence is *discouraging domestic investment*.

Although domestic and foreign companies in the Republic of Macedonia are formally and legally equal, we still believe that this argument for declarative legal equality of domestic and foreign investors is often used for hiding the real de facto inequality that exists. The incentives for foreign investors are the main tool for attracting investors in the Republic of Macedonia, and they are given for a particular type of investment, typically in: *production, greenfield, export-oriented sectors and based on sophisticated technology*.

The major policies and measures to attract foreign direct investments in the Republic of Macedonia are the following: [9]

- Flat tax rate of 10%;
- Tax breaks - there is no income tax on reinvested net profit before tax;
- *Investments again in the technological industrial development zones (TIDZ) offer state aid schemes in the form of regional aid, including*:
- Exemption from personal and corporate income tax in the first 10 years;
- Exemption from VAT and customs duties for goods, raw materials, equipment and machinery to 500 thousand euros as a subsidy to encourage spending, depending on the value of investment and number of employees;
- Lease of land up to 99 years;
- Free connection to natural gas, water, electricity; as well as Exemption from paying municipal taxes to the local municipality and fees for building permits and green customs channels for good.

All users of the *Technological Industrial Development Zones (TIDZ)* receive the entire package of benefits in opening investment. Some of these companies get additional funds as a cash grant, but the grant amounts remain secret in the Republic of Macedonia. It is only known that Kemet has received 2.05 million euro grant and other benefit package. Given that the company must employ 500 people, it turns out that for one job in the country, the Republic of Macedonia gave 4.100 euros.

Thus giving benefits only to foreign companies, the Government of the Republic of Macedonia discriminates the domestic investors, namely insufficient attention is given to domestic investors (and they cannot get help in solving common, minor problems). Foreign investors are paid with the money on the basis of taxes and duties paid by domestic companies, while foreign companies are then exempt from these charges. Therefore we believe that in the Republic of Macedonia there is discrimination against domestic investors.

In the Republic of Macedonia there is *lack of transparency, data and information on the costs for subsidizing foreign direct investment, and non-compliance with the European legislation on transparency in state aid.* Namely, the Government of the Republic of Macedonia does not publish the contracts concluded with the companies investing in technological industrial development zones. For example, in Serbia with the publication of any investment, it is published how much the state has given to the investor state aid money and also the tax exemptions and other privileges and amenities. *In the Republic of Macedonia, however, the agreements between the Government and investors are treated as strict confidential*. There is also *lack of timely reporting to investors, lack of criteria for selecting and contracting with, foreign direct investment, incomplete planning of funds in the budget of the Republic of Macedonia, but also a lack of monitoring and evaluation of the outcomes achieved*.

The gross added value of companies in TIDZ has the delayed effect time, and until now positive effects have only three of the seven companies. Tax exemptions and grants, in absolute terms are amounted to EUR 56.58 million. State aid granted to beneficiaries in the Technological Industrial Development Zone (TIDZ) is a significant financial impact on the decision to invest in the Republic of Macedonia, and the sustainability of investments in the long term after the period of tax exemption is controversial. Departure after a period of receiving subsidies after the tenth year would result in a drain on capital, firing employees, and the need for application to other investors in TIDZ. *User companies in TIDZ to finance assets are significant mostly financed through commitments with related parties* (mothers companies) and to a lesser extent through the capital increase, with companies in TIDZ pay expenses for interest, reflected in reduced profits, reduced distribution of profits and potentially less income tax on distributed profits. The total average cost determined by subsidies and tax exemptions expressed through employment generated in the period is amounted to EUR 21.454. *Average net wages paid to employees of companies are in the average level of the national average, but that is not the case for most companies, so continuous promotion of cheap labor,* while at the same time a policy for attracting developed technologies are not reflected in labor costs, which *denies the effect of the transfer of knowledge and knowledge spillovers in other companies of the sector.* The potential benefits of positive externalities as spillover of knowledge is expected but faced challenges given that the sectors that generate new knowledge and transferring or spillover of knowledge: research and development, marketing, sales, are reserved at maternal companies or regional centers, and thus it is *limiting factor for spillover of knowledge as an argument to attract foreign direct investments in the country*. [10]

The functioning of the Technological Industrial Development Zones in the country is a point of separation with the economic development that is typical of the European Union member states. In essence, this is a separation of domestic from foreign investors. In the Macedonian TIDZ, foreign investors are encouraged and stimulated through plenty more options available in a way that is not available to domestic investors. In this context of superiority and discretionary privileges exclusively set by the Government of the Republic of Macedonia, in addition to domestic legal entities, especially subordinates are individuals who are employed in companies TIDZ. [11]

Public money that have been spent on attracting foreign investment will have a much greater impact on economic growth of the country's economy if it were spent on direct domestic investment. [12]

The unequal treatment of domestic and foreign investors or quiet favoring foreign investors over domestic has been also criticized by the European Commission. In addition, the constant interference of the Government of the Republic of Macedonia in the economy through legislation or subsidies is a problem that prevents proper and rapid economic development. The conclusions that are repeated for years, and now receive a new and improved dimension, and it is - corruption is widespread, and the fight against it is extremely selective. Therefore, the European Commission points out that in the Republic of Macedonia there are laws, but there is no application of these laws in practice [13]

5. CONCLUSION

From the overall research in this paper, we can conclude that although the domestic and foreign companies in the Republic of Macedonia are formally and legally equal, we still believe that

this argument for declarative legal equality of domestic and foreign investors are often used for hiding the true de facto inequality that actually exists.

The results showed that despite of all the benefits and advantages for foreign investors on the Macedonian market, the inefficiency of the legal system, including: frequent changes of laws, slow legal procedures, lack of protection of property rights and corruption, resulting in unattractive investment climate, and this is the main problem in further state functioning of the existing and attracting new foreign direct investment. In order to have more investment it is necessary to increase the legal certainty and the rule of law.

Formal legal equalization of domestic and foreign investors is not enough to eliminate the feeling of unequal treatment. It requires effective demonstration of real equality of domestic and foreign investors in terms of access to FDI benefits, or domestic companies to obtain equally, and possibly more benefits from foreign investors under equal conditions. A key prerequisite for this is greater transparency in the management of FDI benefits.

REFERENCES:

[1] Todorova Sofija, Uzunov Vanco, Petrevska Biljana, (2015), *"Applied Economics"*, Cultura, Skopje, pp.292-293.

[2] Surya P. Subedi, (2011), "International Investment Law – Reconciling policy and practice", Oxford, pp.55 -74.

[3] Dimopoulos A. (2011), "EU Foreign Investment Law", Oxford, pp.58-65.

[4] Todorova Sofija, Uzunov Vanco, Petrevska Biljana, (2015), *"Applied Economics"*, Cultura, Skopje, p.294.

[5] Rajnish August, (2008), "Standards for investment protection", Book that is translated by the Government of the Republic of Macedonia, 2008, p.144.

[6] D'Amato A (2010), "Legal uncertainty" Faculty Working Papers, Northwestern University School of Law Scholarly Commons, стр.1-10.

[7] Braithwaite J (2002), "Rules and principles: a theory of legal certainty", Aust J Legal Philos 27, pp. 47–82.

[8] Todorova Sofija, Uzunov Vanco, Petrevska Biljana, (2015), *"Applied Economics"*, Cultura, Skopje, pp.299-300.

[9] Agency for Foreign Investments and Export Promotion in the Republic of Macedonia, http://www.investinmacedonia.com/.

[10] CEA (2016), "Benefits and costs of foreign direct investment in the technological industrial development zones, Case: Macedonia for the period 2007-2014," Research, CEA, Skopje, January 2016, pp.2-3.

[11] Macedonian Centre for European Training, (2015), "Quality of jobs offered by companies established in the Technological Industrial Development Zone", January 2015, p.1.

[12] ZMAI, Association of Young researchers, "Impact of government subsidies for foreign direct investments, despite their effect on economic growth", USAID, Skopje, September 2015, pp.1-16.
ZMAI, Association of Young researchers, "Subsidized effect of FDI on the Macedonian economy – Brochure Part 2", Skopje, February 2016, pp.1-16.

[13] Comparative analysis of the reports of the European Commission from 2012 to 2015, Foundation Open Society - Macedonia, Macedonian Centre for European Education, November 2015, pp.32-59.

MITIGATION OF REGIONAL DISPARITIES THROUGH CLUSTERS

Katarína Kráľová[11]
Jana Sochuľáková[12]
Dagmar Petrušová[13]

DOI: https://doi.org/10.31410/eraz.2018.47

Abstract: *Regional differences and insufficient regional development are a long-term problem for the Slovak economy. Regional disparities cause insufficient use of existing resources and reduce the competitiveness of individual regions. In this paper, after a short introduction of terminology, in the first part we justify the importance of research into regional disparities. In the next part we will focus on the development of regional differences in the Slovak Republic in recent years. At the end of our contribution, we will try to outline the possibility of addressing regional differences. The basic prerequisite for reducing regional disparities is to support the development of small and medium-sized enterprises, but this requires the establishment of an appropriate business environment by the state. One of the possibilities is also to support the establishment of cluster initiatives, which we can say are relatively effective ways to support the development of entrepreneurial activities in the region and thereby reduce regional disparities.*

Key words: *Regional differences, regional development, region, cluster initiatives*

1. INTRODUCTION

There are still substantial differences between European regions and states, which are related to competitiveness, infrastructure or culture. Significant differences in the socio-economic level of the regions are the current problem of most European Union countries, including Slovakia. Balancing these differences is one of the main objectives of the regional policy of the state. The concept of regional disparity is understood differently. There is no precise and universal definition of the concept of regional disparity. Matlovič, R., Klamár, R, Matlovičová and K. [11] understand regional disparities as differences in the degree of socio-economic development of the regions due to its inequality. Gajdoš, P. [1] points out that regional disparities are a product of multiple factors, depending on the quality and developmental potential availability but also on the different positions from which each region has entered the transformation process. The concept of regional disparities perceives as measurable differences in the development of delimited regions (units) characterized by a set of predetermined or later indicators of different types (social, economic, ecological) and it is possible to have data for a longer period of time. The growing disparities between regions are the reason for implementing a regional policy that is closely linked to regional development. Regional policy instruments help lagging regions to reach the average level of developed regions. Regional policy is a framework setting the rules for addressing territorial, social and

[11] Alexander Dubček University in Trenčín, Faculty of Social and Economic Relations, Študentská 3, 91150 Trenčín, Slovakia
[12] Alexander Dubček University in Trenčín, Faculty of Social and Economic Relations, Študentská 3, 91150 Trenčín, Slovakia
[13] Alexander Dubček University in Trenčín, Faculty of Social and Economic Relations, Študentská 3, 91150 Trenčín, Slovakia

economic equilibria. According to Habánik, Koišová [5], regional development is a gradual direction towards a higher living standard and the quality of life in a given area. Development is inevitably linked to the implementation of partial policies that create a coherent framework of economic policy through interaction. Development has its own quantitative and qualitative character and the co-operation of sectoral policies is a key tool for its security. Within the regional economy operate various institutions and partnerships whose mission and activities create conditions conductive to the development of the region, formation of its structure and capacity utilization. One of the options for improving the economic performance of regions is to promote the development in certain sectors of the prevailing in the region. This creates a unique environment to unite enterprises of a similar nature (Habánik et al.) [6].

Each geographical region of Slovakia shows different results of various economic, employment, the structure of the industry, the amount of the wages, the potential for tourism and other indicators. The attractiveness of regions creates a good potential for the formation of cluster. (Strunz, Jašková) [14] At present, clusters are considered to be a significant factor that increases the attractiveness and prosperity of the regions. In recent years cluster popularity has grown and new cluster initiatives are emerging, which are becoming part of national and regional economic programs.

Ing. ***Katarina Kráľová,*** *Ph.D. works at the Department of Economy and Economics of Faculty of Social and Economic Relations, A. Dubcek University in Trencin. During her pedagogical activity she has been involved in work on scientific research projects of faculty and departmental character as an effective project leader, deputy head of the project, co-worker. In her teaching and research work she focuses on the problems of the economy of small and medium-sized enterprises, corporate finance and in the area of financial and economic analysis of the company.*

Analysis of regional disparities in terms of methodology requires consideration of two primary problems. The first is the use of appropriate territorial breakdown and the second choice of appropriate indicators. Unsuitable observation units or indicators may cause distortion and regional disparities will be considered intra-regional disparities, social disparities, and so on. Unfavorable territorial breakdowns and indicators may also lead to an overestimation of the level of regional disparities. Addressing the problem of selecting observational territorial units is based on the limited availability of relevant data. Our analysis will therefore be based on NUTS 3 statistical regions. In order to eliminate of the impact of the capital city on the analysis of regional disparities, we worked with two spatial modeling in SR (model A, B). Model A represents the breakdown of SR into 8 NUTS 3 units (Bratislava region, Trnava region, Nitra region, Trenčín region, Žilinský region, Banskobystrický region, Prešov region, Košický region). Model B works with 7 units (7 regions without the Bratislava region). The choice of the indicators of our analysis was determined by their availability as well as by the requirement that the indicators reflect the changes in the socio-economic development of the regions. Even Grman [3] points out that, when analyzing regional differences, it is necessary to use indicators that are measurable. Therefore, for our analysis, we chose the following indicators:

- GDP per capita,
- Average monthly salary of an employee in EUR,
- Gross fixed capital formation in current year. prices (EUR million),
- Net cash expenditure per person and month (EUR),

- Unemployment rate in %.

The evaluated period was the interval 2008 - 2016 of years. The data needed for the calculation were drawn from the Statistical Office of the Slovak Republic. The analysis was to provide a picture of the development of regional disparities in Slovakia during the outbreak of the economic crisis in 2008 (GDP growth in 2008 was reduced to 5.8%, in 2009 there was an economic recession of -4.8% and in 2010 there was a return to GDP growth of 4%) until 2016. We used the Gini coefficient to assess the overall development of regional disparities by individual indicators in the monitored period 2008-2016. We calculated the Gini coefficient using the following formula:

$$GINI = \frac{2}{N-1} \sum_{i=1}^{N-1} / Fi-Qi/$$

Ing. ***Jana Sochuľáková****, PhD. works as assistant professor in the Department of Economy and Economics of Faculty of Social and Economic Relations, A. Dubcek University in Trencin. During the educational activities at the university, she has been in work on research projects of faculty or departmental character as an effective cooperator. She focuses on issues of financial and management accounting business on the area of financial and economic analysis of the company and the issue of foreign direct investment in her teaching and research work.*

GDP per capita is a share of two indicators - the regional gross domestic product (applying the benchmarking criterion by place of work) and the average resident population in that region. This indicator is characterized by economic prosperity, the region's lag with regard to its productive potential.

Table 1: GDP per capita - GINI coefficient development

Year/model	2008	2009	2010	2011	2012	2013	2014	2015	2016
A	0,2481	0,2652	0,2643	0,2706	0,2630	0,2655	0,2613	0,2565	0,2538
B	0,1135	0,1129	0,1135	0,1184	0,1168	0,1112	0,1135	0,1011	0,1032

Source: Custom calculations based on DATAcube data

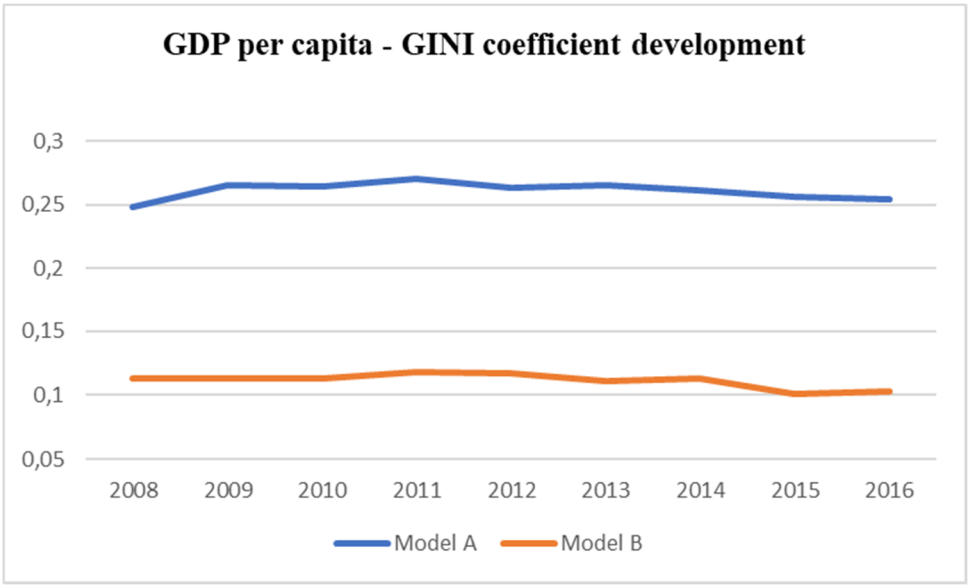


Figure 1: GDP per capita - GINI coefficient development

Based on this indicator, we can conclude that there has been no significant increase in regional disparities over the period under review. The second indicator used was the average monthly wage. The average monthly wage is one of the basic economic parameters in which we can document the differentiated development of the regions. This is the average gross nominal monthly wage in enterprises with 20 or more employees. It is converted to natural persons and does not include business income.

Table 2: Average monthly salary of an employee in EUR - GINI coefficient development

Year/model	2008	2009	2010	2011	2012	2013	2014	2015	2016
A	0,09076	0,08926	0,08693	0,08351	0,08400	0,08081	0,08371	0,07970	0,07978
B	0,04372	0,04013	0,04003	0,04005	0,03887	0,03628	0,03534	0,03532	0,03487

Source: Custom calculations based on DATAcube data

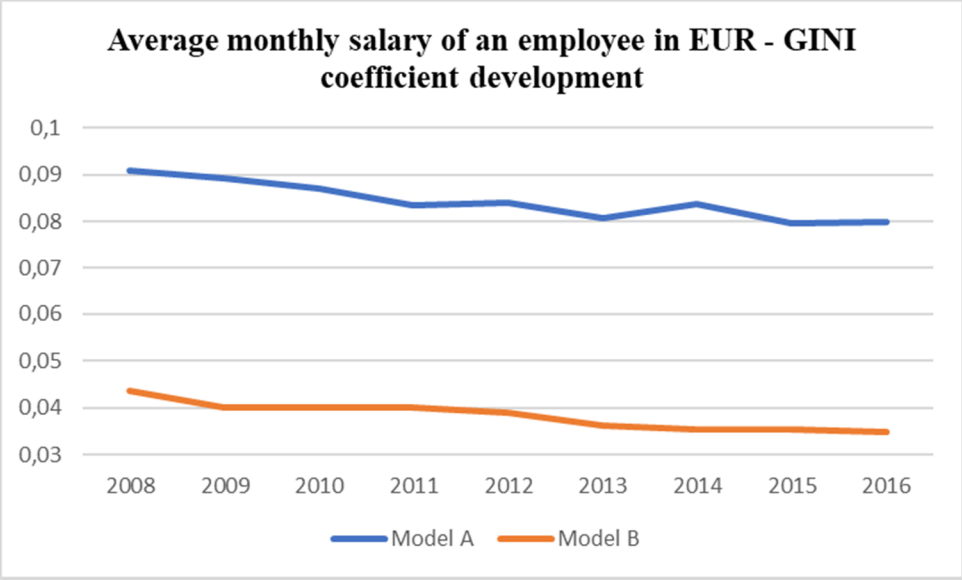


Figure 2: Average monthly salary of an employee in EUR - GINI coefficient development

According to this indicator, the regional disparities declined from 2010 when the SR there was a return to GDP growth. Gross fixed capital formation indicator is the acquisition of fixed assets less the loss of fixed assets by producers Regional gross capital formation is the sum of gross capital formation per sector. It is therefore an economic indicator of regional disparities.

Table 3: Gross fixed capital formation in current year. prices (EUR million) - GINI coefficient development

Year/model	2008	2009	2010	2011	2012	2013	2014	2015	2016
A	0,1868	0,2131	0,2754	0,3053	0,3537	0,4138	0,3239	0,3065	0,3266
B	0,0826	0,0661	0,0509	0,0553	0,0647	0,0619	0,0733	0,0962	0,1092

Source: Custom calculations based on DATAcube data

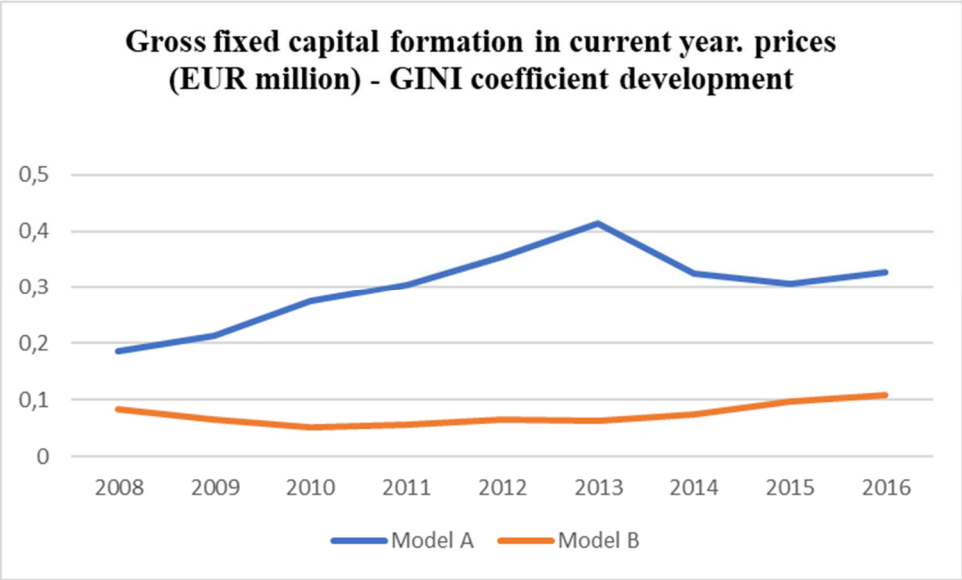


Figure 3: Gross fixed capital formation in current year. prices (EUR million) - GINI coefficient development

Net cash expenditure per person and month (in EUR) is similar to previous indicators for economic indicators of regional disparities. This includes consumption and other net expenses. This indicator provides a certain picture of the living standard in the region in question.

Table 4: Net cash expenditure per person and month (EUR) - GINI coefficient development

Year/model	2008	2009	2010	2011	2012	2013	2014	2015	2016
A	0,0681	0,0568	0,0705	0,0603	0,0640	0,0689	0,0738	0,0777	0,0765
B	0,0401	0,0296	0,0451	0,0363	0,0378	0,0356	0,0442	0,0647	0,0655

Source: Custom calculations based on DATAcube data

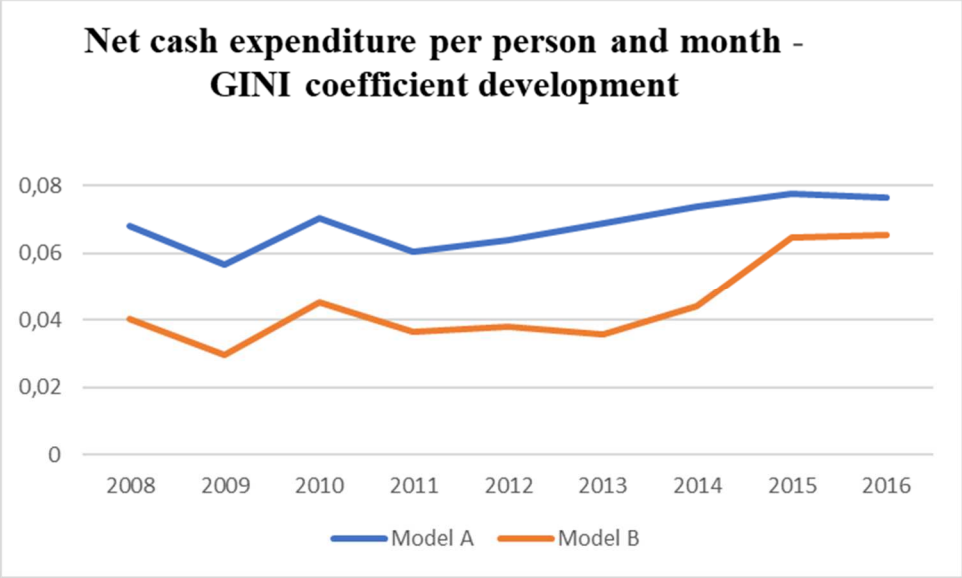


Figure 4: Net cash expenditure per person and month (EUR) - GINI coefficient development

Based on the development of this indicator, we can note that regional disparities after 2013 have gradually increased. The last of the indicators used is the unemployment rate. It is a good indicator of socio-economic development in the regions. It is calculated as the share of the available registered number of unemployed to the number of economically active population.

Table 5: Unemployment rate - GINI coefficient development

Year/model	2008	2009	2010	2011	2012	2013	2014	2015	2016
A	0,3365	0,2504	0,2473	0,2391	0,2371	0,2120	0,2141	0,2287	0,2699
B	0,2817	0,1918	0,1937	0,1893	0,1862	0,1681	0,1793	0,1985	0,2527

Source: Custom calculations based on DATAcube data

This indicator shows a decline in regional disparities in the monitored period of 2008 to 2013, thereafter the development has changed, and gradual regional disparities are increasing.

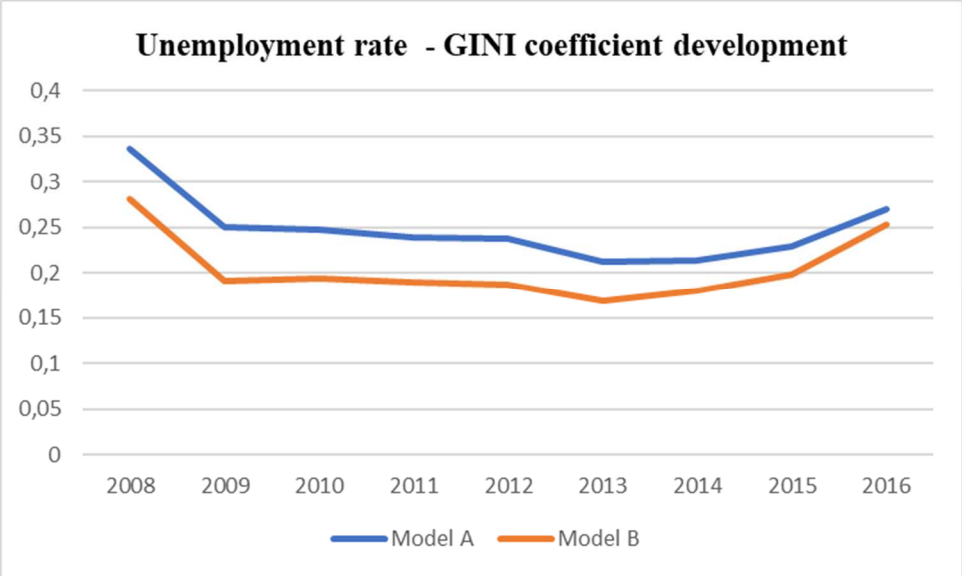


Figure 5: Unemployment rate - GINI coefficient development

2. CONCLUSION

RNDr. Ing. Dagmar Petrušová, PhD. *works at the Department of Economy and Economics of Faculty of Social and Economic Relations, A. Dubcek University in Trencin. During her pedagogical activity she has been involved in work on scientific research projects of faculty and departmental character as an effective project leader, deputy head of the project, co-worker. In her teaching and research work focuses on the problems of the mathematics, statistics and econometrics.*

At present, clusters are considered to be a significant factor that increases the attractiveness and prosperity of the regions. In recent years, cluster popularity has grown and new cluster initiatives are emerging, which are becoming part of national and regional economic programs. Vojtovič, Krajnaková, Kordos, Karbach, [9] [15] claim that current economic activity is characterized by the forces of globalization, technological progress, deregulation and democratization, which together create an extremely complex business environment for companies and their clusters. We could define the cluster as a geographic group of interconnected companies. This definition includes two important criteria according to which the cluster can be defined. Firstly, cluster has its geographical boundaries - that is, companies cooperate within a given region (regional clusters) or can collaborate across borders (international clusters). Second, another important element is cooperation between companies operating in the same or related sector. These companies do not cooperate only with each other, but also with research institutes, universities, and often local governments. According to Gavlak [2], clusters are a potential tool for increasing regional value because they use a combination of knowledge, skills

and abilities of several subjects. The important benefits of clusters are that they create an environment suitable for innovation. Hence, clusters with strong clusters are considered to be innovative leaders, globalization deepening these trends. Ketels and Memedovic [8] argue that cluster promotes the economic and social stability of regions.

In the region, on the basis of the common objectives of the companies in the clusters, is secure

- Sustainable and strategic development of the sector,
- preserving social values,
- the living standards in the region are increasing.

All this is happening through:

- building technical and social infrastructure,
- raising the education of the inhabitants of the region,
- human resources development,
- learning to other cultures,
- the protection of the natural and cultural heritage and traditions of the region,
- improving the environment in the region,

which contributes to the overall socio-cultural and economic development of the region and thus to the reduction of regional disparities. Thus, the rational building of SME clusters contributes not only to their development and growth, but also to overall regional development. Therefore, clusters are becoming one of the tools to solve regional disparities.

GRANT AFFILIATION

This paper is part of the solution of grant projects VEGA no. 1/0953/16 Evaluation of the impact of clusters on regional development of the Slovak Republic.

REFERENCES

[1] Gajdoš, P. (2008) *Current state and development of regional disparities in Slovakia (with emphasis on underdeveloped regions).* In: Gajdoš, P., ed., Regional disparities in Central Europe. Sociologický ústav SAV, Bratislava, 98-115

[2] Gavláková, P. (2012) *Klaster cestovného ruchu v globálnom prostredí*. In: Merkúr 2012, Zborník príspevkov z vedeckej konferencie pre doktoradov a mladých vedeckých pracovníkov, Bratislava Ekonóm, s. 1-12

[3] Grmanová. E. (2012) Interregional disparities in the Slovak republic. In *The factors of social and economic development of the Slovak republic regions: Scientific monograph proceedings.* Trenčín: A. Dubček University of Trenčín Faculty of social and economic relations. pp.79 – 85.

[4] Habánik. J. Hošták. P. Kútik. J. *(2013). Economic and social disparity development within regional development of the Slovak republic*. The economics and management. *Vol. 18. No3 pp. 457 – 464.*

[5] Habánik, J., Koišová, E. 2012 Development of socio-economic disparities in regional development of the Slovak Republic. In. Nová ekonomika. Bratislava, NHF EÚ,

[6] Habánik, J., Kordoš, M., Hošták, P. (2016) *Competitiveness of Slovak economy and regional development policies* Journal of international studies, vol 9, iss. 144-155

[7] Havierniková, K., Okreglicka M., Lemanska-Majdzik, A. (2016) *Cluster cooperations and risk level in small and medium enterprises.* In: Polish Journal of Management Studies, ISSN 2081-7452, Vol. 14, p. 82-92

[8] Ketels, Ch. Memedovic, O. (2008) *From cluster to cluster-based economic development* Int. J. Technological Learning Innovation and Development. 1(3) 375 – 392

[9] Kordoš M., Karbach R., 2014, *The issue of innovation in international economics*, [In:] SGEM Conference on Political Sciences Law, Finance Economics & Tourism, Conference proceedings volume III Economics & Tourism, Sofia, STEF92 Technology.

[10] Masárová. J. and Koišová. E. (2012). *Social and economic indicators in regional develepoment of the Slovak Republic.* In The factors of social and economic development of the Slovak republic regions. Trenčín: A. Dubček University of Trenčín Faculty of social and economic relations. pp. 60 – 70.

[11] Matlovič, R., Klamár, R., Matlovičová, K. (2008) *Vývoj regionáônych disparít začiatkom 21. Storočia na Slovensku vo svelte vybraných indikátorov*. Regionální studia/Czech Regional Studies, recenzovaný vedecký časopis, 02/2008, ISSN 1803-1471, s. 2-12

[12] Matlovič R., Matlovičová K. (2011): *Regionálne disparity a ich riešenie na Slovensku v rozličných kontextoch.* In Acta Facultatis Studiorum Humanitatis et Naturae Universitatis Prešoviensis, Prírodné vedy, ISSN 1336-6149, roč. LIII, č. 18, PU Prešov, s. 8-87

[13] Skokan, K. *Konkurenceschopnost, inovace a klastry v regionálním rozvoji*. Ostrava: Repronis, 2004, s. 124

[14] Strunz, H., Jašková, D. (2018) *The potencial of Slovakia´s regions for the formation of a tourism cluster*. In: Proceedings of the 2nd international conference contemporary issues in theory and practice of management: CITPM 2018. Czenstochowa: Wydawnictwo Wydzialu Zarzadzania Politechniki Czestochowskiej, s. 606-613

[15] Vojtovič, S., Kordoš, M. (2016) *EU regional and cluster policies within their synergic effects.* In: Proceedings of the 5th economic and finance conference. Praha International Institute of §_Social and Economic Science, s 166-174

INFLUENCE OF FOREIGN TRADE WITH CEFTA AND EU ON GDP OF B&H

Dijana Grahovac[14]
Senad Softić[15]

DOI: https://doi.org/10.31410/eraz.2018.55

Abstract: *The process of globalization shapes the international economic environment and affects all aspects of modern life. In today's world, no country functions in an economic isolation, but all are interconnected through the international movement of goods and services, production factors of labour and capital, international enterprises, technology, etc. thus creating great independence of national economies. Contrary to the globalization in terms of a single global market, there is the process of regional economic integration, which unites efforts to strengthen regional competitiveness. During the transition process, Bosnia and Herzegovina has opted for the EU integration. The step that is a part of that process is also CEFTA membership, as the EU authorities want to see the Western Balkans region in the "package". The paper analyses the foreign trade of Bosnia and Herzegovina with the EU and CEFTA through a regression analysis of the impact of the above mentioned exchange on the GDP of Bosnia and Herzegovina.*

INTRODUCTION

Dynamic changes in the international trade environment, especially emphasized at the end of the twentieth century by the strengthening of the process of globalization of the world economy, have brought many challenges in the contemporary theory of international trade. In conditions where international market interactions are increasingly less based on classical comparative advantages, respecting market imperfection and economy of scale become the dominant prerequisites of contemporary theoretical approach to the issues of international trade.

The fact is that there are many countries that have opened their markets, yet they have remained poor, but there are no examples of countries that have raised the standard of living, while at the same time they have remained less open to trade and capital. For this reason, "it is certain that the processes of globalization of the world economy will lead to further liberalization of trade, and that the ultimate goal is free world trade. But each country must find its place in the global trading system and determine the level of liberalization that enables economic growth while simultaneously engaging in the world economy.[16]

1. IMPORTANCE OF INTERNATIONAL TRADE FOR THE GLOBAL ECONOMY

International trade leads to economic development when the country's exports lead its economic growth. Export-led growth was a key instrument of industrial policy that enriched the great part of Asia and brought millions of people in those countries to far better lives than before. Famous

[14] Central Bank of Bosnia and Herzegovina, University of Business Studies Banja Luka, Bosnia and Herzegovina
[15] Central Bank of Bosnia and Herzegovina, Faculty of Economics, Sarajevo, Bosnia and Herzegovina
[16] Bjelić, P., Ekonomika međunarodnih odnosa, Prometej, Beograd, 2003., page 7

economist Douglas A. Irwin[17] describes how imports in Chile in the 1970s resulted in an increase in the efficiency and competitiveness of domestic industries between 3 and 10 percent. It turned out that industries that were not exposed to imports did not increase productivity. Likewise, the benefits of external-oriented economic policy become apparent when comparing India and East Asia. From the 1960s to the 1980s, the East Asian nations adopted free trade, or external orientation, while India was turned inward to protect its industries. East Asia experienced a "miracle" of remarkable economic growth and wealth, while India stagnated during that period [18].

2. THEORETICAL DETERMINATIONS OF THE OPENNESS OF THE ECONOMY AND ECONOMIC DEVELOPMENT

The involvement of a certain national economy in the international flows of goods and capital is called the openness of the observed economy. The concept of openness is often used as a synonym for the level of liberalization of the conditions of foreign trade of a particular country, but the term is much broader than that. In this context, various indicators of openness have been created.

Previous empirical research has led to the conclusion that there is a positive and strong link between exports and economic growth and development.[19]

Researchers believe that such policies are a path to the process of poverty reduction in underdeveloped economies[20], and that the economies that are pushing for restrictive policies in international trade are lagging behind and facing a low standard and slow recovery and growth.[21] However, there is also a number of researchers who expressed a doubt about the

[17] Irwin gives several examples of how trade liberalization has improved the economies of developing countries. Between the early 1960s and 1999s, GDP per capita rose nine times in South Korea and tripled in Chile. Other studies have used mathematical models, so as to calculate that gain from trade liberalization amounts to between $ 254 billion and $ 2 trillion a year, about 43 percent of which fall on low-income countries (Goldstein, 2007, p. 37) Goldstein, N. (2007), Globalization and Free Trade, New York: Infobase Publising.

[18] However, although more liberalized trade has brought benefits, in some cases even spectacular advantages, critics suggest that Irwin limits its examples of success in the "second pillar" of developing countries that engage in free trade with some advantages, such as educated labor or even rudimentary infrastructure and institutions that incite the limited industrialization they have already gone through (Goldstein, p. 37).

[19] Balassa, B., Exports, policy choices, and economic growth in developing countries after the 1973 oil shock, Journal of Development Economics, Vol. 18 (23-35), 1985; Ram, R., Exports and Economic Growth: Some Additional Evidence, Economic Development and Cultural Change, Vol.33, 1985; Anwer, M, Samphat, M.K., Exports and Economic Growth, Western Agricultural Economics Association 1997; Ekanayake, E.M., Exports and Economic Growth in Asian Developing Countries: Cointegration and Error-Correction Models, Journal of economic development Volume 24, Number 2, 1999; Haddad, M., Shepherd, B., Export-led growth: Still a viable strategy after the crisis? World Bank, 2011

[20] Daitoh, I., Environmental Protection and Trade Liberalization in a Small Open Dual Economy, Review of Development Economics, Vol. 12, Issue 4, pp. 728-736, November 2008

[21] Sachs, J.D., Warner, A., Economic reform and the process of global integration Brook. Pap. Econ. Act., 1 (pp. 1-118) 1995; Krueger, A., Why trade liberalisation is good for growth, The Economic Journal, 108(450), 1513-1522, 1998; Dollar, D., & Kraay, A., Trade, growth, and poverty, World Bank, Development Research Group, Macroeconomics and Growth, 2001; Krugman, Obstfeld, 2009; Kee et al, 2008

consistency of the positive link of international trade and economic growth/development[22], mainly as a result of the lack of a conceptual definition of openness and its measurement[23].
In addition, a high ratio of openness to trade, i.e. high integration into the world economy implies a growing feeling of insecurity and vulnerability to external shocks[24]. Researches in the latest crisis suggest that highly open economies (small and transitional) are more exposed to external shocks[25].
2
Kirmani et al.[26] constructed the index of total liberalization of the trading system by classifying customs systems according to the level of average nominal customs duties, with countries with a customs protection rate of up to 10% classified as open trading systems, countries with an average customs rate of 10-25% moderately open systems, and countries with a customs rate of over 25% as restrictive systems.

Cross-country regression analyses usually show a moderately positive relation of GDP per capita and trade openness, but the problem is, among other things, that the share of GDP exchange can be an endogenous variable and, accordingly, many other factors can condition the size of income. In a well-known study by Romer and Frankel[27], which proves that foreign trade has only a moderately significant and positive impact on growth, first isolation of the geographical characteristics of countries (distance) as the most important determinant of the total trade in the country is done (in order to determine the effect of foreign trade on income, the size of the country must be controlled across the distance)[28]. In the applied OLS (*ordinary least squares*, the least squares method) the regression model dependent variable is the logarithm of GDP per capita, while the independent variables are share of trade in GDP, the population logarithm and the country's surface logarithm. The survey covered 150 (or 98) countries and a statistically significant link was found between trade and GDP. Namely, the increase of the share of trade in GDP by 1% raises GDP per capita by 0.9%.

An analysis of the simultaneous statistical cross-section of Rruka[29], where the GDP growth per capita is dependent variable, while the explanatory initial level of GDP per capita, the number of phones per 1000 inhabitants, the lifetime (logarithm) shows that there is no significant link

[22] Rodriguez, F., Rodrik, D., Trade policy and economic growth: a skeptic's guide to the cross-national evidence, In NBER Macroeconomics Annual 2000, Volume 15(pp. 261-338). MIT Press, 2001; Baldwin,R.E., Openness and growth: What's the empirical relationship?. In Challenges to globalization: Analyzing the economics (pp. 499-526), University of Chicago Press, 2004; Rodrik, D., Subramanian, A., Trebbi, F., Institutions rule: the primacy of institutions over integration and geography in economic development, 2002; Rodrik, 2006; Rodriguez, 2006a; 2006b

[23] Baldwin, op.cit.

[24] Montalbano, P. et all, Trade Openness and Vulnerability in Central and Eastern Europe, Research Paper No. 2005/43, The World Institute for Development Economics Research (WIDER), 2005.

[25] Keppel, C., Wörz, J., The Impact of the Global Recession in Europe: The Role of International Trade, In: Backé, P., E. Gnan and P. Hartmann (eds.). Contagion and Spillovers: New Insights from the Crisis. SUERF Studies 2010/5. Vienna & Brussels, Larcier.Keppel, Worz, 2010

[26] Kirmani N. et al., International Trade Policies: The Uruguay Round and Beyond, World Economic and Financial Surveys, IMF, 1994.

[27] Romer D., Frankel, J., Does Trade Cause Growth? American Economic Review, Vol. 89, No 3, 379-399. 1999.

[28] This is justified by the fact that geographic characteristics do not depend on the income of the country or its economic potential, and that geographical characteristics have a positive impact on income only through the impact on trade. In the analysis of the exchange between 63 countries, the results are expected; the distance has a negative significance effect on bilateral trade. The trade between the countries " i " and " j " increases with the size " j " and its share of trade in GDP, and falls along with the size and surface of " j ". If the country does not have the sea, then trade drops by a third, while the common border "raises" the trade 2.2 times

[29] Rruka, D., Decoding the Effects of Trade Volume and Trade Policies on Economic Growth: A Cross-Country Investigation, International Trade, 2004

between the trade openness[30] and growth, when as the dependent variable is assumed GDP growth per capita in 2002.

Otherwise, this study of Rruke is practically based on Yanikkaya research[31], which covers the period 1970-97 and shows that commercial openness has a positive impact on economic growth, but that trade barriers have a positive effect on economic growth, which the author explains by the fact that customs can cause the reallocation of production resources to goods in which the country has comparative advantages and thereby positively influences growth[32].

Dowrick and Duc-Tho[33] does not doubt that the openness of the economy, even with the elements of protectionism, promotes growth. Thus, the research by this author points to the fact that the dynamic benefits of trade are indisputable, but there is a possibility that in many countries "immiserizing growth" occurs (growth with impoverishment), i.e. deterioration of the "exchange relationship" because trade liberalization stimulates growth in the world economy (stimulating international flows of knowledge and innovation and “allowing“ economies to specialize), but at the same time some economies can specialize in areas where low work qualifications are needed, or in slowly growing sectors[34].

Should small countries fully liberalize their trade with foreign countries? This is a question that in theory is largely no longer being posed. The advantages of integrating into the international trading system are such that autarchy is not a real alternative. Even famous Neo-Kejnsians, like Krugman, believe that free trade "*though not perfect, is rather good*," and that "*any attempt to get away from free trade will end up with more harm than good*.[35]"

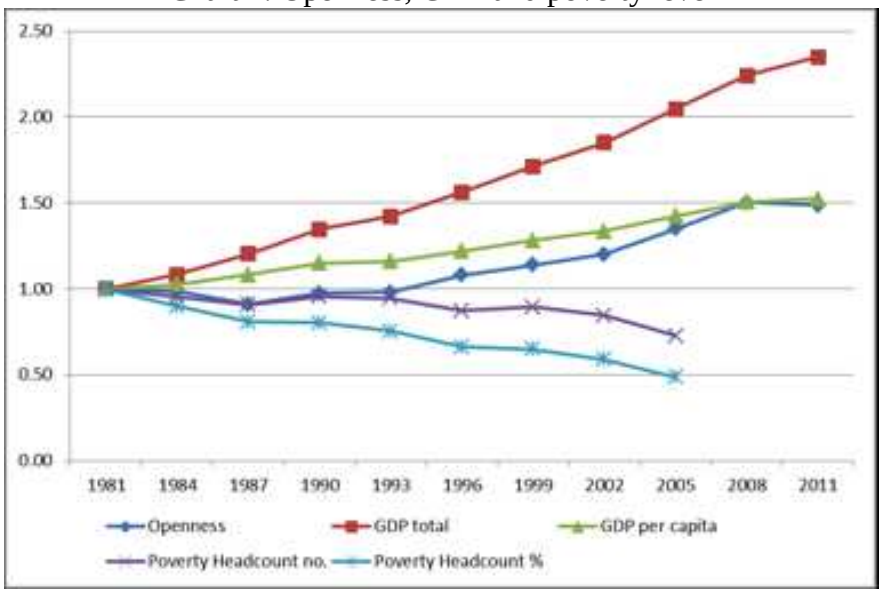
While there are at least occasional discussions about the advantages and disadvantages of free trade and free flows of capital for the big and developed countries, for small and underdeveloped countries, there are almost no such debates. Thus, the argument about the advantages of specialization of small countries is added the fact that there are many goods that most of these countries simply cannot produce, which includes a diverse group of products from high technology products to tropical fruits and vegetables, where non-importing of these products would lead to technological lags and fall in the living standard of citizens. In addition to these two "classic" arguments for the benefit of free trade, there is also a whole set of additional arguments theoretically shaped in the endogenous theories of economic development and growth first developed by Romer,[36] and Lucas,[37] and which claims that there is at least six channels through which free trade positively affects economic development and growth, including a positive impact on avoiding price distortions, encourages faster introduction of new products and services, encourages investment in research and development (R & D), encourages

[30] This indicator incorporates the average customs rates, tariff variability, hidden import barriers, import costs, country size, “black market” premium, access to foreign capital, restriction in capital transactions with foreigners, size of the trade sector (adjusted in accordance with the country's geographic characteristics).
[31] Yanikkaya, H. Trade openness and economic growth: a cross-country empirical investigation, Journal of Development Economics, Elsevier, vol. 72(1), pages 57-89, 2002
[32] "Panel section" includes 108 developing countries and developed countries 1970-97. The dependent variable is the GDP growth per capita, while the explanatory are the initial level of GDP per capita, the number of phones per 1000 inhabitants, the lifetime (logarithm), regime, war, climate, water, trade openness.
[33] Dowrick,, S., Duc-Tho, N., OECD Comparative Economic Growth 1950-1985: Catch-Up and Convergence. American Economic Review, 79 (5): 1010-1030, 1989.
[34] Possible specialization in " natural resource based activities " reduces educational and 'skills' initiatives
[35] Krugman, P., On the Relationship Between Trade Theory and Location Theory, Review of International Economics, p 364, 1993.
[36] Romer, P., Increasing Returns and Long-Run Growth, Journal of Political Economy, 94: 1002-1037, 1986.
[37] Lucas, R. E., On the Mechanics of Economic Development’, Journal of Monetary Economics, 22(1), 3–42, 1988.

the production of intermediary inputs that make 56% of trade in goods today and about 70% of trade in services.[38]

Chart 1 shows the trend of openness of economies, GDP, GDP per capita and poverty levels in the period from 1981 to 2011. There is a significant increase in total GDP, as well as the degree of openness, somewhat lower GDP growth per capita, and in terms of poverty level, there has been a decline.

Chart 1: Openness, GDP and poverty level



Source: Winters, L.A, Trading Up: The Impact of Trade Liberalization on Poverty, World Politics Review, May 2013.

3. ECONOMETRIC ANALYSIS OF THE IMPACT OF BIH'S FOREIGN TRADE EXCHANGE WITH CEFTA AND EU ON GDP

The foreign trade coefficient (the coefficient of openness of the economy) measures the overall dependence of the country on foreign trade. It is obtained as a ratio of foreign trade (exports and imports) and gross domestic product.

The table 1 shows the coefficient of openness of the B&H economy. There is a high degree of openness, which is not surprising because it is a small country, which has to seek its place in the global market through the exchange.

Table 1: Foreign trade coefficient of B&H

Million BAM

Year	GDP	Volume of Foreign trade exchange	Foreign trade coefficient
2008	26165	23004	0,88
2009	25921	17666	0,68
2010	25995	20623	0,79
2011	26799	23556	0,88

[38] Miroudot, S., Lanz, R., Ragoussis, A., Trade in. Intermediate Goods and Services", OECD Trade Policy, 2009, page 17

2012	27492	23123	0,84
2013	28374	23450	0,83
2014	28365	24729	0,87
2015	29666	24618	0,83
2016	30977	26030	0,84
2017	31885	29832	0,94

Source: Central bank of B&H

The table 2 separates the export / import preferences coefficients. The result points to the underdeveloped export sector, with some progress, but still far from the required level for the adequate coverage of imports and remediation of the trade deficit.

Table 2: Coefficients of export / import preferences for B&H

Year	Export, million	Coefficients	Imports, million	Coefficients
2008	6712	0,26	13898	0,53
2009	5531	0,21	16292	0,63
2010	7095	0,27	12355	0,48
2011	8222	0,31	13616	0,51
2012	7858	0,29	15525	0,56
2013	8380	0,30	15253	0,54
2014	8682	0,31	15170	0,53
2015	8987	0,30	15170	0,51
2016	9416	0,30	16199	0,52
2017	11385	0,36	18447	0,58

Calculation of author's

Comparison with countries in the region speaks about a similar level of foreign trade coefficient, with essentially the same reasoning as in B&H (Table 3).

Table 3: Foreign trade coefficient of relevant neighbouring countries

Year/Country	AL	SER	FYRM
2000	0,6	0,2	0,8
2007	0,8	0,8	1,1
2008	0,9	0.8	1,1
2009	0,8	0,7	0,9
2010	0,9	0,8	1,0
2011	0,9	0,8	1,1
2012	0,9	0,9	1,1
2013	0,9	0,9	1,0
2014	0,8	1,0	1,1
2015	0,7	1,1	1,1

Source: Central banks of mentioned countries

Further in the text, there is a list of the results of the regression analysis of the impact of volume and structure of foreign trade of B&H on GDP. Table 4 shows the significant linkage of B&H's foreign trade exchange with GDP, with very high coefficients.

Table 4: The result of a regression analysis of the impact of B&H's foreign trade exchange with the EU and CEFTA on GDP

Model	R	R Square	Adjusted R Square
	,965[a]	,930	,910
a. Predictors: (Constant), EU exchange, CEFTA exchange			
b. Dependent Variable: GDP			

If the volume of trade with CEFTA and the EU is separated (Table 5), there is an incomparably lower importance of the exchange with CEFTA in relation to the EU, where coefficient is even above 1.

Table 5: Coefficients of the impact of trade with the EU and with CEFTA, individually

Model		Standardized Coefficients	Sig.
		Beta	
	(Constant)		,000
	CEFTAexchange	,254	,077
	EUexchange	1,090	,000

a. Dependent Variable: GDP

By further explaining the components of imports and exports (Table 6), a negative coefficient is observed in the exchange with CEFTA both regarding the import and the export, which indicates the absence of the impact of this exchange on GDP, as confirmed by the coefficient of significance, which is above the level of significance.

Table 6: Impact of exchange components on GDP of B&H

Model		Standardized Coefficients	Sig.
		Beta	
	(Constant)		,000
	Import CEFTA	-, 411	,238
	Export CEFTA	-,314	,377

a. Dependent Variable: GDP

When it comes to foreign trade with the EU, the situation is completely different. Connection coefficients are very high when it comes to the total exchange volume, and also in terms of individual imports and exports (Table 7). There is certain lack of logics regarding the EU imports, because it is to be expected that this coefficient is negative. This is explained by the import of technology and the large number of concluded service providing arrangements with EU partners.

Table 7: Influence of components of B&H's exchange with the EU on GDP of B&H

Model		Standardized Coefficients	Sig.
		Beta	
	(Constant)		,000
	Import from EU	,940	,000
	Export to EU	,926	,000

a. Dependent Variable: GDP

Since Croatia left the CEFTA zone in 2013 by integrating itself into the EU, this in some way contaminates the results for CEFTA. Therefore, an analysis with Croatia within CEFTA has been made, transferring foreign trade with this country within CEFTA region (Table 8). This resulted in a somewhat more significant coefficient for CEFTA, but still in a very low significance zone and reduced the coefficient with the EU, which remains in the range of a very high significance.

Table 8: Foreign trade of B&H with CEFTA and EU, corrected exchange with Croatia

Model		Standardized Coefficients	Sig.
		Beta	
	(Constant)		,000
	Exchange with CEFTA	,206	,141
	Exchange with EU	,851	,000

a. Dependent Variable: GDP

Senad Softić *was born on 10 August 1963. He is Doctor of Economics and since 2007 he has been working at the School of Economics and Business, University of Sarajevo, at first, as assistant professor and then as a senior assistant professor, and afterwards, as part time professor, too. In the same time, he has been the Head of Master Studies at Sarajevo School of Economics and Business and Zagreb Faculty of Economics and Business, course of Crises Management. He achieved the academic title Ph.D. in Economics at the School of Economics and Business on 2010, and defended the Master Degree at the same faculty on 2004. Within his professional career, he was time Deputy President of the Supervisory Board of Investment, later on, Development Bank of BH Federation. In his long time consulting experience he participated as the author, co-author or manager in preparation of over 120 elaboration papers, projects and study papers from the different area of micro and macro economy (management, finances, banking, strategies, organization, development). Within his academic career, as author or co-author he participated in publication of 13 Books and monographs. He was awarded for the Best Text Book for university education for his paper „Symptoms and Causes of Companies' Crisis in Bosnia and Herzegovina" at XXIII International Fair of Books and XI Book Biennale, Sarajevo 2011. Also, as the author or coauthor, he published around 30 scientific and expert papers in Collections, Journals and other publications, at seminars and symposiums. Along with his abroad study visits and professional capacities building in the field of economy, within the education al activities he also featured as a lecturer at numerous seminars and symposiums from the area of management, finances, business planning, organization and small business.*

CONCLUSION

Importance of the involvement of all countries in the flow of international trade is important for every national economy. This is especially obvious in small countries, which cannot be self-sufficient. This is the case with Bosnia and Herzegovina, as well as with all countries in the region. Regarding B&H, from all above stated, it follows that the EU market is dominant for B&H, and that the potential for the CEFTA zone has not been fully used. From the standpoint of B&H's commitment to EU integration, the results suggest that there will be no turbulent negative developments in the trade field at the moment of integration, but in the meantime, it is necessary to find ways of better B&H trade position in foreign trade with CEFTA zone.

REFERENCES:

1. Anwer, M, Samphat, M.K., Exports and Economic Growth, Western Agricultural Economics Association 1997.
2. Balassa, B., Exports, policy choices, and economic growth in developing countries after the 1973 oil shock, Journal of Development Economics, Vol. 18 (23-35), 1985.
3. Baldwin, R. E., Openness and growth: What's the empirical relationship?. In Challenges to globalization: Analyzing the economics (pp. 499- 526), University of Chicago Press, 2004.
4. Bjelić, P., Ekonomika međunarodnih odnosa, Prometej, Beograd, 2003.
5. Daitoh, I., Environmental Protection and Trade Liberalization in a Small Open Dual Economy, Review of Development Economics, Vol. 12, Issue 4, pp. 728-736, November 2008.
6. Dollar, D., & Kraay, A., Trade, growth, and poverty, World Bank, Development Research Group, Macroeconomics and Growth, 2001.
7. Dowrick,, S., Duc-Tho, N., OECD Comparative Economic Growth 1950-1985: Catch-Up and Convergence. American Economic Review, 79 (5): 1010-1030, 1989.
8. Ekanayake, E.M., Exports and Economic Growth in Asian Developing Countries: Cointegration and Error-Correction Models, Journal of economic development Volume 24, Number 2, 1999.
9. Goldstein, N., Globalization and Free Trade, New York: Infobase Publising, 2007.
10. Haddad, M., Shepherd, B., Export-led growth: Still a viable strategy after the crisis? World Bank, 2011.
11. Keppel, C., Wörz, J., The Impact of the Global Recession in Europe: The Role of International Trade, In: Backé, P., E. Gnan and P. Hartmann (eds.). Contagion and Spillovers: New Insights from the Crisis. SUERF Studies 2010/5. Vienna & Brussels, Larcier.Keppel, Worz, 2010.
12. Kirmani N. et al., International Trade Policies: The Uruguay Round and Beyond, World Economic and Financial Surveys, IMF, 1994.
13. Krueger, A., Why trade liberalisation is good for growth, The Economic Journal, 108(450), 1513-1522, 1998.
14. Krugman, P., On the Relationship Between Trade Theory and Location Theory, Review of International Economics, 1993.
15. Lucas, R. E., On the Mechanics of Economic Development', Journal of Monetary Economics, 22(1), 3–42, 1988.
16. Miroudot, S., Lanz, R., Ragoussis, A., Trade in. Intermediate Goods and Services", OECD Trade Policy, 2009.

17. Montalbano, P. et all, Trade Openness and Vulnerability in Central and Eastern Europe, Research Paper No. 2005/43, The World Institute for Development Economics Research (WIDER), 2005.
18. Ram, R., Exports and Economic Growth: Some Additional Evidence, Economic Development and Cultural Change, Vol.33, 1985.
19. Rodriguez, F., Rodrik, D., Trade policy and economic growth: a skeptic's guide to the cross-national evidence, In NBER Macroeconomics Annual 2000, Volume 15(pp. 261-338). MIT Press, 2001.
20. Rodrik, D., Subramanian, A., Trebbi, F., Institutions rule: the primacy of institutions over integration and geography in economic development, 2002.
21. Romer D., Frankel, J., Does Trade Cause Growth? American Economic Review, Vol. 89, No 3, 379-399. 1999.
22. Romer, P., Increasing Returns and Long-Run Growth, Journal of Political Economy, 94: 1002-1037, 1986.
23. Rruka, D., Decoding the Effects of Trade Volume and Trade Policies on Economic Growth: A Cross-Country Investigation, International Trade, 2004.
24. Sachs, J.D., Warner, A., Economic reform and the process of global integration Brook. Pap. Econ. Act., 1 (pp. 1-118) 1995.
25. Winters, L.A, Trading Up: The Impact of Trade Liberalization on Poverty, World Politics Review, May 2013.
26. Yanikkaya, H. Trade openness and economic growth: a cross-country empirical investigation, Journal of Development Economics, Elsevier, vol. 72(1), pages 57-89, 2002.

CROSS-BORDER REGIONS AS SUPPORTING STRUCTURES FOR RAISING COMPETITIVENESS IN EUROPE

Dagmar Škodová Parmová[39]
Zuzana Dvořáková Líšková[40]
Rostislav Kain[41]

DOI: https://doi.org/10.31410/eraz.2018.65

Abstract: *Regions apart from the national states have developed to new actors in the context of globalisation. This paper deals with the comparison of two chosen cross-border regions in the EU according to their support to increase the competitiveness of the companies and institutions located there. In the context of globalization, regions in Europe are more and more exposed to a competition about qualified work force, company settlements, employment and European funds. They have to focus also on global challenges like an aging population or climate change, they have to ask for regional solutions and collaborations and networking have become vital. Cross-border regions have developed to reduce barrier effects and foster new development potentials across Europe. The aim of the study is to analyse the effects of the implementation of cross-border regions in the EU on the competitiveness of local companies and institutions. It is based on a comparative case study of the European Region Donau-Moldau and the Euregio Meuse-Rhine. The analysis shows that the potential of such cross-border regions relies in the fact to join forces and competencies and that such cooperation addresses relevant topics to foster the competitiveness.*

Key words: *EU, regional development, European regions, Euregio.*

1. INTRODUCTION

The regions have evolved as new actors in the context of globalization. It is significant that international transport and telecommunications networks allow businesses to be relatively independent of their place; leads the growing development to the knowledge economy to make enterprises more anchored locally. Innovation and technological development depend on the availability of qualified staff, educational and research institutions, and a strong network between the economy, science and politics. Regions are increasingly experiencing competition between regions in terms of skilled labor, corporate settlements, employment and European funds. Simultaneously, new challenges for change in still used systems such as climate change, an aging society or rising energy consumption, require not only global but also regional and local solutions. For regions, cooperation considering all these challenges is crucial. Following the realization of the internal market in the European Union, competition among European regions has increased and along the internal and external borders many cross-border regions have developed. These new collaborations aim to tackle border-related problems and exploit new development potentials. Across Europe a great variety of such cross-border regions has developed, so that the Association of European Border Regions (AEBR) counts more than 185 today. The chances and potentials of cross-border cooperation

[39] University of South Bohemia, Faculty of Economics, Studentská 13, CZ-37005 České Budějovice
[40] University of South Bohemia, Faculty of Economics, Studentská 13, CZ-37005 České Budějovice,
[41] University of South Bohemia, Faculty of Economics, Studentská 13, CZ-37005 České Budějovice

for local companies and institutions shall be examined in this study. For this purpose, two different cross-border regions, namely the 'European Region Danube-Moldau', a trinational cooperation along the German-Austrian-Czech border and the 'Euregio Meuse-Rhine', a trinational cooperation along the German-Dutch-Belgian border will be analyzed. Both collaborations differ in age, whereas the Euregio Meuse-Rhine was found in 1976, the European Region Danube-Moldau is a young cooperation that had just been found in 2012.

1.1 Objectives

The aim of the following study is to analyze the organizational arrangements, fields of activity, financial means and actions/projects of both cross-border regions and evaluate in which way the cross-border cooperation contributes to an increase in the competitiveness of local institutions and companies. Therefore, the projects and initiatives of both collaborations shall be evaluated against the objectives of the cooperation. Furthermore, it should be evaluated whether the organizational arrangements allow the collaborations to achieve their objectives. A comparison of the two CBRs will be conducted to identify factors that foster or hinder both collaborations and the question is raised whether both regions could learn from each other. Finally, the following research question will be answered:

Regarding their organizational arrangements as well as realized projects/initiatives, in which way do the European Region Danube-Moldau and the Euregio Meuse-Rhine contribute to foster the competitiveness of local companies and institutions?

On the basis of this research purpose the following structure of the work has been developed: At first the term 'Eu-ropean Region' shall be clarified. Therefore central terms a 'region', 'border', 'cross border-cooperation' and 'cross-border region' will be examined. Furthermore, objectives and organizational structures of cross-border regions will be presented to then elaborate an own operational definition of the term 'European Region' as it is understood in this study. Then the framework conditions of cross-border cooperation in Europe will be described. After a short overview of the historical development of CBC in Europe, the initiatives of the Council of Europe to develop a legal basis for CBC will be presented. Then, the contributions of the European Union to foster CBC will be illustrated. First the IN-TERREG-initiative and its impact on the financial, institutional and thematic framework of CBC will be illustrated and then the new legal tool European Grouping of Territorial Cooperation (EGTC) is described. The following part is dedicated to highlight the term competitiveness and the relevant pillars that can contribute to foster competitiveness of local companies. Subsequently some general challenges and factors of success of CBC shall be highlighted. After a detailed description of the research method, the choice of case studies, criteria for analysis and research data, both European Regions shall be analyzed. The analysis is designed as follows: Each case is studied separately and following the same criteria. First a characterization of the territory where the CBR is located is given and then the historical development of the CBR is described. Subsequently objectives, fields of activity, organizational structures and financial means of the CBR will be examined. Then certain activities and projects of the CBR will be described and analyzed. A short summary at the end of each case study sums up the most relevant conclusions. Finally, the results of both case studies will be compared and the contribution of the CBRs to foster the competitiveness of local companies and institutions will be discussed.

1.2 State of research

In general, not many recent studies have been published on cross-border cooperation in Europe. Most publications date from the early years of 2000, see for example: [7], [14], [20] who take a look on the issue under a political science perspective. One important work on CBR on the German-Czech border has been published by Schramek [21]. Other relevant contributions are Student [25], who compares CBRs from an economic perspective or Perkmann [18], who tried to classify CBRs in Europe and whose works has been relevant to elaborate the definition of the term 'European region' in this work. For more current information see [6], [8], [10], or [12].

1.3 The term 'European Region'

Many different terms like Euroregion, Euregio, Eurodistrict or European Regions are the titles of different cross-border cooperations across Europe, that vary to a large extend in their geographical scope as well as organizational arrangements. To define what is understood as a European Region in the framework of this study, the approach is undertaken to define central terms like 'region', 'border', 'cross-border cooperation' or 'cross-border region', compare [15]. This allows to clarify the characteristics of a 'European Region' like objectives, actors and organizational arrangements [18]. The term region is very broad and frequently used in very different contexts. In this work, a region is understood not just as an 'action place' but also as an 'action unit'. As an action place a region is understood as a locality where social, economic or cultural actions take place, that can't be controlled. As an 'action unit' a region is also understood as an actor that has, on the basis of organizational arrangements, competences to act and to intervene and construct the 'action place'. By consequence, a European Region is characterized by some institutional arrangements that allow this region to intervene in cross-border actions [19], [21]. Furthermore, a European Region is understood as a specific type of a cross-border cooperation. Perkmann [18] defines a CBC as follows: „[…] a more or less institutionalized collaboration between contiguous subnational authorities across national borders." Consequently, a European Region is a type of collaboration between subnational authorities across borders. The aim of a CBC is to „[…] to offset the structural disadvantages imposed by their location, on the edge of their country and confined by the limits placed on the system (legal, economic, social, or even linguistic, cultural, religious, etc.) as a result of proximity to an international border" [5]. In the European Union borders have developed from physical barriers to so called 'soft borders', due to the realization of the internal market and the Schengen Agreement. As soft borders, barriers occur due to the existence of different economic, political, legal, social, linguistic and cultural systems that exists between national states [20]. Besides the dependence of different national states, contiguous subnational authorities often have common interests, problems or face the same challenges. These commonalities are at the basis of CBC [20]. Common fields of activity in CBC are cross-border economic cooperation and support of innovation and infrastructure; social issues and education, the labour market; environmental, natural, health and catastrophe protection; common history, culture and tourism [20], [16]. Collaborations aim to exploit endogenous development potentials that are understood as all intraregional potentials of a region, like human (work force, capital, infrastructure etc.) and natural factors (landscape, environment etc.). As Schmitt-Egner [19] says, the overall objective of cross-border cooperation is to maintain, control and develop a common living space.

The Association of European Border Regions [1] distinguishes between two different types of CBC, so-called on-off activities and strategic, development-oriented collaborations. A European Region is of the latter type, as it is a long-term collaboration characterized by a certain

organizational structure, objectives and a strategy. By consequence a European Region is understood as a cross-border region, meaning "a bounded territorial unit of the territories of authorities participating in a CBC initiative […] equipped with a certain degree of strategic capacity on the basis of certain organizational arrangements." [18] Cross-border regions are not a new administrative level, but networks of different actors. Local and/or regional authorities from both sides of the border are the main drivers of these collaborations, but not the only ones. To build up a cross-border region means to build up vertical, horizontal and lateral networks of actors from public administrations, politics, economy and the civil society. They can be involved in different ways in the organizational structure of the CBR. CBRs have no competencies on their own, but depend on agreements between these different actors. This type of network collaboration and decisional structure is also called Regional Governance [7]. There is a great variety of organizational arrangements of CBRs in Europe. They vary from loose forms to strongly institutionalized structures. Working communities are of the first type as they have no legal personality, are based on cooperation agreements and often do not have own financial resources or staff. Some examples are large-scale cooperation like the Working Community Alp or the International Lake Constance Conference (Internationale Bodenseekonferenz) [2]. A more institutionalized form of a CBR is a Euregio1, which is a small-scale collaboration between local and regional authorities with an own legal personality based on either private or public law2. These collaborations often have own administrative, technical and financial resources, a permanent secretary and own decisional structures. Most Euregios are involved in the preparation and implementation of INTERREG projects or programmes and many of these structures developed due to the launch of the INTERREG programme in 1990. Some typical examples are the EUREGIO Gronau or the Euroregion Neisse-Nisa-Nysa [2], [18]. The most institutionalized form of a CBR is to create a European Grouping of Territorial Cooperation (EGTC). This legal instruments allows public authorities to create a cross-border structure with a legal personality based on public law and has been implemented in 2006 by the EU. EGTCs vary strongly in their scale and objectives, e.g. EGTC Eurodistrict Strasbourg-Ortenau or EGTC PyrénéesMéditerranée [9]. In general, one can observe a trend to larger cooperations based on more functional interdependencies like the metropolitan cross-border regions Great Region Saar-Lor-Lux or Eurométropole Lille-Kortrijk-Tournai [11]. In recent years many CBRs have developed that cannot be necessarily classified as one of these types (Working Community, Euregio, EGTC) [18] and in the scientific literature no typology of CBRs could prevail. Against this background and the preceding theoretical considerations, the following operational definition of a 'European Region' has been developed and will be used in this work:

A European Region is a cross-border region, whose action place is the sum of the territories of the actors involved. These actors are two or more contiguous public authorities that are separated by a national border. These actors become an action unit through the existence of an organizational structure. The aim of the collaboration is to maintain, manage and develop a common living space.

1.4 Competitiveness of Firms and Institutions

The competitiveness of regions and its economic subjects becomes more and more important issue. As known from other fields of research, competitiveness is a hard-to-catch expression and needs to be explained theoretically. The famous business economics description of the "ability to sell" [4] offers a first idea of what it is all about. Firms need to be competitive to be able to sell their products on international markets against the products of (foreign) competitors. It has simply to be more than, or at least as productive as comparable firms. According to the

World Economic Forum [22] competitiveness is the "set of institutions, policies and factors that determine the level of productivity of a country". Therefore, an environment in which the firm can operate without too much obstacles of several kinds is a necessary condition. This is valid for CBRs and their policy space too.

The WEC defined 12 pillars, according to the development stage of the region, influencing the competitiveness of a nation and its firms. Institutions, infrastructure, macroeconomic stability, health and basic education constitute general necessities. In later stages of development, the importance of higher education, of the efficiency of the goods-, labour and financial market, the technological readiness and of the market size come into play. High developed countries are characterized as innovation-driven and are based on factors as innovation itself and business sophistication. All 12 pillars influence directly or indirectly the market position of a firm. But not all of them can be influenced by a region or a CBR. Special emphasis will be given to the following issues: Institutions, public or private are important for the framework where in the single firm operates and determine the level of the so-called transaction cost. Infrastructure is not only about the access to certain product markets and the availability of an adequate energy and communication network, but also about the mobility of the work force. Health of the workforce is decisive for their productivity as well as the quality of education. An efficient labour market constitutes another important factor for local firms because it helps to allocate well the skills of the workers according to the needs of the firms. The possible market size determines the productivity of a firm through the possibility of taking advantage of economies of scale. Furthermore, an innovation-friendly environment and high business sophistication could constitute an advantage for a local high-tech industry [22]. In addition to these pillars, regional networks gain more and more importance for the competitiveness of local firms and institutions. Positive effects result from clustering, meaning the geographic proximity of regional firms along a value chain. In general, networks allow to bundle competences and resources, exchange experiences and knowledge and to achieve common goals more easily [17], [3].

2 METHOD

The present study follows a qualitative and comparative case study approach. A holistic and detailed description of framework conditions, actors, organizational arrangements, strategies and projects/initiatives of each case study should allow to understand promoting and impeding factors for the collaboration. The analysis focuses on the one hand on institutional conditions and on the other hand on particular measures undertaken by the CBR to foster the competitiveness of local companies and institutions. Even though the transferability of results from one CBR to another is difficult as the context of each collaboration differs, a comparative approach has been chosen because it allows to learn from the experiences of other collaborations and to better use own development potentials. The

Dagmar Škodová Parmovás *research field is management of services and its applications in regional management and development, she graduated at University of South Bohemia in 2001 in the field of Management of Commerce. She finished her doctorate studies at Johannes Kepler University Linz in the specialization Export and International Marketing and she became Associate Professor in 2011 in Economics and Management. Her positions at the University has varied from Vice Dean for Study to Vice Dean for Foreign Affairs and she has been the Vice Rector for Foreign Affairs of the University of South Bohemia for 5 years till 2016.*

conditions that foster competitiveness are transferable from one region to another and so a comparison of undertaken initiatives in this direction by both CBRs makes it possible to evaluate in which way CBRs can contribute to improve the framework conditions under which local institutions and companies operate. The comparison of projects and initiatives allows to evaluate the activities of each collaboration and to show up possible development perspectives. The choice of the two case studies was based on the theoretical sampling approach and the requirements from the registered research project. The requirement was to compare a German-Dutch collaboration with one located at the German-Czech border. Because of the tendency towards larger collaborations and the presence of more active and adequate cases, the analysis focuses on collaborations on the regional instead of the local level. Based on the elaborated definition of a European Region the European Region Danube-Moldau located at the German-Austrian-Czech tri-border region was chosen as first and typical case study. This collaboration just exists since five years and has not yet been subject to scientific works. Based on the expected differences (older collaboration (since 1976), smaller cooperation area, stronger institutionalization) the Euregio Meuse-Rhine located at the German-Dutch-Belgian tri-border region has been chosen as second case study. The analysis is separated in two parts, a single case analysis where cooperation area, organizational structure and projects/initiatives of each CBR are presented in detail and a comparative analysis where the impact of both CBRs on the competitiveness of local companies and institutions is evaluated following the elaborated pillars that foster competitiveness. The analysis of projects and initiatives of both CBRs follows two different approaches, due to the different age and number of realized projects. In the case of the European Region Danube-Moldau the activities of chosen so-called knowledge platforms (thematic working groups) between the foundation of the CBR in 2012 and July 2017 will be analyzed. The choice of the working groups was made on the basis of their relevance for the competitiveness. The following knowledge platforms have been chosen: ‘Research and innovation’, ‘Collaboration of Universities’, ‘Collaboration of enterprises and the creation of clusters’, ‘Qualified work force and labour market’ and ‘Mobility, accessibility and transport’. In the case of the Euregio Meuse-Rhine, out of the great number of realized projects three projects in the fields ‘Labour market’, ‘Collaboration of enterprises’ and ‘Research and innovation’ have been chosen as best-practice examples for the comparison. For the whole analysis of both case studies and initiatives only secondary data has been used. The study is based on the analysis of the websites, publications, project reports, press releases, statutes and activity reports of both CBRs. For the description of the socioeconomic situation in the cooperation area and the financial resources of both CBRs statistical data mainly from Eurostat has been used.

3 ANALYSIS

3.1. European Region Danube-Moldau (ERDV)

The European Region Danube-Moldau is located in the tri-border region between Bavaria (Germany), Austria and Czech Republic and lies in between the metropolises Prague, Vienna, Munich and Nuremberg. The CBR comprises the territories of the following regions: the German districts Upper Palatinate (Oberpfalz) and Lower Bavaria (Niederbay-ern) with Altötting, the Czech districts Pilsen, South Bohemia and Vysocina and the Austrian federal state Upper Austria and the Lower Austrian regions Mostviertel and Waldviertel. The cooperation area is nearly 65.000 km² and counts more than 6 mio. people. A polycentric structure of medium size towns and natural barriers that take the form of mountain ranges and rivers located at the border characterize the cooperation area. The regions share a long common history which has been disrupted by the First and Second World War and through the Iron

Curtain until 1989. The natural and historical barriers led to an incomplete cross-border infrastructure. Nevertheless, the overall socioeconomic situation in the ERDV is relatively strong and above EU average. Especially the production industry, tourism and small and medium size companies are the economic drivers. The ERDV counts numerous universities and research institutes. But a strong disparity of GDP and income is observable between Austrian and Bavarian regions on the one hand and the Czech regions on the other hand and leads to strong commuter flows from Czech Republic to Germany and Austria. The ERDV as an organization has been created in 2012 as international working community between the political representatives of the above-named participating regions. On the basis of long-standing successful collaboration at the local level, the signatory regions aimed to cooperate on a more strategic and binding basis at regional level to deal effectively with more complex topics like labour market, cooperation of universities and cross-border transport. According to the statutes, the aim of the collaboration within the ERDV is to "develop the trilateral cooperation for the good of the people who live in the ERDV, to strengthen the region in the competition between regions and to support the European idea" (Europaregion Danube-Moldau, 2012, Präambel, own translation). The ERDV wants to strengthen its position between the metropolises and therefore develop a common development strategy, projects and positions. The collaboration takes place in the following seven thematic fields: 'Research and innovation', 'Cooperation of universities', 'Cooperation of enterprises and the creation of clusters', 'Qualified workforce and labour market', 'Tourism oriented towards nature, health, cities and culture', 'Renewable energy and energy efficiency' and 'Mobility, accessibility and transport'. The organisational structure of the ERDV can be characterised as little institutionalised as the collaboration is build on a legally non binding political working community. Decisions remain as yet non-binding and the cooperation is based on loose agreements. The political leaders of all member regions build together the Executive Committee and decide on the strategic objectives and annual programme. Seven trilateral working groups, so-called knowledge platforms with each about 30 experts from all member regions, develop and initiate projects and initiatives in the seven thematic fields to realize the strategic action programme. The ERDV disposes of own financial resources to finance its activities. But during the first 3 to 5 years (from 2012) the ERDV does not appear as own lead partner, but just initiates projects between existing partners. In general, cross-border projects on the territory of the ERDV can be financed through the following three bilateral INTERREG-Programmes: INTERREG V-A Austria-Czech Republic 20142020, Goal ETC Bavaria-Czech Republic 2014-2020 and INTERREG V-A Austria-Bavaria 2014-2020. The analysis of the undertaken and realized activities of the knowledge platforms between the foundation of the ERDV in 2012 and July 2017 has shown the following results. The selected knowledge platforms for analysis are: 'Research and innovation', 'Cooperation of universities', 'Cooperation of enterprises and the creation of clusters', 'Qualified workforce and labour market' and 'Mobility, accessibility and transport'. Infrastructure is seen as a prerequisite for the economic development and competitiveness of a region because it allows market access to firms. The cooperation area of the ERDV still has a great deal of action, especially in the area of cross-border road and rail transport. The ERDV addresses this topic in its knowledge platform on transport and mobility and can present a first important working basis with the 'Masterplan Transport'. Initial successes are already evident in the area of public transport, but larger, extensive traffic projects depend on higher-level decisions, so that substantial improvements can only be expected in the long term. ERDV also focuses on cooperation in the field of secondary and tertiary education. The cooperation area offers a great potential with more than 30 institutions, and there are already some bilateral partnerships between the universities of Pilsen, Ceske Budejovice, Linz and Regensburg. Initial initiatives to increase student mobility and linguistic knowledge have been launched by the ERDV through mobility grants, and the CAST project shows how the ERDV can support universities in the development

of joint courses of study. The topic of the labour market is also a focus of cooperation and commuter flows are evidence of a certain networking of the regions, which, however, is one-sided due to the wage gap. The language barrier within the ERDV represents a major challenge for the networking of the labour market. Therefore, the knowledge platform plans labour market initiatives in this area. However, concrete projects to increase workers' mobility have not yet been initiated. A platform for knowledge is also dedicated to the promotion of business cooperation. The Clusterland map makes it easier for ERDV companies to access information when it comes to finding cooperation partners. It shows that numerous growth poles lie within the ERDV area. The similar branch structures, especially between Pilsen, the Bavarian regions and Upper Austria, offer many potentials for cooperation. The analysis of the Smart Specialisation strategies allowed the regions not only to exchange best practices, but also to identify links for future cross-border cooperation. However, concrete initiatives to promote specific sectors, clusters and SMEs in the region have not yet been implemented, except for network events. Finally, the ERDV also aims to strengthen the region as a research and innovation location. To this end, the knowledge platform stimulates the exchange between scientists and companies through numerous events and supports the positioning of the ERDV through its publications ‘location portrait’ and ‘health location’.

Overall, it can be said that the activities of the knowledge platforms so far are oriented towards the analysis of the existing situation in the cooperation area and the support of existing and / or initiation of new network events. Until now, the various publications (traffic master plan, university lecture, clusterland map, etc.), but less concrete projects for the promotion of companies or research facilities, are the results. This is certainly due to the fact that the ERDV is still a new cooperation and the structures have to be built up. A further reason could also be a lack of financial re-sources, as the financing of trilateral projects through INTERREG demands several projects proposals because only bilateral projects can be financed and because of the uncertain amount of financial resources of the ERDV. Finally it is difficult to know exactly which projects have been initiated by the ERDV, as the cooperation does not appear as project leader.

Zuzana Dvořáková Líšková

Education:
2002 Master degree - Faculty of Natural Sciences, Constantine the Philosopher University in Nitra
2005 Ph. D. Faculty of Agriculture, University of South Bohemia
2008 RNDr. Faculty of Science, University of Ostrava
Activities:
She works as a lecturer in the Department of Regional Development. She works as a lecturer in the Department of Regional Development. In her research and pedagogic activity is involved in the topic of human impacts on the landscape in terms of ecological and socio-economic point of view. She also deals with the issue of sustainable regional development; possibilities of brownfields regeneration and strategic and tactical documents for public administration.

3.2 Euregio Meuse-Rhine (EMR)

The Euregio Meuse-Rhine is located in the tri-border region between Germany, Netherlands and Belgium. The collaboration consists of the territories of the Belgian provinces Limburg and Liège, the German-speaking Community in Belgium, the Dutch province Limburg and the German Region Aachen. The area of cooperation is much smaller than the one of the ERDV an

is 10.700 km² large and counts about 4 mio. people. As the ERDV the EMR is characterized by a polycentric structure of medium size towns and a location between several metropolises. No natural barriers or physical borders are located in the trilateral cooperation area, what has led to an active economic, social and cultural exchange between the five member regions since many centuries. Especially the Dutch and Belgian province Limburg share strong cultural and historic ties. The EMR benefits from an excellent infrastructural connection and its close location to international hubs. This leads to a high mobility in the EMR and important commuter flows, especially from Belgian regions, which face higher unemployment, to the adjoining Dutch and German regions. The economic situation in terms of GDP is weaker than in the ERDV and the produced GDP per capita in purchasing power standards slightly below the EU average. Nevertheless, the EMR has positioned itself as a strong Science and Technology Region and disposes of internationally renowned universities and research institutes. The collaboration between the five member regions started in 1976, when the Euregio was found just like the ERDV as an international working community. The EMR is one of the first cross-border collaborations in Europe. In 1991 the collaboration changed its legal status into a Dutch Stichting based on private law, that has its seat in Eupen, with the aim to intensify the collaboration and better administer European INTERREG funds. The aim of the collaboration is to reduce barriers related to the existence of an international border and to increase the quality of life for the local people through information, communication and collaboration between the five member regions. Based on the EMR 2020 strategy the current thematic fields of activity are 'Economy and Innovation', 'Labour market, education, vocational training', 'Culture and tourism', 'Healthcare' and 'Security'. Cross-cutting issues are for example 'Mobility and transport' and 'Sustainable development'. The organizational structure of the EMR can be described as very institutionalized and corresponds to that of a Euregio. The political leaders of the five regions build the executive board of the Euregio, which is the highest decision-making body and bears all responsibility for activities of the Stichting. A particularity represent the Euregio Council and the Social and Economic Council, two bodies that represent the non-governmental level: on the one hand the political parties of the regional parliaments and on the other hand representatives of the civil society, like trade unions, employers' association, Chambers of commerce and industry, universities etc. Although both bodies just have a consultative role, the participation of these 80 representatives allows a high legitimisation of the work of the EMR and formalises the involvement of civil representatives. The thematic work of the EMR takes place in so-called strategic monitoring groups. These are groups of experts which differ in their composition according to the thematic requirements. The EMR has just a small own budget, as a consequence all cross-border projects on the territory are financed through the own INTERREG V-A Euregio Meuse-Rhine programme. The programme area corresponds to the area of the Euregio, so that also trilateral projects can be financed through it. Until 2013 the Stichting Euregio Meuse-Rhine was also Managing and Certifying Authority of the INTERREG programme. Out of the many realised projects of the EMR, three initiatives were chosen and presented as best-practice examples for concrete projects that support the competitiveness of local companies and institutions. The first initiative is the longstanding EURES partnership between the employees' and employers' associations of the five member regions and the establishment of a cross-border information point for local citizens, workers, employers, pensioners and commuters. The second projects, called 'The Locator', is a location information system for entrepreneurs that provides information on commercial property on the territory of the Euregio. And the third project is the initiative TTR-ELAt-region, that aims at positioning the territory of the EMR and adjoining regions as a knowledge- and technology region and therefore developed a cross-border strategy. Under the umbrella of this initiative concrete innovative cross-border projects and SMEs in selected sectors have been supported through INTERREG projects. With regard to the dimensions of competitiveness, the three

project examples show that a cross-border region can improve the framework conditions for companies and stakeholders through concrete initiatives. The cross-border information point, the EURES partnership as well as the projects ' The Locator' improve access to information for businesses and workers by providing services. In this way, the mobility of workers is increased in the case of the cross-border information points and the EURES partnership and the labour market becomes more efficient by means of an improved mediation between job offer and demand. The 'Locator' project helps companies gain market access and can help reduce transaction costs by providing free information on commercial space. The TTR-ELAt initiative is an interesting example of a cross-border strategic approach to promoting research and innovation. The identification of common strengths in three sectors allows the actors (companies, research institutes) of the involved regions to specifically promote and expand these potentials. In this way, the actors can reach a critical mass that enables them to position themselves internationally as a leading technology group and to compete with competitors. However, the TTR-ELAt region also shows that increasingly functional regional definitions become more relevant and that collaborations follow a more strategic approach whose goal goes beyond the elimination of border-related barriers. The Euregio Meuse-Rhine initiated a more strategic orientation by publishing a joint EMR2020 strategy in 2013. Therein, it reaffirms its willing-ness to expand cooperation with other existing cooperation alliances and to position itself more as a "network of networks" in the future. Also the transformation into a EGTC on the basis of public law is discussed.

4 COMPARATIVE ANALYSIS

Now that both case studies have been comprehensively analyzed, the impact of cooperation in the European Region Danube-Moldau and the Euregio Meuse-Rhine on the competitiveness of local institutions and enterprises will be assessed. First of all, both regions are understood as intermediaries between the regional actors or impulse networks for cross-border cooperation. Networks offer the participants the opportunity to exploit potentials by pooling resources and competencies. They are based on the exchange of experiences and common learning processes, which can have positive effects on competitiveness. Both collaborations, through their work and organizational structures, try to institutionalize the networking of actors and to create new platforms for the exchange of experiences and the development of joint action strategies for common goals and problems. By offering access to the regional stakeholders (universities, business networks, research facilities, public institutions) through regular meetings within the knowledge platforms (European Region Danube-Moldau) or the strategic accompanying groups, they offer these actors new possibilities for cooperation. A comparison table see below.:

Description Indicators for Chosen Regions	European region Danube-Moldau	Euregio Maas-Rhein
Cooperation Area	7 regions, 3 states, 2 languages area: 64.950 km² inhabitants: 6.006.018	5 regions, 3 states, 3 languages area:10.663 km² Inhabitants: 3.929.184
Established in	2012	1976
Way of Founding	Top-down	Bottom-up
Founding Initialized by	Governors of neighbouring regions (Lower Bavaria, South Bohemia, Upper Austria)	Cooperation Activities in Region Aachen with the Dutch Province Limburg, and the German-speaking community

		in Belgium, and Provinces Limburg und Lüttich
Legal Form	Trilateral union which was established on a political level in the form of a working community, and which incorporates seven partner regions	Dutch Stichting
Organization Form	International working group: presidency, trilateral coordination committee, ERDV-office, knowledge platforms, regional contact points	Stichting according to Netherlands' law: Board, EMR-office, Euregio-Council, Economic- und Social Council, Strategic Join Groups und temporary Working Groups
Main Themes	Research and Innovations, Entrepreneurship Cooperation, Cooperation of HEIs, Labour Market, Tourism, Transportation, Renewable Energy Sources,	Health, Security, Economy and Innovations, Labour Market and Education, Culture and Tourism
Financing	Own sources	INTERREG EMR

Table 1 Description for Chosen Regions (Source: Own processing)

From a thematic point of view, both regions focus on fields of action that can have a positive impact on the competitiveness of companies on the basis of the pillars defined by the World Economic Forum. In the European Region Danube-Moldau as well as the Euregio Meuse-Rhine, activities are being organized to promote research and innovation, enterprise / economy, labour market and education. Both cooperations are also striving to improve the cross-border infrastructure. In the area of promoting research and innovation, the TTR-ELAt initiative in the EMR is a particularly interesting example of how the cross-border networking of business, research institutions and policy can enhance the competitiveness of local businesses and research institutes. By identifying cross-border development potentials on the basis of shared and complementary skills between regions, stakeholders can concentrate their resources and competences and reach a critical mass in targeted sectors that can allow them to compete internationally as a powerful technology region. Without the cross-border cooperation, it would be difficult for individual clusters and research facilities in the regions to compete internationally. The collaboration enables the targeted promotion of promising business cooperation and thus contributes to increasing the competitiveness of local businesses. To improve the cross-border labour market, CBRs can contribute to increase the mobility of workers by promoting the (foreign) linguistic knowledge. As the mobility is furthermore often hampered by the clashing of various tax, social security and legal systems in border regions, CBR can also foster the mobility by the provision of information and employment services. Cooperation in the area of tertiary education offers the regions the opportunity to provide qualified and international staff for the resident companies. Joint courses of study, as planned by the ERDV, enable students to have different working methods and language skills as well as a limited mobility hurdle. In addition, international research collaborations and an international range of courses also increase the reputation of higher education institutions, thereby improving the quality of teaching staff and researchers, which can ultimately have a positive effect on the quality of teaching and research in the region. Furthermore, CBRs can contribute to the amelioration of cross-border transportation infrastructure. Especially in the field of cross-border public transportation CBRs have competences. Decisions on large-scale infrastructure projects are usually taken at a higher, national level, so that the possibilities for

action here are mainly in the area of the common interest representation in decision makers and in the conduct of studies. However, as cross-border regions identify the relevant actors on both sides of the border and bring them together, they can make an important contribution to improving the infrastructure of the region. To sum up, the collaboration in a cross-border region offers various potentials in terms of the competitiveness of local companies and institutions. Firstly, it allows specific cross-border disadvantages to be identified for the development of resident enterprises and institutions and mitigated or reduced through targeted measures. Then, for local companies and institutions, the networking activities of the cross-border regions create opportunities to build up new cooperations. Finally, through the CBC, the competences and resources of the local companies and institutions can be pooled and synergy effects can be generated, which allow the individual actors to gain a stronger position in the international competition.

5 CONCLUSIONS

Faced with the increased international competitive pressure and against the background of growing global challenges, regions are increasingly developing their own strategies to create an attractive living and economic space for the population and companies. Partnerships and cooperation are thereby given a special role in regional development. The collaboration in cross-border regions have become more strategic and should contribute to foster the collaborating regions in the competition between regions and to better exploit regional development potentials. To what extent the cooperation in a cross-border region can promote the competitiveness of local businesses and institutions is shown by a comparison of the European Region Danube-Moldau and the Euregio Meuse-Rhine. Border regions are often characterized by a political deficit, which means that they are not widely respected by national decision makers. Through the creation of cross-border cooperation structures, local authorities attempt to overcome this deficit and create a new political space for action. The main actors of cooperation are mostly public administrations and the political representatives of the participating bodies. As network-like structures, their success and the contribution they can make to the competitiveness of local institutions and enterprises depends decisively on involving regional stakeholders from universities, research institutions, businesses and civil society in cooperation and structures. Only if the companies and institutions see value in the cooperation and develop their own interest, the collaboration can be successful. The networking and establishing of horizontal cooperation on every level involving also local population can bring a certain increase of welfare and therefore also competitiveness of regions, compare [13]. Finally, the contribution that the cross-border regions can make is to reduce or limit the system barriers and partial structural deficits (such as lack of infrastructures) caused by proximity to a border through targeted measures and initiatives. The analysis of the activities shows that the EMR and the ERDV are launching projects and initiatives in fields of action relevant to the competitiveness of local businesses and institutions.

However, the selected method of describing and presenting the activities and selected projects of both CBRs only allows to evaluate to a very limited extend the real influence that these initiatives have had on the competitiveness of companies and institutions. This influence can only be estimated by means of general statements on the beneficial factors of competitiveness. Even in a quantitative, statistical study of company data, the effects of establishing a cross-border region on competitiveness are likely to be difficult to assess. A useful addition to the present work, however, could be the collection of empirical primary data in the form of a survey or the conduct of interviews of local companies and representatives. This would allow to evaluate in a more deeply way the impact that the creation of a CBR can have on the

competitiveness and the added value it presents or not for local institutions and entrepreneurs as in [23], [24]. It would be especially interesting to conduct a survey on the territory of the ERDV, as it is a very recent and young collaboration that follows a new, more large-scale and strategic approach.

Acknowledgement

This paper was supported by the project No. GAJU 053/2016/S Inovační management a konkurenceschopnost MSP.

REFERENCES

[1] Arbeitsgemeinschaft Europäischer Grenzregionen (AGEG) (Hrsg.). (2008). Cooperation between European Border Regions. Review and Perspectives. Baden-Baden: Nomos.
[2] Arbeitsgemeinschaft Europäischer Grenzregionen (AGEG) (Hrsg.). (2000). Praktisches Handbuch zur Grenzübergreifenden Zusammenarbeit. Gronau.
[3] Bachinger, M., & Pechlaner, H. (2011). Netzwerke und regionale Kernkompetenzen: der Einfluss von Kooperationen auf die Wett-bewerbsfähigkeit von Regionen. In M. Bachinger et al. (Editor), Regionen und Netzwerke. Kooperationsmodelle zur bran-chenübergreifenden Kompetenzentwicklung (pp. 4-29). Wiesbaden: Gabler Verlag.
[4] Balassa, B. (1962). Recent developments in the competitiveness of American industry and prospects for the future. In U.S. Congress Joint Economic Committee (Hrsg.), Factors affecting the United States balance of payments. Washington D.C.
[5] Committee of the Regions. (2007). The European grouping of territorial co-operation (EGTC). Brussels: EU Publication.
[6] De Sousa, L. (2013). Understanding European Cross-border Cooperation: A Framework for Analysis. In Journal for European Integration 35(6), pp. 669-687.
[7] Deppisch, S. (2007). Governance in grenzüberschreitenden Regionen. Eine empirische Analyse am Beispiel der österreichisch-bayrischen Euregios. Verlag Dorothea Rohn.
[8] Europäische Kommission. (2015). Die territoriale Zusammenarbeit in Europa. Eine historische Perspektive. Luxemburg: Europäische Union.
[9] European Union. (2017). Strategy Europa 2020. On-line from 14th July 2017 at https://ec.europa.eu/info/strategy/european-semester/framework/europe-2020-strategy_en
[10] Haack, Y. (2010). Europäische Integration durch transnationale Strategien der Regionenbildung? Grenzüberschreitende Zusam-menarbeit im böhmisch-bayerischen Grenzgebiet. Universität Passau: Unveröffentlichte Dissertation.
[11] Chilla, T., & Weidinger, T. (2014). Machbarkeitsstudie. Grenzüberschreitende Zusammenarbeit "Europäische Metropolregion Nürnberg-Westböhmen". Nürnberg: Europäische Metropolregion Nürnberg.
[12] Interact. (2015). Fact Sheet: Historical view of Interreg / European Territorial Cooperation. On-line from 20th July 2017 at http://www.interacteu.net/library?field_fields_of_expertise_tid=1#524-fact-sheet-historical-view-interreg
[13] Kabai, G. (2017). The Social Conditions of Regionalism in the Hungarian Balaton Region. Deturope, 9, 1: 111-129
[14] Kohlisch, T. (2008). Regional Governance in europäischen Regionen. Ein empirische Analyse der transnationalen Verbünde Großregion/Grand Région und OderPartnerschaft/Partnerstwo-Odra. Berlin: LIT Verlag.

[15] Krzymuski, M. (2014). Der Rechtsrahmen für grenzüberschreitende Zusammenarbeit von Hoheitsträgern auf europäischer zwischen-staatlicher Ebene. In Bundesministerium des Innern, Grenzüberschreitende Zusammenarbeit mit deutscher Beteiligung. Ein Erfahrungsaustausch (pp. 25-29). Berlin.
[16] Manzella, G. P., & Mendez, C. (2009). The turning points of EU Cohesion policy. Working Paper Report to Barca Report. Brussels.
[17] Nuissl von Rein, E. (2013). Netzwerkbildung und Regionalentwicklung. On-line from 7th 2017 at http://www.mba.uni-oldenburg.de/downloads/leseproben/bildungsmanagement__studienmaterial_leseprobe_netzwerkbildung_und_regionalentwicklung_nuissl_von_rein.p df
[18] Perkmann, M. (2003). Cross-Border Regions in Europe. Significance and Drivers of Regional Cross-Border Co-operation. In European Urban and Regional Studies 10(2), pp. 153-171.
[19] Schmitt-Egner, P. (1998). "Grenzüberschreitende Zusammenarbeit" in Europa als Gegenstand wissenschaftlicher Forschung und Strategie transnationaler Praxis. Anmerkungen zur Theorie, Empirie und Praxis des Transnationalen Regionalismus. In G. Brunn, & P. Schmitt-Egner, Grenzüberschreitende Zusammenarbeit in Europa. Theorie - Empirie - Praxis (pp. 27-77). Baden-Baden: Nomos.
[20] Schmitt-Egner, P. (2005). Handbuch zur Europäischen Regionalismusforschung. Theoretischmethodische Grundlagen, empirische Erscheinungsformen und strategische Optionen des Transnationalen Regionalismus im 21. Jahrhundert. Wiesbaden: VS Verlag für Sozialwissenschaften.
[21] Schramek, C. (2014). Die deutsch-tschechischen Europaregionen. Rahmenbedingungen und Funktionslogik grenzüberschreitender Zusammenarbeit. Wiesbaden: Springer VS.
[22] Schwab, K. (2015). The Global Competitiveness Report 2015-2016. Geneva: World Economic Forum.
[23] Škodová Parmová, D. (2011). Diversification as a factor for sustainable Rural Development | Diversifizierung als faktor der nachhaltigen Entwicklung des ländlichen Raumes. (2011) In Journal of the Austrian Society of Agricultural Economics, 20 (1), pp. 43-52.
[24] Škodová Parmová D., Dvořáková Líšková Z., Sdrolias L., Kain R., (2017). Systemic approaches and development strategies of the rural small and medium-sized firms in boarder regions. In: Janeček, P. (Ed.) Opportunities and Threats to Current Business Management in Cross-Border Comparison 2017. University of West Bohemia, Pilsen, Czech Republic, 18-19 May, GUS Verlag Germany. pp. 147-155.
[25] Student, T. (2000). Regionale Kooperation zwischen Integration und Konkurrenz. Baden-Baden: Nomos.

THE INFLUENCE OF MUNICIPALITY SIZE ON ITS EXPENDITURE- CASE STUDY FROM SLOVAKIA

Monika Vámošová[42]

DOI: https://doi.org/10.31410/eraz.2018.79

Abstract: *Changing society (population aging, deepening regional disparities, globalization and increasing competition) influence public service requirements. Not only inhabitants but also organisations and other market participants require more services with higher quality, cheaper, more available and more modern.*
There is a fragmented structure of public administration in many European countries, including Slovakia. Level of local government is made by municipalities (villages and cities) with different size. In the smallest municipalities there live only to 10 inhabitants, in the third highest municipality Prešov there are about 90 000 inhabitants, while all Slovak municipalities (except for capital Bratislava and second highest city Košice) has equal position, status and competences. It leads to problems of small municipalities that do not have enough money to provide all services in required quality. Some authors recommend them to cooperate or connect to bigger municipalities because of saving money.
The aim of this paper is to find out if there exist economies of scale in providing of public services by local municipalities. We tested it on many provided services represented by individual expenditure groups (by COFOG classification) and on total spending of 138 Slovak municipalities with city status. We used regression method and we found out that economies of scale exist, but only in some expenditure groups. It does not occur in others. The rule of economies of scale is partially valid.

Key words: *economies of scale, expenditure, municipality*

1. INTRODUCTION

There is fragmented structure of public administration in Slovak republic. There are about 2900 municipalities with different size (from 10 to 90 000 inhabitants), but with the equal rights, obligations and competencies. Some experts say that cooperation or creating bigger municipalities instead of small lead to saving money. They come from theory of economies of scale.

The aim of this paper is to find out if economies of scale in providing public services by Slovak municipalities exist. We use descriptive statistics and regression analysis to find out it. We focus on public services with the highest impact on municipality budget and overall expenditure on local public services.

2. ECONOMIES OF SCALE

Theory of Economies of scale comes from microeconomic Theory of the firm; it is dated from Adam Smith. Economies of scale is competitive advantage that firms reach because of larger scope of their activities. The larger amount of outputs, the smaller cost of providing services.

[42] University of Economics in Bratislava, Dolnozemská cesta 1, 852 35 Bratislava, Slovakia

The theory of economies of scale is usable in public sector, since municipalities may be understood as production units [1]. In the case of public administration, economies of scale have a wider application. Main argument is that municipalities provide comparable services and there exist aggregate economies of scale, than fragmented structure of administration lead to higher expenditure on equal amount of provided services than in the case of smaller number of bigger municipalities [2].

Decreasing of unit cost comes from economies of scale of production technology and non-rivalry in consumption. Both effects usually decrease with increasing municipality size and result to U-shaped cost curve [3].

Economies of scale is frequent research topic and its existence was confirmed in many empirical studies [4], [5], [6]. In general, it is accepted that efficiency function in relation to unit size is U-shaped where the lowest point represents economies of scale effects. Analysis on economies of scale usually do not focus on location of vertex in U-shaped curve, they usually confirm or negate its existence. Most of these studies use unit cost or expenditure per capita as the dependent variable.

By Byrnes and Dollery [7] whose study came from many empirical studies on economies of scale, it was not sufficiently demonstrated. One third of studies confirmed U-shape, in 40% studies there was no relation between unit cost/expenditure and municipality size, in 24% studies there was diseconomies of scale and only in tenth of studies existence of economies of scale was sufficiently demonstrated.

By Katsuyama [8] several studies indicate that in 80% of provided services there is not possible to identify economies of scale. Similar results comes also from Soukupova et al. [9] who deals with Czech municipalities.

Issue of economies of scale analysis, which focuses on relation of municipality (or other organisation providing public services) size and efficiency is that it is difficult to measure services' outputs and there is no existence of objective measures of benefits of these services [10]. In practice, researchers usually use simplified method focused only on costs/expenditures where the output is only quantification of number of inhabitants or customers of provided [3], [11].

3. DATA AND METHODOLOGY

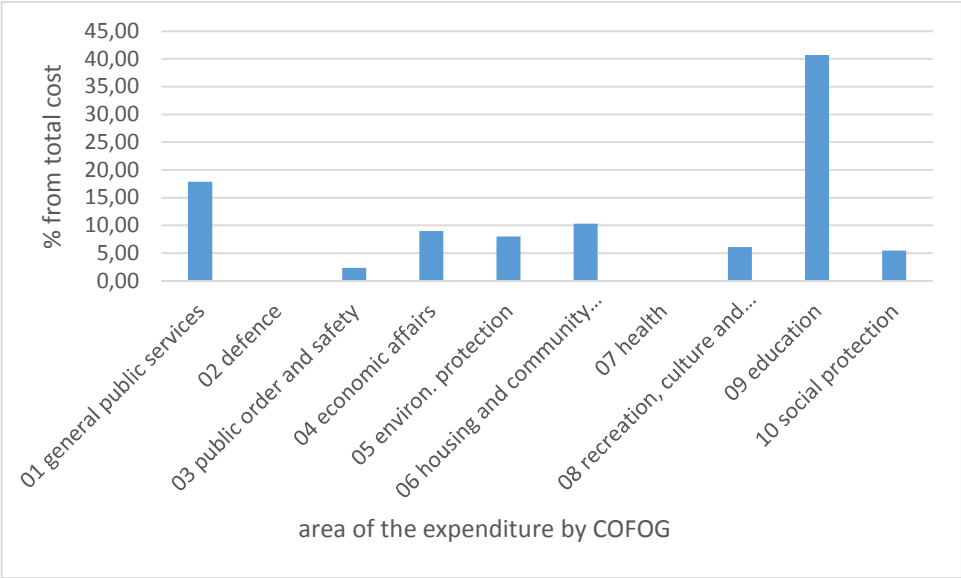
We test the existence of economies of scale in providing public services by 138 Slovak municipalities with city status that cover about 43% of total Slovak population. We use open data on municipality expenditure by COFOG in competence of the Ministry of Finance of Slovak republic and population data from Statistical Office of Slovak republic from 2015. The main variable selected for the analysis is expenditure per capita. Analysis was performed for the 10-year period from 2005-2015, since the result were very similar, we present only latest data from 2015.

We use log-linear regression model, dependent variable is expenditure per capita and independent is municipality size expressed by number of inhabitants. Municipality size is unevenly distributed, so it is transformed to log form. By the theory of economies of scale, we use quadratic function to set the trend of expenditure. We also use descriptive statistics (Table 1) to specify information on expenditure according to municipality size categories (quintiles).

	general public ser.		economic affairs		housing...		education		total public serv.	
municipality size	average	median	average	median	average	median	average	median	average	median
<5 998	216,53	149,88	39,91	22,54	211,23	84,13	372,96	369,88	1152,72	921,90
5 999-10169	157,57	147,38	61,68	26,44	113,38	69,25	347,01	331,17	819,55	782,71
10 170-20 451	161,28	132,19	60,01	41,93	81,18	77,96	334,55	334,29	830,65	829,48
>20452	122,35	114,73	59,28	46,93	68,24	63,98	307,34	309,46	722,15	697,52

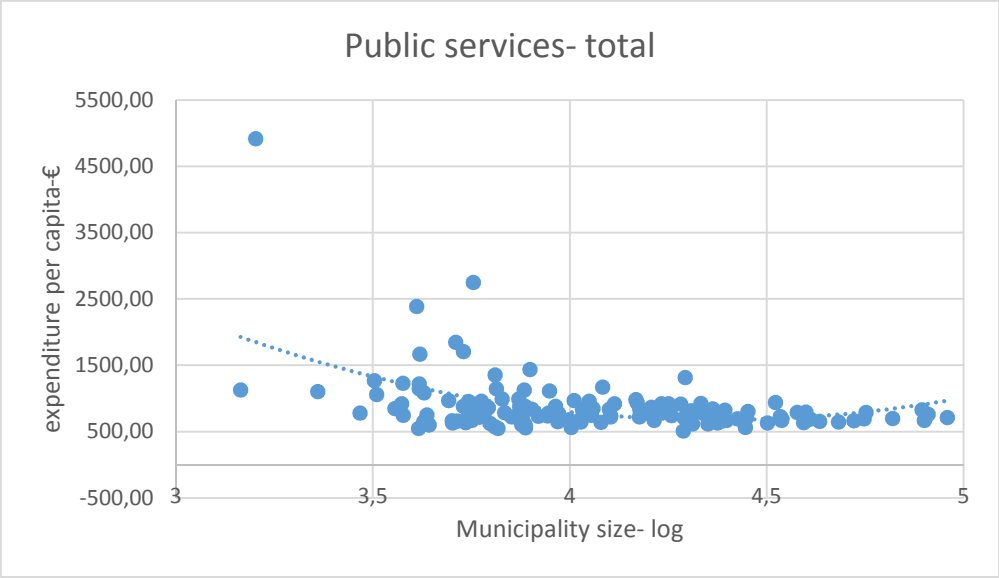
Table 1: Information about expenditure by different municipality size

4. RESULTS



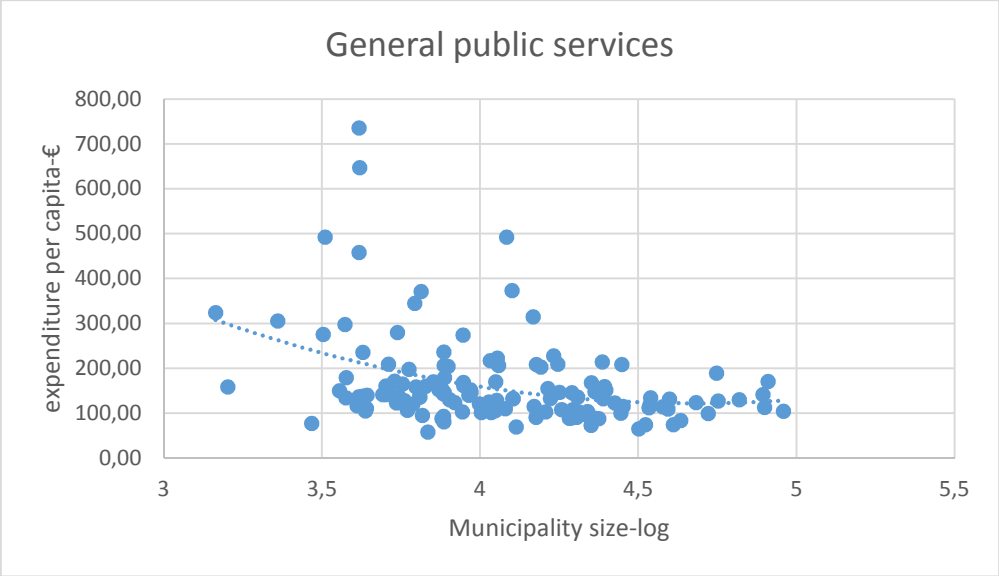
Graph 1: Structure of the expenditure of Slovak municipalities (with city status)

You can see (Graph 1) average expenditure of Slovak cities on examined groups of services by COFOG. It reflects competencies in specific areas of provided services. In our analysis, we focus on services with the largest impact on the municipality budget (general public services, economic affairs, housing and community amenities and education) and overall expenditure on all provided services.



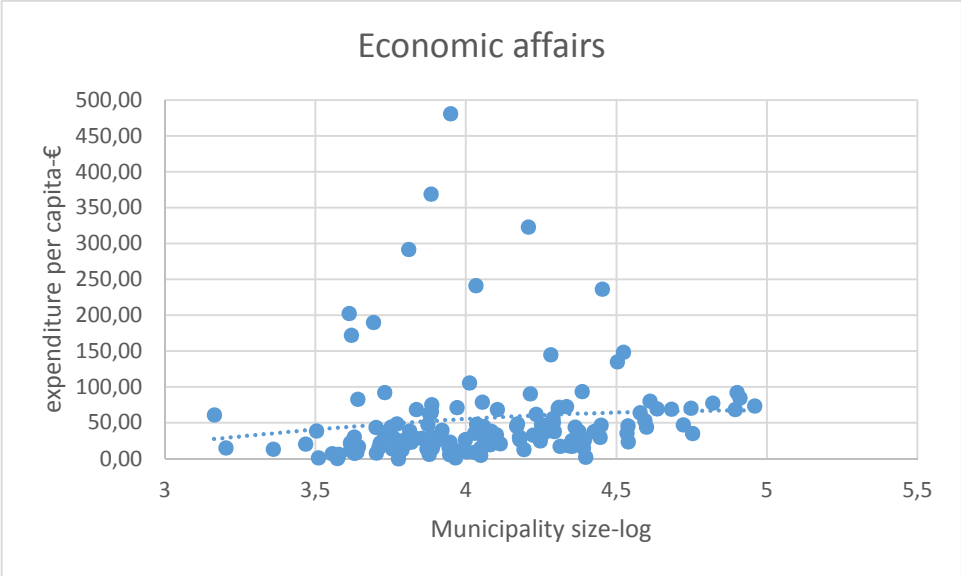
Graph 2: Relation between municipality size and total public service expenditure

Results of economies of scale analysis are shown in the Graph 2. Log-linear regression show that economies of scale is significant in providing of all services. By the average expenditure, we can see bigger the municipality size, lower the total average expenditure on public services.



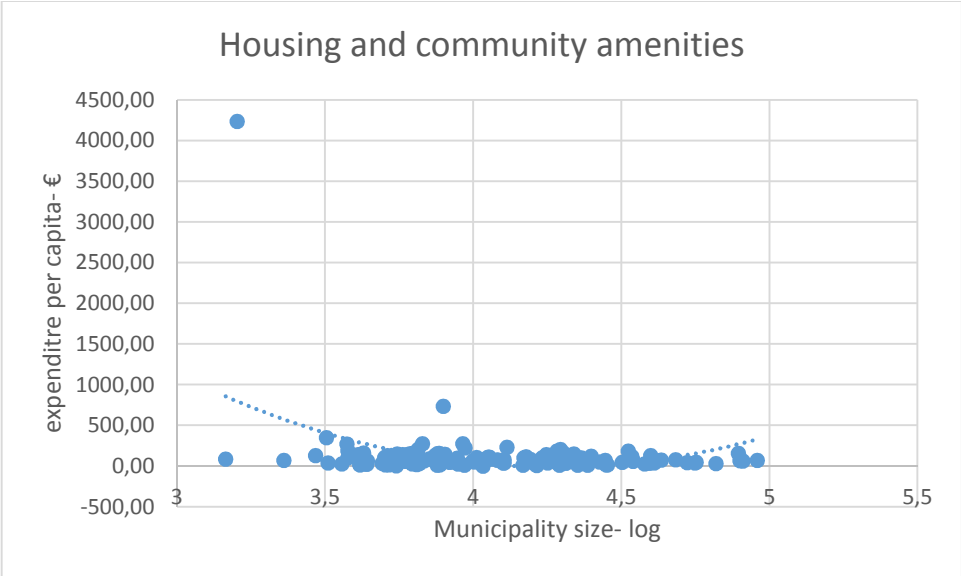
Graph 3: Relation between municipality size and general public services expenditure

However, if we see analysis of individual services, results are not so clear. We can see economies of scale in the field of general public services (Graph 3). Regression show that economies of scale is significant. By the average expenditure and median too, we can see bigger the municipality size, lower the expenditure on general public services.



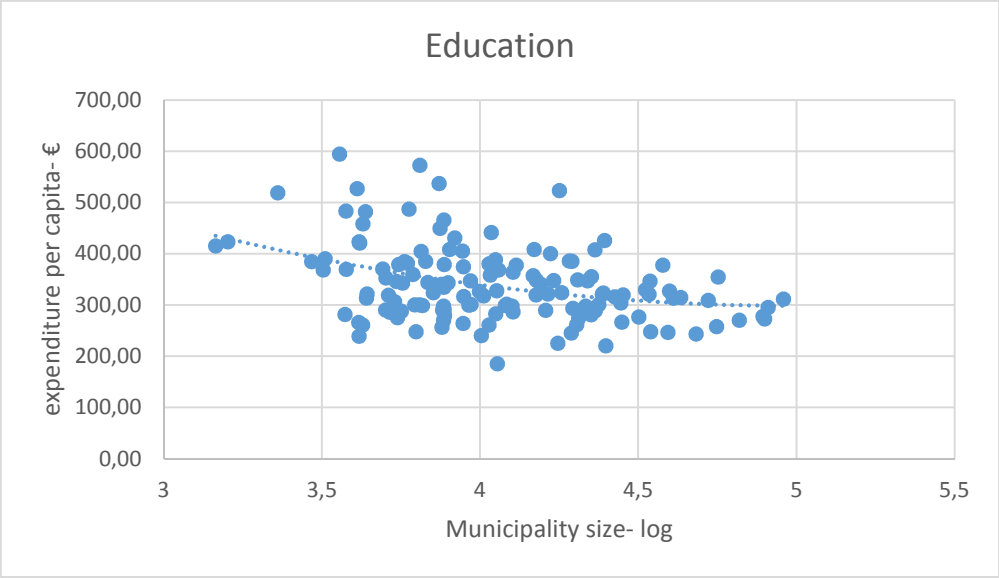
Graph 4: Relation between municipality size and expenditure on economic affairs

From descriptive statistics, we can partially see that average expenditure on economic affairs increase with bigger municipalities. Regression shows economic affairs expenditure as significant, but the coefficient has a positive value. In the Graph 4 there is no U-shaped curve typical for economies of scale.



Graph 5: Relation between municipality size and expenditure on housing

Although we can see U-shaped curve in the field of housing and community amenities (Graph 5), and average expenditure decrease with increasing number of inhabitants, regression show that economies of scale in this area of public services is not significant.



Graph 6: Relation between municipality size and expenditure on education

Regression expressing relationship between education expenditure and municipality size show that economies of scale are significant. By the average expenditure and median too, and in the Graph 6 we can see bigger the municipality size, lower the expenditure on education.

5. CONCLUSION

Results of our analysis are similar than newer studies on economies of scale, there is not clear existence of economies of scale in all the examined public services. There are different results for relationship between municipality size and overall municipal expenditure in compare with expenditure on specified field of expenditure (by COFOG).

The existence of economies of scale is confirmed in total local public expenditure, expenditure on general public services and expenditure on education. In other examined services (economic affairs, housing and community amenities), it is not significant or has a positive value.

By our study, economies of scale is related with administrative cost of municipalities and education. In general, we cannot identify economies of scale in providing public services by local municipalities with city status in Slovakia.

ACKNOWLEDGEMENT

This contribution was created as a part of a internal project of EUBA nr. I-18-101-00-Effective knowledge production and its use in public administration in OECD countries.

REFERENCES

[1] Boyne, G. (1995) Population Size and Economies of Scale in Local Government. In *Policy and politics*, vol. 23, no. 3, pp. 213-222.
[2] Dollery, B., Fleming, E. (2006) A Conceptual Note on Scale Economies, Size Economies and Scope Economies in Australian Local Government. In *Urban policy and Research*, vol. 24, no. 2, pp. 271-282.
[3] Bönish, P. et al. (2011) *Municipality Size and Efficiency of local Public Services: Does Size Mattter?:* discussion paper, Halle Institute for economic Research, pp. 39.

[4] Bradley, S., Taylor, J. (1998) The effect of school size on exam performance in secondary schools. In *Oxford Bulletin of Economics and Statistics*, vol. 60, no. 3, pp. 291-324.
[5] Monten, A., Thater, C. (2010) Determinants of efficiency in child care provision. In *FinanzArchiv*, vol. 67, no. 4, pp. 378-403.
[6] Mikusova Merickova, B., Nemec, J., Soukupova, J. (2014) The Economics of Waste Management: Evidence from the Czech Republic and Slovakia. In *Lex Localis*, vol. 12, no. 3, pp. 431-449.
[7] Byrnes, J., Dollery, B. (2002) Do Economies of Scale Exist in Australian Local Government? A Review of the Research Evidence. In *Urban Policy and Research*, vol. 20, no. 4, pp. 391-414.
[8] Katsuyama, B. (2003) *Is Municipal Consolidation the Answer?* Municipal Research and Service Center of Washington.
[9] Soukupova et al. (2014) Municipality Size and Local Public Services: Do Ecoomies of Scale Exist? In The *NISPAcee Journal of Public Administration and Policy*, vol. VII, no. 2, pp. 151-171.
[10] Swianiewicz, P. (2003) Konsolidácia alebo fragmentácia? Veľkosť miestnych samospráv v Strednej a Východnej Európe. Bratislava: M.E.S.A 10. 78 pp.
[11] Loikkanen, H., Susiluoto, I. (2005) *Cost Efficiency of Finnish Municipalities in Basic Service Provision 1994-2002:* discussion paper, pp. 24.

DYNAMICS OF LOANS AND DEPOSITS IN BULGARIA AND THE EURO AREA IN THE PERIOD 2007–2017

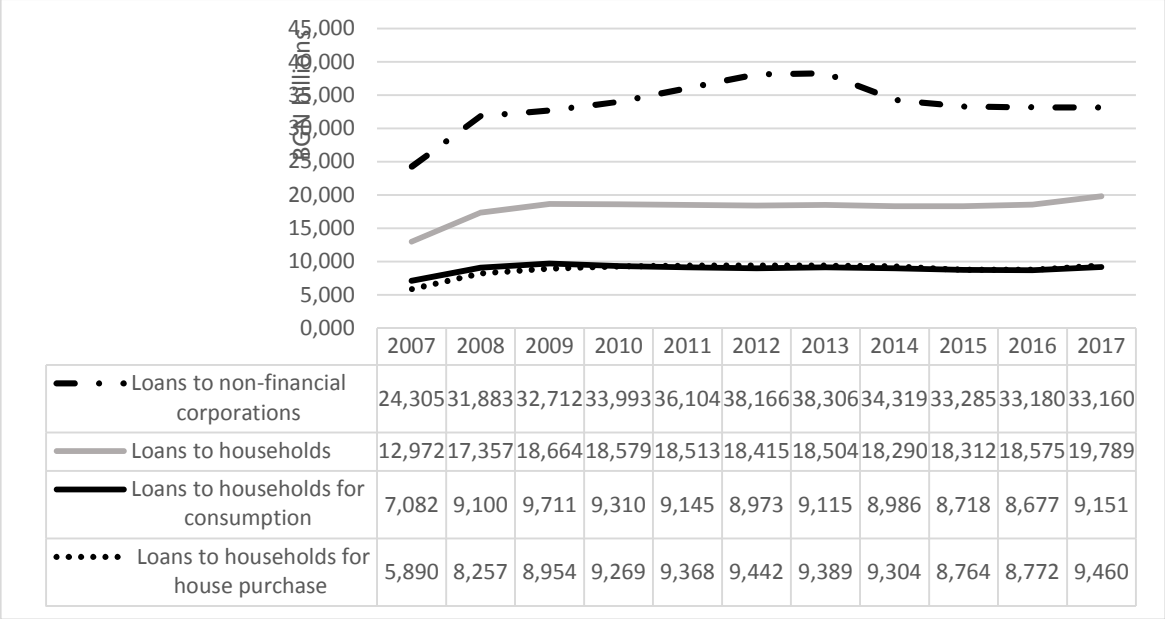
Aglika Kaneva[43]

DOI: https://doi.org/10.31410/eraz.2018.86

Abstract: *In this paper, the change of loans and deposits has been examined in Bulgaria and the euro area during the period 2007–2017. A comparative analysis has been carried out of the dynamics of the financial indicators in Bulgaria and the euro area. The major trends have been outlined in the dynamics of loans and deposits. Reasons for change of the financial indicators have been pointed out.*

Key words: *Loans, deposits, interest rates, banks, Bulgaria, euro area*

The study of the dynamics of loans and deposits in Bulgaria and the euro area is focused on some key indicators of the bank activities. Examination has been carried out of the absolute values of loans and deposits, their change on annual basis, the currency structure of loans and deposits in Bulgaria, interest rates on loans and deposits in the euro area. Analysis has been made of loans to non-financial corporations and loans to households – loans for consumption and loans for house purchase, deposits by the non-financial corporations and households. The period of examination is 2007 – 2017. In this study, official statistical data of the Bulgarian National Bank and the European Central Bank have been used.

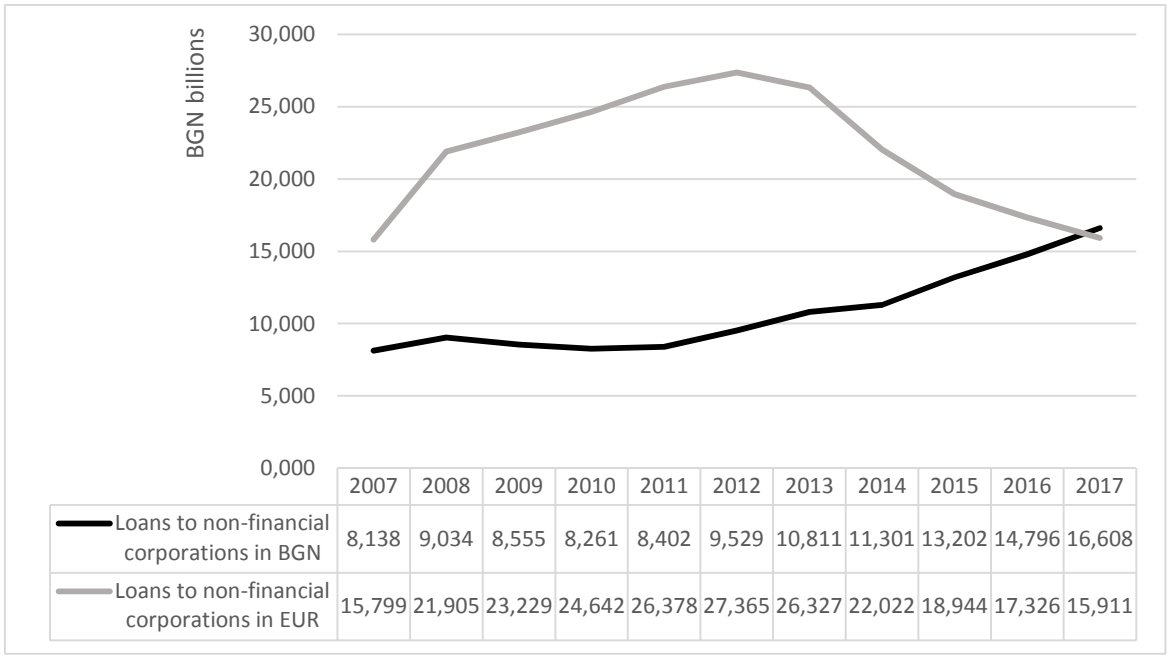


	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Loans to non-financial corporations	24,305	31,883	32,712	33,993	36,104	38,166	38,306	34,319	33,285	33,180	33,160
Loans to households	12,972	17,357	18,664	18,579	18,513	18,415	18,504	18,290	18,312	18,575	19,789
Loans to households for consumption	7,082	9,100	9,711	9,310	9,145	8,973	9,115	8,986	8,718	8,677	9,151
Loans to households for house purchase	5,890	8,257	8,954	9,269	9,368	9,442	9,389	9,304	8,764	8,772	9,460

Figure 1: Loans to sectors non-financial corporations and households of the banking system in Bulgaria in the period 2007–2017 (BGN billion)
Source: BNB

[43] Department of Finance, UNWE, 1700 Sofia, Student Town, Bulgaria

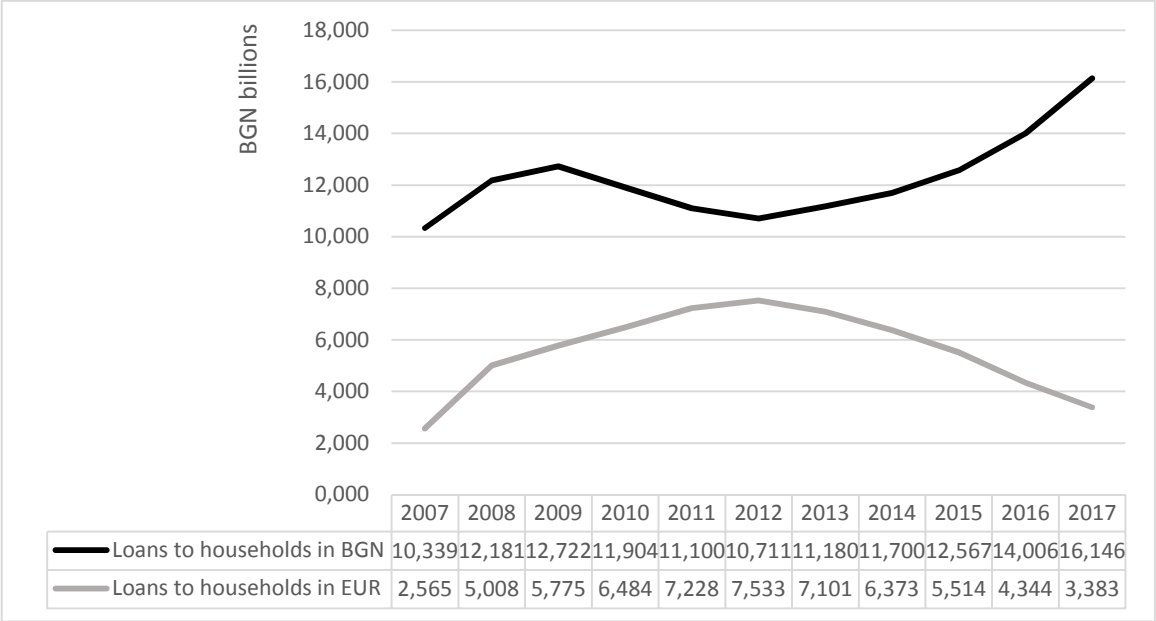
As seen from Figure 1, in the period 2007–2017 the loans to the non-financial corporations of the Bulgarian banks were at highest value, and in 2017 they amounted to BGN 33,160 billion. They grew significantly in 2008, their increase continuing until 2013, but at a slower rate. From 2014 until the end of the period, the indicator continuously decreased. The loans to households increased their value in 2008 and 2009, after which they stood at close values until 2017 when a climb was registered. It is noted that the loans for consumption and the loans for house purchase changed largely in parallel. By 2010 the loans for consumption in Bulgaria exceeded in value the loans for house purchase, while from 2011 until the end of the reviewed period, the loans for house purchase were at higher values.



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Loans to non-financial corporations in BGN	8,138	9,034	8,555	8,261	8,402	9,529	10,811	11,301	13,202	14,796	16,608
Loans to non-financial corporations in EUR	15,799	21,905	23,229	24,642	26,378	27,365	26,327	22,022	18,944	17,326	15,911

Figure 2: Loans to non-financial corporations of the banking system in Bulgaria in the period 2007–2017 in BGN and EUR (BGN billion)
Source: BNB

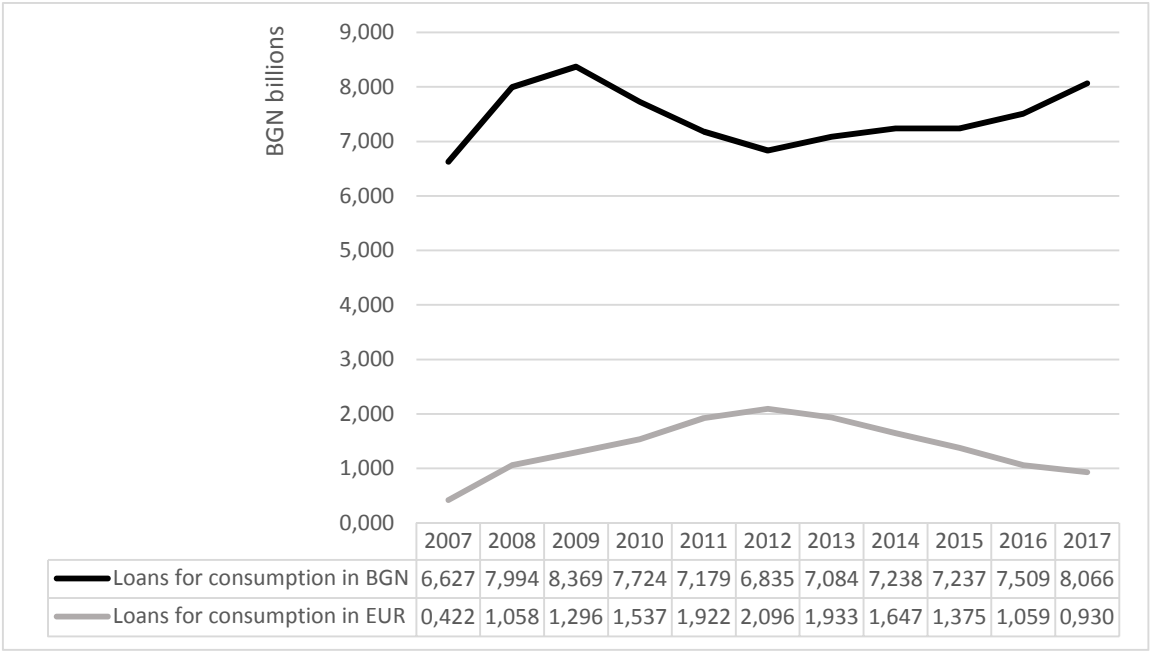
In the period 2007–2016, the loans to non-financial corporations of the banking system in Bulgaria in EUR exceeded the loans in BGN. In 2017, the trend reversed and the loans in BGN predominated. At the beginning of the reviewed period, the loans to non-financial corporations in EUR exceeded twofold the loans granted in BGN in Bulgaria, that difference increasing over the next years and in the period 2010–2012 the loans in EUR already exceeded three times the loans in BGN. After that, until the period-end, that difference had continuously declined. Loans to non-financial corporations in BGN went up slightly in 2008, after which they dropped until 2011, and after that until the period-end a surge up was recorded. Loans to non-financial corporations in Euro in Bulgaria grew in the period 2007–2012, after which they declined until the end of the period.



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Loans to households in BGN	10,339	12,181	12,722	11,904	11,100	10,711	11,180	11,700	12,567	14,006	16,146
Loans to households in EUR	2,565	5,008	5,775	6,484	7,228	7,533	7,101	6,373	5,514	4,344	3,383

Figure 3: Loans to households of the banking system in Bulgaria in the period 2007–2017 in BGN and EUR (BGN billion)
Source: BNB

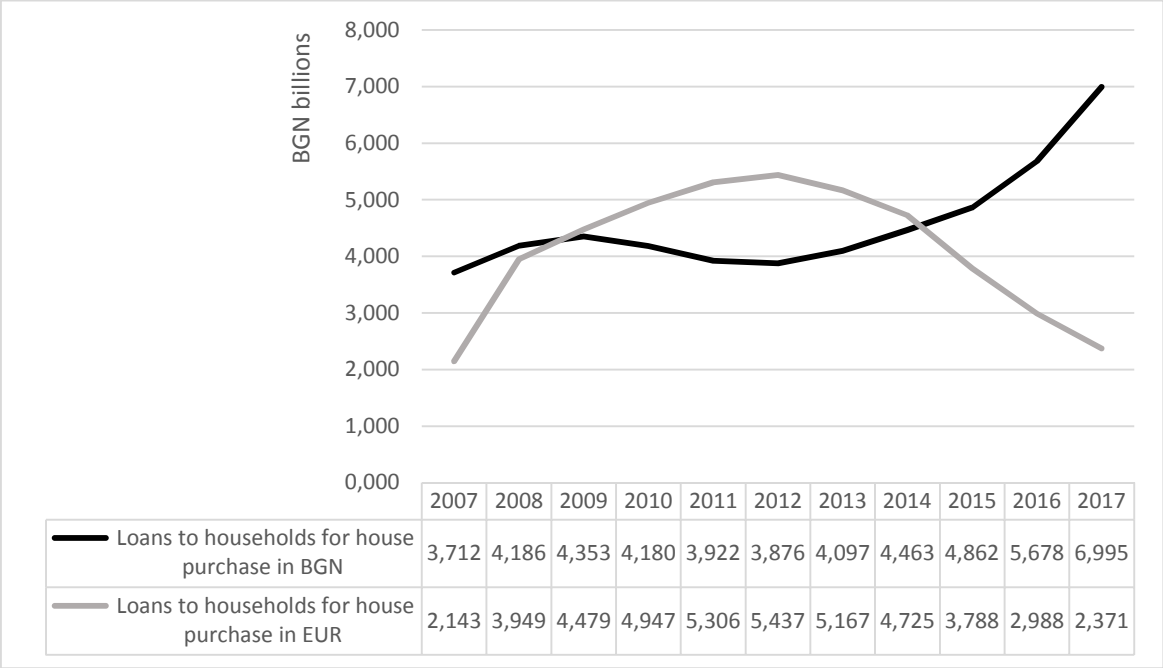
During the nalyzed period, the loans to households in BGN in Bulgaria exceeded significantly the loans granted by the banks in EUR. The difference decreased until 2012 when it was smallest, after which it increased until period-end. The loans to household in BGN increased their value in 2008 and 2009, after which a reduction was observed until 2013, after that by the end of the period a climb was registered. The loans to households in Euro of the Bulgarian banks went up until 2012, after which until 2017 they declined.



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Loans for consumption in BGN	6,627	7,994	8,369	7,724	7,179	6,835	7,084	7,238	7,237	7,509	8,066
Loans for consumption in EUR	0,422	1,058	1,296	1,537	1,922	2,096	1,933	1,647	1,375	1,059	0,930

Figure 4: Loans for consumption to households of the banking system in Bulgaria in the period 2007–2017 in BGN and EUR (BGN billion)
Source: BNB

It can be seen in Figure 4 that the loans to household for consumption of the banking system in Bulgaria in the period 2007–2017 in BGN exceeded multifold the loans granted in Euro. The loans for consumption in Euro increased almost five times by 2012, after which until 2017 a continuous decline of the indicator was observed. In the loans to households for consumption in BGN in Bulgaria, a rise was recorded in 2008 and 2009, followed by a reduction in the period 2010–2012, after that until the period-end an increase of the indicator was observed.

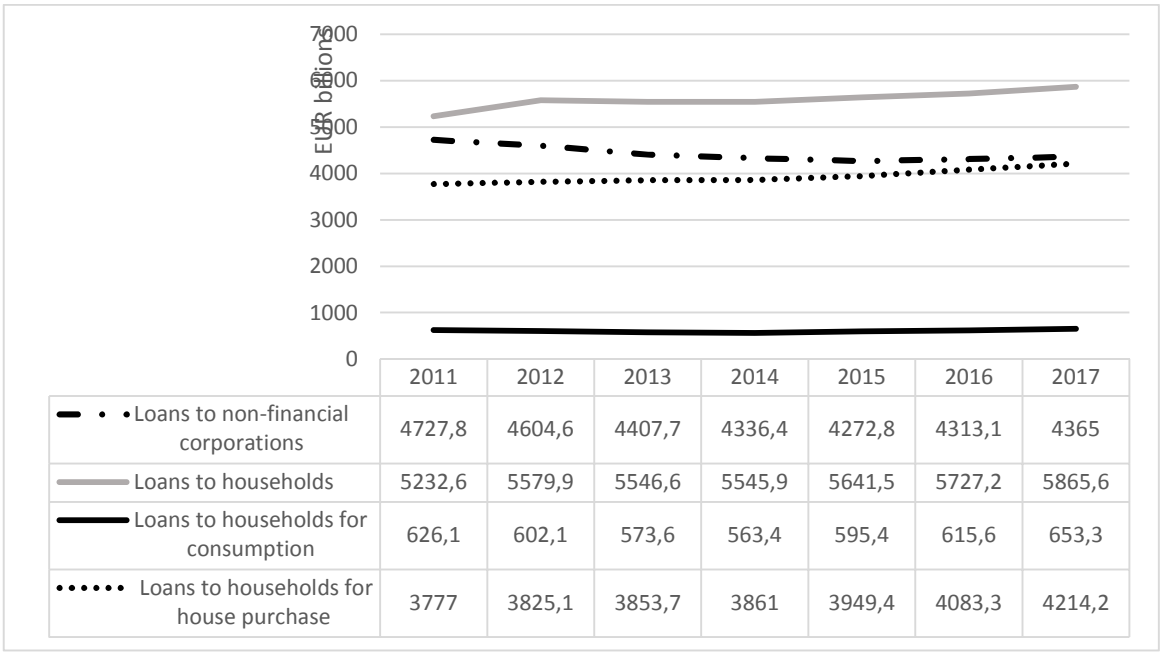


	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Loans to households for house purchase in BGN	3,712	4,186	4,353	4,180	3,922	3,876	4,097	4,463	4,862	5,678	6,995
Loans to households for house purchase in EUR	2,143	3,949	4,479	4,947	5,306	5,437	5,167	4,725	3,788	2,988	2,371

Figure 5: Loans to households for house purchase of the banking system in Bulgaria in the period 2007–2017 in BGN and EUR (BGN billion)
Source: BNB

As seen in Figure 5, at the beginning of the period under review, the loans to households for house purchase in Bulgaria were predominantly in BGN. From 2009 to 2014, the loans in EUR exceeded those in BGN, after which until the end of the period the trend reversed and the larger part of the loans was in BGN. Loans to households for house purchase in BGN of the Bulgarian banks increased their value in 2008 and 2009. In the period 2010–2012, they went down, after which until the end of the analyzed period a climb in the indicator's value was recorded. The loans for house purchase in EUR grew in the period 2007–2012 more than twice, after which a decrease was observed until 2017, when values close to those at the beginning of the period were reached.

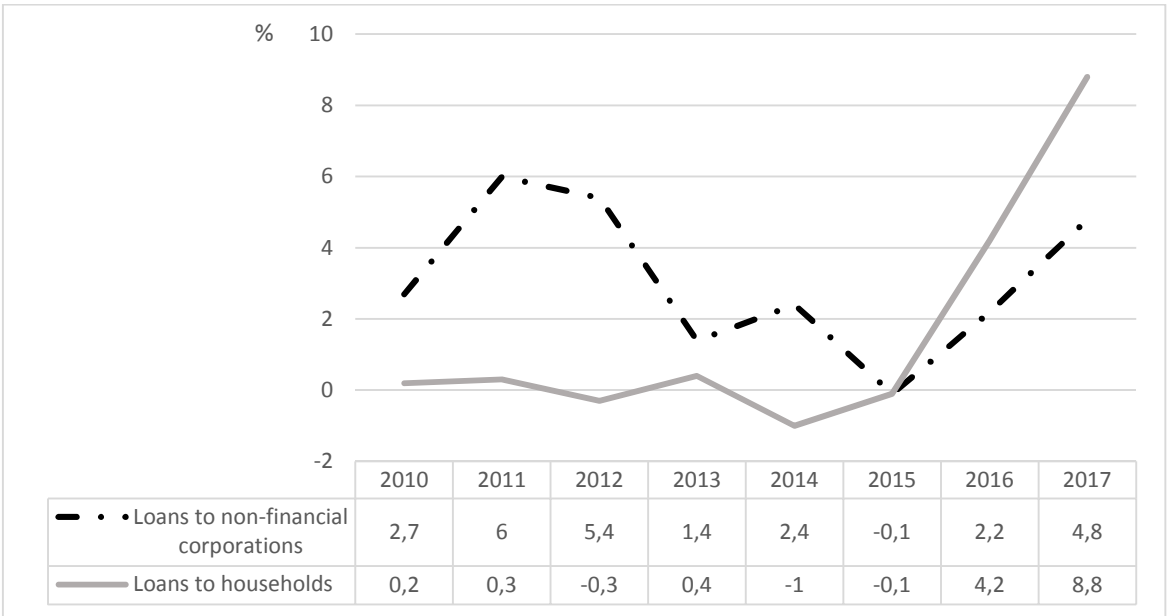
Aglika Kaneva *is a Chief assistant professor at the Department of Finance at the University of National and World Economy, Sofia. Areas of professional interests: banking, corporate finance, international finance, European Union and European integration.*



	2011	2012	2013	2014	2015	2016	2017
Loans to non-financial corporations	4727,8	4604,6	4407,7	4336,4	4272,8	4313,1	4365
Loans to households	5232,6	5579,9	5546,6	5545,9	5641,5	5727,2	5865,6
Loans to households for consumption	626,1	602,1	573,6	563,4	595,4	615,6	653,3
Loans to households for house purchase	3777	3825,1	3853,7	3861	3949,4	4083,3	4214,2

Figure 6: Loans to sectors non-financial corporations and households of the banks in the euro area in the period 2011–2017 (EUR billion)
Source: ECB

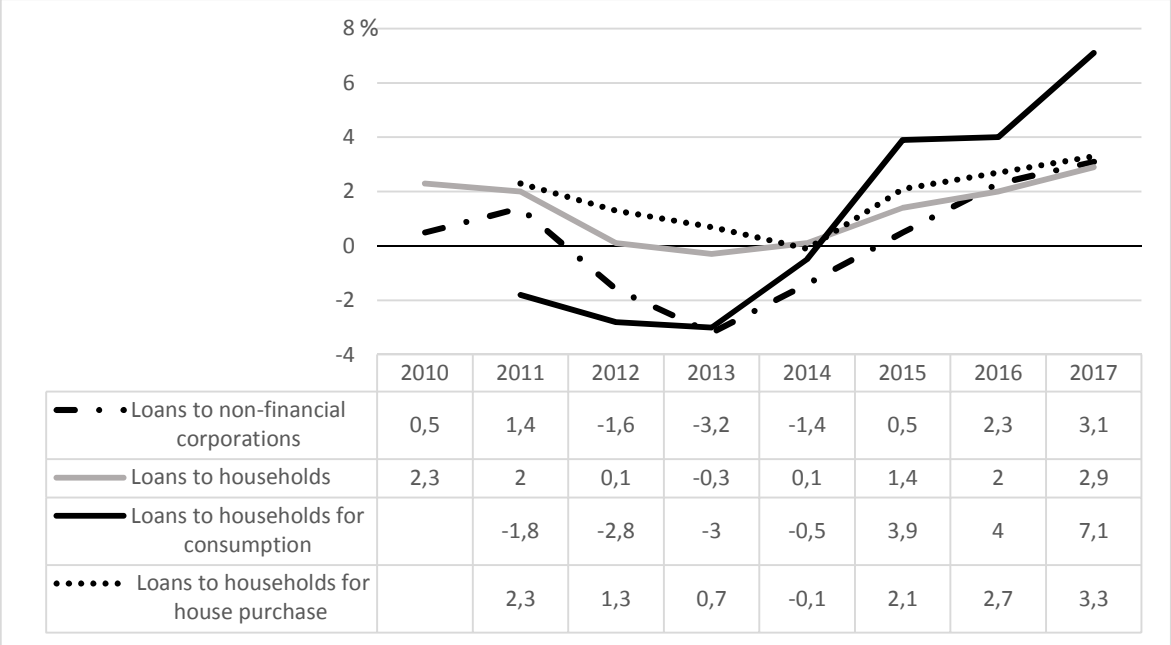
As a whole, no substantial change was observed in the values of the loans to sectors non-financial corporations and households of the banks in the euro area during the period 2011–2017. In contrast to Bulgaria, the loans to households exceeded the loans granted to non-financial corporations in the euro area. The loans to non-financial corporations declined towards the end of the period compared with its beginning. In loans to households in 2017, a rise was noted in comparison with 2011, and that was observed both in regard to loans for consumption and loans for house purchase. Within the loans to households, the loans for house purchase exceeded more than sixfold in values the loans for consumption.



	2010	2011	2012	2013	2014	2015	2016	2017
Loans to non-financial corporations	2,7	6	5,4	1,4	2,4	-0,1	2,2	4,8
Loans to households	0,2	0,3	-0,3	0,4	-1	-0,1	4,2	8,8

Figure 7: Annual growth rates of loans to sectors non-financial corporations and households of the banking system in Bulgaria in the period 2010–2017 (%)
Source: ECB

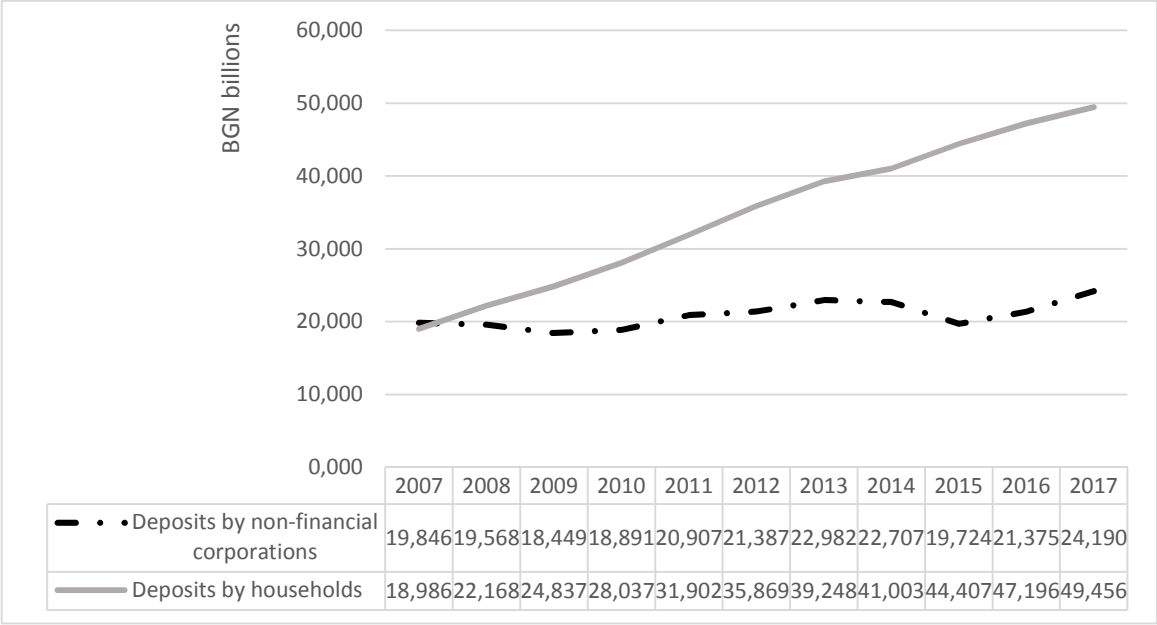
As it can be seen from Figure 7, the loans to sectors non-financial corporations and households in Bulgaria did not change in parallel until 2016, when in both types of loans a surge up was registered which continued in 2017 as well. The increase of the provided loans was largely due to the low interest rates. The loans to households grew to a much greater extent than those to the non-financial corporations. During the analyzed period, significant dynamics was also observed in both types of loans, which was more strongly expressed in loans to the non-financial corporations until 2015. In the loans to households, a decline was recorded in more years during the period, compared with the loans to non-financial corporations.



	2010	2011	2012	2013	2014	2015	2016	2017
Loans to non-financial corporations	0,5	1,4	-1,6	-3,2	-1,4	0,5	2,3	3,1
Loans to households	2,3	2	0,1	-0,3	0,1	1,4	2	2,9
Loans to households for consumption		-1,8	-2,8	-3	-0,5	3,9	4	7,1
Loans to households for house purchase		2,3	1,3	0,7	-0,1	2,1	2,7	3,3

Figure 8: Annual growth rates of loans to non-financial corporations and households of the banks in the euro area member states in the period 2010–2017 (%)
Source: ECB

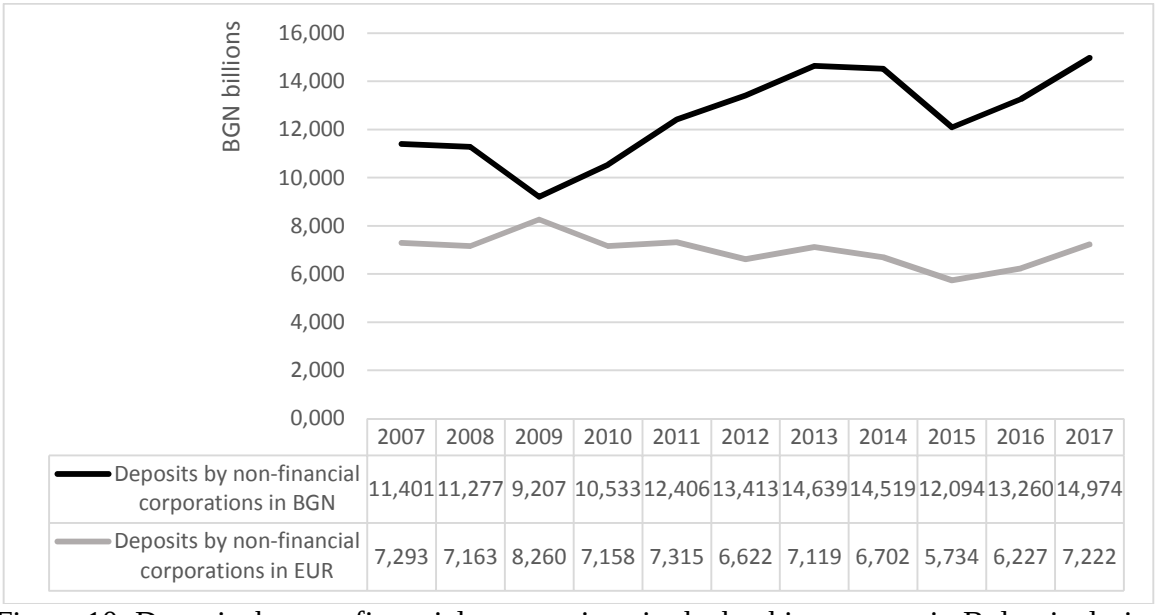
Most significant dynamics was observed in loans to non-financial corporations and loans to households for consumption in the euro area. The loans to non-financial corporations of the banks in the euro area declined during the period 2012–2014. The loans for consumption registered a decrease in the period 2011–2014. No parallel change was observed with the separate types of loans. Greatest reduction in loans to non-financial corporations, loans to households and loans for consumption was recorded in 2013.



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Deposits by non-financial corporations	19,846	19,568	18,449	18,891	20,907	21,387	22,982	22,707	19,724	21,375	24,190
Deposits by households	18,986	22,168	24,837	28,037	31,902	35,869	39,248	41,003	44,407	47,196	49,456

Figure 9: Deposits in sectors non-financial corporations and households in the Bulgarian banking system in the period 2007–2017 (BGN billion)
Source: BNB

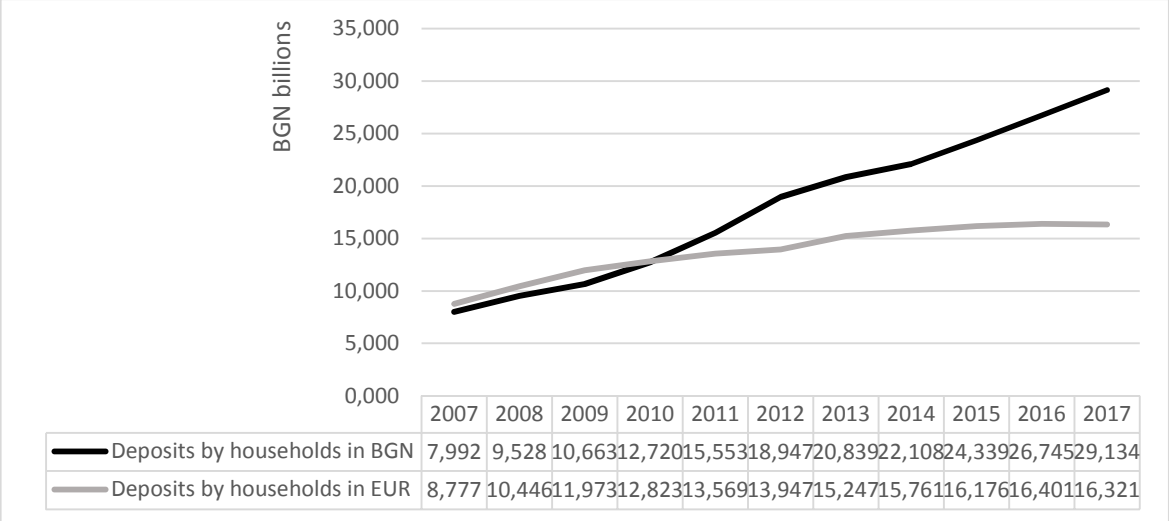
During the analyzed period, with the exception of 2007, the deposits by households were at higher values than the deposits by non-financial corporations in Bulgaria. The deposits by the non-financial corporations in the Bulgarian banks retained close values until 2016 and marked a slight increase in 2017. The deposits of households grew continuously during the reviewed period and in 2017 they increased two and a half times, compared with 2007. The deposits of households in Bulgaria increased despite of the low interest rates on deposits. Thus, liquid funds of great value were accumulated in the Bulgarian banking system.



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Deposits by non-financial corporations in BGN	11,401	11,277	9,207	10,533	12,406	13,413	14,639	14,519	12,094	13,260	14,974
Deposits by non-financial corporations in EUR	7,293	7,163	8,260	7,158	7,315	6,622	7,119	6,702	5,734	6,227	7,222

Figure 10: Deposits by non-financial corporations in the banking system in Bulgaria during the period 2007–2017 in BGN and in EUR (BGN billion)
Source: BNB

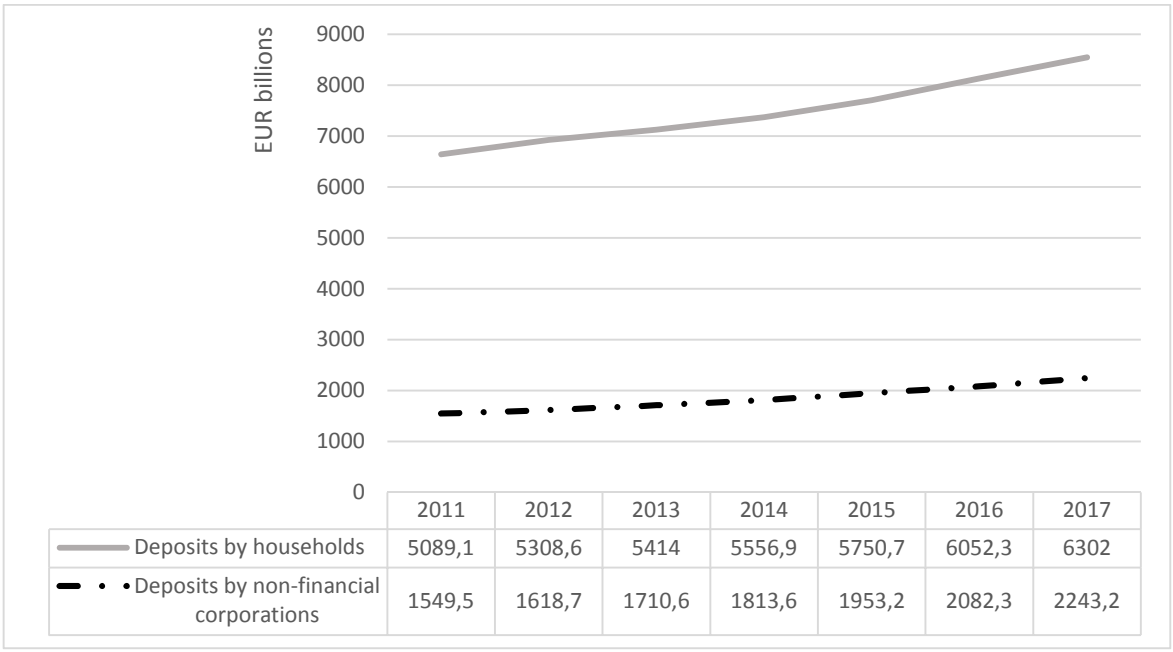
During the period 2007–2017, the deposits by non-financial corporations in the banking system in Bulgaria in BGN exceeded the deposits in EUR. Since 2013 the two types of deposits changed in parallel. It is noted that the lowest value of the nonfinancial corporations' deposits in BGN and the highest value of the non-financial corporations' deposits in EUR were recorded in 2009. That most likely was due to the impact of the global financial and economic crisis. The companies preferred to increase their deposits in EUR and to decrease those in BGN, but the deposits in BGN were predominant in that year as well. A drop in both types of deposits was registered in 2015.



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Deposits by households in BGN	7,992	9,528	10,663	12,720	15,553	18,947	20,839	22,108	24,339	26,745	29,134
Deposits by households in EUR	8,777	10,446	11,973	12,823	13,569	13,947	15,247	15,761	16,176	16,401	16,321

Figure 11: Deposits by households in the banking system in Bulgaria for the period 2007–2017 in BGN and EUR (BGN billion)
Source: BNB

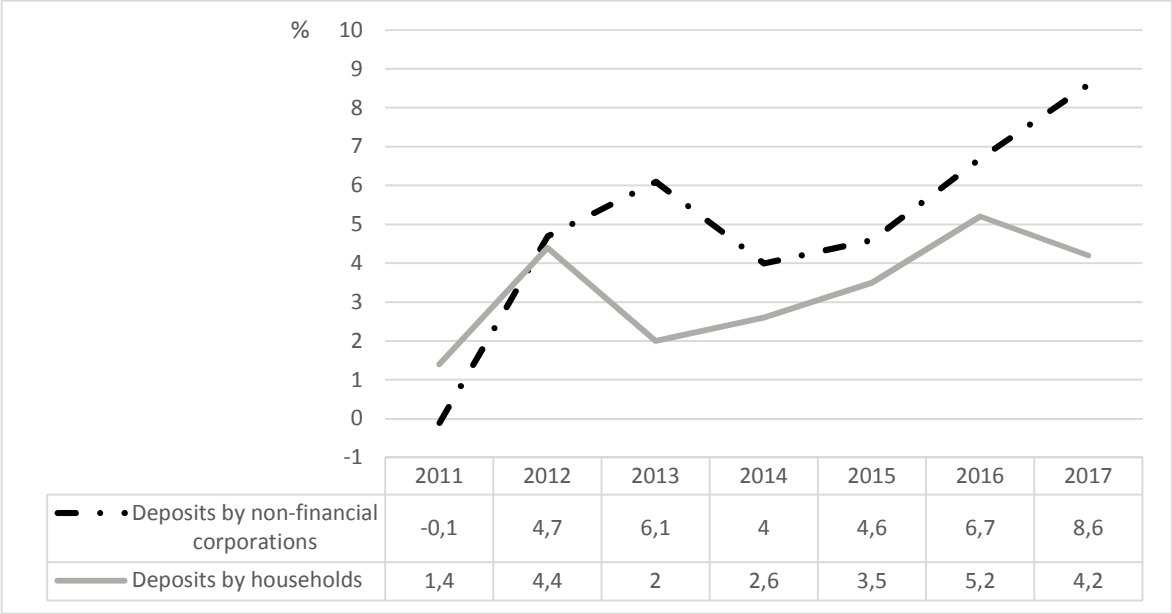
Until 2010, the deposits by households in EUR in the banking system of Bulgaria exceeded in value the deposits in BGN, the two types of deposits being at near levels. Since 2011, the trend reversed and the larger portion of the households' deposits in Bulgarian banks was in BGN, that difference continuously deepening until the period-end. Both household's deposits in BGN and those in EUR continuously climbed during the analyzed period, the deposits in BGN increasing to a greater extent.



	2011	2012	2013	2014	2015	2016	2017
Deposits by households	5089,1	5308,6	5414	5556,9	5750,7	6052,3	6302
Deposits by non-financial corporations	1549,5	1618,7	1710,6	1813,6	1953,2	2082,3	2243,2

Figure 12: Deposits by sectors non-financial corporations and household with the banks in the euro area in the period 2011–2017 (EUR billion)
Source: ECB

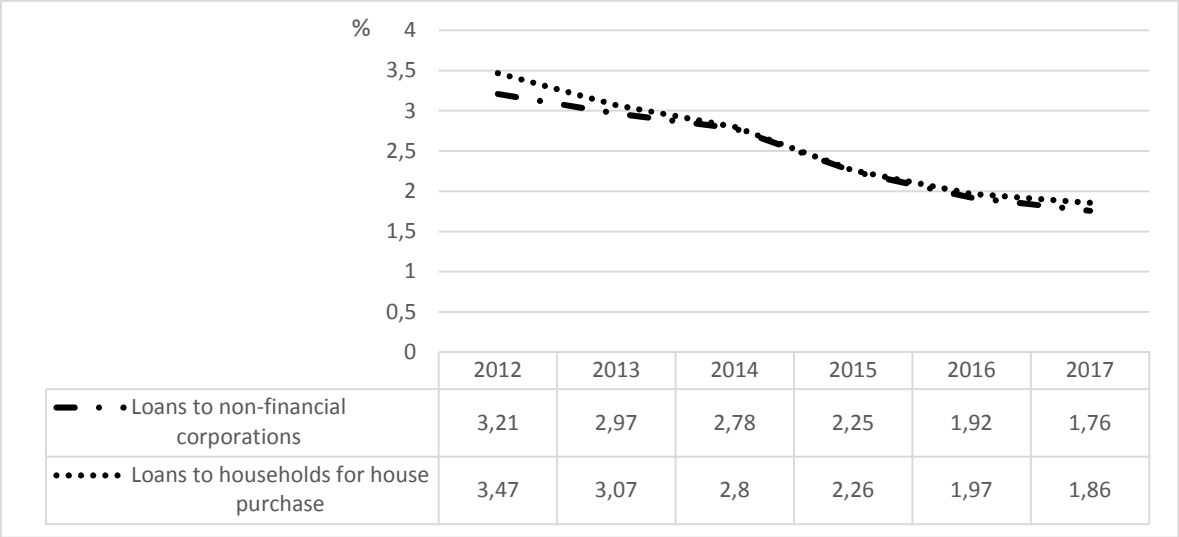
Throughout the whole analyzed period, the deposits by households exceeded around three times the deposits by non-financial corporations in the euro area. In both types of deposits in 2017 there was an increase, compared with 2011.



	2011	2012	2013	2014	2015	2016	2017
Deposits by non-financial corporations	-0,1	4,7	6,1	4	4,6	6,7	8,6
Deposits by households	1,4	4,4	2	2,6	3,5	5,2	4,2

Figure 13: Annual growth rates of deposits by non-financial corporations and households of the banks in the euro area countries in the period 2011–2017 (%)
Source: ECB

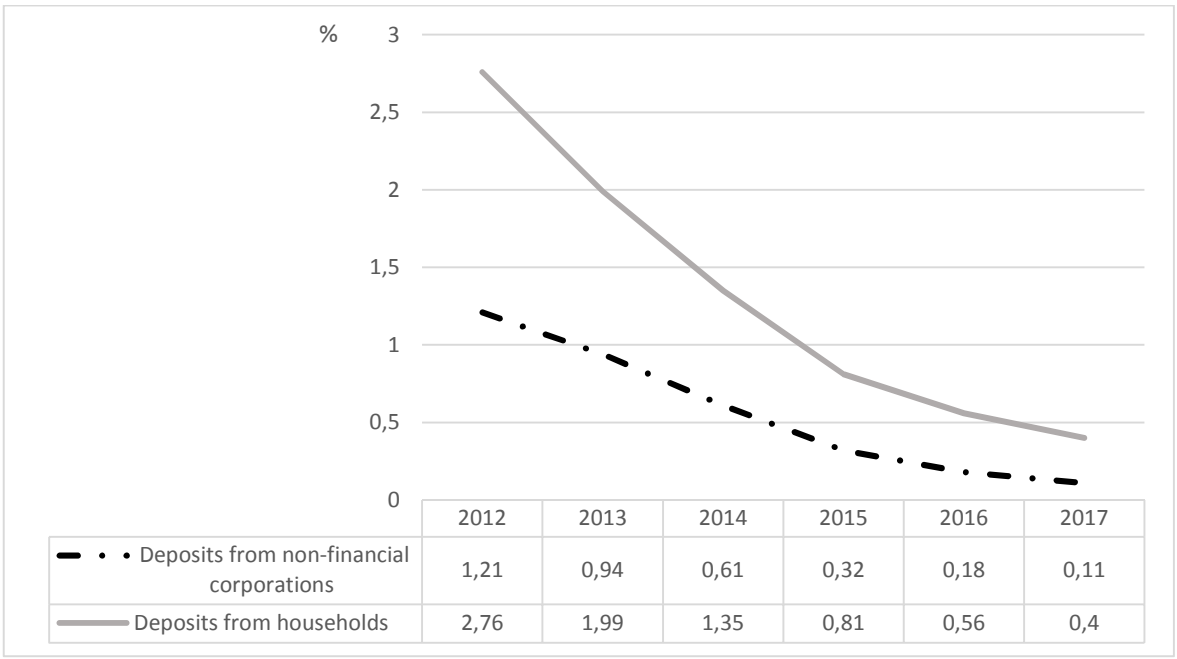
High dynamics was observed in the deposits by non-financial corporations and households in the euro area countries during the period 2011–2017, it being more significant in deposits by non-financial corporations. No parallel change was observed of the two types of deposits.



	2012	2013	2014	2015	2016	2017
Loans to non-financial corporations	3,21	2,97	2,78	2,25	1,92	1,76
Loans to households for house purchase	3,47	3,07	2,8	2,26	1,97	1,86

Figure 14: Interest rates for new business on loans to non-financial corporations and loans to households for house purchase of the banks in the euro area in the period 2012–2017 г. (%)
Source: ECB

Interest rates for new business on loans to non-financial corporations and loans to households for house purchase of the banks in the euro area in the period 2012–2017 were at near levels and changed in parallel. They fell continuously and substantially during the period under review.



	2012	2013	2014	2015	2016	2017
Deposits from non-financial corporations	1,21	0,94	0,61	0,32	0,18	0,11
Deposits from households	2,76	1,99	1,35	0,81	0,56	0,4

Figure 15: Interest rates for new business on deposits by sectors non-financial corporations and households of the banks in the euro area in the period 2012–2017 (%)
Source: ECB

The interest rates for new business on deposits by non-financial corporations were lower than the interest rates for new business on deposits by households of the banks in the euro area in the period 2012–2017. The interest rates for new business on deposits continuously decreased during the period. In 2017, the interest rates for new business on deposits by non-financial corporations dropped 11 times, compared with 2012, and in the interest rates for new business

on deposits by households the fall was nearly seven times. The interest rates on loans and deposits in the euro area and in Bulgaria depend to a large extent on the interest rates of ECB.

Conclusions which can be drawn from the analysis of the dynamics of loans and deposits in Bulgaria and the euro area in the period 2007–2017 are:

- the loans to non-financial corporations in Bulgaria were at highest value;
- the loans to households in BGN in Bulgaria considerably exceeded the loans in EUR during the period under review;
- the values of the loans to non-financial corporations and households in the euro area remained at near values during the analyzed period. In contrast to Bulgaria, in the euro area the households' loans exceeded the loans granted to non-financial corporations;
- during the analysed period, except for 2007, the deposits by households exceeded the deposits by non-financial corporations in the Bulgarian banks. While the deposits by non-financial corporations in Bulgaria remained at near values until 2016 and marked a slight climb in 2017, the deposits by households increased continuously during the period 2007–2017 and in 2017 they grew twice and a half times, compared with 2007. The households' deposits in Bulgaria increased despite of the low interest rates on deposits and considerable liquid resources were accumulated at the Bulgarian banks. The deposits of non-financial corporations in BGN marked their lowest value and the deposits of non-financial corporations in EUR their highest value in 2009. That most likely was due to the impact of the global financial and economic crisis. The companies increased their deposits in EUR and decreased the deposits in BGN. The deposits by households in BGN and the deposits by households in EUR continuously grew during the analysed period, while the increase of the deposits in BGN was more considerable;
- in the period 2011–2017, in the euro area the deposits by households had about three times higher values, compared with the deposits by the non-financial corporations. The deposits by households and the deposits by non-financial corporations in 2017 were at higher value than in 2011;
- the interest rates for new business on loans to non-financial corporations and to households for house purchase in the euro area were continuously and substantially decreasing in the period 2012–2017;
- the interest rates for new business on deposits in the euro area member states continuously and strongly declined during the analysed period. The interest rates on loans and deposits in the euro area and Bulgaria to a large extent depend on the interest rates of ECB.

REFERENCES

[1] http://sdw.ecb.europa.eu
[2] http://www.bnb.bg/

CHALLENGE FOR A NON-FINANCIAL DEFINED CONTRIBUTION SCHEME IN THE ALBANIAN RETIREMENT SYSTEM

Landi Gushi[44]

DOI: https://doi.org/10.31410/eraz.2018.97

Abstract: *The retirement system in Albania has gone through a series of important reforms. Actually, the retirement system in Albania is dominated by the public mandatory scheme managed by the Institute of Social Security. This paper discusses the potential role of a Non-Financial Defined Contribution scheme and its implementation in the Albanian retirement system relying on international theory and experience. In the present social and economic situation in Albania, the reforms in retirement system are needed immediately, so that the retirement system fulfills its intended functions. It should be an important element in reducing the poverty and enhancing the future social-economic developments; therefore the only alternative is to improve it further by reforming it.*

Key words: *retirement, reform, Non-Financial Defined Contribution Schemes, Albania*

1. INTRODUCTION

Nowadays, the issue of financial sustainability of the social security scheme is the center of discussions and debates among experts; it also is a constant concern for many governments. Such issue brought about the need for reforms in actual retirement systems in many countries. There are few countries where the reform in the current retirement system is not a part of the reform agendas. The managers behind the need for reforms change according to countries and regions, but they agree on the necessity of reforms on the actual retirement systems (Holzmann and Palmer, 2006). In fact, the retirement reforms, regardless of the differences between them, on one hand are performed through reforms affecting the contributors and those who actual and future beneficiaries on the other. A wide discussion related to reforms in retirement system has occurred and is occurring in many countries. The need for consolidating the social security systems and retirement funds that generate incomes for the elderly is also encouraged by pressures of global aging phenomenon, decline of informal and traditional systems of household support and weaknesses in managing and governing the existing retirement systems (Holzmann, Hinz and Dorfman, 2008). In circumstances when the old operating system PAYG adopted in many countries is failing (Augusztinovics, 1999) and anticipating the difficult social crisis which may come as result of this same scheme's failure, a question is raised: Would it be better to operate with a modified PAYG system, a private retirement system or a multi-columns system? The NDC scheme came as result of exchanging ideas and discussions among retirement experts and politicians who work for the retirement schemes in countries where the NDC scheme has been implemented. It is worth mentioning the fact that 10 years after its introduction as a scheme, the NDC scheme is applied in Sweden (Scherman 2003), Italy and Poland (OECD, 2012: 56) and no result has been obtained yet because of the short-term period of its implementation so that the effectiveness of its technical framework is ensured. It is the only way for expanding the list if countries that implement this scheme. It is too important that the application of this scheme is considered as an alternative

[44] Faculty of Economy, Marketing – Tourism Department, University "Fan S. Noli", Korce, Albania

for reforming the retirement system in Albania as well. This is because the application of such scheme would financially stabilize the retirement system in Albania and would bring about changes that fit with increasing phenomena in our country such as population aging, high unemployment and immigration.

2. WHAT ARE RETIREMENT SYSTEMS?

The retirement program called the retirement system is a specific scheme which generates incomes for those persons whose age makes it impossible to generate incomes through a job. This system is part of Social Security system, which is established to increase the wellbeing for individuals in cases of misfortunes caused by accidents, disabilities, etc.

Retirement schemes take the majority of Social Security system. Retirement systems have multiple goals: fight poverty, reduce consumption, provide safety and are a means for re-distribution within and among generations (Barr and Diamond, 2008). Generally, they are compulsory systems, applicable to all; they protect the citizens from diseases, invalidity and aging. These schemes are provided by the Government. Retirement is an agreement which enables people to generate incomes when they are older and unable to work. This is a saving means which allows tax free accumulation of an amount of money to be used later as an income from retirement (ILO , 2005: 25). Complete retirement payment is the most widely used profit that covers the retired population. Retirement, according to Williams and Windebank (1998), is the entirety of planned procedures and a legal process for creating a safe fund, fulfilling the social obligation that employers owe to their employees in the moment they retire.

3. TYPES OF RETIREMENT SYSTEM SCHEMES.

Institutions that manage the retirement schemes in itself do not include only the retirement scheme identified habitually with the social security. There are other schemes that operate in such institutions, such as temporary disability, maternity leaves, job accidents and occupational diseases, unemployment, income compensations for household, child compensations, schooling compensations, etc. Based on different criteria, retirement schemes are divided into some groups:

According the financing means they are divided into:

Schemes financed by incomes collected by the Government (Beveridge).
Based on this model, employees pay fixed contributions and get retirement payment for meeting their vital needs. Participant in this model is the Government that contributes with the payment of benefits being provided. According to this model, all citizens are protected and have a right to benefit regardless the level of contributions. In this model, the re-distribution level for the incomes is too high.

Schemes that are financed by contributions paid by anyone (Bismark).
Based on this model, the system is financed by contributions paid by individuals and the contributions level is related to incomes being generated from employment. Benefits are related to incomes and paid contributions. This model has lower level of income re-distribution than Beveridge model. (Ludwig and Winter 2005: 10).

According the management method they are divided into:

Public schemes
The management is public here, made by Government or its structures, such as boards, councils, etc. In such schemes, the role of Government is essential and enables these schemes through financing and managing them. These schemes are universal and protect the society with social security elements.

Private schemes
These concern the schemes that are not universal, but offer advantages to certain groups. These schemes are based on the principle of pure safety and the re-distribution level is too low. They operate based on the principle of individual accounts and everyone benefits from the contributions paid through the years based on actuarial estimations.

Public schemes managed privately
These schemes are a mix of the above schemes. They are public and include everyone, but in order to increase the effectiveness and well-management they are managed privately. Public schemes managed privately are self-capitalized. Their priority lies in increasing the profit from investing the accumulated funds.

According the capitalization level the contributions are divided into:

Non-capitalizing schemes or Pay as you go (PAYGO)
These schemes do not capitalize the paid contribution and they invest it, but the paid contributions are used to pay the benefits of the same period. In other words, the contributions paid by participants in the scheme, one month or year, are used to pay the retirees that same month or year. This type of scheme is called *pay as you go* and has a high re-distribution level among generations, within generations and among genders. In cases when the paid contributions are higher than benefits to be paid, the surplus goes to reserve fund, which is a fund used when incomes lack and serves as a guarantee for the scheme and already determined benefits.

Schemes with capitalization or capital accumulation.

LANDI GUSHI

Faculty of Economy, Marketing – Tourism Department, University "Fan S. Noli", Korce, Albania

Education and qualifications:
1992-1996; University studies, Faculty of Economy
University "Fan S. Noli", Korce, Albania; Branch: Marketing; Title: "Economist for Marketing"
2007-2011; Master studies, Faculty of Tourism and Hospitality, Ohrid, University St.Kliment Ohridski-Bitola, Republic of Macedonia; Title: "Science Master in Insurance", 2011
Equivalent to MES " Scientific Masterin Insurance"
Microtease:"Compensation of Non-Material Damages European and Macedonian Experiences"
Scientific leader: Prof. Dr. Miladin Kerstanofski
October 2012 - PhD student at the European University of Tirana.

Employment experiences:
1996 - 2005: Administrator of the company "Agro-Dimizal", Korçë.
March 2005 - February 2006: Credit Analyst at the WorldVision Albania Foundation, Korça.
March 2006 - January 2010: Regional Director at the Regional Social Insurance Directorate, Korça.
February 2010 - March 2012 Regional Director of the Regional Health Care Directorate, Korç.
April 2012 -May 2014: President of the Regional Council, Korça.
October 2014 - Continuation: Lecturer at Faculty of Economics University "Fan S. Noli", Korça

In such schemes the contribution paid is personalized and is manages in individual accounts. All individual contributions are accumulated and invested through the years. Even interests provided by investments are added to individual accounts. The profit is estimated based on contributions and investment interests in individual accounts based on actuarial calculations.

According the way of delivering the benefits, they are divided into:

Schemes with defined benefit (DB)
Benefit provided through these schemes is estimated as part of incomes from employment for period provided by law. This means that benefit is a part of the salary on which social security contributions are paid. Generally, the amount of benefit is calculated as a percentage of salary for the last year or the average salary for the last three or more years. For example, 70% of the average salary for the last three years or the average salary of the vest three years in the last 10 years in employment. This scheme is good for the beneficiaries, but creates difficulties in the financial stability of the scheme. This is because salaries in the last years are higher than when the carrier just started.

Schemes with defined contributions (DC)
The advantage for these schemes is calculated by considering the entire contribution paid during the working carrier or the regular working years. Therefore, the contribution paid during the whole life is primary, and not just the last years. According to this scheme, the benefit is related to the level of paid contribution and initiatives are put in place for paying high contributions during the whole working carrier so that retirement benefits are higher. This scheme is related directly to paid contributions with benefits received.

4. HOW DOES A NDC RETIREMENT SCHEME WORK?

Retirement schemes in different countries of the world have gone through major modifications as result of several phenomena, which have come to develop in different periods. These changes brought the necessity for modifying these schemes. Initially we notice those phenomena which brought the need for reforms.

Fiscal pressures continue to be the main cause for starting with retirement reforms. Reforms are inevitably initiated by the results of short term budget pressure. The most important problems for the long term budget are related to sustainability because of population aging.

Social-economic changes are another important reason for reforms. Public dispositions from incomes of retirement for employees in the private sector originate from XX century and continue even today in developed countries, as a political response to urbanization and industrialization. For a certain period, schemes were based on the model where most of the time, the husband worked, while the wife remained at home taking care of house chores and kids, with a high probability of turning into a widow. Therefore, the first aid provided by retirement schemes is to assist children and widows. In the end of XX century, two important social-economic modifications occurred by changing the situation.

First, the increasing participation of women in the labor market and change of household structure. Another factor which reformed the retirement schemes is the globalization. Because of it, reforms are important not only for globalization benefits, but to face difficulties as well caused by globalization, including huge issues from innovation or displacements, which are made for being adapted with the production increase in companies and production plants.

To solve these problems, establishment of NDC retirement systems has been a solution. What are the NDC retirement schemes?

A NDC scheme is a pay-as-you-go scheme with determined contributions. In this scheme individual contributions based on fixed contributions rate are determined in imaginary individual accounts. These accounts are credited with the capital return rate. They continue to be accumulated for as long as the person owning it works and contributes. There is no age limit for being a full beneficiary in the scheme, but all contributions increase the size of individual annual retirement payment, when the persons does request it or after he/she is aged enough to retire. Annual retirement payment is calculated by dividing the account balance with the price of retirement longevity. (Palmer, 2004:18).

Compared to DC schemes, NDC schemes have major differences.

First, the internal rate of return in a NDC scheme is the function of the increase of productivity, labor force and factors related to contribution and payments of benefits are in contradiction with the financial market rate of return.

Secondly, the only financial saving that may occur comes in the form of a reserve fund which is in contradiction with the DC schemes. NDC schemes require a higher level of contributions in order to receive the same payment as DC schemes. Therefore, NDC scheme is the second best one on economic terms. On the other hand, one “positive” side of NDC scheme is that NDC scheme does not involve the transition costs which are related to presentation and establishment of DC scheme, because during this period some forms of pay-as-you-go scheme still persist. What is worth mentioning about the NDC schemes is the fact that participants in this scheme or the self-employed pay contributions on their profits during their whole carrier. Although, there is a minimal age limit when people benefit retirement payment, this scheme does not provide such age. For as long as people are employed and make profit from their job, they may generate the incomes in contributions for their individual accounts. (Holzmann and Palmer 2003: 3).

NDC scheme of retirement payments does combine PAYGO financing which is characteristic for DC schemes with defined contributions of DC schemes. It should be emphasized that NDC scheme provides benefits for individual contributions, but it is attributable to contributions with the imaginary interest rate related to salary increase, rather than ensuring the return of specific financial assets. The main idea of NDC scheme is to divide the public PAYGO scheme into two components: one actuarial strict element (NDC retirement payments) operating in PAYG scheme, but imitating the defined contributions scheme. The second element is a re-distributing element, financed by contributions paid by actual generation. Thus, NDC scheme imitated schemes with defined contributions, by paying valid incomes for the rest of their life. (Barr, 2004: 58).

5. ADVANTAGES OF A NDC SCHEME

NDC scheme is one which is applied in different countries of the world. This is because its application brings many benefits for the social security system and the economies of the countries. Advantages of NDC schemes are many; let us mention as following:

NDC scheme is compulsory. Also, it is an actuarial scheme, because it has access in the individual account for as long as they live. The portability of the right to retire among different

jobs, professions and sectors, is allowed in such schemes. This scheme "promises" to face the aging effects of the population in an automatic way.

Avoiding the arbitrarity in the rules of benefit indexing and regulatory factors makes up another advantage of this scheme. (Palmer, 2004: 19).

Besides, NDC scheme brings many benefits on social and economic aspect for several reasons. One of them lied with the fact that this scheme ensures a life retirement payment. It could be benefited since the moment when the person in minimally old enough to retire.

Basic incomes of NDC materialize the rate of return based on the same internal rate of return, which are credited accounts during the accumulation stage. Therefore, NDC scheme distributes individual resources during the life cycle, but with the structure of universal security PAYGO scheme.

Another benefit for the NDC scheme includes the fact that it faces the effects of changes of demographic and economic factors. (Borsch-Supan, 2003: 6).

6. LACK OF AN NDC SCHEME IN THE ALBANIAN SYSTEM

Social security system in Albania operated according to PAYGO scheme, therefore the system does not capitalize the paid contribution so as to invest it. Such way of operation for a long period of time, in Albanian system as in other countries caused many problems. Therefore, the retirement system today is facing a lot of problems requiring solutions from retirement experts and policy makers. Many of these problems come because of implementing the PAYGO scheme in the social security system. So, the retirement scheme suffers from a high deficit, which makes it financially unaffordable. Also, another problem is the low level of benefits from retirement; slow pace of real size of increase and the regressive turn on their 1997 level, which took almost 3 years to recuperate. In 1999, real average retirement payment in towns was only 12% higher than in 1993, whereas the average salary for the same period has increased with an average annual pace by 38%. The retirement scheme in Albania is not financially balanced. Such financial instability is the result of fast increase of retirement rate a few years ago. Other reasons are: low number of contributors, non-declaration of real salary, relatively high number of retirees compared to a young age of population, young age of retirees resulting from early retirement in the beginning of 1990s and young age of retirement for some specific categories, demographic changes, unemployment level and high emigration level for the labor force. Also, the substitution coefficient results in an aggravating tendency in towns as well in villages. From 60,2% in towns in 1994, today is 43.4%. Meanwhile there is another tendency in villages. Until 2000 there is a decline up to 15.78% from 27.34% in 1994. Later on, there is an increase of this rate and now it is 26.9%. This tendency was affected by the higher increase rate of average retirement level in villages against minimal contributing payment. (Ministry of Social Welfare and Youth, 2014: 4).

7. WHY A NDC SCHEME IS IMPORTANT IN THE ALBANIAN SYSTEM?

The retirement reform is in its third year of implementation. Although it is still the beginning, it faces challenges of emigration of young labor force, fast pace of population aging phenomenon, decline of contributors who work in agriculture and increase of deficit in net values; since 2013 the scheme has involved about 157 thousand new contributors. The retirement scheme in Albania is not financially balances. Such financial instability is the result

of fast increase of retirement rate a few years ago. Other reasons are: low number of contributors, non-declaration of real salary, relatively high number of retirees compared to a young age of population, young age of retirees resulting from early retirement in the beginning of 1990s and young age of retirement for some specific categories, demographic changes, unemployment level and high emigration level for the labor force. In 2016, the deficit among incomes from contributions and expenses for benefits was more than 44 billion Lekë (ISSH 2017). The deficit has put at risk the financial sustainability of the retirement system. Another challenge which the system should face with is of course the fact of population aging phenomenon, which causes a sharp and sensitive rate of dependency. For this reason it is necessary to establish a scheme based on contributions. Such a scheme would be very profitable for the social security system and the economy in Albania. Advantages start from the increase of financial sustainability of the scheme; decline of informality in labor market, a closer relation between contributions made during the working years and the obtained retirement; as well as a more suitable retirement level since they would be based on contributions. It should be emphasized the fact that the main objective of retirement supervision is that the retirement fund should be able to meet the expectations of members, related to benefits and risks. Besides, the low level of development for the third backbone in Albania should be set aside since it is a voluntary scheme. This and the lack of the second level is accompanied by a high opportune cost of supervisory involvement capacities from the Financial Supervisory Authority (AMF). During the last years, AMF has determined the necessary standards for an effective management and supervision of voluntary private retirement funds, thus, creating a new experience according to European standards. This scheme is created with defined and capitalized contributions aligned with the last global tendencies. The contribution of the third backbone is inconsiderable in the Albanian economy, so that a reform adopting the NDC scheme would revive the retirement system by addressing the long-term challenges. The stronger the role and importance of NDC in retirement system, the more sensible the reform benefits, increasing the pressure toward reducing the system's deficit as a whole.

8. CONCLUSIONS

Many countries around the world have lived the transition from an actual to a reformed system. Some of them have reformed the retirement system to pass on to NDC system. NDC retirement system is a pay-as-you-go scheme with defined contributions. In such a scheme, individual contributions based on fixed contribution rate are determined in individual accounts. These accounts are credited with the rate of return. They continue to accumulate as long as the person works and made contributions. This scheme is ideal for dealing with different economic issues if the country, because it faces the financial instability and population aging. It provides a framework to deal with the greatest needs in modern retirement systems.

NDC schemes require a high level of contributions in order to receive the same payment as DC schemes; therefore NDC scheme is the second best in terms of economic benefits. On the other hand, "a negative side" of DC scheme which are related to introducing and establishing the DC scheme is that NDC scheme has no high transition costs because some forms of pay-as-you-go scheme still persist.

NDC scheme brings a lot of advantages in the social and economic aspect for several reasons. One of them lies with the fact that this scheme provides a life retirement. It could be obtained since the moment when the person is minimally aged to be retired. Basic incomes of NDC materialize the rate of return based on the same internal rate of return, which are the credited

accounts during the accumulation stage. Therefore, NDC scheme distributes the individual resources during the life cycle, but with the universal scheme structure of PAYGO security.

As in other transitional economies, the system of social security in Albania is directly related to the developments of transition from a centralized to market economy. They include a decline in employment rate as result of the decline of public sector and the fast increase of informal economy and an increase of early retirement as related to enterprise restructuring. As a result, from 1990 to 2016 there is noticed a considerable decline in the number of contributors from 100% of the labor force to its 1/3. It was because of these issues that the reforms in the system were necessary.

The retirement reform is in its third year of implementation. Although it is still the beginning, it faces challenges of emigration of young labor force, fast pace of population aging phenomenon, decline of contributors who work in agriculture and increase of deficit in net values. Therefore it is necessary the establishment of NDC scheme in our country. It would bring many advantages for the social security system and the country's economy.

The benefits of a NDC scheme start with the increase of the financial sustainability; decline of informality in labor market through a strong relation between contributions made during the working years and obtained; and a more suitable retirement level based on contributions.

BIBLIOGRAPHY

- Holzmann, R. and Palmer, E. (2006) Pension Reform Issues and Prospects for Non-Financial Defined Contribution (NDC) Schemes, Washington, DC: World Bank..
- Pension Systems and Reform Conceptual Framework. Robert Holzmann, Richard Paul Hinz and Mark Dorfman http:// siteresources. worldbank. org/ SOCIALPROTECTION/ Resources/ SP- Discussion- papers/ Pensions-DP/0824.pdf
- Augusztinovics, M. (1999) Pension systems and reforms in the transition economies, *Economic Survey of Europe*, No. 3: 89-114.
- Scherman, KG. (2003) The Swedish pension reform: a good model for other countries? *Scandinavian Insurance Quarterly*, Issue Nr 4/2003: 304–318.
- OECD (2012) Pensions Outlook, OECD, 56.
- Barr, N. and Diamond, P. (2008) Reforming Pensions: Principles and Policy Choices, Oxford Scholarship Online.
- International Labour Organisation (ILO) (2006) Social Security Spending in South Eastern Europe: A comparative reviews, Budapest: ILO
- Williams, C. C. and Windebank, J. (1998). Informal Employment in Advanced Economies: Implications for Work and Welfare
- Williams, C. C., & Windebank, J. (1998). Informal employment in the advanced economies: Implications for work and welfare . London: Routledge.
- Aging, Pension Reform, and Capital Flows: A Multi-Country Simulation Model Axel Boersch-Supan, Alexander Ludwig, Joachim Winter NBER Working Paper No. 11850 Issued in December 2005.
- Barr, N. (2004) Pension reform: issues and prospects for NDC schemes, The Economics of the Welfare State, OUP, 4th ed. 57 – 69.
- Borsch-Supan, A. (2003) What are NDC pension systems? What do they bring to reform strategies? MEA discussion paper series 03042, Munich Center for the Economics of Aging (MEA).

- Holzmann, R. and Palmer, E. (2006) The Status of the NDC Discussion: Introduction and Overview, Washington, DC.: World Bank.
- ISSH , http://www.issh.gov.al/al/wp-content/uploads/2014/02/Perb_12_17-web1.pdf

INCOME RELATED ELASTICITY OF HEALTH EXPENDITURE: SOME EMPIRICAL EVIDENCE FOR BULGARIA

Nikolay Atanasov[45]

DOI: https://doi.org/10.31410/eraz.2018.106

Abstract: *The aim of this study is to be presented and analyzed the trends of the household health expenditure dynamics and its source – the income considering the elasticity for the period 1990-2017. The elasticity is assessed trough OLS estimates of the slope coefficient of the linear health expenditure model built with income as an independent variable.*
The results reveal the existence of low level of the income elasticity of the households health expenditure (it is estimated on 2% of the real income changings). This general finding could be explained with a common nature of the health goods which consumption are often imperative and cannot be delayed. Other factors like the crisis and transition to the social insurance financing with definite out-of-pocket payments could cause the relatively low income related elasticity measures.

Key words: *household health expenditure, household income, health financing, income elasticity, crisis effects.*

1. INTRODUCTION

The health expenditure is studied at least by two major points of view with strong economic and financial sense: The first is their impact and relation to the economic growth – this is may the oldest problem discussed broadly in the field of Health Economics helping to rise it as a relatively independent discipline [1]. The second is the financing effects on the income inequality or redistributive evidences caused by the different financing methods [3], [4]. Some of the latest research of health expenditures which is focused on the determinants (demographic and non-demographic) proves that 1% increase of the income (measured by the GDP) can be associated with 1.1% increase of health care expenditure in OECD countries [2]. That finding reveals that health expenditures have growth rates bigger than that of GDP in developed. The other studies explain part of the nature of health goods with the reaction of the expenditure on them relevant to the income changings [5]-[8].

The income elasticity can be referred directly to the area related to the income and also indirectly to the financial burden, consumption of health services and to the nature of the health goods. In a narrow sense the income elasticity can be expressed with that reaction of the health costs due to the changings of the income of the economical agents.

According to the complex nature of the health goods and variety of methods for health financing, it can be classified different income elasticities – for example:

- the income elasticity of the total health expenditure considering the relation with the GNP or the GDP;

[45] Medical University - Plovdiv, Vasil Aprilov Blvd., 15A, Plovdiv, 4002, Faculty of Public Health, Department of Health Management and Health Economics, Bulgaria

- the income elasticity of the public health expenditure accounting the relation with the general budget revenue or with the GDP;
- the income elasticity of the private health costs assessed trough the household budgets measures.

The purpose of the study is to be estimated and analyzed the income elasticity of household expenditure on health in Bulgaria for the period 1990-2017 in terms of linear combination between the variables. Generally, the elasticity is assessed through the OLS estimate of the slope coefficient from the simple linear regression model of household health expenditure on health built with the household income as an independent variable.

In the course of the study the following phenomena play a restrict role and affect significantly the potential results:

1) The unusual and very high inflation with strong effect over the real income, consumption and costs of all economical agents for the period 1990-1997;
2) The introduction of a currency board in the middle of 1997 and the denomination of the national currency in the next year;
3) Fast running restructuring processes embracing whole the national economy after 1998;
4) The reorganization of the financing of the health sector passing from government budget to compulsory social insurance mixed with considerable direct payments (1999-2000 till nowadays).

As a response to these restrictions the whole period from 1990 (the beginning of the transition) to the last year 2017 is conditionally divided on two sub-periods – the first 1990-1998 and the second 1999-2017. The inflation is assumed through the annual inflation rates with base period the December of 1990. All of the observed values of the household health expenditure and income are recalculated from nominal to real. The analyses are conducted with the real health costs and the real income. Finally, for the purpose of better comparability the data is presented in non-dominated BGN i.e. the health costs and the income for 1998 and after are multiplied by 1000. This calculation does not change the elasticity estimates it affects only the constant of the suggested models.

2. DATA AND METHODS

The data sources for the health expenditure are the Average Household Expenditures on Health (AHEH) and the data for the income are obtained from the Average Total Household Income (AHI) that are reported by the National Statistical Institute of Bulgaria of its Statistical Yearbooks. The inflation rates have got the same source. This allows to be built two dynamic rows with length of 28 years from 1990-2017:

- $RAHEH_t$ – real average household expenditures on health;
- $RAHI_t$ – real average total household income.

The real values are determined by the following formula:

$$RAHEH_t = \frac{AHEH_t}{(1 + i_t)} \quad (1)$$

$$RAHI_t = \frac{AHI_t}{(1 + i_t)} \quad (2)$$

where:

i_t – inflation rate for the year 't' with a based period the December of 1990.

The study is conducted with the help of graphical analysis (plotting time series with lines and scatters), regression analysis using OLS estimates of the slope coefficients as an elasticity explanation. The model sustainability is explored with Chow test. The residuals are analyzed for autocorrelation, normality and homoscedasticity with Box-Pierce Q test, Jarque-Bera and Breusch-Pagan tests. Finally, for the whole period it is suggested the income elasticity of health expenditure derived from two models. The first model is specified with first order differenced data and the second with dummy and time as independent variables.

3. RESULTS AND DISCUSSION

After transformation of built time series from a non-denominated nominal to real values the following time movements become visible, as they are shown on figures 1 and 2.

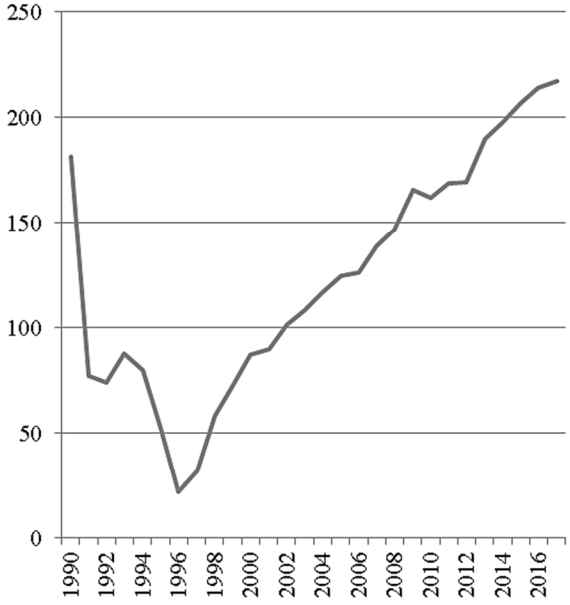


Figure 1. RAHEH in non-denominated BGN and base period for the annual inflation rates Dec. 1990.

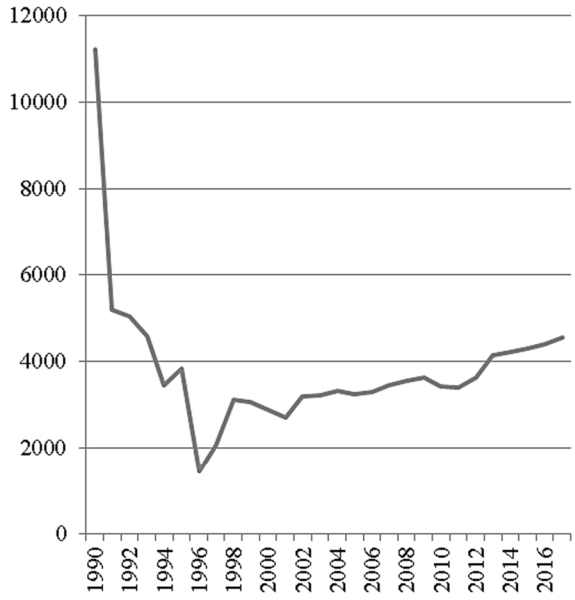


Figure 2. RAHI in non-denominated BGN and base period for the annual inflation rates Dec. 1990.

It is exists dramatic decrease of real health expenditure and not less drop of the real income over the first seven years. This tendency broke in 1997 and it is followed by the rapid upward trend of the health expenditure which continues to the end of the observed period. This tendency can be explained with put in control of inflation in the middle of the same year with introduction of the currency board and applying a conservative and restrictive fiscal policy for the next years.

Favorable uprising trend exists for the average real household total income after 1997 and 1998 but its increase is not so considerable like the health expenditure growth for the same sub-period. Hence, it could be considered that the health costs remarkably affect the household budgets. The next figure presents the series line of the real average household health expenditure as a percentage share of the real average total household income. This line expresses the financial burden of health for the households (not considering the social health

insurance contributions or taxation) i.e. the reported health costs are essentially direct payments made for health services and for pharmaceutical goods when it is necessary. Since the average health expenditure of households is obtained by the National Statistical Institute through the yearly conducted surveys (included more than 3 000 households) it has to be known that the data suffer from recall error.

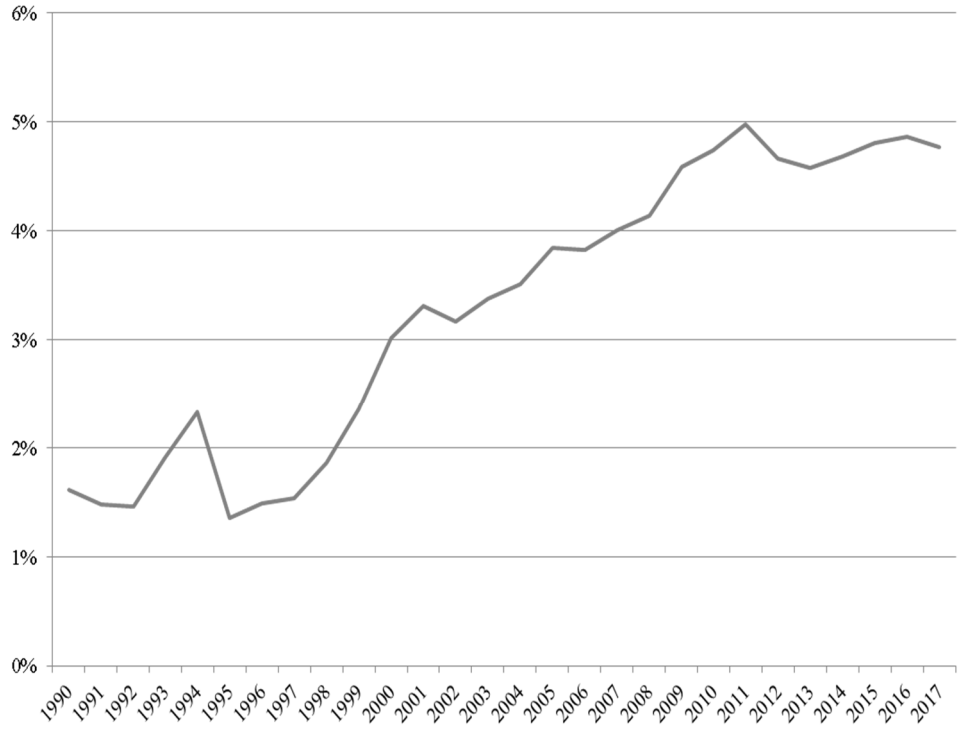


Figure 3. RAHEH as a percentage share from RAHI.

The series line of the financial burden of health has got well developed upward trend. However, for the last six years the small decrease is observed and variation of the share between 5% and 4.6% which stop the steady growth. The increase of the financial burden is more sensible after the reforms of health sector (1999-2000). Major parts of the reforms considered transition from government budget financing adequate for the old 'Semashko' system to introduction a compulsory social health insurance with definite out-of-pocket payments.

Considering the time series from the plots above it could be suggested that the income elasticity of health expenditures of households in Bulgaria derived from real average data would have not great value. In other words the health costs do not react largely to the income changes over the period 1990-2017. Another hypothesis could sounds credibly – the income elasticity for the first seven/eight years and for the next twenty years could differ significantly. If could be found enough proofs then the income elasticity of health costs would have two measures – one for the first sub-period 1990-1998 and the second for the period after the reforms in health system.

To confirm or to reject the above mentioned suggestions the analysis can be deepened with scatter plots. Figure 4 represents the variation of the real household health expenditure caused by the real income. The point labels help to recognize that the first eight years are positioned lowest and closest to the center of the plot area. This is quite sideward to the tendency formed from the next 19 observed years. This is another graphical proof for the not so strong reliability and it is very possible to have two estimates of the income elasticity of health expenditure.

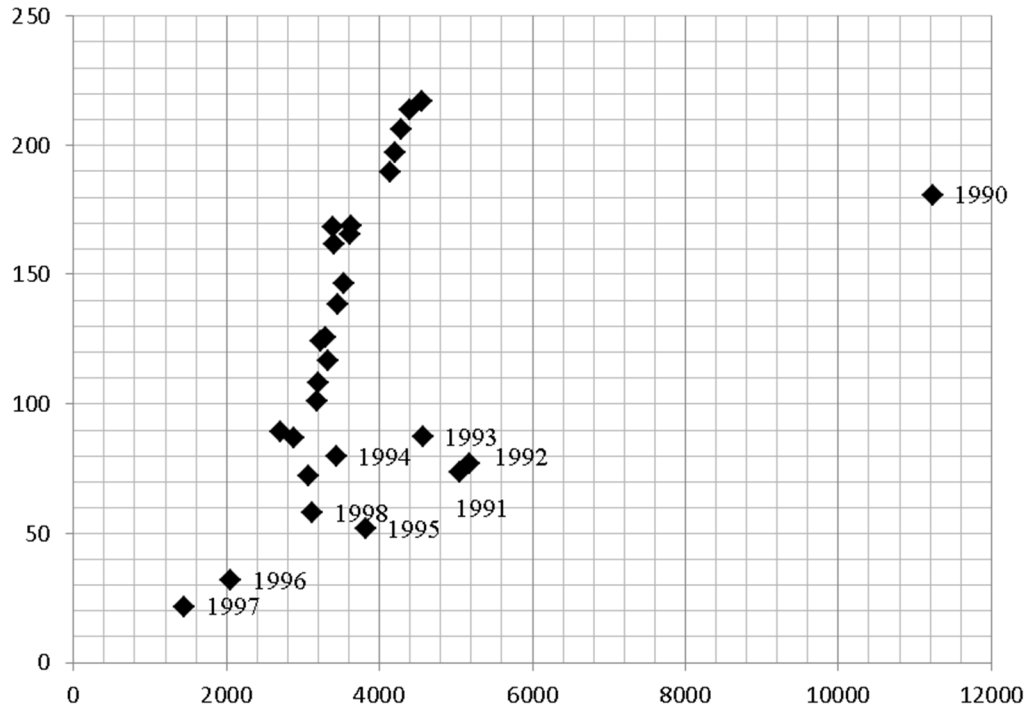


Figure 4. RAHEH and RAHI for the period 1990-2017.

The OLS estimates of the simple linear functional form of the health expenditure as a dependent variable and income as an independent variable are summarized in table 1.

Strength of model		**Coefficients**	**Estimate**	**t-value (S.E.) [p-value]**
R	0.402	β_0	70.94	2.773 (25.579) [0.001]
R^2	0.162	$RAHI_{90-17}$	0.0137	2.238 (0.0061) [0.0252]
RSS	72989.13			
Overall F-test [p-value]	5.01 [0.034]			

Table 1. OLS estimates of the simple regression model of real health expenditure.

The strength of the model of health expenditure is not so convincing. The statistics reveals that just 16.1% of the dispersion of the expenditure can be explain with the changings of the income. The overall F-test also cannot satisfy the 1% level of significance. If we relay to these results then the income elasticity for the whole period will be assessed on 0.0137 of real health expenditure. It means that the real health expenditure moves with BGN 1.37 on each BGN 100 changings of the real income of the household budget.

The residuals from the above model are normally distributed (Jarque-Bera test = 2.158; p-value = 0.3399) and homoscedastic (Breusch-Pagan test = 0.1744; p-value=0.676) but they are autocorrelated (Box-Pierce Q(1)=23.34; p-value = 0.000).

The denomination does not affect the income elasticity. If the regression analysis is conducted with the denominated BGN then the constant will be the same just divided by 1000 and the slope coefficient keeps the equal value.

If the tested model is not sustainable then the whole dynamic row is divided on two subsets (1990-1998 and 1999-2017) with the purpose to be achieved better estimates. The OLS estimates of two subset models are presented in table 2.

Strength of models	**1990-1998**	**1999-2017**
R	0.97	0.938
R^2	0.941	0.879
RSS	991.75	4451.51
Overall F-test [p-value]	112.52 [0.000]	123.97 [0.000]
Coefficients	**Estimate**	**t-value (S.E.) [p-value]**
1990-1998		
β_0	4.059	0.53 (7.661) [0.613]
$RAHI_{90-98}$	0.0157	0.001 (0.0015) [0.000]
1999-2017		
β_0	-138.68	-5.34 (25.952) [0.000]
$RAHI_{99-17}$	0.08	11.13 (0.0072) [0.000]

Table 2. The estimates of two subsets models with slope coefficients as a measure of the elasticity.

The two separated subsets models have got relatively higher determination coefficients and it seems that they have more explanatory power.

It is easy to check for model sustainability for the whole period through Chow test. The test value equals 148.9. The relative critical value of F (2;24) is 5.614 with 1% significance level. The test confirms that the slope or the elasticity coefficients are significantly differ for the two sub-periods, i.e. the value of 0,0137 is not a substantial measure of the elasticity.

Interesting fact is that for the second sub-period the elasticity coefficient is quite bigger than the obtained for the period 1990-1998. It can be explained with more sensible reaction of the health expenditure on the dispersion of the household income after the passing from budget to social insurance financing with defined direct payments.

Two strategies are possible to be built one unit model of RAHEH considering the structural changes presenting one income elasticity coefficient. The first strategy is to be specified a model built on the first order differences of the observed data. The second one is to be used artificial variable and time as additional independent variables. The first order differencing model which envelops whole the period are presented on the next table proposing one elasticity coefficient.

Strength of model		**Coefficients**	**Estimate**	**t-value (S.E.) [p-value]**
R	0.909	β_0	5.54	2.72 (2.033) [0.012]
R^2	0.827	$\Delta RAHI_{90\text{-}17}$	0.017	10.94 (0.0016) [0.000]
RSS	2690.13			
Overall F-test [p-value]	119.62 [0.000]			

Table 3. First order differencing model estimates.

The differencing strategy ensures more reliable estimates with comparison of the based model described in table 1. Less standard error of the slope/elasticity coefficient estimate is obtained and in the same time the measures of the determination and the correlation are higher. It seems that the differencing model has got better explanatory power. The residual tests give information that the autocorrelation is insignificant (Box-Pierce Q(1) = 0.77; p-value = 0.3799), homoscedastic (Breusch-Pagan test = 0.7727; p-value = 0.379) but not normally distributed (Jarque-Bera test = 74.06; p-value = 0.000).

The next opportunity is to be used a dummy variable. If one dummy is included with ‘0’ value for all the observations in the period 1990-1998 and ‘1’ for the next years and in addition the time is used as an independent variable then the following estimates will be available.

Strength of model		Coefficients	Estimate	t-value (S.E.) [p-value]
R	0.988	β_0	-46.787	-7.767 (6.024) [0.000]
R^2	0.977	$RAHI_{90-17}$	0.0203	18.554 (0.0011) [0.000]
RSS	2014.60	Dummy variable	7.1001	1.112 (6.3863) [0.266]
Overall F-test [p-value]	337.66 [0.000]	Time	6.038	16.540 (0.365) [0.000]

Table 4. Model with one dummy variable and time estimates.

It is achieved best explanatory properties – greatest value of the coefficients that measure the strength of the relation between the independent and dependent variables. It is clear that 98% of variation of the health expenditure can be explain with the income, time and included artificial variable. This model also ensures lowest standard error of the slope coefficient which can be assumed as an elasticity measurement for the whole of the period after 1990. In addition the residuals of the suggested model have not got statistically significant autocorrelation (Box-Pierce Q(1)=1.23; p-value = 0.266), they are homoscedastic (Breusch-Pagan test = 16.581; p-value = 0.000) and not normally distributed (Jarque-Bera test = 8.927; p-value = 0.012). It has to be known that the same model but specified with log transformed data ensures almost the same estimates and analogical residual tests outcomes therefore it is not presented and discussed here. Relying on the last table data the income elasticity for the period after 1990 can be expressed with 2% changings of the health expenditure caused by the one unit change of the household's incom e, considering the inflation.

Nikolay Georgiev Atanasov *is associate professor at Faculty of Public Health, Department of Health Management and Health Economics, Plovdiv, Bulgaria and Burgas Free University, Centre of Economics and Management Sciences, Department of Accounting and Finance, Burgas, Bulgaria. He is lecturer on "Financial Management of Health Care", "Health Economics" and lecturer on "Finance".*

Publications:

Atanasov, N. Financial Management in Health Care (Lecture course), University Publishing Centre, Medical University Plovdiv, Plovdiv, 2017 (in Bulgarian)

Atanasov N., Stoyanova R., Alexandrova, M. Possibilities to Model Patients' Preferences and Their Willingness to Pay for a Molar Treatment. Dental and Medical Problems, Issue: 2016, 53, 1, 41-49.

Atanasov N., Income inequalities and health expenditures in Republic of Bulgaria – major economic factors of health accessibility, International Journal of Health Economics, ISSN-L 2069-5748, 6, 2016, p.p. 19-32.

Atanasov N. Public Expenditures of Republic of Bulgaria – empirical characteristics and modeling capabilities, Business Directions, 1/2015 (19), (pp. 14 - 22) (in Bulgarian) etc.

4. CONCLUSIONS

The correct measure of the income related elasticity in terms of simple linear regression model which assume the income as an independent variable is connected with many difficulties. For the particular Bulgaria case the factors like the enormous inflation rates for the first seven years and the fast conducted reforms and reorganization of the economy put the question of finding empiric strategies exploring the relation between the health expenditure and the income considering the elasticity. The empirical strategy based on micro data from the household budgets survey applied in this study assuming the inflation and the structural changes in health sector ensures reliable results assessing the income elasticity of health expenditure.

For the whole period marked by the dramatic transition the household health costs have got low income elasticity close to zero. If we consider the characteristics of health goods and their consumption then this fact does not surprise. Since the observed period includes crisis and post crisis years the obtained results could be connected with the income stagnation and this could be suggested as an additional explanation of the crisis effects on the heath expenditure and households income distribution.

REFERENCES

1. Gerdtham, U. and Jönsson, B. (2000) *International comparisons of health expenditure, Handbook of Health Economics*, Volume 1A, Edited by Culyer, A. and Newhouse, J., Elsevier.
2. Feng, Y., Watt T., Charlesworth, A., Marsden G., Roberts A., Sussex J. (2017) What Determines the Health Care Expenditure of High Income Countries? A Dynamic Estimation. *Applied Economics and Finance,* 4(6) 2017, doi:10.11114/aef.v4i6.2586
3. Wagstaff, A. et al (1999) Equity in the finance of health care: some further international comparisons. *Journal of Health Economics*, 18:263-290.
4. Doorslaer, E. et al (1999) The redistributive effect of health care finance in twelve OECD countries. *Journal of Health Economics*, 18:291-313.
5. Bhat R., Jain, N. *Time series analysis of private healthcare expenditures GDP: cointegration results with structural breaks*. Indian Institute of Management Ahmedabad, 2004.
6. Parkin, D., McGuire, A., Yule, B. (1987). Aggregate health care expenditures and national income: is health care a luxury good? *Journal of Health Economics*, 2: 109-127.
7. Roberts, J. (1999). Sensitivity of elasticity estimates for OECD health care spending: analysis of a dynamic heterogeneous data field. *Health Economics*, 5:459-472.
8. Sen, A. (2005). Is health care a luxury? New evidence from OECD data. *International Journal of Health Care Finance and Economics*, 2:147-164.

RETIREMENT PROGRAMS FOR EMPLOYEES AS AN ELEMENT OF CORPORATE SOCIAL RESPONSIBILITY

Iwona Olejnik[46]
Magdalena Stefańska[47]

DOI: https://doi.org/10.31410/eraz.2018.115

Abstract: *The topic - connecting CSR toward employees and retirement policy of the organizations is not widely discussed in literature, however it's crucial for retirement programs setters to determine whether the level of interest in occupational pension schemes depends on the fact that CSR principles are taken into account in corporate strategies.*
The purpose of the article is to discuss the level of employers 'and employees' interest in occupational pension schemes using example of Poland. The article will use mainly secondary data - among others, statistical data of the Polish Financial Supervision Authority and the results of surveys conducted among employees of Polish enterprises.
We assume the article will bring different benefits. First – we discuss the problem of CSR from theoretical point of view, dedicated to employees and how it is integrated with retirement programs. Then we will explain both benefits and determinants of it phenomena. However it's necessary to mention the limitation of using such tools.

Key words: *CSR toward employees, pension programs, Polish experiences*

1. INTRODUCTION

Aging societies as well as the lengthening life at the post-working age have become demographic phenomena characteristic of developed countries. As statistics show, in 2014 the share of people over 65 in the EU was 18.5%, whereas in Poland it was 14%. However, Poland is the fastest aging country of the European Union. With regard to the highest share of persons aged 65 or older in the total population, Italy (21.4 %) and Germany (20.8 %) are the leaders, while Ireland had the lowest proportion (12.6 %) (www.eurostat.com). Forecasts suggest that by 2080 for 28 present EU members the share of senior citizens will reach the level of nearly 29% of the population. As for Poland, it has been estimated that by 2035 the share of the elderly will amount to 23% of the population [www.eurostat.com].

People live longer, put more weight on their physical condition and take advantage of the achievements of modern medicine, thereby retaining physical and mental fitness for a longer time than in the past. They also draw their pensions generated during their working life for a longer time. However, the lower the number of people entering the labour market and those professionally active, the stronger is the fear about the level of future retirement pensions. According to forecasts based on the present tendencies, a considerable decline in the level of future pensions is to be expected. The awareness of this fact stimulates interest in alternative forms of retirement security, apart from those provided by the state. Poles have rather little experience in this respect. The three social insurance pillars introduced over a decade ago, one of them voluntary, were supposed to play such a role.

[46] Poznań University of Business and Economics, Faculty of Management, al. Niepodległości 10, Poznań, Poland
[47] Poznań University of Business and Economics, Faculty of Management, al. Niepodległości 10, Poznań, Poland

In the light of the solutions applied in retirement systems worldwide [2],[3], the following entities can be responsible for retirement insurance:

- the state,
- each employee individually,
- the employer.

Developed countries have multi-pillar retirement systems, which means that their citizens' retirement security is protected by: the state, the employees themselves and by their employers. In the last case, solutions functioning in different countries differ in their character as well as the degree of the employees' participation in the proposed solutions. In some countries employers are obliged to introduce a retirement program for their employees, in others, running such a program is optional (for example in Finland, Norway and Switzerland – obligatory participation in the system, in Netherlands Denmark and Great Britain – quasi obligatory and in Germany or Hungary – voluntarily participation). As for the programs themselves, they may involve all the employees or only their selected groups [4]-[7].

It is clear that, on the one hand, there are institutional solutions and on the other, specific companies organize such programs for their employees, in the view of the long-term benefits. It is worthwhile to note the convergence between CSR activities and the advantages of employee retirement programs addressed at the staff. CSR programs dedicated toward employees bring such benefits as: building the employer's image, boosting the employees' job satisfaction, increasing their involvement, preventing staff turnover, as well as attracting the best candidates for jobs. Other significant criteria for choosing and assessing a job which are also in the area of interest of CSR companies are: good working environment, good atmosphere, a motivating salary, fringe benefits, etc. Indirectly, all these factors are a part of the employer's image (brand) creation [8]. Riodan et al. point out that people do not want to work for companies which are not socially responsible [9], also [10].

A comparison between the employees' expectations and the employers' objectives allows for a conclusion that not only CSR programs but also employee retirement programs fit the expectations of both sides (Table 1).

Employees' expectations	**Employers' objectives**
- employment stability - equitable remuneration - flexible working hours - adapting the employment form to a worker's situation - promotion opportunities - equality in the area of remuneration - observing employment rights - career opportunities for women returning from maternity leaves - developing a system of motivation - opportunities for self-development - enabling employees to participate in creating and developing the company strategy	- employees identifying with the organization - joint creation of the company image - joint creation and implementation of the strategy of a retail company - minimizing personal costs - efficient functioning of the organization - finding new ways of building competitive advantage on the basis of human resources - hiring people engaged in the development of the organization - maintaining a low level of retention rates - attracting employees for whom retail is the target workplace

Table 1: Employees' expectations and employers' objectives
Source: [11]

2. CSR toward employees – theoretical foundations

Corporate Social Responsibility is a concept whereby a company accepts economic, legal and ethical accountability for the effects of its operations and also is involved in charity [12][13]. In 2001 the European Commission developed a definition, which defines CSR as a concept which integrates social and environmental issues in companies' business operations as well as their interactions with stakeholders on a voluntary basis [14]. According to this definition, CSR is "a concept whereby companies integrate social and environmental concerns in their business operations and their interactions with the stakeholders on a voluntary basis." This definition emphasizes the following: relationships with stakeholders are a key aspect of socially responsible activities. The new definition, developed in 2011, stressed that CSR refers to corporate actions affecting society and the environment which go beyond legal requirements. Enterprises should be equipped with tools for solving social, environmental and ethical problems, problems concerning human rights, as well as consumer problems which ought to be integrated with its operations and strategy [15]. This approach indicates that it is time to operationalize CSR, with CSR having begun to be perceived in a systemic rather than selective way.

A stakeholder-oriented conceptualization of CSR means that it is a firm’s commitment to operate in a sustainable manner by considering and balancing the interests of its various stakeholders to create both social and business value [16]. The literature on the subject assumes that the vital stakeholders within corporate social responsibility include: employees, management, and investors [17]. All these groups have a common interest in the form of protecting the company’s reputation against perils of various sorts. For this reason they should share the responsibility for implementing the company’s CSR actions.

To confirm the meaning of CSR in relations with internal stakeholders it’s worthy to notice, after [18], [19], that CSR can indirectly strengthen the company’s ability to meet the needs of buyers through the observation and behaviour of employees, also thanks to CSR it is possible to achieve a greater level of employees’ orientation towards meeting the needs of customers. Socially engaged enterprises attract better employees, which stems from, among other factors, the employees’ expectations to be identified with organizations which have a positive image, and finally enterprises that have a greater share of women in top management engage more resources in CSR (more specifically in strategic philanthropy), and implement CSR activities in a wider scope and of higher quality [20] . Particularly important is the role of managers, whose worldview, values and mentality influence the decisions they take within corporate social responsibility [21]. Also according to [22], the involvement in activities undertaken under CSR will depend, among other things, on the meaning of the CSR concept for a manager, the manager’s own attitude and his/her involvement, implications for employees due to their involvement or a lack of it in the CSR initiatives implemented in the organization, behavior of other employees, beneficiaries of the CSR initiatives (employees, members of their families, people who are not related to the enterprise, the natural environment). In [23] it is among decision makers adaptation of the workplace and adaptation of employees, also determining fair remuneration and motivating, providing employees with training and development, guaranteeing health and safety at work, and finally - guaranteeing and adhering to the employment law and respecting human rights.

3. RETIREMENT PROGRAMS

As far as employees' satisfaction is concern, a financial payment for work and other nonfinancial benefits offered by employers are among main factors influencing this their engagement. As research conducted by Grzesiuk shows, job satisfaction results from two basic factors: remuneration (related to the stability of payment), as well as the opportunity for professional development [24]. On the other hand, Bhattacharya, Sen and Korschun point out that although salary is a strong motivating factor, it builds physical but not emotional loyalty [25]. However, due to pessimistic forecasts of future pensions, employees in search of financial safety may be more interested in not only obligatory but also voluntarily taken insurances or in participation in additional retirement programs. Retirement plans are generally of two kinds: defined benefit (DB) plans promise a certain, 'defined' stream of pension income to employees starting from retirement and lasting for as long as they live; defined contribution (DC) plans involve the employer making a certain, fixed contribution annually into the employee's retirement fund [26]. This fund is then invested and can be withdrawn as per employees' preferences. Since most employees is not fully aware of solutions implemented by investment funds and informed enough- they may expect employer's support in that area. Pensions regulations are often complex and future beneficiaries of the system may not fully appreciate the most relevant information in order to make an informed pension decision [27]. Most of them are afraid if their decisions are right since the results are postpone. Then there is a question of the risk and trust– toward employers and investors, if their decisions where and how to locate employees future pension funds are correct.

The CSR idea reveals in this process at least twice- first – when socially responsible employer is considered and for the second time – when the decisions of location employees money into funds are made. Socially responsible employer is expected to inform and create transparent system of communication with employees. Also it's expected to develop model of collaborative decision making process. Pension investment funds may promise higher outcome but then their investments policies can be connected with financial risk or with investments not perceived by some individuals as ethical or in accordance with their beliefs or personal values system. However one of the research among Norwegian employees on pension funds investors revealed interesting findings - that the employers placed the greatest weight to suppliers providing funds adhering to socially responsible investment (SRI) practices, followed by the suppliers' corporate brand credibility, the funds' expected return, and the suppliers' management fees. Second, employers with investment expertise emphasized expected returns and downplayed social responsibility in their choice, whereas employers with stated CSR-strategies downplayed expected return and emphasized SR [28].

Iwona Olejnik *PhD. is an Associate Professor in the Department of Market Research and Services, Faculty of Management at Poznań University of Economics and Business, Poland. She specializes in pension security, also in models and determinants of behavior of Polish households. She is an Author of the book dedicated to those areas of knowledge. She is a member of the Management Faculty Council, a supervisor of SKN Multimedia Marketing, also the member and chairwoman of the Departmental Promotion Committee of the Faculty of Management. She is also a secretary of the Polish Scientific Marketing Society. She specializes in qualitative and quantitative research.*

Since we know motives behind CSR toward employees, it is interesting to identify motives why companies implement retirement programs into their human resource policy. According to research carried out by [29], from the point of view of employers, the most significant factors affecting the introduction of ERP are, among other: the willingness to retain employees in the company, employees' retirement security, building the positive company image, corporate culture, as well as economic and tax benefits, A somewhat less important factor is the will to gain competitive advantage. Therefore, the implications are quite similar and it induces businesses to include ERPs in the employee-aimed initiatives in the area of CSR.

4. RETIREMENT PROGRAMS FOR EMPLOYEES –EXAMPLE OF POLAND

In the case of Poland, the retirement reform implemented in 1999 introduces the so-called employee retirement programs (ERP), which are a part of the third pillar of the retirement system. They are a form of voluntary saving for the retirement organized by the employer with the participation of the employees. Within this form of saving for the retirement, the following types of premiums can be paid to the selected financial institution managing the ERP funds [30]:

- basic premium financed by the employer,
- additional premium financed by the employee.

It is worth noting that since 2005 the number of employee retirement programs has been relatively stable and at the end of December 2016 there were 1036 ERPs registered in Poland (chart 1). It is a very small proportion of the overall number of firms. At the end of the analyzed period, 395 thousand employees saved within this form of raising capital. It must be added, though, that this number accounts for merely 2.43% of all the employees in Poland. At the end of 2016 the total value of the gathered funds was 12,309 million zloties.

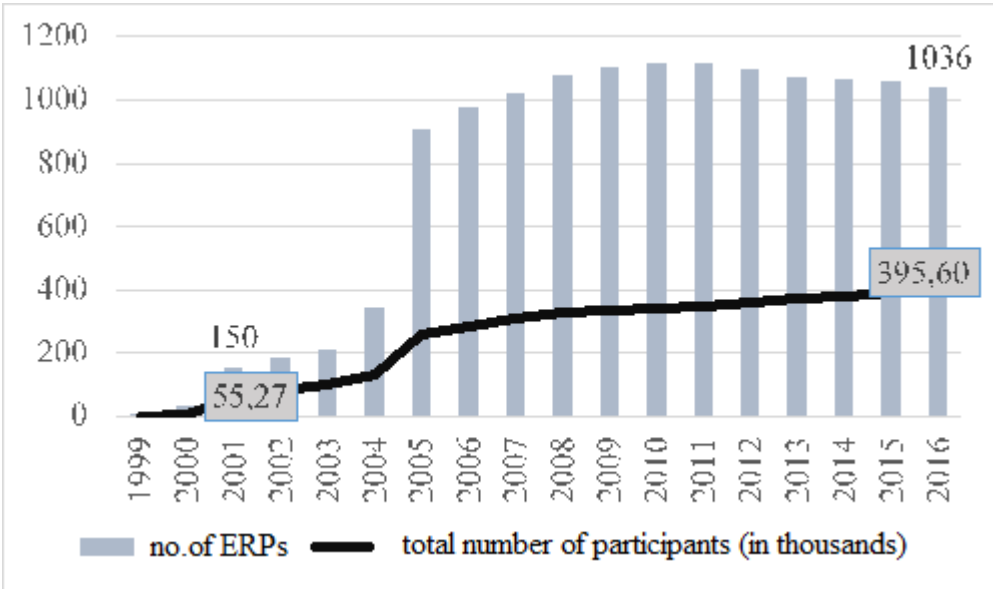


Chart 1: The number of employee retirement programs and their participants in Poland in the period 1999-2016.
Source: own elaboration, based on the data from [31]

The little interest in the employee retirement programs among employers is also true for the biggest companies. It may seem that the leading Polish businesses will more often than others

get involved in strategic activities directed towards their employees' well-being. With a view to verifying this hypothesis, ethnographic research was conducted. The analysis of 100 biggest companies operating in Poland (according to the ranking from Wprost of 2018) reveals that out of 100 entities, only 72 declare undertaking CSR activities, out of which only 28 entities declare activities directed towards employees, whereas merely 3 of them implement employee retirement programs. These are the following firms: Polskie Górnictwo Naftowe i Gazownictwo SA (the second place in the ranking), PGE SA and PKO BP (the 9th position).

It should be added that since 2017 legislative work has been in progress, aimed at introducing the so-called capital retirement plans, which would be obligatory for companies.

It is the legislator's intention that employee retirement programs become an essential part of the employees' retirement security. Particularly in the context of the pessimistic forecasts concerning the replacement rates in the public retirement system, the extra savings towards the future pensions financed by the employer offer a number of benefits both for the employees and for employers implementing ERP.

The major benefit for the employees participating in ERP is the fact that the so-called basic premium is paid by the employer (as opposed to the other two offered solutions, i.e. IKE and IKZE, which are based on individual payments), whereas the statutory conditions of withdrawal prevent an earlier consumption of the savings. Moreover, the withdrawal and the profits gained from ERP are exempt from the capital gains tax. It should also be added that if a participant of ERP dies, the savings can be inherited and the heirs are exempt from the inheritance tax.

***Magdalena Stefańska**, PhD. Is an Associate Professor in Marketing Strategies Department, Faculty of Management at Poznań University of Economics and Business, Poland. Her areas of interest are: Corporate Social Responsibility, marketing communication and retailing. She is an author or co-author of over 100 articles, author of the book The role of social responsibility in creating competitive advantage of retail enterprises and co-author and co-editor of the book Fair Trade in CSR Strategy of Global Retailers. She was a director of the project The role of CSR in creating competitive advantage of retail organizations. She is a member of the Social Responsibility Rector's Commitee at Poznań University of Economics and Business. She is a member of a review committee for International Marketing Trends Congress. She reviewed articles for journals: European Journal of Marketing, Praxeology, Sustainability, Annals of Marketing Management & Economics.*

Another advantage of the collective saving within ERP is the fact that the terms of investment are normally more beneficial than those offered to participants of individual retirement programs, due to the lower administrative costs. As it was mentioned earlier, an employee can also make optional additional payments.

From the point of view of the employer, ERP is one of the elements which allow for building competitive advantage on the market, both in the financial and non-financial sense. It should be noted that the ERP basic premium is exempt from the social insurance premiums and the costs incurred for the program are tax deductible, so the income tax is reduced. Finally, ERP allows the employers for building their image as companies caring for their employees, raises the companies' attractiveness and prestige, contributes to lowering the staff turnover and helps to attract new employees. The employee retirement program may play a motivational role for the

workers. Retirement education implemented by the employer within ERP may serve as an additional non-financial incentive for employees and help to build their loyalty. By informing about e.g. specific benefits from the additional retirement security, the employer displays their interest in their employees' well-being, also after their professional career [32], [33]. The educational process may include: basic terminology related to retirement and investment, the rules of allocation of financial resources, issues related to risk, objectives of saving for the retirement, life expectancy, or the amount of the necessary savings [34].

5. RESULTS OF OWN RESEARCH

This part of the article presents the findings of own empirical research conducted in 2014. The research was of both qualitative and quantitative nature. The qualitative study was carried out by means of focus group interviews (in 9 FGI groups). Their objective was, among others, to define the role of the employers in the retirement programs. As for the quantitative research, it covered the whole area of Poland and the method was direct interview. Conducting the interviews was commissioned to Główny Urząd Statystyczny (the Central Statistical Office). The sample was randomly selected and consisted of 1163 respondents – adult Poles. The representativeness of the study was verified by means of such characteristics as: gender, age and education of the head of the household, as well as the number of people in the household, and in terms of the spatial distribution: the class of place of residence and the region where the household is located.

With a view to defining the significance of particular subjects[48], which, in the opinion of Poles, should be responsible for their retirement security, the measures of descriptive statistics were established (table 2). It can be noticed that Poles attribute the biggest role to the state, a smaller one – to themselves and the smallest – to the employer. The average score for the employer was only 17.

Specification	State	Employee	Employer
Mean	50,3	32,9	16,6
Median	50,0	25,0	10,0
Mode	50,0	0,0	0,0
Minimum	0,0	0,0	0,0
Maximum	100,0	100,0	100,0
Kurtosis	-1,0	-0,3	2,1
Skewness	0,1	0,8	1,2

Table 2: Entities responsible for the retirement security – basic descriptive statistics
Source: own research

The insight into the attitudes of households towards the roles attributed to the entities responsible for the retirement financial security was deepened during the own qualitative research. According to the participants of the qualitative research, an advantage of the participation in the employee retirement programs is the lack of necessity to control and make decisions related to the transfer of savings and the choice, or the change of the method of saving money. On the other hand, this form of accumulating capital may be threatened by the employer's liquidation. In such a situation, the employees' savings should be protected by the state guarantee. (the opinion of working respondents in their 30s). People shortly before the retirement age and those already retired see the role of the employer as the entity responsible for their retirement pensions and express a view that in spite of the frequent changes on the

[48] Respondents were asked to divide 100 points among entities which in their opinion should be responsible for the level of their retirement pension (ordinal scale of summed estimates was used).

labour market (i.e. far more frequent now than over a decade ago changes of jobs, or even professions), the employer should participate in the employees' retirement security by, among others, collecting their retirement premiums and diligently investing them. An important issue for people approaching the end of their professional activity is the possibility of receiving help from their former employer (in the form of: financial aid, invitation to company events, Christmas parties, etc.) [35].

SUMMARY

Taking into account the potential benefits from the introduction of the employee retirement programs presented in the article, especially as a part of the CSR program addressed to the internal stakeholders, i.e. employees, it is worthwhile to consider the directions of the further development of this program (particularly in the view of the present low interest of both employers and employees in creating ERPs and saving in them). It appears that effective strategies stimulating employers to create ERPs and employees to save for their future retirement should focus on solutions disseminating the practice of saving for retirement, e.g. through automatic participation of all employees in the employee retirement programs (with the opt-out option), rather than imposing the legal obligation [36]. The automatic enrolment of new employees in the employee retirement program (with a possibility of cancelling the participation after a specified period of time, by filling out a special form) may result in the majority of employees remaining in it [37].

It should also be emphasized that employee retirement programs, as a voluntary, but at the same time long-term obligation towards employees, may be seen as a sign of a company's social responsibility, although a shallow understanding of this relationship does not foster the development of this form of retirement security. In conclusion, it should be added that in spite of the undeniable relation between implementing employee retirement programs and the corporate social responsibility, it is still not widely acknowledged. It is demonstrated by the fact that companies which declare their involvement in CSR most often point to their activities in favour of the natural environment or the local communities, but much less frequently – activities addressed at employees and only in exceptional cases – the introduction of an employee retirement program.

REFERENCES

[1] www.eurostat.com
[2] Żukowski, M., (1997), Wielostopniowe systemy zabezpieczenia emerytalnego w Unii Europejskiej i w Polsce. Między państwem a rynkiem, Akademia Ekonomiczna w Poznaniu, Poznań.
[3] Lannoo K., Barslund M., Chmelar A., von Werder M., (2014), Pension Schemes, European Parliament's Committee on Employment and Social Affairs, Brussels, 2014.
[4] Rutecka, J. (red.), (2014), Dodatkowy system emerytalny w Polsce – diagnoza i rekomendacje zmian. Raport, Towarzystwo Ekonomistów Polskich, Warszawa
[5] Oxera (2013), *Study on the Position of Savers in Private Pension Products*, Brussels, www.oxera.com
[6] Cooper D. (2002): The Regulation of Occupational Pension Schemes in the UE and USA, www.actuaries.org.uk, [access: 25.06.2018].
[7] Rabelo F. M., (2018), *Comparative regulation of private pension plans*, https://www.oecd.org/finance/financial-markets/2961825.pdf, [access: 25.06.2018]

[8] Dewalska-Opitek A., Bilińska-Reformat K., (2016), Employer branding jako determinanta rozwoju sieci handlu detalicznego w Polsce, Problemy Zarządzania, vol. 14, nr 1 (57), pp. 152–165.
[9] Riordan, C. M., Gatewood, R. D., & Bill, J. B. (1997). *Corporate image: Employee reactions and implications for managing corporate social performance*, Journal of Business Ethics, 16(1), pp. 401–412.
[10] Sims, R. L., & Keon, T. L. (1997). Ethical work climate as a factor in the development of person-organization fit. Journal of Business Ethics, 16(1), pp. 95–105.
[11] Stefańska M., (2014), Rola społecznej odpowiedzialności w tworzeniu przewagi konkurencyjnej przedsiębiorstw handlu detalicznego, Wydawnictwo UEP, Poznań.
[12] Carroll A. B., (1999), Corporate Social Responsibility. Evolution of a Definitional Construct, Business and Society, nr 38.
[13] Carroll A.B., (1979), A Three-Dimensional Conceptual Model of Corporate Performance, Academy of Management Review, vol. 4.
[14] Commission of the European Communities Papers, 2001, (nr 366).
[15] Commission of the European Communities Papers, 2011 (nr 681).
[16] Secchi, D., 2007), Utilitarian, Managerial and Relational Theories of Corporate Social Responsibility. International Journal of Management Reviews, Vol. 9, Issue 4, pp. 347-373, December 2007. http://dx.doi.org/10.1111/j.1468-2370.2007.00215.x.
[17] Kluge N., Schomann I., (2008), *Corporate Governance, Workers' Participation and CSR: The Way to a Good Company*, European Review of Labour and Research, 14(1).
[18] Bhattacharya C. B., Korschun D, Swain S. D., (2011), When and How Does Corporate Social Responsibility Encourage Customer Orientation? May 2011, SSRN Electronic Journal, DOI: 10.2139/ssrn.1856475.
[19] Lin C.-P., Tsai Y.-H., Joe S.-W., Chiu C.-K., (2012), Modeling the Relationship Among Perceived Corporate Citizenship, Firms' Attractiveness, and Career Success Expectation, Journal of Business Ethics, no. 105.
[20] Soares R., Marquis C., Lee M., 2011, Gender and Corporate Social Responsibility: It's a Matter of Sustainability, http://www.catalyst.org/file/522/gender_and_corporate_social_responsibility_final.pdf [access: 15.05.2012].
[21] Basu K., Palazzo G., (2008), *Corporate Social Responsibility: A Process Model of Sensemaking*, The Academy of Management Review 33(1).
[22] Maximiano J.M.B., (2007), A strategic integral approach (SIA) to institutionalizing CSR, Corporate Social Responsibility and Environmental Management, Vol. 14, Issue 4, pp. 231–242.
[23] Rok B., (2004) *Odpowiedzialny biznes w nieodpowiedzialnym świecie*, Akademia Rozwoju Filantropii w Polsce – Forum Odpowiedzialnego Biznesu, Warszawa, p. 14.
[24] Grzesiuk A., 2012, *Oczekiwania pracowników handlu w stosunku do pracodawcy a koncepcja odpowiedzialnego biznesu*, Handel Wewnętrzny, nr 1-2.
[25] Bhattacharya C. B., Sen S., Korschun D., 2011, *Leveraging Corporate Social Responsibility*, University Press Cambridge.
[26] Munnell, A. H., Soto, M., (2007) Why are Companies Freezing Their Pensions? Available at SSRN: https://ssrn.com/abstract=1294772 or http://dx.doi.org/10.2139/ssrn.1294772.
[27] Harrison, T., Waite, K. and White, P. (2006), Analysis by paralysis: The pension purchase decision process. International Journal of Bank Marketing 24 (1), pp. 59–23.
[28] Biong, H., & Silkoset, R. (2017). Buying CSR with employees' pensions? The effect of social responsible investments on Norwegian SMEs' choice of pension fund management: A conjoint survey. International Journal of Bank Marketing, 35 (1), pp. 56 - 74.

[29] Szczepański M., (2010), Stymulatory i bariery rozwoju zakładowych systemów emerytalnych na przykładzie Polski, Wydawnictwo Politechniki Poznańskiej, Poznań.
[30] The Act of 20 April 2004 on employee retirement programs, Journal of Laws of 2004, item 710.
[31] The Polish Financial Supervision Authority.
[32] Bernheim, B. D., Garrett, D. M., (2003), "The Effects of Financial Education in the Workplace: Evidence from a Survey of Households," Journal of Public Economics 87(7-8), pp. 1487-1519.
[33] Szczepański M., (2010), Stymulatory i bariery rozwoju zakładowych systemów emerytalnych na przykładzie Polski, Wydawnictwo Politechniki Poznańskiej, Poznań.
[34] Olsen, A., Whitman, K., (2007), Effective Retirement Savings Programs: Design Features and Financial Education. Social Security Bulletin, Vol. 67, No. 3, 53-72. Available at SSRN: https://ssrn.com/abstract=1154005.
[35] Olejnik I., (2016), *Zabezpieczenie emerytalne. Modele i determinanty zachowań polskich gospodarstw domowych*, Wydawnictwo Uniwersytetu Ekonomicznego w Poznaniu, Poznań.
[36] Rutecka, J. (red.), (2014), Dodatkowy system emerytalny w Polsce – diagnoza i rekomendacje zmian. Raport, Towarzystwo Ekonomistów Polskich, Warszawa.
[37] Zielonka P., (2004), Finanse behawioralne, w: Tyszka T. (ed), Psychologia ekonomiczna, Gdańskie Wydawnictwo Psychologiczne, Gdańsk.

MICROFINANCE AND ECONOMIC GROWTH IN ALBANIA: AN ARDL APPROACH

Forcim Kola[49]
Teuta Cerpja[50]

DOI: https://doi.org/10.31410/eraz.2018.125

Abstract: *Microfinance has been growing rapidly with the aim to lift people out of poverty and create sustainable development. However, according to some literature there is a mixed evidence of its net benefit to the economic growth.*
In general, microfinance provides financial tools and services to low-income individuals who would otherwise find themselves excluded from the formal banking system. Microfinance is often associated with microcredit, small-sum credit loans for entrepreneurs and small-business owners. But in the last few years, the microfinance industry has expanded to incorporate a broad range of services, such as savings and deposit accounts and life insurance becoming such a tool for generating economic growth in developing countries while reducing poverty level.
This study intends to empirically test the theoretical relationship between microfinance and some other macroeconomic factors with the poverty reduction, based on the evidences of Albania. The study is carried out using a time series Auto-Regressive Distributive Lag (ARDL) analysis based on the annual data.

Key words: *microfinance, microcredit, macroeconomic factors, poverty reduction, ARDL.*

1. INTRODUCTION

During the last few years, the microfinance industry has expanded to incorporate a broad range of services, becoming such a tool for generating economic growth in developing countries while reducing poverty level.

The role of microcredit on economic development is one of the areas that have recently created heated debate among scholars. Specifically, two opposing schools of thoughts have emerged and the central question is; Does microcredit contribute to the improved welfare of the borrowers? On the one hand there is a large body of empirical literature showing that microcredit can play a very important role in reducing poverty and that has improved both economic and social wellbeing of the beneficiaries[51].

For about three decades, microfinance institutions (MFIs) have given out small loans to the world's poor - mostly women - and amassed hundreds if not thousands of case studies showing that the loans help alleviate poverty, improve health, increase education and promote women's empowerment. Skeptics, however, have argued there is not enough hard data to prove that

[49] Marin Barleti" University, Rruga Sami Frashëri 41, Tirana 1000, Albania
[50] Marin Barleti" University, Rruga Sami Frashëri 41, Tirana 1000, Albania
[51] Yunus M, Jolis A. - Banker To The Poor: Micro-Lending and the Battle Against World Poverty, 2008

microfinance transforms lives on a large scale, and they have called for more rigorous analysis[52].

Microfinance started with Nobel Peace Prize Laureate *Mohammed Yunus*, who began with a simple but revolutionary concept: Loan poor people money on terms that are suitable to them and teach them sound financial principles so they can achieve financial self-sufficiency[53].

With globalisation and the rapid development of many countries, there has been an alarming increase in poverty. Three billion of the world's population, being poor, live in dismay and pitiable conditions while the rich enjoy the benefits of globalisation.

The role of microcredit for poor entrepreneurs, in particular for women, for alleviating poverty was emphasized in many research paers by many scientific institutions. Most of them are always calling for increasing the number of households having access to microcredit from less than 10 million of households in 1997 to about 91 million clients in 2014.

Since its beginning, about 30 years ago, microfinance has had very productive years exemplified by a strong growth, by the positive impression it has had on development professionals and on public opinion in general, and finally by the attribution in 2006 of the Nobel Peace Prize to Muhammad Yunus, the founder of microcredit[54].

There are more than 10,000 microfinance institutions (MFIs) globally. They comprise a wide range of institutions, from credit unions and cooperatives to non-government organizations (NGOs), government agencies, private companies and commercial banks .

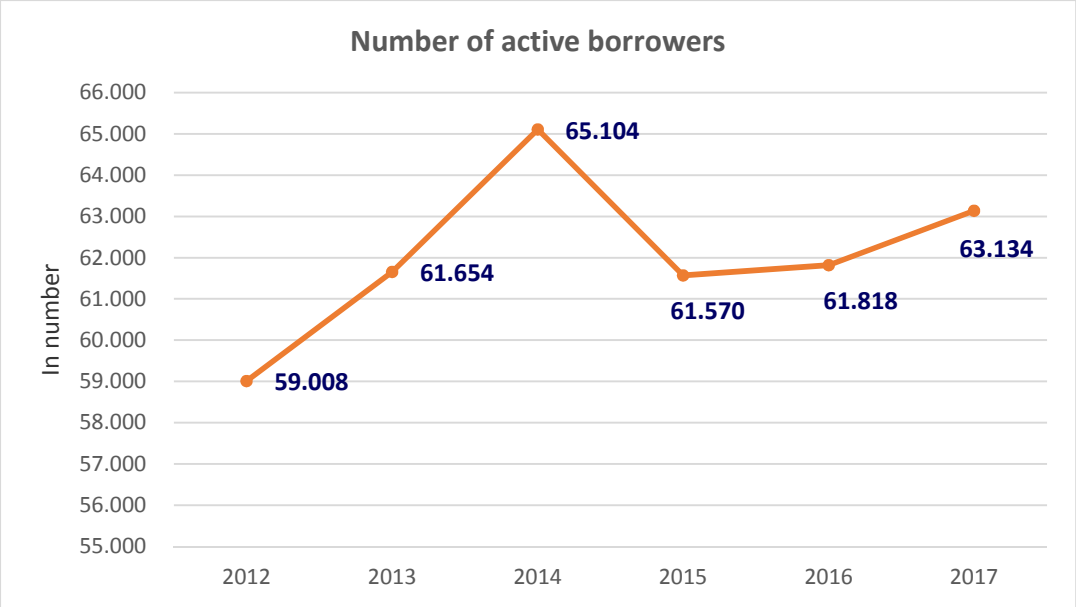


Chart 1. Total number of active borrowers of the Albanian MFIs[55]

There are between 150 and 200 million microfinance borrowers globally, and market outreach has expanded by 25-30% annually over the last decade. While nearly 8% of the world's poor

[52] www.forbes.com/ How To Measure Microfinance's Social Impact/ October 2017
[53] www.grameen.com/September 2017
[54] http://www.nobelprize.org/January 2017
[55] http://www.ama.com.al/April 2018

now utilize microfinance, the fact remains that 92% of the global poor still lack access to financial services[56].
Today, a number of MFIs are jointly offering financial and non-financial services to improve long-term sustainability and to support a double bottom line mission, which emphasizes the importance of both a financial and a social return.

The main objective of this study is to empirically test the theoretical relationship between microfinance and some other macroeconomic factors with the poverty reduction, based on the evidences of Albania.

While studying the transmission channels of microfinance to economic growth, *Alimukhamedova (2013)* finds that microfinance envisages the integration of the financial needs of households into a country's financial system and hence is expected to positively affect the growth.

Even though it is thought that the immediate channel of microfinance impact is through reducing income inequality and poverty, however, such an impact is in long-term.

Financial development through microfinance can be seen in four ways.

a) *First*, financially sustainable MFIs can promote market deepening that in turn advances financial development.
b) *Second*, microfinance is seen as a powerful tool in countries with poor governance that hinders development programs.
c) *Third*, microfinance could facilitate financial market maturity in both developed and developing countries.
d) *Finally*, microfinance could help to support domestic financial reforms by breaking down constraints.

2. LITERATURE REVIEW

Microfinance programmes in Albania are promoted primarily as an instrument of developing measures through delivering loans for expanding production. The majority of recent studies of the microfinance impact on poverty or in income are based on micro-level evidence based on household data but in absence of reliable data of the microfinance impact in macro level on poverty are limited. However, some studies have shown the relationship between microfinance and economy Imai, K. S., Gaiha, R., Thapa, G., & Annim, S. K (2010).

The aim of this study is the examination of the relationship between the macroeconomics and microfinance activities or the microfinance performance. The aim of this study is the study of the environment where microfinance operates, the effectiveness of microfinance in the main macroeconomic variables as gross domestic product, poverty rate and unemployment.

A number of studies have been carried out on the impact of microfinance in Albania. Kola (2010)[57] is focused on the microcredit contribution on social wellbeing in Albania. In this research, he brings facts/figures concerning to some issues: being client of microcredit companies bring positive changes in the living standards of microcredit program participants

[56] Banerjee A, Vinayak A, Duflo E, - Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty, 2011
[57] Kola F. "Microcredit contribution on social wellbeing", author, book publisher: "LAP LAMBERT Academic Publishing", ISBN-13: 978-3843354110, Germany, 15 September 2010.

and broadly in their communities; being Microfinance Institutions client is associated with greater acquisition of land relative to non-clients, which can be taken as significant evidence of positive impact; he has find there is strong evidence of positive impact on the multiple dimensions of household income and enterprise performance.
Also Kola (2016) brings a range of perspectives concerning the economic and social impact of microfinance products (*especially microcredit*) on their clients' lives, scientifically analyzing four distinct impact levels: namely, the individual level, the household level, the enterprise level, and the community level.

Investigating the Albanian market, by assessing the impact of Albanian microfinance programs at each of the four above-mentioned impact levels, *Kola* explores whether being a client of MFIs microfinance programmes brings positive changes to their lives and their community[58].

As according to the data provided by the Albanian Microfinance Association (A.M.A.), the sum of Gross Loan Portfolio of all MFIs in Albania is about USD 120 million in 2016, with an increase during the years 2005 – 2014, and characterized by stagnation after 2014, as shown in the chart 3.

In Albania, there are six main microfinance institution; NOA, UniFin (*Jehona Union*), FED Invest (*ASC Union*), Agro & social Fund (*Vision Fund*), BESA Fund and FAF, and many other small microfinance companies, adding the fact that there are an increasing number of banks providing some of microfinance services, as for example microcredit service, as there are Credins, ProCredit, etc.

Referring to the data provided by MIX-Market, we can see also an increase in the number of active borrowers of MFIs in Albania during the years 2005 – 2014, and a stagnation after 2014 (*chart 1*).

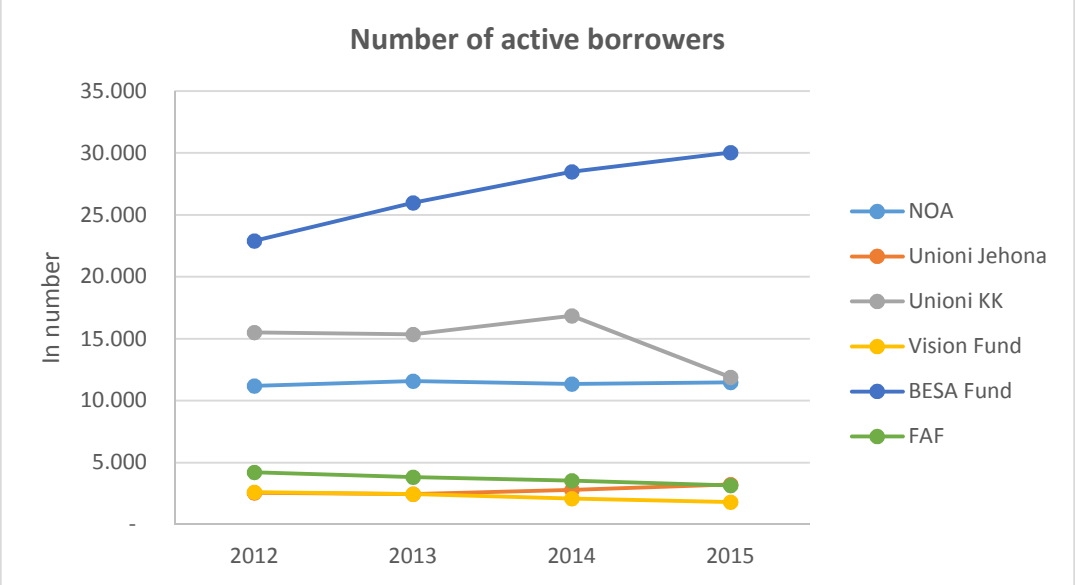


Chart 2. Number of active borrowers of the Albanian MFIs[59]

[58] Kola F. "Measuring the Impact of Microcredit Programs in Albania", author, book publisher: "Cambridge Scholars Publishing", ISBN-13: 978-1-4438-2304-3, ISBN-10: 1-4438-2304-X, UK, 10 December 2016.
[59] http://www.ama.com.al/April 2018

Specifically, a country with MFIs that has high Gross Loan Portfolio, has a low level of poverty, because factors that affect poverty have been studied taking into account the endogeneity associated with Gross Loan Portfolio of MFIs. In the perspective of a bank policy it is important for development finance institution and microfinance investment to reevaluate their loan portfolios of micro finance, that are funds for loans and other microfinance portfolios.

Albania is one of the poorest countries in Europe. The effects of the transition from a centralized economy to a market economy in a democratic country, have contributed significantly on the Albanian people, particularly on the poor people. Microfinance has developed in Albania; this is noted by the presence of microfinance institutions that have contributed to poverty reduction and economic development in general and agricultural development in particular.

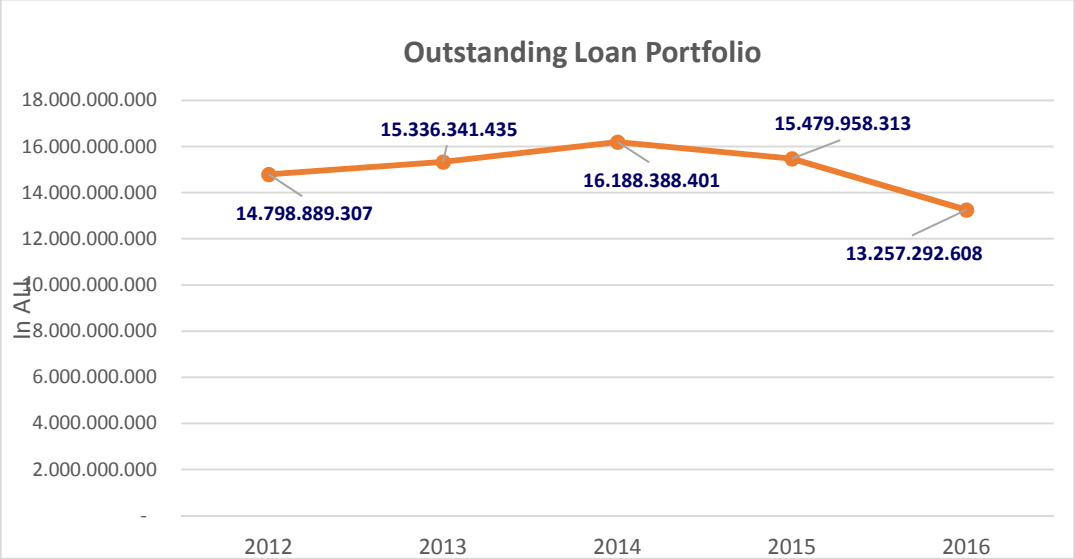


Chart 3. Total Outstanding Loan Portfolio of the Albanian MFIs[60]

Precisely the loan is the necessary instrument of the agriculture funding, to promote, develop and increase it, and more effective compared to grants. Lending to the agricultural sector in the portfolio of bank loans represents the least credit sector compared to other sectors, benefiting around 2% of the total loan portfolio, while Agriculture brings about 20% of GDP of Albanian economy.

Given the need of the agricultural sector for financing or credit, today there are financial institutions that provide financial services to the agricultural sector, such as microfinance institutions that offer credit, but nowadays many banks of the second level are promoting and competing with each other in terms of new service of microfinance / credit of the agricultural sector.

Nowadays, we notice a growing tendency of the presence of banking and microfinance institutions that offer different financial services for the benefit of farmers and poor people. This initiative has a positive impact in the development of the country, for this way we will have an increase of domestic production, incentive for small enterprises' openings or expansion of farms.

[60] http://www.ama.com.al/April 2018

2.1 Empirical researches about microfinance and economy.

Does microfinance have any impact on financial development and poverty reduction? Or does poverty level depends on microfinance? Is there any theoretical relationship between the two? Does one of them lead the other? We needed an answer.

Theoretically, microfinance promotes well-functioning financial sector, which is critical for efficient resource allocation, leading to increased productivity, greater investment, and higher overall levels of economic growth. It is evident from numerous literature that there is a positive effect of the financial sector (i.e. debt and equity markets, banking) on economic growth at the firm, industry and country levels. Moreover, development oriented scholars opine that what actually matters is the access to finance measured by its depth and outreach.

An improved access to finance is needed to ensure sustainable economic growth, so that low-income households, that still constitute a majority, have chances to escape from poverty. (*Aziz & McConaghy, 2014; Alimukhamedova, 2013*).

The background study is the summary of the theories and studies that previous author have given regarding the relation between microfinance and poverty reduction, such as the evidence in micro level of the impact of microfinance on economic development of a country.

Copestake & Williams (2011) tentatively concluded that microcredit cannot, on its own, be relied upon to deliver sustained income growth and falling poverty rates, and that it can indeed be harmful to a significant minority of recipients. Evidence of impact on intermediate indicators including business activity, business profitability and asset ownership is generally more positive, but this in turn has not been shown to increase income or reduce poverty, not least because of the opportunity cost of time taken up with such activities.

Woolley (2008) argued that none of the microfinance variables and domestic GDP growth are significantly correlated. He mentions that this may be the result of a biased sample, it still suggests that some institutions are able to perform financially and in terms of outreach without being affected by domestic GDP growth. This result suggests that institutions can operate successfully in situations of low GDP growth, that they don't necessarily maintain high financial success at the expense of outreach and that perhaps there are some intrinsic characteristics of microfinance institutions that make them so resilient.

3. RESEARCH METHODOLOGY

The purpose of this paper is to study the impact of microfinance and some macroeconomic indicators on *poverty reduction*. The present study is conducted by applying the Autoregressive Distributed Lag model (ARDL) analysis, a co-integration technique which has found wide use in recent years.

If a set of variables in the form of time series are individually integrated in the same order and if at least one of the linear combinations of these variables is stationary, then the variables are cointegrated. This implies that between these variables there is a long-term equilibrium connection.

ARDL technique, also known as the Bounds testing procedure, unlike other cointegration techniques does not necessarily require that all variables be at the same order of integration *I(1)* or *I(0)*.

Also, ARDL techniques has good properties even when small choices are available making this method very convenient and efficient[61].

3.1 Source of data.

We have used annual data from 1998 to 2017. A total of 20 observations were obtained. Time series are taken from the World Bank database and MIX-Market and refer to the most commonly used variables in the empirical literature.

The reviewed model in our study is the relationship between poverty and macroeconomic indicators.

Theoretical model specification is:

$$\boldsymbol{logPoverty_t = \beta_0 + \beta_1 logGLP_t + \beta_2 logINT_t + \beta_3 logGPDC_t + \beta_4 logEM_t + \mu_t}$$

Where:

Poverty	*- Household Final Consumption Expenditure*
GLP	*- Gross Loan Portfolio of MFIs*
GDP/cap	*- Gross Domestic Product per Capita*
INT	*- Real Interest Rate*
EM	*- Employment*

The access of the time series data on poverty for the developing countries is very difficult, so the measure's methods of poverty have been the subject of difficult empiric studies. Different indicators have been used for poverty measurement, from different authors.

Based on the World Bank definition of poverty, Odhiambo[62] used the final consumption expenditure as a proxy for measurement of poverty. In this paper, we used the final consumption expenditure for family as a proxy data for the poverty measurement. The loan portfolio of MIFs is used for the measurement of microfinance activities of a country. Other variables included in the model are *GDP/capita*, *INT* and *Employment*.

The ARDL model specifications of the functional relationship between Poverty, Gross Loan Portfolio of MFIs, GDP per capita (GDP), Real Interest Rate (INT) and Employment is as follows:

$$\Delta logPoverty_t = \beta_0 + \theta_1 logPoverty_{t-1} + \theta_2 logGLP_{t-1} + \theta_3 logINT_{t-1} + \ + \theta_4 logGDPC_{t-1}$$

[61] Pesaran, M.H., & Shin, Y., (1999): An Autoregressive Distributed Lag Modelling Approach to Cointegration Analysis. Chapter 11 in Econometrics and economic Theory in the 20-th Century: The Raggnar Frisch Centennial Symposium, Strom S. Cambridge University Press.

[62] Odhiambo, N. M. (2009). Financial deepening and poverty reduction in Zambia: an empirical investigation. International Journal of Social Economics, 37(1), 41-53.

$$+\theta_5 logEM_{t-1} + \sum_{i=1}^{p} \beta_{1i}\, \Delta logPoverty_{t-i} + \sum_{j=1}^{q} \beta_{2j}\, \Delta logGLP_{t-j}$$
$$\sum_{k=1}^{r} \beta_{3k}\, \Delta logINT_{t-k} + \sum_{m=1}^{s} \beta_{4m}\, \Delta logGDPC_{t-m} + \sum_{l=1}^{t} \beta_{5l}\, \Delta logEM_{t-l} + \mu_t$$

4. DATA ANALYSIS AND FINDINGS.

One of the main problems of using time series is stationarity, which means that all variables must be I(0) or I(1). In order to provide the most reliable results, this study uses 3 well-applied tests of unit roots, known as ADF, PP and KPSS test. The ADF and PP tests have null hypothesis stationarity of the time series while the KPSS test has null hypothesis nonstationarity of the time series.

The reason for using these three tests, rather than testing whether the variables are integrated at level I (0) or integer of first order I (1), is to prove that none of them it is integrated in the second order or above because, as stated earlier, we would not be able to use the ARDL cointegration technique.

In summary, the results of the stationary tests are presented in *Table 1*.

Table 1. The results of the stationary tests

Variable	Level			Decision	First Difference			Decision
	ADF	PP	KPSS		ADF	PP	KPSS	
logpov	-2.503141	-1.486435	0.54038*	undefined	-2.699208**	-2.611727**	0.294125	undefined
loggdpc	-1.902022	-2.680090**	0.551439	undefined	-1.324117 **	-2.897519***	0.408091**	S
logglp	-2.389007	-3.346849**	0.536706**	undefined	-4.575850**	-4.635222	0.333235**	undefined
logint	-2.124259	-2.124259	0.536370**	undefined	-6.654649*	-8.069570*	0.133318*	S
logem	-2.253111	-2.188515	0.707961	nonstationary	-4.185307*	-14.52566*	0.267381*	S

From the above table we can see that the result varies from one test to another. The results of the unit root tests are not unanimous. We observe different results from ADF and PP tests, however, KPSS shows most of the variables are stationary in both forms. It is more than evident that the results are not consistent across various tests.

Therefore, variables we are using for this analysis are either I(0) or I(1), so we can use ARDL technique to test the long run relationship among the variables.

The next step, is to check whether our variables move together (are co-integrated) in the long run or no. Before this, we should determine the optimal number of lags. To determine the optimal number of lags we can use the AIC or SBC criterion. However, many researchers in their studies have argued that in annual data the optimal number of lags is usually recommended

= 2[63]. Since the data in our empirical research are annual, we choose an optimal number lags of 2.

Through the border test, it is tested whether there is or not, a long - term relation between *Poverty*, *Gross Loan Portfolio* of MFIs, *GDP per capita*, *Real Interest Rate* (INT) and *Employment* (EM).

This allows us to make a decision about cointegration to determine the computed statistic F value, which is compared to the upper and lower boundary values. Precisely for this reason, this test is also known as the border test.

Table 2. The F-tests of the model

	Critical Value Bounds for K=4					
F-statistic=6.461538	**significance 1%**		**significance 5%**		**significance 10%**	
	I0 Bound	I1Bound	I0 Bound	I1Bound	I0 bound	I1Bound
	3.74	5.06	2.86	4.01	2.45	3.52

As can be seen from the results presented in *Table 2*, the value of the F statistic (6.461538) is greater than the upper bound critical value for the 10%, 5% and 1% significance levels. Since the computed F statistic is greater than the critical Value Bound, then the zero hypothesis of non-existence of long-term relationship between variables versus the alternative hypothesis of the existence of cointegration between variables can be rejected. Thus, *Poverty*, *Gross Loan Portfolio* of MFIs, *GDP/capita*, *Real Interest Rate* and *Employment* are cointegrated, which means that in the long run the series move together.

Alter confirming that there is cointegration between the variables used in the model, we evaluate the long-term ARDL model for the optimal lags (1, 1, 2, 1, 2), which are determined by the SBC criterion. The long-term model and estimated coefficients are as follows:

$$\boldsymbol{logPoverty_t = 5.657512 + 0.141185 logGLP_t + 0.814140 logGDPC_t + +0.041327 logINT_t - 0.056223 EM_t}$$

Gross Loan Portfolio of MFIs and GDP/capita are all statistically significant at 1% significance level. Thus, in this model GLP of MFI and GDP/capita seem the most important variables that influences poverty.

Results indicate that the Gross Domestic Product per capita (GDP/C) coefficient is 0.81 and is positively related to poverty. This means that in the long run, keeping all the other factors unchanged, a 1% increase in GDP/C would bring an increase of 0.81 percent change in poverty (*would increase final consumption expenditure or reduce poverty*). This coefficient is statistically significant for the 1% significance level and carry the expected positive signs.

The Gross Loan Portfolio of MFIs (GLP) coefficient is 0.14 and is positively related to poverty. This means that in the long run, keeping all the other factors unchanged, a 1% increase in GLP would bring an increase of 0.14 percent change in poverty (*would increase final consumption*

[63] Mohan, R. (2006): Causal relationship between savings and economic growth in countries with different income levels. Economic Bulletin, Vol (5), pg.1-12.

expenditure or reduce poverty). This coefficient is statistically significant for the 1% significance level.

The Real Interest Rate (INT) coefficient is 0.04 and is positively related to poverty. This means that in the long run, keeping all the other factors unchanged, a 1% increase in GLP would bring an increase of 0.04 percent change in poverty (*would increase final consumption expenditure ore reduce poverty*).

In the case of Albania, although the Real Interest Rate coefficient is positively related to household final consumption in the long run, its impact is small. This means that the effect of substitution in this case is greater than the effect of the income. An increase in real interest rates would lead to individuals increasing their current consumer spending and lowering savings.

The Employemnt (EM) coefficient is - 0.056 and is negatively related to poverty. This means that in the long run, keeping all the other factors unchanged, a 1% increase in employment would bring a decrease of 0.056 percent change in poverty (*would decrease final consumption expenditure or increase poverty*). In fact this result is in a contradiction to the theory. Maybe it is because of the non-registered (*informal employment*), the contribution of which was not calculated.

AR, JB, ARCH and RESET stand for the Breusch-Godfrey serial correlation test, the Ramsey's RESET test, the Jarque-Bera normality test and the ARCH test respectively. The numbers in brackets represent the number of lags = 1.

Table 3. The Breusch-Godfrey serial correlation test

	F Version
A :AR(1)	2.920220 [0.1482]**
B: Reset(1)	0.118750 [0.744]**
C:JB	2.463338 [0.2918]**
D:ARCH(1)	0.264807 [0.6143]**

The results show that the estimated model does not seem to have any serious diagnostic problems such as serial correlation, misspecification, non-normality of the residuals and ARCH effects. Thus, the estimated coefficients of the model above are valid for interpretation.

The error-correction coefficient is negative (-1.001123) as required, and is very significant (p=0.00079), confirming our earlier findings of a significant long-run cointegrating relationship between the variables.

*Dr **Forcim Kola** received his PhD in Marketing from "Aleksandër Moisiu" University of Durrësi, Albania, and an MBA from the University of Tirana, Albania. His primary research interests include modelling microfinance consumer choice behaviour based on social and economic impacts, and marketing issues such as consumer behaviour, client satisfaction, pricing policies, customer care, and competitive strategies, among others. In addition to serving as a Professor of Marketing, he also works as a business consultant for several companies in Albania.*

5. CONCLUSION.

This research study finds a significant impact of microfinance on decreasing the poverty level during our sample period 1998-2017. Even in the long run, microfinance holds the position of an important variable to create significant impact on increasing final consumption expenditure or reducing poverty level.

Specifically, a country which has high values of Gross Loan Portfolio of Microfinance, has a lower level of poverty, confirmed from the time series data applied to the Autoregressive Distributed Lag model (ARDL) analysis.

Gross Loan Portfolio of MFIs and GDP/capita are all statistically significant at 1% significance level. Thus, in this model GLP of MFI and GDP/capita seem the most important variables that influences poverty.

The Gross Loan Portofolio of MFIs (GLP) coefficient is 0.14 and is positively related to poverty. This means that in the long run, keeping all the other factors unchanged, a 1% increase in GLP of a country's Microfinance Institutions would bring an increase of 0.14 percent change in poverty (*would increase final consumption expenditure or reduce poverty*). This coefficient is statistically significant for the 1% significance level.

REFERENCES

- Banerjee A, Vinayak A, Duflo E, - Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty, 2011
- Belegu K. – Dissertation, "Microfinance Institutions and their Contribution on the Reduction of Poverty in Rural Albania" (AGR/01) 2010
- Ceku B, Kola F, "Metoda Kërkimi", Tiranë, 2011.
- Convergences 2015.org, Microfinance Barometer 2013, 4th Edition, 2013
- Foster, A. 1995. Prices, credit markets, and child growth in low-income countries. Economic Journal 105: 551-570.
- Gulli, H. 1998. Microfinance and Poverty - Questioning the Conventional wisdom. Publication by the Microenterprise Unit, Sustainable Development Department. Interamerican Development Bank, Washington, D.C.
- Harris Jeffrey A. - Transformative Entrepreneurs: How Walt Disney, Steve Jobs, Muhammad Yunus, and Other Innovators Succeeded, 2012
- http://www.nobelprize.org/January 2017.
- Impact Evaluation for Microfinance: Review of Methodological Issues – World Bank, November 2007
- Karlan, Dean. 2001. "Microfinance impact assessments: The perils of using new members as a control group." Journal of Microfinance 3(2): 76–85.
- Kola F. "Islamic Microfinance - A Feasibility Study in the Albanian Market", author, book publisher: "LAP LAMBERT Academic Publishing", ISBN-13: 978-3659811890, Germany, 1 December 2015.
- Kola F. "Measuring the Impact of Microcredit Programs in Albania", author, book publisher: "Cambridge Scholars Publishing", ISBN-13: 978-1-4438-2304-3, ISBN-10: 1-4438-2304-X, UK, 10 December 2016.
- Kola F. "Microcredit contribution on social wellbeing", author, book publisher: "LAP LAMBERT Academic Publishing", ISBN-13: 978-3843354110, Germany, 15 September 2010.

- Microfinance Market Outlook 2014
- Otero M & Rhyne E (1994) "Financial Services for Micro enterprises: Principles and institutions" in The new world of micro enterprise finance (eds. Otero M and Rhyne E) IT publications: London.
- Roth and Athreye (2005), “Tata-AIG, India,” Good and Bad Practices in Microinsurance, Case Study No. 14. Geneva: International Labour Organization.
- SWAIN R. B. - The Microfinance Impact, 2012.
- www.forbes.com/ How To Measure Microfinance's Social Impact/ October 2017
- www.grameen.com/September 2017
- www.microjournal.com/ August 2017
- www.mixmarket.org/ September 2017
- www.responsAbility.com/February 2017
- Yunus Muhammad, Jolis Alan, - Banker To The Poor: Micro-Lending and the Battle Against World Poverty, 2008
- Banerjee, Abhijit V, Andrew F. Newman. (1993). Occupational choice and the process of development. Journal of political economy , 274-298.
- Christian Ahlin, Neville Jiang. (2008). Can Micro-Credit Bring Development? Journal of Development Economics .
- Datt, G., & Ravallion, M. (1992). Growth and redistribution components of changes in poverty measures: A decomposition with applications to Brazil and India in the 1980s. Journal of development economics, 38(2) , 275-295.
- Imai, K. S., Azam, M. S. (2012). Does microfinance reduce poverty in Bangladesh? New evidence from household panel data. Journal of Development Studies , 633-653.
- Imai, K. S., Arun, T., & Annim, S. K. (2010). Microfinance and household poverty reduction: New evidence from India. World Development, (pp. 1760-1774).
- Imai, K. S., Gaiha, R., Thapa, G., & Annim, S. K. (2010). Analysis of poverty reducing effects of microfinance from a macro perspective: evidence from cross-country data.
- Leibbrandt, M., & Woolard, I. (1999). Household incomes, poverty and inequality in a multivariate framework. Development Policy Research Unit.
- Odhiambo, N. M. (2009). Financial deepening and poverty reduction in Zambia: an empirical investigation. International Journal of Social Economics, 37(1) , 41-53.
- Osmani, M. (2010). Econometrics with its aplplication. Tirane.

FINDING THE EFFECTIVE FRONTIER FOR A PORTFOLIO OF RISK LOANS (ALBANIAN CASE)

Glediana Zeneli[64]
Arsen Benga[65]

DOI: https://doi.org/10.31410/eraz.2018.137

INTRODUCTION: *The basis for any investment is the desire to benefit from positive returns. This additional return means risk acceptance. So we need to be able to determine both return and risk at the portfolio level. In this section, we portray the portfolio in terms of return and risk and note that risk assessment is a complex problem when the portfolio contains a large number of assets. The reason lies in the fact that the assets are correlated with one another and consequently the correlation will help us to understand the combined returns on the asset portfolio, in other words to understand the risk of the portfolio.*
One of the factors considered when choosing the optimal portfolio for an investor is the level of risk-aversion, the investor's risk preference versus expected return.

Key words: *Optimal Portfolio, Efficient Frontier, Risk.*

LITERATURE REVIEW

The researchers have ascertained the level of non-performing loans as a direct indicator of credit risk. This fact has increased the number of scientific papers related to this area with the purpose of understanding the determining factors of NPL (the level of non-performing loans). Risk management dynamics are the most important factors determining whether a bank will be successful in the market or not. According to the authors Arunkumar and Kotreshwar (2004), the foundation of a proper management lies in the creation of a general working picture defining the institution's priorities, the credit approval process, the credit risk measurement system, and finally a full reporting mechanism. Methods of risk management must evolve and sophisticated with the same steps with which the bank is involved in a new world and risky financial operations.

1. Indifference Curve

The degree of risk aversion is determined by the investor's indifference curve, consisting of the risk / return pair that is defined between return and risk. It shows the growth in return that an investor will seek for an increase in risk level. The optimal portfolio along the efficient frontier is not unique to this model, and depends on the risk / return function of each investor.

Usually the financial theories and the AIMR (Investment and Research Management Association) use the benefit function that yields a portfolio of given expected return $E(r_p)$ and standard deviation σ_p by function of benefit:

64 Department of Applied Mathematics, Faculty of Natural Sciences, University of Tirana, Albania
65 Department of Mathematics, Faculty of Engineering and Technology, American University of the Middle East, Kuwait

$$U = E(r_p) - 0.005A\sigma_p^2$$

Where U is the value of the benefit and A is an investor risk aversion. Coefficient 0.005 is agreed with the agreement to allow the expression of expected return and standard deviation as a percentage instead of the decimal numbers. The interpretation is as follows: the benefit of a portfolio increases when the expected return rises and decreases when the variance increases. The relative size of these changes depends on the risk aversion coefficient A. For neutral risk investors, A = 0. Higher levels of risk-aversion are reflected in higher values of A.

Portfolio selection is determined by graphically displaying benefit functions along with the efficient frontier of investment opportunities. In Figure 1, two curves of indifferences named U_1 and U_2 are shown along with the efficient boundary. The curve U_1 has a larger slope, indicating a higher level of risk aversion. The investor is indifferent to any combination of r_p and σ_p over a given curve. The U_2 curve would be appropriate for a no "risk averse" investor, which means that the investor would be willing to accept a relatively higher risk to ensure higher levels of return. The optimum portfolio would be the one that provides the highest benefit - a point in the most northwestern direction (higher return and lower risk). This point will be on the tangent of the benefit curve and the efficient boundary. Each investor logically chooses the optimal portfolio according to his preference for risk-return and none of these portfolios is better than the other is.

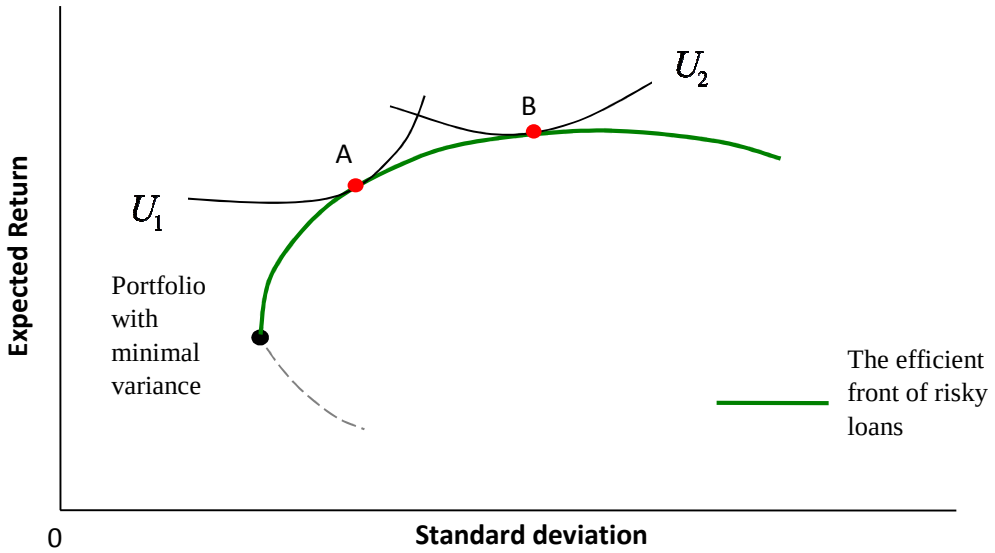


Figure 1.The curbs of indifference and the efficient frontier

2. Optimal Portfolios

To simplify the optimal risk portfolio definition, the capital allocation line (CAL) is used, which presents all possible risk-return combinations available from different asset combination choices to determine the optimal portfolio of risks. Initially, the solving of the portfolio building problem with only two risky assets (in our example, assets A and B) and a risk-free tool will be demonstrated. In this case, an exact formula for the weights of each optimal portfolio asset can be used. This will make it easier to illustrate some general problems related to the portfolio optimization.

The objective is to find the x and y weights that result in the highest slope of the CAL (ie, resulting weights in the riskos portfolio with the highest return-rate variance). Therefore, the objective is to maximize the CALS slope for each potential portfolio, S. Thus, the CALs function:

$$CAL_S = \frac{E(r_p) - r_f}{\sigma_p} \tag{2}$$

For the portfolio of two risky assets, expected return and standard deviation are:

$$E(r_P) = w_A E(r_A) + w_B E(r_B)$$

$$\sigma_P = \sqrt{(w_A{}^2 \sigma_A{}^2 + w_B{}^2 \sigma_B{}^2 + 2 w_A w_B \rho_{AB} \sigma_A \sigma_B)}$$

When maximizing the CAL function, we must meet the limitation that the sum of the weights of the portfolio is equal to one. Consequently, we solve a mathematical problem that is formally written as:

$$\underset{w_i}{Max}\, CAL_S = \frac{E(r_p) - r_f}{\sigma_p}$$

Where $\sum_{i=1}^{2} w_i = 1$. In the case of two risky assets, the solution for the optimal risk portfolio S weights can be shown as follows:

$$w_A = \frac{[E(r_A) - r_f]\sigma_B^2 - [E(r_B) - r_f]\rho_{AB}\sigma_A\sigma_B}{[E(r_A) - r_f]\sigma_B^2 + [E(r_B) - r_f]\sigma_A^2 - [E(r_A) - r_f + E(r_B) - r_f]\rho_{AB}\sigma_A\sigma_B}$$

$$w_B = 1 - w_A$$

Thus, an optimal portfolio is formed from an optimized portfolio of given risk and CAL is generated by a combination of portfolio S and the risk-free tool. Once the optimal S portfolio was built, the aversion level A is used to calculate the optimal portfolio's propensity to invest in the risk component. Suppose that the risk-free rate is r_f, in a portfolio with the expected return rate $E(r_p)$ and the standard deviation σ_p. We will find that for each y choice, the expected return of the portfolio is:

$$E(r_C) = r_f + y[E(r_p) - r_f]$$

The variance for the full portfolio is: $\sigma_C^2 = y^2 \sigma_p^2$.

The investor tends towards maximum benefit, U, choosing the best combination for the risky asset, y. To solve the problem of maximizing utility, more generally, we write the problem like:

$$\max_{y} \; U = E(r_C) - 0.005A\sigma_C^2$$

$$= r_f + y[E(r_p) - r_f] - 0.005Ay^2\sigma_p^2 .$$

By extracting the derivative of this expression to zero, we can find y * which gives the optimal position for risk-opposing investors as follows:

$$y^* = \frac{E(r_p) - r_f}{0.01A\sigma_p^2} \tag{3}$$

The solution indicates that the optimum position on the asset is expected to be non proportional to the level of risk aversion and the level of risk itself (variance), on the other hand, in proportion to the expected return, offered by the risky asset. Once we get to this point, generalization in the case of many risky assets is simple. Before proceeding with it, a summary of the steps that were followed to reach a full portfolio will be presented as follows.

Specify the characteristics of the return of all securities (expected returns, variances, covariances).

We create a risky portfolio.
Calculate the risky optimal portfolio S.
Calculate the characteristics of portfolio S according to the formulas:

$$E(r_P) = w_A E(r_A) + w_B E(r_B)$$

$$E(U(X)) = U(m) + \frac{1}{2}U''(m)V(X) + E(R_3(X)) \text{ kde } E(R_3(X)) = R_3(X) = \sum_{k=3}^{\infty} \frac{U^{(k)}(m)}{k!} E(R_3(X-m)^k)$$

The combination of funds between the risk portfolio and the risk-free tool.
Calculate the part of the full portfolio, of the combinations within the portfolio S (risk portfolio) and the risk-free tool.
Calculate the distribution of the full portfolio invested in each asset and risk-free tool.

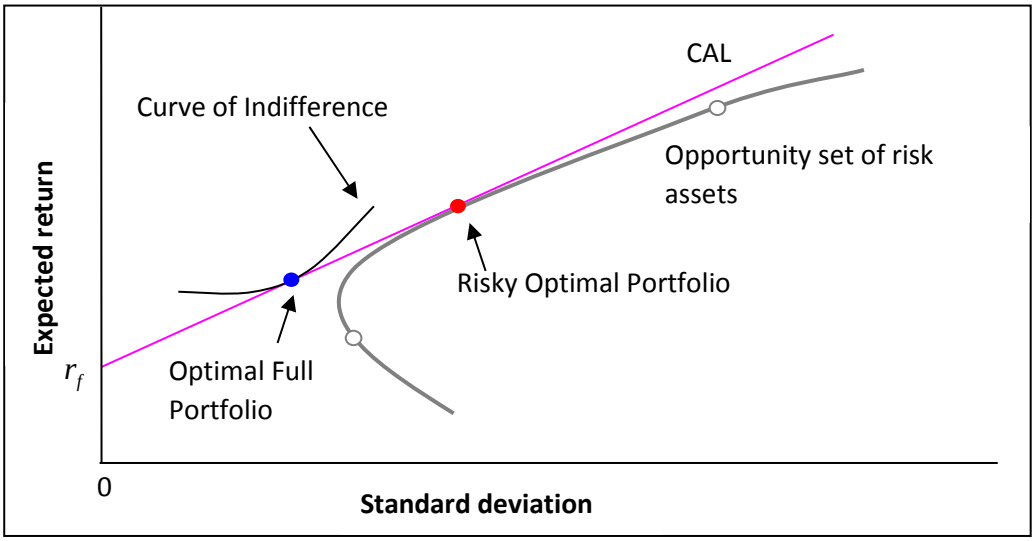


Figure 2: Determining the optimal portfolio

3. Determining Optimal Portfolio (Credins Bank Albania case)

Below will be shown how many efficient multifaceted portfolios can be built.

We have taken into consideration a bank of second level Credins Bank that operates in our market. We have grouped its loan portfolio into five types of loans, grouped by maturity.

- The first group, loans with maturity up to 1 year,
- The second group, loans with a maturity of 1 year to 3 years,
- Third group, loans with a maturity of 3 years up to 5 years,
- The fourth group, loans with a maturity of 5 years to 10 years,
- Fifth Group, loans with a maturity of more than 10 years.

With the monthly data for the respective portfolios from January 2009 to December 2016, we will be able to determine the combination of the Bank's optimum portfolio.

So, solving our problem is to find the optimum portfolio with minimal risk and maximum return, so finding the weights for each grouping in such a way that the bank minimizes credit risk and maximizes its profit.

Step 1: Finding the Efficient Frontier

Initially, we need to calculate the expected return, the standard deviation, and the covariance matrix for historical monthly returns data.

Step 2: Finding the optimal risk portfolio

In order to find the optimal risk portfolio, we need to find the portfolio in the tangent between the CAL and the efficient frontier. For this, Solver can be used. Initially, inserts the target function, ratio reward/ variance ($\frac{E(r_p)-r_f}{\sigma_p}$, assume rate without risk 4.5%), CAL slope.

Step 3: The decision on capital combinations

The decision on capital allocation will be affected by the degree of risk aversion. Now that we have the optimal risk portfolio, we can use the concept of combined funds in the full portfolio between the risk portfolio and the risk-free asset. We use the equation $\boldsymbol{MaxE(X)}$ with condition $\boldsymbol{\phi(X) = \varphi}$ as our function of benefit and we take risk aversion odds to 5 and the risk-free assets rate of 4.5%. Initially we build a complete portfolio with the risk-free tool and with the optimum portfolio of risks.

According to Equation (2), the optimum weight for the risk portfolio is $\frac{E(r_p)-r_f}{0.01A\sigma_p^2}$ and the optimum position of the risk-free asset is 1-$\frac{E(r_p)-r_f}{0.01A\sigma_p^2}$. Then, we use equations:

$$E(r_P) = w_A E(r_A) + w_B E(r_B)$$

$$\sigma_P^2 = (w_A\sigma_A + w_B\sigma_B)^2 = w_A{}^2\sigma_A{}^2 + w_B{}^2\sigma_B{}^2 + 2w_A w_B \rho_{AB}\sigma_A\sigma_B$$

to calculate expected return and standard deviation of the full portfolio.

Table 1, 2 and 3 show the average return, risk, correlation matrix, and the covariance matrix for return rates for credit groupings by maturity.

Average return and standard deviation for monthly returns		
Type of the Loan	Average monthly return	Risk
0-1 year	2,54%	8,46%
1-3 years	1,42%	2,51%
3-5 years	0,56%	2,54%
5-10 years	0,51%	2,96%
>10 years	1,16%	2,66%

Table 1. Risk and Average Return on Monthly Returns, Credins Bank Data (Author's Processing)

Correlation matrix for monthly returns of loans on maturity terms					
	0-1 Years	1-3 Years	3-5 Years	5-10 Years	>10 Years
0-1 Years	1,000	0,196	- 0,304	0,099	- 0,034
1-3 Years	0,196	1,000	0,357	0,484	0,323
3-5 Years	- 0,304	0,357	0,010	0,409	0,329
5-10 Years	0,099	0,484	0,409	0,010	0,514
>10 Years	- 0,034	0,323	0,329	0,514	1,000

Table 2: Correlation Matrix, Cedins Bank Data (Author Processing)

Matrix of variance - covariance for monthly returns on loans, by maturity timing.					
	0-1 Years	1-3 Years	3-5 Years	5-10 Years	>10 Years
0-1 Years	0,0071	0,0004	- 0,0006	0,0002	- 0,0001
1-3 Years	0,0004	0,0006	0,0002	0,0004	0,0002
3-5 Years	- 0,0006	0,0002	0,0006	0,0003	0,0002
5-10 Years	0,0002	0,0004	0,0003	0,0009	0,0004
>10 Years	- 0,0001	0,0002	0,0002	0,0004	0,0007

Table 3: Variance-Covariance Matrix, Cedins Bank Data (Author's Processing)

Table 4 gives us the current monthly portfolio with which the bank operates in the credit market, portfolio with minimal variance, portfolio with maximum return and optimal portfolio.

			Weight for each asset					
	Average	Risk	0-1 Years	1-3 Years	3-5 Years	5-10 Years	>10 Years	Profit
Min Variance	1,08%	1,82%	7,35%	23,84%	41,15%	0,00%	27,66%	59,26%
Max Return	2,54%	8,40%	100,00%	0,00%	0,00%	0,00%	0,00%	30,23%
Actual Portfolio	1,23%	4,28%	19,19%	15,20%	16,72%	21,20%	27,69%	53,75%
Optimal Portfolio	1,45%	2,18%	10,67%	55,34%	0,00%	0,00%	33,99%	66,63%

Table 4. Minimum variance portfolio, maximum return and optimal for monthly returns, Credins Bank data (Author's processing)

According to the results of Table 4 we conclude that:

1. If the bank aims to minimize risk, it should distribute its loan portfolio in this way:
- 7.3% for loans with a maturity of 0-1 year,
- 23.8% for loans with a maturity of 1-3 years,
- 41.15% for loans with a maturity of 3-5 years,
- 27.7% for loans with a maturity of more than 10 years,
- No loans with maturity of 5-10 years with monthly average return 1.08% and risk 1.82% per month.

This result is due to the fact that loans with a maturity of 5-10 years are those loans for which the value of the approved principal is high compared to loans with a maturity of less than 5 years and this loan does not necessarily require the mortgage guarantee.

2. If the bank aims to maximize the average monthly return then the portfolio should be allocated 100% for 0-1 year loans. This short-term loans are generally overdrafts and for their approval it is sufficient only for the monthly salary of the borrower. They have the highest return because they also have the highest interest rate of credit and short maturity. Such distribution would bring to the bank a 4.12% increase in monthly risk compared to the current risk of 4.28% of the current portfolio of the bank.

3. If the bank aims to maximize monthly earnings, or as we have called the optimal portfolio, which takes into consideration the return rate for non-risky loans, where in our case we have assumed the average treasury bill rate should be consisting of:
- 10.7% maturity loans 0-1 year,
- 55.34% maturity loans 1-3 years,
- 34% loans with a term of more than 10 years,
- medium term loans 3-5 years and 5-10 years should be eliminated.

According to this month, the monthly risk shrinks by 2.1% and the monthly profit increases to 13%.

Table 5, 6 and 7 show the average return, risk, correlation matrix and the covariance matrix for the returns of the loan groupings by maturity. Table 8 gives us the current annual portfolio with which the bank operates in the credit market, portfolio with minimum variance, maximum return portfolio and optimal portfolio.

Average Return and Risk for Annual Returns		
Loans	Annual average	Risk
0-1 Years	37,59%	32,23%
1-3 Years	17,04%	20,26%
3-5 Years	7,33%	20,10%
5-10 Years	6,90%	21,33%
>10 Years	13,86%	18,10%

Table 5: Average return and risk for annual returns, Credins Bank data (Author's processing)

Correlation matrix for annual loan returns by maturity term					
	0-1 Years	1-3 Years	3-5 Years	5-10 Years	>10 Years
0-1 Years	1,000	0,172	- 0,185	0,397	0,276
1-3 Years	0,172	1,000	0,720	0,707	0,654
3-5 Years	- 0,185	0,720	1,000	0,656	0,477
5-10 Years	0,397	0,707	0,656	1,000	0,930
>10 Years	0,276	0,654	0,477	0,930	1,000

Table 2: Correlation matrix for annual returns, Credins Bank data (Author's processing)

Matrix of variance - covariance for annual credit returns by maturity term					
	0-1 Years	1-3 Years	3-5 Years	5-10 Years	>10 Years
0-1 Years	0,087	0,009	-0,010	0,023	0,013
1-3 Years	0,009	0,034	0,024	0,025	0,020
3-5 Years	-0,010	0,024	0,034	0,023	0,014
5-10 Years	0,023	0,025	0,023	0,038	0,030
>10 Years	0,013	0,020	0,014	0,030	0,027

Table 7. Matrix of variance - covariance for annual returns, Credins Bank data (Author's processing)

			Weights for each asset					
	Average	Risk	0-1 Years	1-3 Years	3-5 Years	5-10 Years	>10 Years	Profit
Min Variance	15,92%	13,50 %	21,67%	0,00%	47,19 %	0,00%	31,15 %	117,94 %
Max Return	37,59%	29,42 %	100,00 %	0,00%	0,00%	0,00%	0,00%	127,79 %
Actual Portfolio	30,25%	24,21 %	19,19%	15,20 %	16,72 %	21,20 %	27,69 %	107,75 %
Optimal Portfolio	25,45%	17,30 %	48,59%	32,01 %	14,76 %	0,00%	4,64%	147,11 %

Table 3. Portfolio with minimal variance, maximum return and optimal return for annual returns, Credins Bank Data (Author's processing)

5. Conclusions and Recommendations

a) According to the results of Table 8 on annual returns on loans, we conclude that:
If the bank wants to minimize risk, it should distribute its loan portfolio in this way:

- 21.67% Assets with a maturity of 0-1 year,
- 47.2% Assets with a maturity of 3-5 years,
- 31.15% Assets with a maturity of more than 10 years,
- Should not hold loans with maturity of 1-3 years and 5-10 years with average monthly return of 15.92% and risk 13.5% per annum.

This distribution reduces the credit risk by 10.7% and the bank's profit by 10% compared to the portfolio available from the bank.

b) If the bank aims to maximize average annual return then the portfolio should be allocated 100% for 0-1 year loans. The same result as well as for monthly returns, therefore maturing loans with less than a year have the highest return by 37.6% but even higher risk level of 29.4%.The bank's profit would be 20% higher than actual.

c) If the bank aims to maximize the annual profit, which takes into consideration the return rate for non-risky loans, where in our case we have assumed the average treasury bill rate should be comprised of:

- 48.6% maturity loans 0-1 year,
- 32% maturity loans 1-3 years,
- 14.8% loans with a term of 3-5 years,
- 4.7% loans with a maturity of more than 10 years,
- loans with maturity of 5-10 years have to be eliminated.

According to this distribution, the annual risk rises to 17.3%, which is approximately 7% less than the current risk, and the annual profit rises to 40%.

Arsen Benga

Mathematics Instructor - American University of the Middleeast, Kuwait (Kuwait)

Education and training:
05/01/2018–15/03/2018: Course Certificiate in Econometrics: Methods and Applications
Erasmus University Rotterdam, Rotterdam (Netherlands)
08/2010–07/2012: Master of Sciences in Mathematics(MSC)
University of Tirana,Faculty of Sciences, Tirana (Albania)
08/2007–07/2010: Bachelor in Mathematics " Fan. S. Noli" Universitety, Korçë (Albania)

Publications:

- *Zeneli (Foto).G, Kulli.A, Benga.A, 2017, "Efekti I normave te kembimit tek modeli monetary (Rasti I vendeve te Europes Juglindore)" " Konferenca e Shkencave te Natyres dhe Teknologjise" Tirane, 17-18 Nentor p243*
- *Zeneli (Foto).G, Kulli.A, Benga.A, 2017, "Factors affecting the Wage Level in Albania" International Conference "Socio_Economic Perspectives in the age of XXI century Globalization December, Tiranw Albania ISBN 978-9928-149-43-5 p 49*
- *Gjana .A, Benga. A ,Zeneli (Foto).G 2017, "Portofolio Analysis using mathematical Methods" International Conference "Socio_Economic Perspectives in the age of XXI century, Globalization December Tiranw Albania ISBN 978-9928-149-43-5 p 28*
- *Gjana .A, Benga.A, Zeneli (Foto).G 2017, "OPTIMAL PORTFOLIO MODELS AND "MEDIUMVARIANCE" TESTS" The 2 nd International Conference on Applied Sciences and Engineering 16-17 November 2017*

Credins Bank has to invest 23% of its capital in non-risky loans and 77% in riskier loans in order to achieve total portfolio return of 16.89% and risk 14.19% to reach a 12.4% profit level. Compared to the current risk at the level of 24.2% that the bank has on loans this combination of portfolio would reduce the risk by 10%.

Recommendations

Problem loans as a starting point have the moment of receiving the loan. Loan brokers need to be very responsive and skilled in relation to the moment of consideration of applicants' claims. At this moment they have to face two careful analyzes, that of the financial situation of the applicant and the identification of his specific or social characteristics. In assessing the financial aspect of the applicant, the loan agent should be very careful in seeking information on the economic situation and to properly analyze the factors that may affect the future. This is more complicated in business cases, especially in Albania. Currently, many Albanian businesses operate with 2 balances, one for governmental effects and one for internal effects. In the first, they have a pronounced tendency to reduce profits and worsen indicators as a way to evasion. In the second balance they claim to show the real situation and it is they who submit to the banks. The agent should be in a position to carefully analyze the indicators to look at different manipulation with indexes.

6. Literature

- Arunkumar, Rekha, and G Kotreshwar. “Risk Management in Commercial BankS.” *The Financial Express*, 2004.
- H. Markowitz (1952,1959): Portfolio Selection. *Journal of Finance* 8: 77–91.
- W.Chen,H Chung ,K. Ho,T.Hsu *2010* "Portfolio optimization models and mean-variance spanning tests "*Handbook of Quantitative Finance and Risk Management chapter 10.*
- O. Stringa, Financial Mathematics
- Arrow, K. 1970. Essays in the Theory of Risk Bearing. Amsterdam: North-Holland.
- Bank of Albania, Yearly Publications
- http://www.fshn.edu.al-doktoraturat/Doktorata-Gledjana%20Zeneli-Matematike e Aplikuar.pdf

BANKS IN THE SYSTEM OF FINANCING ECONOMY AND FINANCIAL MANAGEMENT IN BOSNIA AND HERZEGOVINA

Željana Vrućinić[66]

DOI: https://doi.org/10.31410/eraz.2018.147

ABSTRACT: *The goal and contribution of this paper is to look at the importance of banks as the most important entities in the financial market and in the overall system of financing the economy. In the system of overall financing of the economy (and the state) banks get a basic role, whether it is direct crediting of enterprises, or indirectly through the financial market (securities).*

BiH is ranked third in the region by the number of banks, but it is the first if this parameter is viewed on the basis of size and market development, which is why bankers and economists believe that there are too many banks and that the banking sector needs to be consolidated.

By reading this paper, we can see that with the rapid development of credit money, especially after the disappearance of the metal standard, and its active use from the modern capitalist state, through a highly developed mechanism of monetary regulation, there have been two opposite effects: first, there is an increase in the elasticity of the money supply, and secondly, there is a wider use of this mechanism in state-monopolistic capitalism, followed by a sharpening of crisis situations and disproportions in almost all modern economies. The dominance of banking capital in modern economies, constant concentration and centralization processes, the growing interest in financial and industrial capital, and the creation of a financial oligarchy, was followed by the simultaneous process of creating large international banks, the process of creating multinational societies, along with the simultaneous process of diversification of jobs by which modern banks increasingly deal in regular business.

Financial instability is a greater danger to the economic system and central banks, which is why financial stability is expected to become a priority goal for these institutions. The global financial crisis and the wave of bankruptcy of banks and a large number of other institutions opened a new discussion aimed at redefining the objectives of the monetary policy. The research was carried out using the standard methodological procedure, using local and foreign professional literature (books, articles, journals, reports from relevant institutions) and publications related to this issue in the region. Methods of induction and deduction, systematization and methods of analysis and synthesis were applied to these data. Poor economic and credit activity in the country in the past two years, as well as a relatively high proportion of non-performing loans in total system-level loans, imposed a need to find a systematic solution to the issue of non-performing loans. Domestic institutions have begun to create a comprehensive framework for resolving the issue of non-performing loans and to ensure a better position for commissioners, better protection of the guarantors, faster collection of claims, as well as disruption of the borrower's business activities up to the moment of settlement of the commitments, thus creating better conditions for providing significant support of the banking sector to the economic growth of BiH.

Key words: *issuance, central bank, multiplication, interest rates, liberalization.*

[66] Edukos d.o.o., 78 000 Banja Luka, Bosnia and Hercegovina

1. INTRODUCTION

"The credit activity of the bank leads to the emission of money based on the credit - deposit multiplication. In the western literature for the credit multiplication process, the term credit expansion or contraction is used."[67]

The central bank in all monetary systems in the world continued to retain the previously acquired monopoly right to create primary money (printing of banknotes and coins), although today, along with the central bank, the entire banking system, i.e. all commercial banks, appear as banks which on the basis of bank loans, do real emission of money. True, there is still a difference between the issuance of the central bank and the issuance of commercial bank money, given that the central bank creates the so-called primary money, and commercial banks create deposit or banking (secondary) money. "The state assumes directly (true, through the Central Bank, which is in its hands) responsibility for the credit and monetary policy in general, for regulating the money supply, but also for regulating the basic goods - cash flows within the economy"[68].

Primary central bank emission can be done in theory and practice over 5 basic flows or channels:

a) By monetization of securities (bills of exchange, bonds and similar securities issued by business enterprises that are in circulation within that sector), i.e. directly to economic entities, transactors. Monetization of securities is done through the system of commercial banks,
b) By Central bank loans to commercial banks,
c) By state (federation) crediting, i.e. "government borrowing from the central bank" (government borrowings with the central bank, i.e. monetization of public debt bonds of the state through the "open market"),
d) By loans to other direct customers of the central bank;
e) By purchasing and selling foreign currency assets (foreign exchange transactions, foreign exchange reserves operations).

Each of the mentioned channels or streams of issuance has its own specificity and a deeper reflection on all the basic flows in the reproduction as a whole, especially in our economy. Therefore, it is not about a formal one, but about a fundamental difference in the flow of emission of primary money, because they have a different effect on: the stability of the economy, mastering the economy by direct money emission, adjusting the emission of money to real goods-money transactions in the economy, forming an optimal money supply, and the efficiency and elasticity of monetary policy and so on.

In order to see the flows of creating primary money in our economy, we will indicate real channels and their significance in the past few years.

- Emission of the National Bank (primary issue) – loans to banks (for recycling of securities, for liquidity of banks, other loans);
- Placements to securities through banks (bills of exchange, commercial bills, other securities);
- Loans to the state;
- Other placements;

[67] Alijagić, M. (2006) Bankarski Menadžment, Univerzitet za poslovne studije, Banja Luka, pp. 356
[68] Jovičić, J. Klincov, R. Ristić, Ž.(2010) Međunarodno bankarstvo, Etno stil, Beograd, pp. 11

- Securities on the open market (commercial papers).

Here, the basic questions raised are if the central bank can control the mass of primary money, that is if it can successfully adapt it to the needs of economic development; and secondly, to which flows the central bank can influence (controlled flows), and what are the flows to which it cannot influence (autonomous flows)? Therefore, the question arises regarding the nature of these flows, their autonomy in relation to the decisions and measures of the central bank, and the ability of this bank to keep them under control. "The internal value of money is based on the purchasing power of money that money has on the domestic market, i.e. the quantity of goods and services that can be obtained for a certain number of monetary units."[69]

For all of the above, we will consider all the basic flows of creating primary money, we will emphasize their basic characteristics, basic activities in the economy, and the positive and weak sides of our monetary and credit system. However, we will first give, for the purpose of comparison only, a brief overview of the emission system and the channels of the creation of primary money in some developed capitalist countries.

2. BANKING SYSTEM OF BOSNIA AND HERZEGOVINA (Central Bank of BiH and Currency Board)

The Central Bank of BiH was formed in accordance with the Law on the Central Bank of Bosnia and Herzegovina adopted in 1997. According to the legal provisions, the Central bank cannot give loans on the basis of money creation, and therefore it functions as a "Currency Board" with two main units, one in the Federation of BiH and one in the Republic of Srpska. "The main task of the Central bank is to maintain the stability of the domestic currency (Convertible Mark) by broadcasting the domestic currency under an arrangement known as the "Currency Board"[70]. The tasks of the Central bank under the authority of the Governing Board relate to: providing and maintaining the stability of the domestic currency that is issued with full coverage in freely convertible funds (the convertible mark is issued in accordance with an arrangement known as the Currency Board at the fixed exchange rate of 1 KM = 0,511 E), defining and controlling the implementation of monetary policy in BiH, managing in a safe and profitable way with the foreign exchange reserves of the central bank, establishing and maintaining an appropriate payment and settlement system of the country, issuing appropriate regulations, coordinating the activities of the BH Entity Banking Agencies which are in charge of bank licensing and supervision, the implementation of monetary policy (issuance and withdrawal of the domestic currency from circulation), including banknotes and coins, with strict adherence to the rules of the “Currency Board“ and receipt of deposits from the Federation of BiH and the Republic of Srpska, i.e. deposits of the entities.

The Central Bank is completely independent of the Federation of Bosnia and Herzegovina, the Republic of Srpska or any other public agency or body, and does not have any organizational connections with any commercial bank in order to carry out its tasks objectively. The Central Bank exercises international cooperation in the conduct of monetary policy, is responsible for carrying out transactions with international organizations. The Central Bank provides banking services for the benefit of foreign governments, works on determining financial and economic stability through international monetary cooperation, etc.[71]

[69] Ristić, K. Komazec, S. Ristić, Ž.(2016) Monetarni i bankarski menadžment, Etno stil, Beograd, pp. 41
[70] www.cbbh.ba
[71] www.cbbh.ba

A well-organized financial and banking system and its efficient functioning contribute to: increasing the national savings rate; rapid concentration and centralization of capital; more effective use of national savings; increasing the general rate of return on social capital; greater stability of economic and financial flows; increasing the overall growth rate; greater social control of monetary and financial flows; optimal allocation of financial resources in the process of financing economic development; greater "flowability" and liquidity of reproduction, the total flows of reproduction, etc.

3. INTEREST RATES IN BOSNIA AND HERZEGOVINA

The transition process also implied a significant transformation of the role of commercial banks in the financial and economic system.

In most cases, banking systems have gone through three phases:

1) Consolidation – write-off of a significant portion of banks' claims on loans granted to large state-owned enterprises and the transfer of losses related to these loans to the state;
2) Privatization – sale of banks, primarily to foreign investors;
3) Beginning of standard banking operations, including increasing the granting of loans to truly private companies.

"The Central Bank of Bosnia and Herzegovina (CBBH) has set up new interest rate statistics, and started its publication, and thus made significant progress towards reaching EU standards in the field of statistics. New interest rate statistics are harmonized with the methodology prescribed by the European Central Bank (ECB) and applied by the EU Member States and the Eurozone. These statistics contain 82 indicators on weighted and weighted average interest rates of commercial banks, with data series starting in January 2012. Out of the above 82 indicators, 60 refer to interest rates for different types of commercial bank loans, and 20 to interest rates for deposits with commercial banks."[72]

During the preparatory phase, this project was supported by the technical assistance program from the IPA 2008 funds for the CBBH, and it was implemented through cooperation with the ECB and the Austrian National Bank (OeNB). "For the purpose of protecting banks, the central bank prescribed the upper limit of the largest possible loans which a bank can approve to one customer. The upper limit is 80% of the total capital of the bank.[73]" At the same time, it is possible to make a direct comparison of the level of interest rates in BiH with those in countries that apply the same methodology.

The most characteristic interest rates on loans to citizens are those for general-purpose loans (in BAM with a currency clause) with a variable interest rate, which in February amounted to 9.06%, and also over the past several months was at a similar level. For housing loans (variable rate, currency clause) interest rates were significantly lower, and in February amounted to 6.75%, and did not exceed the level of 7% in the previous year. Interest rates on consumer loans (variable interest rate, currency clause) are slightly above 8% and in February amounted to 8.23%.

For corporate loans, interest rates are classified according to the loan amount (up to 500.000, from 500.000 to 2 million and over 2 million BAM). In the category of loans up to 500.000 BAM, the majority are loans in BAM with a variable rate, which was 8.1% in February (it is

[72] www.cbbh.ba
[73] www.moj-bankar.hr

lower compared to trends in 2012). Loans in the category from 500.000 to 2 million BAM are significantly cheaper and the interest rate in February was 6.56%, and it is lower than the average in the previous year. Loans exceeding 2 million BAM (variable rate, in BAM) in February had an interest rate of 6.28%, while in 2012 they were generally above 6.5%.

"A loan is a temporary service that the creditor makes to the debtor by giving him a certain purchasing power (money) or some object at his disposal."[74]

Loans in foreign currencies are very poorly represented in domestic banks, since most loans are realized in domestic currency BAM or in BAM with foreign currency clause.

According to the new methodology, interest rates on deposits now allow for comparison over different maturities. Interest rates on citizen deposits (in EUR) have a clear gradation in terms of the interest rate, because they have an interest rate of up to 2.2% with agreed maturity of one year, from 1 to 2 years of maturity have an interest rate of 3.45%, and over 2 years have 4.2%. Enterprises primarily deposit in local currency, with interest rates ranging from 3.34% (maturity up to 1 year) to 4.93% (maturity between 1 and 2 years).

3.1. Analysis of the Central Bank of BH: The lowest interest for companies, housing loans the most expensive ones

Interest rates on loans to nonfinancial companies with a currency clause related to the euro in the region are the lowest in BiH, while on the other hand, they are the highest for housing loans. It was showed by the analysis of the Central Bank of Bosnia and Herzegovina, which was carried out on the basis of the data from the central banks of the countries in the region on the average weighted interest rates on loans and deposits to non-financial enterprises and citizens. Apart from Bosnia and Herzegovina, Serbia, Croatia and Macedonia are included in the analysis, and in all categories exclusively interests on loans with a currency clause related to the euro were compared. In the case of loans to non-financial enterprises, the analysis showed that the level of interest rates is balanced in the region. The lowest average interest for short-term borrowings of 6.5% is in BiH, while with the long term loans it is in the second place with an interest rate of 7.5%. In both categories, Serbia has the highest interest rate.

On the other hand, housing loans in BiH are the most expensive in the region. This is particularly evident in long-term borrowings with interest rate of up to 8.1%, while in short-term loans, the interest rate is also the highest, amounting to 6.2%. In both categories, the lowest interest rate is in Croatia.

BiH is in the middle in terms of interest rates on short-term non-cash and cash loans, while long-term borrowings in this category have the lowest interest rate of 8%.

When it comes to deposits, the highest interest rates are offered by banks in Croatia. Speaking of savings in BiH is the highest interest rate in the region on deposits with term of deposit longer than the year and amounts to 3.2%. With deposits with term of deposit of a year BiH and Serbia share the second position with an average interest rate of 1.8%, and in this category the best yield to the citizen is offered by banks in Croatia with interest rate of 2.2%.

[74] Vučković, M.(1967) Bankarstvo, Naučna knjiga, Beograd, pp. 38

BiH takes a second position regarding the height of the interest on deposits of non-financial companies, after Croatia. Interest on deposits with term of deposit of a year is 2.10% in BiH, and for a period longer than a year it amounts 3.08%. "The function of modern banks, all the more diverse tasks they perform, places them in a circle of organizations of special social interest.[75]"

The Central Bank of BiH says that the comparison of interest rates in different economies is very complicated, and that there are two main reasons for this. The amount of interest rates depends largely on monetary policy in each country, that is, from the reference interest rate dictated by the domestic central bank and from the level of inflation and the fluctuation of the exchange rate, which has a significant direct impact on the level of nominal interest rates. The second problem relates to different methodologies that are applied in calculating the average interest rates. Therefore, the interest rates observed in this case are the ones related to the euro and therefore should not be affected by different domestic monetary conditions - as explained by the Central Bank of BiH.

Željana Vrućinić

Date and place of birth: October 21, 1984, Split
Education:
1999 - 2003 - Prijedor Gymnasium
2003.- 2008.- University of Business Studies, UPS, Banja Luka
- Faculty of Business and Financial Studies, Bachelor of Economics (180 ECTS) - Finance, Banking and Insurance - average grade 9.48
2013- 2014- University of Business Studies UPS, Banja Luka
- Faculty of Business and Financial Studies, Bachelor of Economics (240 ECTS) - Finance, Banking and Insurance - average grade 9.30
2015 - 2016 - University of Business Studies UPS, Banja Luka
- Faculty of Business and Financial Studies, Master Studies - Financial, Banking and Stock Exchange Management
2016-present- University of Business Studies, doctoral studies in the field of macroeconomics and development
Work experience: 13 months in the business of the head of the travel agency, 6 years worked in insurance business; since February 6, 2018, employed in the company "Edukos" d.o.o. on the affairs of the director of the firm

3.2. Methodology for determining interest rates in RS and BiH

Banking agencies in the Federation of Bosnia and Herzegovina and the Republic of Srpska have introduced regulations regarding the methodology that financial institutions (which were licensed by them) must use to calculate the EIR for their products. These requirements apply to:

- loans and deposits;
- banks and microcredit institutions.
- There are some differences between the methodologies imposed by the two Entity agencies. Although these differences are not essential, they still have the following effect on clients who use information on the EIR in BiH:
- It is possible to accurately compare EIR for similar products among banks in the Federation of Bosnia and Herzegovina or among banks in the Republic of Srpska, while comparing between the EIR of banks from the Federation of Bosnia and Herzegovina and from the Republic of Srpska banks is not possible for some types of loans.

[75] Golijanin, M.(1977), Bankarstvo Jugoslavije, Privatni pregled, Beograd, pp. 23

- Regulations in the Republic of Srpska have a wider definition of the costs that must be included in the calculation of the EIR, some of which are not directly related to bank loans. Therefore, EIR in the Republic of Srpska is higher for the same products than EIR in the Federation of BiH.

"Each unit of an approved and used short-term bank loan means the issuance of a certain amount of money in the economy. Therefore, by approving the credit every business bank issues money, which means that for the entire issue and withdrawal of money the central bank is not the only one responsible, but also the whole system of commercial banks has responsibility, that is, the banking system as a whole.[76]"

4. INDICATORS OF CITIZEN SAVINGS AND INTEREST RATES ON TERM DEPOSITS IN BiH

In the observed period from 2003 to 2009 (Table 1), the total saving of the citizens of Bosnia and Herzegovina was increased by an impressive 254%, while in 2009 only citizens with resident banks saved more than 450 million BAM despite the financial crisis and the consequences which were manifested through citizens' nervousness and shattered confidence in banks, especially in September – October 2008, when about 700 million BAM were withdrawn, or 11.7% of the total savings of citizens. Savings deposits of all institutional sectors also grew in all observed years, except in 2009, when the savings and term deposits with the resident banks decreased, but by only 43 million BAM. Namely, the total amount of savings term deposits at the end of 2009 amounted 6.42 billion BAM and it represents more than tripled amount compared to the end of 2003 (1.8 billion BAM). Additionally, household deposits grew more than three times, from 1.03 billion BAM at the end of 2003 to 3.52 billion BAM at the end of 2009 and in contrast to total savings term deposits they rose even in 2009 (467 million BAM more than in 2008).

Table 1. Savings deposits and demand deposits in BiH
(Balance of deposits and average interest rates at the end of the year; in millions of BAM)

Year	Total savings term deposits	Savings term deposits Household sector (households)	Average interest rates on savings term deposits of citizens	Total demand deposits	Demand deposits by household sector	Average interest rates on demand deposits of citizens
2003	1 812	1 033	3.40 %	2 554	893	0.96 %
2004	2 457	1 354	4.02 %	3 122	1 135	0.77 %
2005	3 000	1 802	3.63 %	3 876	1 385	0.63 %
2006	3 856	2 329	3.48 %	4 942	1 772	0.49 %
2007	6 075	2 944	3.98 %	6 026	2 222	0.35 %
2008	6 460	3 052	3.61 %	5 479	2 155	0.32 %
2009	6 417	3 519	3.57 %	5 772	2 144	0.25 %

Source: CBBH - Monetary and Financial Sector Statistics

Average interest rates on savings deposits of citizens increased from 3.4% at the end of 2003 to 4% at the end of 2004. However, since the beginning of 2005, the average interest rates have oscillated, that is, they have fallen or increased over the years to reach 3.57% at the end of 2009.

[76] Sejmenović, J. Komazec, S .Ristić, Ž. (2008) Monetarne i javne finansije, Univerzitet za poslovne studije, Banja Luka, pp.180

Not only that savings deposits of citizens increased, but also transaction deposits and demand deposits, both of the citizens and of other institutional sectors of the Bosnia and Herzegovina economy have increased to a considerable extent.

From Table 2 it can be seen that in the period from 31.12.2002 to 31.12.2009 savings term deposits were continuously growing. Significant increase in savings term deposits is visible in the domestic currency, they have increased by more than 400% or they are five times higher at the end of 2009 compared to the end of 2002.

Table 2. Increase of term and savings deposits in BiH in millions of BAM

Increase of the deposits in the period (ending with 31.12.)	Savings term deposits					
	Total		In domestic currency		In foreign currency	
	In Million BAM	In %	In Million BAM	In %	In Million BAM	In %
2002.-2003.	318	25,5	190	69,7	128	13,2
2003.-2004.	744	47,5	242	52,3	502	45,5
2004.-2005.	509	22,1	115	16,3	395	24,6
2005.-2006.	785	27,9	240	29,4	545	27,3
2006.-2007.	990	27,5	421	39,8	569	22,4
2007.-2008.	604	13,9	247	16,7	357	11,5
2008-2009.	476	9,2	58	3,3	418	12,1

Source: CBBH - Monetary and Financial Sector Statistics and own calculations

Observed by years, the biggest annual growth was realized in 2007, when savings term deposits increased by 57.8%, i.e. from 3 856 to 6 075 billion BAM.

The same applies to saving term deposits in domestic currency and savings term deposits in foreign currency, with the highest annual growth rate of deposits in domestic currency realized in 2003, and deposits in foreign currency in 2007 of the observed period.

4.1. The effects of financial liberalization on savings in BiH

Financial liberalization in BiH was realized through the liberalization of the financial market, i.e. by eliminating interest rate controls, abolishing credit control and controlling capital movements, reconstructing and privatizing the banking sector. The key problem of the household sector relation with the banking sector, which is the holder of private savings with regard to the very weak private sector of the enterprises, is the lack of confidence of the citizens in relation to the state and the banking sector.

The first problem that was present before the war, in the 1990s, was rather expressed financial repression, because the citizens that save received a really negative interest rate on their savings (domestic currency deposits are mostly not indexed in relation to long-term and often very high inflation rates). Debtors were big winners, and the savers were at a great loss. This risk was being overcame by currency substitution and foreign currency savings. The financial and every other collapse of the country delayed the issue of old savings for a long term.

Frozen deposits in banks that were denominated in the domestic currency were practically written off at the expense of their owners (citizens) who were left without them, and on the basis of foreign currency deposits, newly born countries assumed the obligation to pay off these

deposits. For almost two decades, this issue in Bosnia and Herzegovina has not been fully resolved, unlike the neighboring countries that originated from the former Yugoslavia. All this had a strong negative impact on the level of confidence of the household sector in the domestic banking system, and for many years savings remained outside the official financial sector.

Financial liberalization meant that domestic banks were largely privatized by foreign capital originating from foreign bank owners, so domestic banks received the names of these foreign banks, that is, became their banks daughters. In this way, the presence of foreign banks has largely influenced the restoration of citizens' confidence and a more significant growth of savings deposits in banks. Important was the introduction of effective supervision and deposit protection, but for citizens it was certainly not of primary importance, nor one of the main elements of return of trust. On the other hand, a very important moment is the stable macroeconomic policy that has been led since the very beginning of the post-conflict recovery. The convertibility of the domestic currency to the reserve currency at the fixed exchange rate over a ten-year period and the low inflation rate, which has been maintained up to the recent years, had a strong influence that only five to six years later there was a strong increase in term and savings deposits in banks. The stable exchange rate (fixed) and officially guaranteed convertibility had influence that savings in a very significant portion was kept in domestic banks in the domestic currency.

The next positive effect of liberalization is reflected in the abolition of capital flow restrictions, which influenced the influx of foreign capital, among other things, to encourage secondary capital markets, which to some extent opened up space for both investment of domestic savings and in that market, and for the return of part of domestic capital from abroad. True, the primary emission of capital (shares and bonds) that would absorb the savings of the citizens are small in volume. There is no doubt that certain amounts of domestic savings have been attracted from informal to official flows during the period of the expansion of trading on domestic stock exchanges during the phase of the exceptional increase in the prices of financial instruments on those stock exchanges.

Liberalization in BiH has, in some way, unfavourably affected domestic savings too. These unfavourable effects can be recognized, starting from the fact that the free capital inflow has opened very wide credit opportunities for domestic entities. Thus, the increased loan offer has reduced the need of citizens to save so as to be able to invest. "The increase in bank loans and the increase in foreign exchange reserves affect the increase in money supply, while the increase in the limited deposits acts in the opposite direction.[77]" Otherwise, the poor orientation of the private sector to productive investments is additionally disturbed by the possibilities of obtaining loans and investing in real estate. "Investing in real estate, especially in residential property, is the result of easier access to credit on the one hand, and on the other hand, of the risk associated with production or investment in a business that is not present to that extent when it comes to the real estate investments. Furthermore, the effects of investment in real estate were faster, especially in conditions of rising real estate prices, as a result of the growth in demand for real estate, while investments in business were linked (in addition to the necessary entrepreneurial abilities owned by fewer people) additionally with longer waiting for effects, and greater risk. In this way, savings through such investments are increasingly directed to non-productive purposes motivated by renting.[78]"

[77] Ćirović, M. (1963) Mehanizam emisije kredita i novca (script), Skoplje, pp..44

[78] Out of all financial intermediaries, the increase in assets was only recorded in insurance and reinsurance companies (6.1%), (Financial Stability Report for BIH for 2009).

"The liberalization of the financial sector has influenced the more dynamic development of the financial structure, primarily the structure of financial institutions and financial instruments. In addition to the dominant banks, in the structure of institutions, funds, leasing companies, microcredit organizations and insurance companies are gaining increasing importance. Reforms of the pension system lead to the formation of private pension funds. These institutions will become increasingly important in mobilizing domestic private savings. With the financial market, investment funds (open and closed) are formed, and it can be expected that they will also mobilize new savings.[79]"

However, the structure of the financial sector in BiH did not change much in comparison to previous periods. Financial intermediation, measured by the assets of financial intermediaries, after a significant slowdown in growth in the previous year, recorded a decrease of 2.5% in 2009.

Thus, the processes of liberalization and development of financial infrastructure have not yet been completed, so, according to the current development trends, it can be expected that the overall effects on savings will be net positive, counting on the strengths and factors that will pull and mobilize the savings and strengths that will minimize it.

4.2. The issue of the stability of the banking sector in BiH

The supervision of banks in the area of Entities is carried out on the basis of inter-entity harmonized regulatory bases. For a long time, a debate has been held on "including" the entity agencies under the “umbrella“ of the CBBH, which by law has the function of coordinating the work of entity agencies or the creation of a single agency for the supervision of banks at the BiH level. Among observers, the dominant opinion is that there is no optimal supervisory structure, but that there are different arguments for and against, which must be considered in individual cases of countries.

One of the key institutional improvements in BiH would be to improve the information base on the financial condition and operations of legal entities, bank clients, which would strengthen the information base of banks and enable better customer knowledge and risk avoidance. Strengthening the principles of transparency and the publicity of banks' operations affect the strengthening of market discipline and the strengthening of confidence in the banking system.

"It should be borne in mind that banks' operations in BiH are much more risky than in Western countries, and the cause for this are economic and credit unreliable clients without a longer business tradition, weak and undeveloped risk protection mechanisms, inadequate institutional environment, etc. For these reasons it is necessary to have more rigorous regulation (rules) and supervision of banks. It is primarily reflected in stricter standards, and one of these is the required capital rate of 12% against the risk weighted assets. There are also lacking appropriate mechanisms and institutions that can efficiently conduct the process of restructuring of the troubled banks and provide additional resources for their rehabilitation.[80]"

The last major financial crisis (2008) was strongly reflected in emerging markets, although the causes were in developed countries, primarily in the United States and England. Banks in

[79] banke.online.rs

[80] The acquired capital adequacy ratio in 2009 was 16.0%, which is higher than the required rate (12%), while the standard is 8.0%. This coefficient represents the ratio of net capital and weighted risk assets.

emerging markets have been hit by a slump in funding from their parent bank groups that have suffered losses, but also because of the general decline in available financing in the euro zone due to the crisis. Banks in emerging markets also suffered losses due to the worsening of the situation in domestic economies, as the quality of their loan portfolios was considerably worsened due to the difficulties in repaying loans to debtors faced with liquidity and solvency problems.

Under such circumstances, there was a risk that foreign banking groups would begin to leave the market in Central and Eastern Europe. International financial institutions, primarily the IMF and the EBRD, have been actively engaged in preventing such developments and have managed to coordinate the so-called Vienna Initiative for countries that received generous IMF assistance and the EU for their balance of payments problems. Within our region, four countries were covered by this initiative: BiH, Hungary, Romania and Serbia. Therefore, thanks to previously taken activities, we can conclude that banks in these countries are less confronted with problems related to their balances, that is, the limitation in terms of capital, liquidity and regulatory constraints is considerably lower, which indicates that stress from the financial crisis relaxed and that banks do not have business restrictions in this regards.

The more massive withdrawal of foreign currency deposits and effects, at the end of 2008, was stressful, and it could even be catastrophic. From that moment, the foreign currency reserves of the Central Bank of BH amounting to 6.7 billion BAM (around EUR 3.3 billion) decreased by 500-600 million BAM by the end of 2009. The reasons are that more than half of the formed foreign exchange reserves originate from the inflow of funds into the banking system of BiH through deposits, loans and investments in shares performed by "parental" banks. Not long ago, IMF experts estimated that foreign exchange reserves were threatened by a reduction, due to financing of the current account deficit for a longer period. In a way, this partly came true during 2008 and 2009, as a result of the developments caused by the financial crisis. In addition, the shattered confidence of the citizens in banks and domestic currency in that first year of the crisis has prompted citizens to convert the domestic currency into euro and BAM deposits into euro deposits, in addition to withdrawing deposits. This phenomenon took on significant proportions, which made additional pressure on the existing foreign currency reserves of the Central Bank. The size of the deficit in some way determines the extent of the decrease in foreign currency reserves in case of a reduced inflow of euro funds through the banking system.

This highlighted in the first place the importance of reducing the foreign trade deficit, in order to reduce the risk of financial instability. The risk of foreign exchange reserves lies primarily in the fact that there is a high level of Euroisation in BiH, that the exchange rate for more than thirteen years is fixed within the framework of the monetary board arrangement, that foreign banks are relying on external sources of funds and that there are large external imbalances.

"The BiH financial stability analysis for 2009, made by the experts of the Central Bank of BH, indicate credit risk, market risk and liquidity risk, that potential risks are realistically present and that banks in the crisis periods become more cautious in assessing the quality of debtors and new placements. Demand for loans is decreasing, especially in the household sector, due to increased uncertainty and problems with finding quality insurance for loans. However, previously contracted obligations of the bank are activated to a large extent precisely in bad times; new loans to households are reduced, but credit cards debts are growing; a growing number of guarantees are being activated, and repayment of loans to legal entities to which the guarantee were issued are often late. The situation is further complicated by the fact that the share of industry in the approved guarantees is similar to that of the loan, and that guarantees,

especially payables can be activated in a very short period of time, which can further lead to liquidity problems with commercial banks.[81]" Foreign exchange risk represents a potential loss arising from changes in exchange rates. Due to the arrangement of the currency board and agency regulations on the net open position of banks, foreign exchange risk in BiH is low. Traditional indicators do not indicate a significant liquidity risk in BiH. Banks are still on the side of the liquidity offer, which is mostly seen through the balance of the mandatory reserve account with the CBBH.

External imbalances are just one of the indicators of potential monetary instability. Other indicators include weak export performance of the economy, instability of the financial sector, low or declining foreign exchange reserves, rapid growth of money supply and credits, low real GDP growth, domestic inflation and fiscal deficit. In BiH, even in times of crisis, some of these indicators are positive, such as inflation, a low current account deficit, liquidity and the health of banks. Other indicators deserve special monitoring.

5. CONCLUSION

For a faster recovery, it is necessary to raise the level of investment, which after the crisis in 2008 is significantly reduced. At the level of investment, there is a significant difference between the public and the private sector. There has been an increase in the number of public investments and their implementation in recent years. Governments have made efforts to start new investments, but also to speed up previously agreed investments, primarily in road infrastructure and energy. However, the mobilization of foreign as well as domestic private sector investments requires primarily political stability, significant improvement of the business environment and conducting reforms, primarily those related to harmonization with EU regulations. In this regard, BiH has not been making significant progress for many years, and this requires the urgent attention of the new authorities after the October elections. The rule of law and clear market regularity and accelerated administrative procedures are prerequisites for attracting investors and raising the level of private sector investment. There needs to be a lot of improvement in this regard.

Greater transparency of the monetary institution's operations can help in the more efficient implementation of monetary policy. Informing the public about the mandate of the central bank and to what extent it has been achieved can increase the credibility of the central bank. Strict compliance with the principle of transparency in business requires a kind of self-discipline from the creators of monetary policy and increases the likelihood of a consistent monetary policy. Likewise, regular communication gives directions to financial markets, which allows participants in the financial market to better understand monetary policy measures and their impact on economic trends and system shocks.

On the other hand, the monetary authority should influence: the expectations of market participants, as it will in this way be easier to achieve their monetary and economic policy objectives, the macroeconomic environment in which these goals are to be met, the monetary policy instruments for achieving the goals (as well as their application and limitations) and the Central Bank's forecasts.

[81] Just for illustration, according to the data provided by the Banking Agency, off balance sheet items: irrevocable loan commitments and issued guarantees at the end of 2009 amounted to 22.9% of the short-term financial liabilities of the banking sector (CBBH, 2010).

LITERATURE:

(1) Alijagić,M. (2006) Bankarski Menadžment, Univerzitet za poslovne studije, Banja Luka, pp. 356
(2) Jovičić, J. Klincov, R. Ristić, Ž.(2010) Međunarodno bankarstvo, Etno stil, Beograd, pp. 11
(3) Ristić, K. Komazec, S. Ristić,Ž. (2016) Monetarni i bankarski menadžment, Etno stil, Beograd, pp. 41
(4) www.cbbh.ba
(5) www.moj-bankar.hr
(6) Vučković, M. (1967) Bankarstvo, Naučna knjiga, Beograd, pp. 38
(7) Golijanin, M. (1977) Bankarstvo Jugoslavije, Privatni pregled, Beograd, pp. 23
(8) Sejmenović, J. Komazec, S. Ristić, Ž.(2008) Monetarne i javne finansije, Univerzitet za poslovne studije, Banja Luka, pp. 180
(9) Ćirović, M. (1963) Mehanizam emisije kredita i novca (skripta), Skoplje, pp. 44
(10) banke.online.rs

THE PROFITABILITY OF BANKING SECTOR IN KOSOVO

Flamur Keqa [82]

DOI: https://doi.org/10.31410/eraz.2018.160

Abstract: *This paper focuses on the trends of the profitability of banking sector. The Kosovo belongs to the economies in transition process toward open market economy. The establishment of new financial system in Kosovo started at the end of 1999 from scratch and new banking institutions were established by the private capital investment. This paper examines the evolution of banking profitability over period of 6 years from 2010 until 2015. The survey examines banking sector (10 banks) which experienced continuously good profitability and analysis how profitability has been fluctuated using profitability indicators as return on assets, return on equity and net interest margin. The results will express how high profitability returns in 2010 have been followed by a slight decrease of profitability during 2012-2013; and ending in 2015 with the highest profitability indicators since the establishment of banking sector. The ROA indicator has been doubled while ROE productivity indicator has been close to the double figure comparing banking performance in period from 2010 to 2015. The Kosovo banking industry except very good liquidity and capital adequacy ratios has continued to have very qualitative loan portfolio expressed with the lowest level of non-performing loans (NPL) in region which at the end impacted very high profitability in banking industry.*

Key words: *banks, profitability, ROA, ROE, net interest margin*

1. INTRODUCTION

Commercial banks established by the private capital who operate in the market as the intermediary financial institutions are oriented toward maximization of profits, considering the regulatory objective of the safety of depositor's interests. Over the last two decades, the banking system has been facing a lot of changes in Europe and other countries that are under a process of transition. In the process of transition, banking industry must carry out its operations in compliance with domestic and international regulatory (credit, capital, liquidity) requirements. The profitability of banking industry is influenced by the internal or bank-specific factors and other external factors. The internal factors have an impact on external factors and vice versa; meaning that factors such as liquidity risk, capital adequacy, credit risk, etc. directly or indirectly will impact the profitability of banking industry and influence the economic growth of a country.

The interest of both the country and business is to maintain a good profitability of banking industry and keep high reciprocity confidence. The inability of achieving expected profitability would have negative consequences for banking institutions and for country's development and economic growth. Kosovo banking industry permanently has had good asset quality and consequently, it was expressed in good performance and stability of banking system.

[82] Epoka University, Tirana, Albania

2. LITERATURE REVIEW

There are conducted a great assorted literature, approaching bank profitability and many other studies which examine bank performance factors, some of them being focused specifically in some countries while others on their panels.

Various analyzes towards bank profitability are performed on particular states such as Switzerland (Dietrich and Wanzenried, 2009), US (Berger, 1995; Angbazo, 1997), Japan (Lui and Wilson, 2010), Greece (Mamatzakis, 2003; Kosmidou, 2008; Alexiou and Sofoklis, 2009), Malaysia (Guru et al., 1999), Turkey (Alper and Anbar, 2011; Kaya, 2002; Tunay and Silpar, 2006), Brazil (Afanasieff et al., 2002), China (Heffernan and Fu, 2008), India (Badola and Verma, 2006),Pakistan (Javaid, 2011; Burki, 2006),Turkey (Alper and Anbar, 2011; Kaya, 2002; Tunay and Silpar, 2006; Philippines (Sufian and Chong, 2008),Sayilgan and Yildirim, 2009),Croatia (Kundid et al., 2011), Korea (Sufian, 2011), Czech Republic (Horvath, 2009), Romania (Andries and Cocris, 2010) and Taiwan (Ramlall, 2009; Chen and Yeh, 1998).

On the other hand, some additional important studies appraise bank profitability through groups of countries (Molyneux and Thorton, 1992; Molyneux and Forbes, 1995; Demerguç-Kunt and Huizinga, 2001, 1999; Goddard et al., 2004; Bashir, 2000; Hassan and Bashir, 2003; Athanasoglou et al., 2005; Athanasoglou et al., 2006). Consequently, some of these studies examined the determinants of bank profitability in regard to European banks. Furthermore, Molyneux and Thornton (1992) observe the profitability of banks in a total of 18 European nations during the period from 1986 to 1989, concluding that there is an important positive connotation among the level of interest rates and the return on equity, government ownership, and bank concentration. Based on his analysis, Goddard et.al (2004) states that between bank profitability and risk endures a positive and constructive rapport, while bank size has an irrelevant influence on profitability. Their findings have been obtained by evaluating the profitability of 6 different countries of European banks throughout 1992 to 1998. Concentration is completely correlated with bank profitability, and inflation has a robust effect on profitability, whereas the real GDP per capita variations do not alter significantly the profits in banks. The study was conducted on South Eastern European area over the period from 1998 to 2002 (Athanasoglou et al, 2005).

Further studies have attempted to recognize the banks' profitability determinants due to their role and importance in today's economy. Moreover, fluctuations in the banks' profitability affect their ability to issue new equity due to the presence of agency costs and tax disadvantages negatively (Cornett and Tehranian, 1994). Thus, beginning with Short (1979) and Bourke (1989) efforts, analyzes and works, many other researchers are concerned with finding the factors of the banks' profitability. The empirical literature emphases on diverse categories of determinants. Consequently, a plethora of studies measures the impact of the macroeconomic habitat on the banks' profitability. Though some researches (Demirgüç-Kunt and Huizinga, 1999; Pasiouras and Kosmidou, 2007; Athanasoglou et al., 2008) correlate the individual banks' profitability to various macro-indicators, other researches apply collective bank data to assess the economic framework impact (Albertazzi and Gambacorta, 2009).

However, some other literature concentrates on the features of the banking sector. Determinants such as the concentration level, competition, ownership or the presence of foreign banks, reforms, are observed by Berger and Humphrey (1997), Iannotta et al. (2007), Short (1979), García-Herrero et al. (2009). Lastly, a final category of researches discusses the role of internal factors, for example: capital (Berger, 1995), non-performing loans, loan loss provisioning

(Bikker and Metzemakers, 2005), or interest rate risk (Hmweck and Kilcollin, 1984). Additionally, there are studies that search various categories of factors and their role, such as banking industry, macroeconomic and financial soundness factors (i.e. Pasiouras and Kosmidou, 2007; Athanasoglou et al., 2008). Simultaneously, a category of studies Berger, 1995; Pasiouras and Kosmidou, 2007; Kosmidou, 2008; Athanasoglou et al., 2008; Dietrich and Wanzenried, 2011) approaches the situation of a single country, whilst other studies observe the viability factors in a panel of countries (Molyneux and Thorton, 1992; DemirgüçKunt and Huizinga, 1999; Albertazzi and Gambacorta, 2009). Nevertheless, the majority of the studies have been concentrated on individual banks and developed countries. Less studies were on the transition and the emerging banking sector with insufficient omission (Andrieş et al., 2012; Lee and Hsieh, 2013)

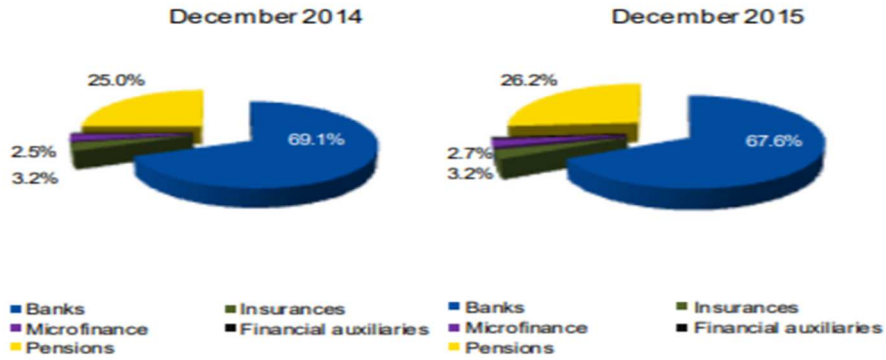
3. METHODOLOGY AND DATA

Analyzing efficiency is of high importance for the evaluation of banks' performance. Therefore, banks' shareholders, bank partners, and customers use financial indicators as an important analytical instrument to compare and evaluate the performance of banking institutions. Financial indicators could be divided into four categories: profitability rates, margin rates, weighted result rates and employment efficiency rates. To analyze and evaluate the efficiency indicators the most frequent banking financial reports used are balance sheets, profit and loss accounts. Within the first category of the indicators are profitability rates, where the most used are: return on assets (ROA), computed as a ratio of the net profit to the average total bank assets; return on equity (ROE), computed as a ratio of the net profit to average equity; return on sale (ROS); costs ratio (C/I). In the second category of efficiency, indicators include margin rates counting two basic rates: net interest margin and interest spread. In this study, are used three profitability indicators as the following: return on assets, return on equity and net interest margin.

The yearly data for the ten banking institutions are extracted from the official web page of the Central Bank of Kosovo and other bank institutions.

The figure below shows the structure of the financial system in Kosovo in last two years of study reflecting that the banks are remaining the most important institutions participating with 67.6% in the financial market, followed by pensions with 26.2% and other institutions which comprise rest of 6% of share.

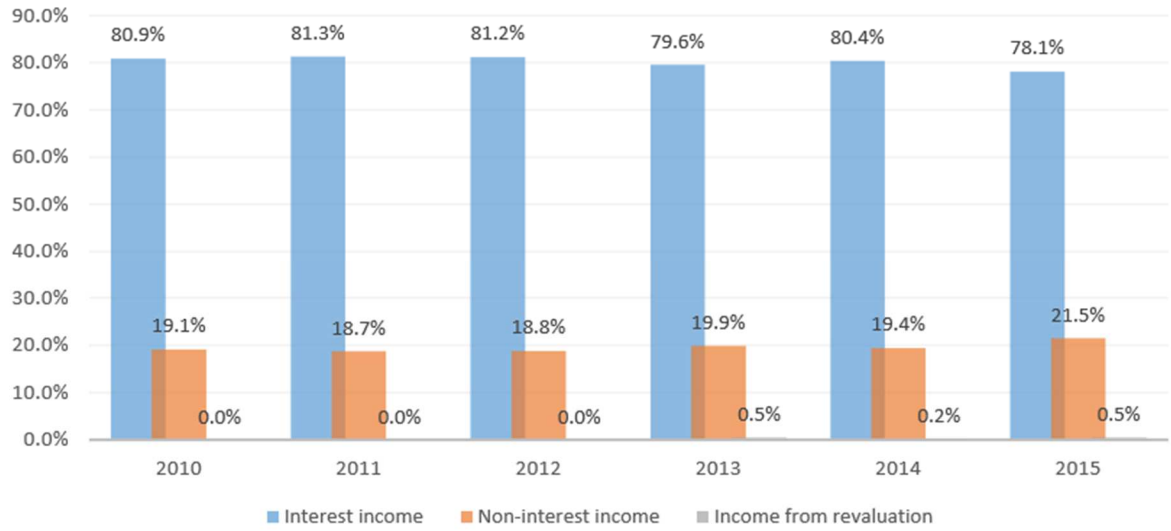
Figure 1: Structure of financial system assets



Source: CBK (2016)

Additionally, it is revealed the structure of revenues of the banking industry in Kosovo, from 2010 to 2015. Consequently, it provides with the information that the main source of banking revenues is interest income, with participation in 2010 with 80.8%, while facing a slight decrease in 2015 at 78.1%. The second source of revenue is non-interest income ranging from 19.1% in 2010 to 21.5% in 2015. The decrease in revenues from interest income is a result of a continuous decrease of loan interest rates in domestic market, dropping from two-digit number interest rate in 2010 to one-digit number interest rate. Within the interest income category, main income source is loan interest rate. Fees and commissions are the main sources of revenue falling within non-interest income category.

Figure 2: Interest income, non-interest income, income from revaluations (2010-2015)



Source: CBK – Income statement of other depository corporations (April 2016)

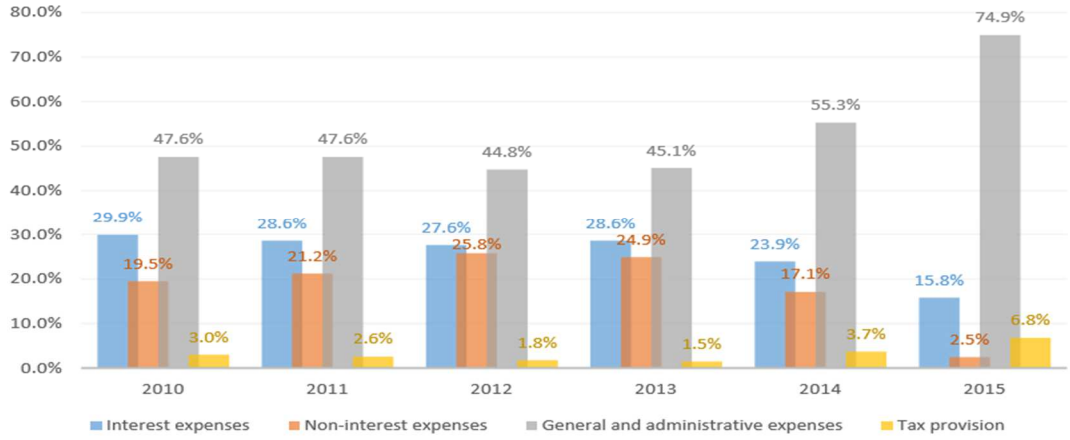
In addition, Table 1. shows the level of non-performing loans in relation to total loans for 7 regional countries. It shows that Kosovo is standing in top of the list of countries with the lowest level of non-performing loans, having a direct impact in a high level of interest income in banking and high bank profitability in general. The level of non-performing loans in Kosovo is too far from other regional countries, seeing that some countries have the level of NPL for two or three times higher. The good credit risk management of banks has resulted with healthy loan portfolio, is the most important factor in generating income, and less problematic loans which at the end affected the very high profitability of banking industry.

Table 1: Non-performing loans in relation to total loans (2010-2015)

NON-PERFORMING LOANS IN RELATION TO TOTAL LOANS (2010-2015)						
Country	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Albania	14.0%	18.8%	22.5%	23.5%	22.8%	20.9%
Bosnia and Herzegovina	11.4%	11.8%	13.5%	15.1%	14.0%	14.1%
Croatia	11.1%	12.3%	13.8%	15.4%	16.7%	17.1%
Kosovo	5.8%	5.7%	7.4%	8.5%	8.3%	7.1%
Macedonia	9.0%	9.5%	10.1%	10.9%	10.8%	11.0%
Montenegro	21.0%	15.5%	17.6%	18.4%	16.8%	16.7%
Serbia	16.9%	20.0%	18.6%	21.4%	21.5%	22.8%

The structure of expenses in the banking industry is shown in Figure 3, reflecting a high decrease in interest expenses form 29.9% in 2010 to 15.8% in 2015. The high decreasing effect has faced non-interest expenses from 19.6% in 2010 to 2.5% in 2015. On the other side, we could notice a very high increase of general and administrative expenses from 47.8% in 2010 to 74.9% in 2015 and similar impact on tax provisions from 2.7% in 2010 to 6.8% in 2015. The decrease of interest expenses is a consequence of the decrease in interest rates in international financial markets.

Figure 3. Expenses of the banking industry (2010-2015)



Source: CBK – Income statement of other depository corporations (April 2016)

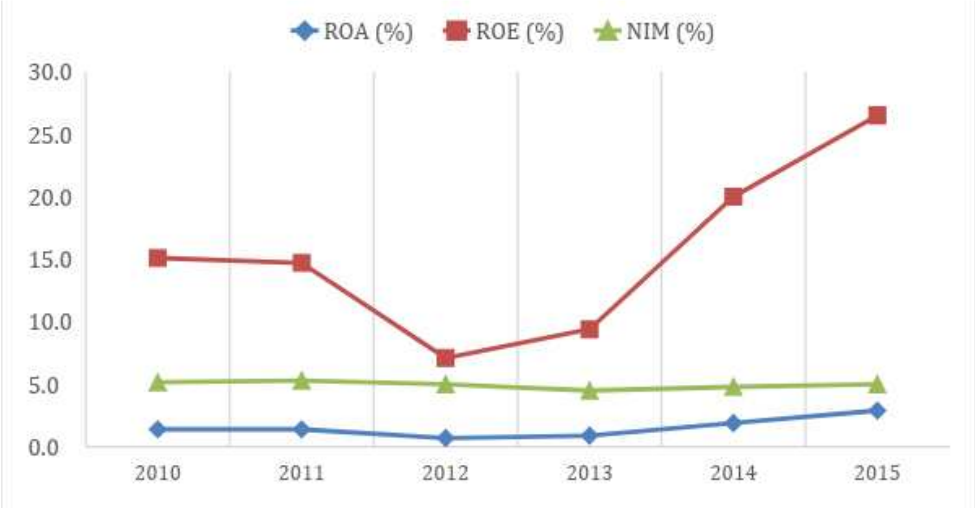
Moreover, Table 2 presents a summary of total assets, total capital, total liabilities, net profit, interest income, interest expenses and particularly three financial indicators ROA, ROE and NIM for the banking industry in Kosovo. Data are shown on yearly basis and cover examined period from 2010 - 2015. Calculation results show the very high profitability of banking industry measured by profitability rates and margin rates. The table represents high performance in all three indicators measured and analyzed by the study.

Table 2: Main-banking indicators 2010-2015

	2010	**2011**	**2012**	**2013**	**2014**	**2015**
Total Assets (000€)	2,455.10	2,649.70	2,829.30	3,059.30	3,186.60	3,385.30
Total Liabilities (000€)	2,455.10	2,649.70	2,829.30	3,059.30	3,186.60	3,385.30
Total Capital (000€)	230.4	252.8	270.7	277.8	323.1	392.7
Profit (000€)	32.8	35.5	18.5	25.9	60	94.7
Income (000€)	217.1	239.6	247.1	249	244.2	238.2
Expenses (000€)	184.3	204.1	228.6	223	184.2	143.5
ROA (%)	1.4	1.4	0.7	0.9	1.9	2.9
ROE (%)	15.1	14.7	7.1	9.4	20.0	26.5
NIM (%)	5.2	5.3	5.0	4.5	4.8	5.0
Interest Income (000€)	175.4	194.6	199.2	196.2	193.5	186
Interest Expenses (000€)	55.2	58.4	63.1	63.8	44	22.6

Figure 4 analyses separately movement of profitability rates. ROA indicator reflects the same rate of 1.4% in 2010 and 2011, while there is decreasing effect in 2012 and 2013 reaching 0.7% and 0.9%. The last two years examined by study reflects high increase which has been doubled in 2015 compared to 2010 reaching from 1.4% to 2.9% of ROA. ROE indicator of the banking industry in Kosovo similar to ROA has very high and stable profitability trend in 2010 and 2011 with around 15%, while in 2012 and 2013 has experienced decreasing result between 7 - 9.4%. Similarity trend with ROA has been noticed during 2014 and 2015 which has been reflected by a high increase and in 2015 was doubled reaching 26.5 % of ROE.

Figure 4. Movement of ROA/ROE/NIM profitability rates



On the other side, margin rate has shown different and more stable profitability results compare to profitability rates. The net interest margin (NIM) has resulted in 2010 with a ratio of 5.2% reflecting a slight decrease in 2013 and 2014 of 4.5% and 4.8%. In last year covered by study 2015 net interest margin has returned to a high marginal rate of 5.0%.

Overall profitability of banking industry has proven to be very high in all three used rates.

4. CONCLUSION

To conclude with, most of the papers focus on the individual banks and on the developed markets, fewer papers have dealt with the banking industry profitability in transition markets. This study gives a contribution to the evidence and profitability trends in transition markets taking into consideration Kosovo as an individual country. The study uses the financial indicators, focusing on profitability rates and margin rate of the banks' profitability in Kosovo. The findings are significant independently analyzing the ROA, the ROE or NIM for measuring the profitability.

The results achieved to show an increase in the efficiency of banks' performance in the period from 2010 to 2015. The total balance sheet of the banking sector has increased from 2.5 billion in 2010 to nearly 3.5 billion in 2015. The primary factor for the development of the banking sector in Kosovo was a very dynamic and permanent increase of loan activity. The increasing trend of loan portfolio resulted from the high demand for loans for households and enterprises.

Financial indicators can be used by all those interested in evaluating a bank's performance – regulators and supervisors, shareholders, management and/or customers.

Reliable and good official indicators regarding the bank capitalization and liquidity have been supported with the lowest level of the non-performing loans of Kosovo in the region. The continuous increase of banking income and at the same time continuous decrease of banking expenses have had an impact on bank profitability maintaining very sound loan portfolio and banking institutions. The profitability indicators shown through ROA and ROE reflects very high performance and efficiency not only in the region but if we compare even with developed European countries.

REFERENCES

[1] Afanasieff, T., Lhacer, P., Nakane, M. (2002). *The Determinants of Bank Interest Spreads in Brazil*. Banco Central di Brazil Working Papers.

[2] Albertazzi, U., Gambacorta, L., (2009). *Bank Profitability and the Business Cycle*. Journal of Financial Stability. 5 (4), 393–409.

[3] Alexiou, C., Sofoklis, V. (2009). *Determinants of bank profitability: Evidence from the Greek banking sector*. In: Ekonomski anali 54 (182), 93– 118

[4] Alper, D., Anbar, A. (2011). *Bank specific and macroeconomic determinants of commercial bank profitability: empirical evidence from Turkey*. Business and Economics Research Journal 2(2), 139-152

[5] Andries, A. M., Cocris, V. (2010). *A Comparative Analysis of the Efficiency of Romanian Banks*. Romanian Journal of Economic Forecasting. 13, 54-75.

[6] Angbazo, L. (1997). *Commercial Bank Interest Margins, Default Risk, Interest-rate Risk, and Off-balance Sheet Banking*. Journal of Banking and Finance. 21, 55-87

[7] Athanasoglou, P.P., Brissimis, S.N., Delis, M.D. (2005). *Bank-Specific, Industry-Specific and Macroeconomic Determinants of Bank Profitability*. Bank of Greece, Working Paper No. 25.

[8] Athanasoglou, P.P., Delis, M.D., Staikouras, C.K. (2006*). Determinants of Bank Profitability in the South Eastern European Region.* Bank of Greece, Working Paper No. 47

[9] Badola, B.S., Verma, R. (2006). *Determinants of Profitability of Banks in India: A Multivariate Analysis.* Delhi Business Review 7(2), 79-88.

[10] Bashir A. (2000). *Assessing the Performance of Islamic Banks: Some Evidence from the Middle East*. Paper presented at the ERF 8th meeting in Jordan.

[11] Berger, A.N. (1995). *The Profit-Structure Relationship in Banking—Tests of Market-Power and Efficient-Structure Hypotheses*. Journal of Money, Credit, and Banking 27(2), May, 404-431

[12] Berger, A.N. (1995). *The Relationship between Capital and Earnings in Banking*. Journal of Money, Credit and Banking 27(2), 432-456. 524

[13] Bikker, J.A., Hu, H. (2002). *Cyclical patterns in profits, provisioning and lending of banks and procyclicality of the new Basel capital requirements*. BNL Quarterly Review 221, 143–175.

[14] Bourke, P., (1989). *Concentration and other determinants of bank profitability in Europe, North America and Australia*. Journal of Banking and Finance 13 (1), 65–79.

[15] Burki, A. A, Niazi, G.S.K. (2006). *The Effects of Privatization, Competition and Regulation on Banking Efficiency in Pakistan, 1991 – 2000. Regulatory Impact Assessment: Strengthening Regulation Policy and Practice, Chancellors Conference Centre*. University of Manchester, Manchester, UK

[16] Chen, T.Y., Yeh, T.L. (1998). *A study of efficiency evaluation in Taiwan's banks*. International Journal of Service Industry Management, Vol. 9, Issue: 5, 402 – 415
[17] Demirgüç-Kunt, A., Huizinga, H. (1999). *Determinants of commercial bank interest margins and profitability: Some international evidence.*13 (2), 379-408.
[18] Demerguç-Kunt, A, Huizinga, H. (2001). *Financial Structure and Bank Profitability, in "Financial Structure and Economic Growth: A Cross Country Comparison of Banks, Markets, and Development"*. In: Demirguc-Kunt, A., Levine, R. (Eds.). MIT Press, Cambridge
[19] Dietrich, A., Wanzenried, G. (2009). *What Determines the Profitability of Commercial Banks? New Evidence from Switzerland*. 12th Conference of the Swiss Society for Financial Market Researches, Geneva
[20] G.A. Hmweck, T.E. Kilcollin (1984). *Bank Profitability and Interest Rate Risk*. Journal of Economics and Business, 36 pp. 77-84.
[21] García-Herrero, A., Gavilá, S., Santabárbara, D. (2009). *What explains the low profitability of Chinese banks?*. Journal of Banking and Finance 33 (11), 2080–2092
[22] Goddard, J., Molyneux, P., Wilson, J. (2004). *Dynamics of Growth and Profitability in Banking*. Journal of Money, Credit and Banking 36(3), 1069-1090
[23] Guru, B.K., Staunton, J, Balashanmugam, B. (1999). *Determinants of Commercial Bank Profitability in Malaysia*. 12th Annual Finance and Banking Conference, Sidney
[24] Hassan, M.K., Bashir, A. (2003). *Determinants of Islamic Banking Profitability*. Paper Presented at the Proceedings of the Economic Research Forum 10th Annual Conference, Marakesh-Morocco
[25] Heffernan, S.A., Fu, X. (2010). *Determinants of financial performance in Chinese banking*. Applied Financial Economics (20), 1585–1600
[26] Horvath, R. (2009). *The Determinants of the Interest Rate Margins of Czech Banks*. Czech Journal of Economics and Finance 59(2), 128-136
[27] Iannota, G., Nocera, G., Sironi A. (2007). *Ownership Structure, Risk and Performance in the European Banking Industry.* Journal of Banking and Finance 31 (7) juillet, pp. 2127-2149
[28] Javaid, S., Anwar, J., Zaman, K., Gafoor, A. (2011). *Determinants of Bank Profitability in Pakistan: Internal Factor Analysis.* Mediterranean Journal of Social Sciences 2(1), 59-78
[29] Kaya, T.Y. (2002). *Determinants of Profitability in Turkish Banking Sector*. Turkish Banking Regulation and Supervision Agency, No: 2002/1.
[30] Kosmidou, K. (2008). *The Determinants of Banks' Profits in Greece during the Period of EU Financial Integration.* Managerial Finance 34, 146- 159
[31] Kundid, A., Škrabiü, B., Ercegovac, R. (2011). *Determinants of Bank Profitability in Croatia*. Croatian Operational Research Review 2(1), 168- 182.
[32] Lui, H., Wilson, J. (2010). *The Profitability of Banks in Japan.* Applied Financial Economics 20(24), 1851-1866.
[33] Mamatzakis, E. C., Remoundos, P. C. (2003). *Determinants of Greek Commercial Banks Profitability, 1989 – 2000*. SPOUDAI 53(1), 94-94
[34] Millon Cornett M., Guo L., Khaksari S., Tehranian H. (2010). *The impact of state ownership on performance differences in privately-owned versus state-owned banks: An international comparison.* J. Finan. Intermediation 19, 74–94.
[35] Molyneux, P., Forbes, W. (1995). *Market Structure and Performance in European Banking*. Applied Economics 27(2): 155-159
[36] Molyneux, P., Thorton, J. (1992). *Determinants of European Bank Profitability; A Note*. Journal of Banking and Finance 16, pp. 1173-78.

[37] Pasiouras, F., Kosmidou, K. (2007). *Factors influencing the profitability of domestic and foreign commercial banks in the European Union*. Research in International Business and Finance 21 (2), 222–237.
[38] Ramlall, I. (2009). *Bank-Specific, Industry-Specific and Macroeconomic Determinants of Profitability in Taiwanese Banking System: Under Panel Data Estimation*. International Research Journal of Finance and Economics, 34, 160-167
[39] Short, B.K. (1979). *The relation between commercial bank profit rates and banking concentration in Canada, Western Europe and Japan*. Journal of Banking and Finance 3, 209–219.
[40] Sufian, F. (2011). *Profitability of the Korean Banking Sector: Panel Evidence on Bank-Specific and Macroeconomic Determinants*. Journal of Economics and Management 7(1), 43-72.
[41] Sufian, F., Chong., R. R. (2008). *Determinants of Banks Profitability in a Developing Economy: Empirical Evidence from the Philippines*. Asian Academy of Management Journal of Accounting and Finance 4(2), 91-112.
[42] Tunay, K.B., Silpar, M.A. (2006). *Performance Analysis Based on Profitability in Turkish Banking Sector*. Banks Association of Turkey, Research Papers, No: 2006-I

MOTIVES AND DETERMINANTS OF THE PROCESSES OF MERGERS AND ACQUISITIONS OF BANKS IN THE USA, EU, AND TRANSITIONAL ECONOMIES OF CENTRAL AND EASTERN EUROPE

Irena Lekoska[83]

DOI: https://doi.org/10.31410/eraz.2018.169

Abstract: *In modern banking, the processes of mergers and acquisitions has become a strategic tool of ownership transformation of the banks with the purpose of developing and improving their performance.*
The main goal of this paper is to analyze the motives and determinants of the processes of mergers and acquisitions of banks in the US, the EU and the transition economies of Central and Eastern Europe and recorded their differences.

Key words: *Mergers and acquisitions, banks, transition economies, motives and determinants.*

1. INTRODUCTION

The process of mergers and acquisitions of banks is a very interesting and dynamic category, which in the future will be an endless source of debate, controversy and researches. In world practice, there are different views on the main motives and determinants of the processes of mergers and acquisitions of banks.

Therefore, the main aim of this paper is to analyze the motives and determinants of the processes of mergers and acquisitions of banks in three different regions: the United States, the European Union and the transitional economies of Central and Eastern Europe and recorded their differences.

Conceptually the paper is organized in an introduction, three sections, conclusion and references.

2. ANALYSIS OF THE MOTIVES OF THE PROCESSES OF MERGERS AND ACQUISITIONS OF BANKS IN THE USA

There are several main motives of the processes of mergers and acquisitions of the banking sector in the USA (1):

- One of the motives of the processes of mergers and acquisitions of banks is the effort of the managers to create business empires. According to Milbourn, too self-confident managers encouraged processes of mergers and acquisitions because they overvalue its ability to manage large banks (2). On this manner, is being created certain pressure on the other managers, which are encouraged to join in the wave of mergers and acquisitions;
- As the second motive of the processes of mergers and acquisitions of banks is considered the increase of market power. Berger offers a very detailed test of two

[83] Proleterski brigadi br.43, 6330 Struga, R.Makedonija

competing hypotheses on the territory of the United States: 1. Hypothesis: performance – structure - behaviour, which suggests that large banks use the large market share in order to achieve higher prices and higher revenues and 2. Efficiency hypothesis: which posits that the banks grow because they are more efficient and not use their market power to gain higher revenues (3). However, although he revealed that operational efficiency might partially explain the higher earnings, he believes that profitability may not be well explained by the concentration nor the traditional measures of efficiency. Another way of understanding the significance of the motive of the market power is to investigate whether the processes of mergers and acquisitions that occurred due to deregulation, caused an increase in efficiency. Namely, Stiroh and Strahan, shown that in the United States, the process of deregulation, increased the probability of efficient banks through the process of mergers and acquisitions to increase its market share and thus increase the efficiency of banking in general (4).

- As a third, very important incentive for the processes of mergers and acquisitions in the banking sector of the United States is considered the possibility of diversification, which can refer to a geographic diversification (spread of certain regions or countries), business diversification (diversification of different types of clients) and product diversification (introduction of various products/services). Demsetz and Strahan, presented strong evidence that large bank holdings in the US are better diversified than small (5). Berger considered that the benefits of the processes of mergers and acquisitions are not derived from improving the cost efficiency, but rather on improved revenue efficiency and improvements in revenue performance is due to better diversification (6).

2. ANALYSIS OF THE MOTIVES OF THE PROCESSES OF MERGERS AND ACQUISITIONS OF BANKS IN THE EUROPEAN UNION

Driving motives for the implementation of the processes of mergers and acquisitions in the banking sector of the EU we can classify into three categories. The first motive, which is basically, the simplest and most traditional, is the desire to reach an appropriate economy of scope and improve operational efficiency, primarily through the national mergers and acquisitions. The second category concerns the motives of creating "national champions" that are a kind of defence acquisition by cross-border banking groups. The third group of motives, however, are associated with the need to create domestic secondary markets, which would allow the creation of conditions for the growth of banks and increase their profitability (7).

The most active banking sector in the EU, in terms of national transactions of mergers and acquisitions, was the Italian banking sector. In this sector, the activities of mergers and acquisitions were aimed at creating "national champions". Most notable was the merger of Sanpaolo IMI and Banca Intesa in a transaction valued at € 29.6bn. The strategic rationale for the merger was to create a dominant player within the Italian market that would also be instantly significant on the European stage. This transaction of merger reflects the two-sided desire to achieve critical mass, which is a response to the growing openness of the Italian market for foreign acquisitions companies. Transactions of national character had a major contribution to the realization of significant cost savings (8).

The period from the mid 1990s to the early 2000s, was characterized by intense processes of national mergers and acquisitions in the European banking sector. This situation contributed to a significant increase in the concentration of these markets, and as a consequence, there is an increase in the volume and number of cross-border transactions. Starting from 2000 until the emergence of the global financial crisis of 2007, the process of cross - border mergers and acquisitions reached a peak.

By the beginning of the global economic crisis, looking for new growth opportunities and better strategic positioning, European banks, with a special emphasis on French banks, attempted to realize "secondary domestic markets". The three biggest French banks, BNP Paribas, Societe Generale and Credit Agricole, conducted a very significant cross-border transactions of mergers and acquisitions. BNPP, for example, acquired Banca Nazionale del Lavoro, the Italian bank, for € 9bn. This was Europe's largest cross-border deal of the year, and saw BNPP decisively outbid BBVA of Spain. The major strategic rationale for the transaction was growth, based on leveraging BNPP's existing Italian asset management, consumer finance and investment banking activities across BNL's customer network and the generally positive reception given to the deal by the stock market suggests that investors were supportive of the growth story.

***Irena Lekoska**, PhD, was born in 1975. In 2013, she successfully defended the thesis topic: "The impact of the processes of mergers and acquisitions on the functioning and bank performances", at the University "Ss Cyril and Methodius", Institute of Economics-Skopje, and she gained a scientific degree: PhD.*

Irena Lekoska has solid work experience. She worked as an officer in International Payments Division in Komercijalna Banka AD. Skopje, branch Ohrid, in TI. Kimiko, Struga, as an accountant and financial adviser and she worked as a universal counter officer in TTK Banka AD. Skopje, branch Struga, She has experience in clinical teaching at the University "St. Kliment Ohridski" Bitola, Faculty of Tourism and Hospitality – Ohrid.

Irena Lekoska, also, continuously expended her knowledge by attending: seminars, conferences, courses and schools in the country and abroad.

Irena is the author of more than 20 research papers that are published in national and international journals, conference proceedings, and reviews.

She has excellent knowledge of English language, and has a basic knowledge of German language and she has knowledge of computer techniques.

The attractions of foreign expansion seemed to be particularly compelling for Crédit Agricole. The French bank was a bidder in six cross-border deals with a total value of over €10bn; four in Italy, one in Greece and one in Ukraine. The development of Italy as a second home market is consistent with Crédit Agricole's previously announced goal of generating 50% of its earnings from outside France by 2008. The larger Italian deals also offered distribution power to complement the group's existing consumer finance and investment banking operations in Italy (9).

Even the 16 largest European banks been exercising 50% of its revenue outside the national boundaries. And to exclude the global banks (HSBC, Deutsche Bank, and Swiss banks), this percentage drops to only 43%.

Through the formation of secondary domestic markets, banks aimed to improve its strategic position and flexibility. As reasons for the creation of secondary domestic markets are

considered banking growth and diversification of their profits. In addition, large banks sought to achieve stable and continuous presence at European level, mainly through acquisitions of small retail banks in other western sectors. As examples, can be cited, acquisition of HVB by UniCredit Bank, then Abbey by HSBC, acquisition of Banca Antonveneta by ABN Amro and so on (10).

During this period, the creation of "European champions" was the main motive of the processes of mergers and acquisitions of major European banks. In the processes of mergers and acquisitions, as target banks were selected banks who carried out cross-border transactions. However, this situation is rapidly changing with the emergence of the global financial crisis. Then had appeared a process of reduction and stagnation of the transactions of mergers and acquisitions in the banking sector.

On the trend of reduction of cross - border transactions in post - crisis period have influenced several factors. First, in this period, strategic expansion of the banks' was not a priority, because the banks were faced with significant losses, and focused on the advancement of their balance sheets.

During this period, an important was process of the divestment of non-core (non-profit) activities of banks. One example of divestment (removal) of non-core activities was transaction of acquisitions of KBL European Private Bankers (a constituent unit of KBC), by the Hinduja Group's €1.35 billion. This is a very rare transaction in which an Indian private company takes over European bank. Other deals involving the divestment of non-core businesses included Citibank's sale of its Swedish retail business to local firm Marginalen for €640m and Libyan Arab Foreign Bank's purchase of a majority stake in British Arab Commercial Bank from HSBC for €68m (11).

Although the post-crisis period was characterized by a significant reduction in cross-border processes of mergers and acquisitions, there is, however, reason to believe that this situation is only temporary. First, the number of cross-border deals has already picked up since early 2009. In this regard, the acquisitions of Fortis by BNP Paribas and of UK banks by Santander are examples of strategic cross-border acquisitions by institutions that were in a position to profit from the opportunities that arose during the crisis. Second, the limited duration of government recapitalisation measures may offer mergers and acquisitions opportunities in Europe in the near future. Third, an European System of Central Banks ─ ESCB survey conducted in May 2009 revealed that, rather than revising their internationalisation strategies, banks have temporarily stopped or delayed their plans (12). High growth potential still remains by far the most important driver for expansion abroad. Given the opportunities arising from the exit from government measures and based on the survey results, cross-border M&A activity is expected to pick up quickly once the economic cycle turns.

3. ANALYSIS OF THE MOTIVES OF THE PROCESSES OF MERGERS AND ACQUISITIONS OF BANKS IN TRANSITIONAL ECONOMIES

The countries of Central and Eastern Europe – CIE*, in terms of their market structure and financial systems are fundamentally different from the developed countries. The process of

* The group of countries of Central and Eastern Europe include: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Macedonia, Poland, Romania, Slovakia, Slovenia, Serbia and Montenegro (OECD group).

globalization since the early nineties has rushed these economies in a long painstaking process of transformation from centrally planned to market economy.

In the process of transition, there was often the dilemma of monetary authorities whether the process of transformation of the banking system to focus on the restructuring of the existing domestic banks that were burdened with debts and irrational business or banking system to be open to foreign, efficient and aggressive banks which will quickly take position on the financial market and dominate. The experience of transitional economies showed that the two approaches were not contradictory, but rather are combined with one another.

Exactly the process of transition was a basic motive for initiating the process of mergers and acquisitions in the banking sector. The transition, widely opened the doors for foreign banks in these areas. Western European banks have preferred through the process of acquisitions to acquire ownership and control of management over existing state banks than to build new bank capacities in the form of green field investments. In addition, through the processes of mergers and acquisitions, Western banks have been able to quickly and efficiently increase their participation in the banking markets of transition economies and take advantage of existing networks of customers and distribution channels.

The processes of privatization were not conducted at the same speed and did not cover all countries. Czech Republic, Estonia, Latvia and Slovakia in 2002 had a small share of state banks in the total assets of the banking sector. Privatization programs in Romania, Bulgaria, Croatia, Czech Republic are consisted in negotiations between the governments of those states and one foreign bank. After removal of bad loans from the balance sheets of state owned banks, and Hungary opted for intensive sale of a controlling stake in large state banks to foreign investors. As a result of the privatization of existing state-owned banks in 2005, part of non – performing loans, in banks' balance sheets, significantly decreased to 6.4% for certain countries of Central and Eastern Europe (Romania, Bulgaria, Croatia, Czech Republic) (13).

Starting from 1993 to 2000, the number of foreign banks in the countries in transition has increased. Namely, in 1993, the total number of foreign banks in certain countries (Czech Republic, Croatia, Estonia, Latvia, Hungary, Poland, Slovakia and Slovenia) was 21. The largest number of foreign banks, more specifically, seven foreign banks, in 1993 had the Czech Republic and Hungary. In 2000, the total number of foreign banks in the listed countries had increased to 92 banks. The largest number of foreign banks in 2000 had Hungary - 26 foreign banks and Poland - 23 foreign banks (14).

Advantages of the processes of acquisition of domestic banks by foreign banks are: offering a wide range of services by foreign banks, offering higher quality financial services, implementing effective risk management in banking operations, introduction of new banking technology and innovation, development of financial markets, improving the infrastructure of the financial system, and strengthening of competition in the banking sector.

As regards of economy of scale, unfortunately, should be noted that for transitional countries there are no comprehensive analysis of the topic - economies of scale. In order to see if there is economy of scale in the banking systems of transition economies, the simplest way is to compare the indicators of the balance sheet relating to the costs of the various forms of assets. The results of the sample of the observed transition economies are given in Table 1. The indicator cost-to-income is a kind of rough measure of cost efficiency because banks offer different package of products and services.

	Ratio of costs / income			Income on average equity			Non-interest income /total income		
Total assets	<$1 billion	$1-10 Billion	$10-25 billion	<$1 billion	$1-10 billion	$10-25 billion	<$1 billion	$1-10 billion	$10-25 billion
Eastern Europe	64,0	52,6	71,4	8,5	27,6	0,5	36,4	32,8	21,3
Czech Republic	62,3	47,6	62,0	-1,6	-7,2	-20,1	32,1	31,3	36,3
Hungary	77,2	69,3		6,0	13,8		36,9	34,2	
Poland	57,8	53,5	80,5	12,8	24,0	-7,2	36,5	35,8	27,6
Turkey	57,8	49,2	73,4	23,8	43,7	15,7	45,7	31,1	9,8

Table 1. Performance indicators by size of banks (average for the period of 1997─1999)(15).

From the data in Table 1 can be concluded that in terms of indicator of the ratio cost/revenues, in the countries of Eastern Europe, economies of scale are realized in banks with asset value of $1 to $10 billion. This asset value of the balance sheet, achieved the lowest indicator of ratio cost/income amounting to 52.6%, and banks are the most profitable. For the banking sector of developed countries in Europe, the indicator of cost efficiency begins to decline in banks whose balance sheet assets exceeding $50 billion.

There are several reasons why achieving economies of scale is different in the developed European countries banking sector and in transition economies (16).

The optimal size of banks on which are realized economies of scale varies in developed and transition economies of Europe because of less efficient infrastructure (eg, telecommunications, information technology, etc.) and lower purchasing power of countries in transition. Second, in transition economies the largest share had state-owned banks that are basically less efficient than private banks. Third, in banks in transition economies due to the processes of transformation, a large volume of funds were spent on writing off bad loans and the restructuring of its activities, which automatically means increasing the cost of banks operations and less opportunity for achieving economies of scale.

CONCLUSION

Generally, there are different motives and determinants that are the driving force of the processes of mergers and acquisitions of banks in the US and EU. On the basis of empirical analysis of the efficiency of the operation of banks in the US, taking into account their post - integrative strategies, we have defined the following determinants of the processes of mergers and acquisitions: revenue efficiency, resulting from the economy of scope and the possibility of diversification, the attempt of managers to create business empires, and the increase in market power.

Driving motives for the implementation of the processes of mergers and acquisitions in the banking sector of the EU we can classify into three categories. The first motive, which is basically, the simplest and most traditional, is the desire to reach an appropriate economy of scope and improve operational efficiency, primarily through the national mergers and acquisitions. The second category concerns the motives of creating "national champions" that

are a kind of defense acquisition by cross-border banking groups. The third group of motives, however, is associated with the need to create domestic secondary markets, which would allow the creation of conditions for the growth of banks and increase their profitability.

From the analysis of the determinants and motives that encourage the processes of mergers and acquisitions of banks in the transition economies can be concluded that the banks in transition countries are faced with increased pressures on their incomes. Therefore, they need the strategy of cost reduction or improvement of cost efficiency. One of the ways to implement it are the processes of mergers or acquisitions by Western European banks. In this way, the increase in efficiency is a good incentive for the implementation of these processes. Increasing effectiveness of the banks through their consolidation in future will be an important process of bridging the differences between transition economies and the developed countries of EU.

REFERENCES

1. Evan Kraft, How big is the competition in the Croatian banking sector?, Croatian National Bank, May 2007, pgs. 12-18.
2. Milbourn, T., Boot, A., Thakor, A., Megamergers and expanded scope: Theories of bank size and activity diversity, Journal of Banking and Finance, бр. 23, pgs. 195 – 214.
3. Berger, A., The Profit-Structure Relationship in Banking–Tests of Market-Power and Efficient Structure Hypotheses, Journal of Money, Credit and Banking 27, 1995, No. 2, pgs. 404 – 431.
4. Stiroh, K., Strahan, P., Competitive Dynamics of Deregulation: Evidence from U.S. Banking, Journal of Money, Credit and Banking 33, 2003, No. 5, pgs.. 801 – 828.
5. Demsetz, R. i Strahan, P., Diversification, Size and Risk at Bank Holding Companies Journal of Money, Credit and Banking 29, 1997, No. 3, pgs. 300 – 313.
6. Berger, A., The Integration of Financial Services: Where are the Efficiencies?, Federal Reserve Board of Governors Finance and Economics Discussion Paper, 2000-36, 2000, pgs. 6-28.
7. Financial Services M&A, Going for growth in Europe, *PricewaterhouseCoopers*, April 2007, pg. 2.
8. Financial Services M&A, Going for growth in Europe, *PricewaterhouseCoopers*, April 2007, pg. 10.
9. Financial Services M&A, Going for growth in Europe, *PricewaterhouseCoopers*, April 2007, pg. 12.
10. Financial Services M&A, Going for growth in Europe, *PricewaterhouseCoopers*, April 2007, pgs. 20-21.
11. European Financial Services M&A Insight**,** PricewaterhouseCoopers LLP, September 2010, pg. 5.
12. EU banking structures, ECB, September 2010, pgs. 16-17.
13. Masic S., Mergers and acquisitions in European banking sector, Doctoral dissertation, University Singidunum, Belgrade, 2009, p. 62.
14. Mesic, Dusan, Entry of foreign banks in the countries in transition, The National Bank of Serbia, Sector for control and supervision of banks, p. 49.
15. IMF, Financial Sector Consolidation in Emerging Markets, Ch. V., International Capital Markets, August, 2001.
16. IMF, Financial Sector Consolidation in Emerging Markets, Ch. V., International Capital Markets, August, 2001, pgs. 143-146.

ECB LEGAL MEASURES ACCORDING TO THE FINANCIAL CRISES

Shkendije Nahi[84]
Flamur Mrasori[85]

DOI: https://doi.org/10.31410/eraz.2018.176

Abstract: *The 2008 financial crisis hit the European financial system especially during 2010 and early 2011 where market confidence fell again The Eurozone knew the hardest time in the so-called debt crisis.*
The ECB came up by presenting some technical measures. The question needs to be addressed is if the ECB monetary policy has been extremely accommodating in recent years and has been effectively accommodating to address the threat of deflation in the Eurozone?

Key words: *Financial crisis, monetary policy, legal measures, European Central Bank, Eurosystem, Fed and BoE.*

1. INTRODUCTION

The financial crisis of 2007–2008, is considered by many economists to have been the worst financial crisis since the Great Depression of the 1930s. The Eurozone crisis has made it very difficult or impossible for some countries in the euro area to repay or re-finance their government debt without the third parties assistance. The purpose of un-conventional monetary policy is to increase liquidity and reduce lending costs to an economy in order to promote consumption and investment.

Non-traditional monetary policy ideas rely on the fact that an economy is influenced by interest rates beyond the nominal rate. Reducing of interest rates of these instruments through central bank operations may further stimulate the economy - this is what is often called a monetary policy with the balance sheet monetary policy.

Given the economic justification, the central banks of some of the developed economies began to make extensive use of non-traditional monetary policies after the 2008 financial crisis. Mainly asset purchases focused on two main directions: buying long-term government bonds so that reduce the long-term rates of the economy and affect ever more remote investment as well as the purchase of private assets but mainly securities based on mortgage loans.

Much of these theories were discussed during the economic crisis in Japan in the 1990s and beyond. Not by chance, one of the chief economists who focused their studies on this event was Ben Bernanke, the Federal Reserve Governor in the US during the 2008 financial crisis. Were the events in Japan that had created his economic thinking but also other economists, for non-traditional monetary policy options.

[84] Central Bank of Kosovo; Faculty of Economy - University of Prishtina
[85] Central Bank Board - Central Bank of Kosovo, Faculty of Law-University of Prishtina

ECB MONETARY POLICY FRAMEWORK

The legal basis for the single monetary policy based in the Treaty on European Union (TEU), the Treaty on the Functioning of the European Union (TFEU)[86], the Statute of the European System of Central Banks and the European Central Bank (the Statute of the ESCB).[87] According to Article 127.1 and Article 282.2 of the Lisbon Treaty on the Functioning of the European Union (TFEU). The European System of Central Banks (ESCB) price stability shall act in accordance with the principle of an open market economy with free competition[88], favoring an efficient allocation of resources, and in compliance with the principles set out in Article 119 of the Treaty on the Functioning of the European Union.[89]

The Outright Monetary Transactions (OMTs) is new monetary policy mechanism with limited transactions in secondary markets for sovereign bonds and attached to an appropriate European Financial Stability Facility (EFSF)/European Stability Mechanism (ESM) .

The ECB Governing Council guarantees that the purpose in OMTs is one of monetary policy to maintain the inflation rate below, but close to 2% over the medium term.[90]

ECB UNCONVENTIONAL MONETARY POLICY

In the euro area sovereign crisis in started in 2010. At that time, markets faced the problems of the solvency of countries with higher debt and fiscal deficits. The European-banking crisis started during 2011, when the sovereign debt crisis bubbles over Spain and Italy. The unconventional measures implemented by ECB are; Direct Quantitative Easing, Direct Credit Easing, Indirect Quantitative/Credit Easing and Exit strategy.

The main Policy Actions provided by the ECB are *Supplementary Long Term Refinancing Operations (SLTROs), with maturity between six months, one year,* and "Very" *Long Term Refinancing Operations (VLTROs), with maturity of three years***.** The ECB changed the maturity structure by providing collateralized loans over longer than usual time horizons by introducing. Three month long term refinancing operations (LTROs / SLTROs), in March 2008.

In December 2011, as the sovereign crisis intensified and bank-funding conditions further deteriorated, the ECB announced two "very" long-term refinancing operations (VLTROs) with three-year maturity.

The liquidity created by bond purchases under the SMP was sterilized by the ECB via weekly liquidity absorbing operations. From May 2010, purchases were limited to Greek, Portuguese and Irish Government bonds.[91]

[86] Both treaties known as Lisabon Treaty, which is the latest Treaty of the EU.
[87] European Central Bank, 2011. *The MoneTary Policy of the ECB 2011.* Frankfurt:
[88] This is a formulation that is written in all Constitutions of the member states of EU as a guarantee of well functioning of the economies of each members.
[89] Official Journal of the European Union, 2012. *Protocol (No 4)on the Statute of the European System of Central Banks and the European Central Bank.* C 326/230 ed. Frankfurt:
[90] Cour-Thimann, Philippine; Winkler, Bernhard, 2013. *The ECB's non-standard monetary policy measures the role of institutional factors and financial structure.* 1528 ed. page no.5 paragraph 1,2.
[91] Marcel Fratzscher DIW Berlin, Humboldt-University Berlin and CEPR, 2014. *ECB Unconventional Monetary Policy Actions: Market Impact, international Spillovers and Transmission Channels.* Washington DC: IMF

The market conditions improved during early 2012, the ECB stopped purchasing bonds it was the end of SMP and introduction of the ECB new instrument OMT in order to stabilize the markets. This instrument consists of unlimited purchases of government bonds to the three year maturity issued by countries under a European Stability Mechanism (ESM).[92]

End of October 2014, ECB Governing Council decided to launch an ABS Purchase Programme (ABSPP) and a third Covered Bond Purchase Programme (CBPP3). This was followed by the decision to launch a Public Sector Purchase Programme (PSPP) in addition to the existing purchase program, on 22 January 2015. On 10th of March 2016, ECB adds corporate sector purchase program (CSPP) to the asset purchase Programme (APP).[93] These purchases started in June 2016. ECB and National Central Banks (NCBs) conducting purchases with their existing monetary policy counterparties, including counterparties they trade within the context of their own investment activities.[94]

Asset Purchases Programme (APP) had a significant impact on government bond spreads across Eurozone issuers. ECB will end asset purchases in the end of 2018.[95]

ECB CONVENTIONAL MONETARY POLICY

Before the financial crisis, central banks of advanced economies followed a standard monetary policy where the short-term interest rate was the main instrument of monetary policy.

The result of conventional monetary policy proved ineffective. Unconventional monetary policy takes many forms, for instance Denmark and Sweden, it involves the use of negative interest rates.

The Federal Reserve implemented policies known as 'credit easing' when they purchased mortgage-backed securities. The Federal Reserve has also implemented 'Operation Twist' by selling short-term government bonds and uses the proceeds to buy long-term bonds whereas drives up their price and lowers long-term interest rates.

The ECB acted in response to the financial crises with decisions as early as 9 August 2007 by using the conventional actions with low and stable inflation which is the aim of monetary policy. The depth of the recession in many countries meant that Taylor rules[96] would recommend negative nominal interest rates but market interest rates are effectively close to zero and negative because agents can always hold non-interest bearing cash.

Banks were holding onto funds to improve their viability rather than on-lending to the private sector, requiring some central banks to intervene with the direct provision of credit.[97] ECB

[92]Marcel Fratzscher DIW Berlin, Humboldt-University Berlin and CEPR, 2014; *Unconventional Monetary Policy Actions: Market Impact, International Spillovers and Transmission Channels* *. JEL Codes: E52, E58, F32, F34, G15. ed. Washington: IMF Paper presented at the 15th Jacques Polak Annual Research Conference page number 5,6 &7 .

[93] Gregory Claeys, Álvaro Leadro and allison Mandra, March 2015, 2015. ECB *Quantitative Easing : The detailed Manual.* na ed. Belgium: BruegelPolicy Contribution.

[94] ECB Press Release, 2015. *ECB announces expanded asset purchase programme.* 1 ed. Frankfurt:

[95] European Central Bank (ECB), 2018. *Public sector purchase programme (PSPP) - Questions & answers* .

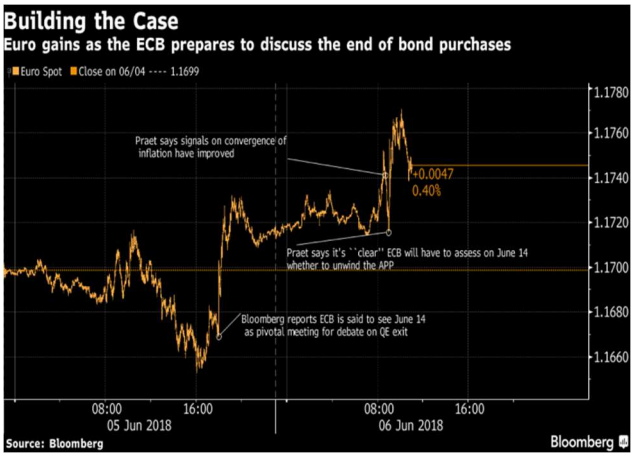
[96] The **Taylor rule** is a reduced measure for each one-percent increase in inflation, the central bank tends to raise the nominal interest rate by more than one percentage point. Taylor rule was proposed by John B. Taylor.

[97] Michael Joyce, David Miles, Andrew Scott and Dimitri Vayanos, 2012. QUANTITATIVE EASING AND UNCONVENTIONAL MONETARY POLICY – AN INTRODUCTION*. F271–F288;

meeting on June 5, 2018, interest rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility would remain unchanged at 0.00%, 0.25% and -0.40% respectively and asset purchase target at EUR 30bn per month. It will be better for ECB to end the QE and solve potential Italian and other euro area political problems with more appropriate instruments.[98]

Date		Deposit facility	Main refinancing operations		Marginal lending facility
With effect from			Fixed rate tenders	Variable rate tenders	
2016	16 Mar.	−0.40	0	-	0.25
2015	9 Dec.	−0.30	0.05	-	0.3
2014	10 Sep.	−0.20	0.05	-	0.3
	11 Jun.	−0.10	0.15	-	0.4
2013	13 Nov.	0	0.25	-	0.75
	8 May.	0	0.5	-	1
2012	11 Jul.	0	0.75	-	1.5
2011	14 Dec.	0.25	1	-	1.75
	9 Nov.	0.5	1.25	-	2
	13 Jul.	0.75	1.5	-	2.25
	13 Apr.	0.5	1.25	-	2
2009	13-May	0.25	1	-	1.75
	8 Apr.	0.25	1.25	-	2.25
	11 Mar.	0.5	1.5	-	2.5
	21 Jan.	1	2	-	3
2008	10 Dec.	2	2.5	-	3
	12 Nov.	2.75	3.25	-	3.75
	15 Oct.	3.25	3.75	-	4.25
	9 Oct.	3.25	-	-	4.25
	8 Oct.	2.75	-	-	4.75
	9 Jul.	3.25	-	4.25	5.25

Table no.1. ECB Interest rate veils in percentage per annum[99]



Source: Bloomberg

[98] Swedbank, 2018. ECB Preview: all eyes and ears on the end date of the QE. *Macro focus*, Issue
[99] ECB Key Rate

UNITED STATES UNCONVENTIONAL MONETARY POLICY

FED's strategy focused mainly on two financial instruments, long-term bonds and mortgage-backed securities (MBS). The acquisition of both instruments aimed at reducing long-term interest rates as the mortgage market is considered one of the main channels of the US monetary transmission mechanism, as it represents a significant long-term investment.

In this way the Fed tried to persuade agents that the rates would remain low over a prolonged period. Buying MBS was very important in maintaining the value of housing by a drastic reduction. The Federal Open Market Committee (FOMC) to lift the federal funds target rate range another 25 basis points (bps) to 1.75% to 2.00% when the committee meets second week of June 2018. Majority of Committee members' seems to be comfortable with further gradual rate increases as 25 bps increase according to the monetary policy outlook.

Both the global economy and the US economy are on a much sounder footing compared to when similar episodes of market turmoil caused the FOMC to postpone rate increases in 2016.

The unemployment forecast for the end of 2018 was median 3.8% in March, which is considered to be revised down of the 3.8% as of May as upward revision to the median number of hikes foreseen in 2018. There is an expectation of insistence on the symmetric inflation target and on the appropriateness of further gradual rate hikes whereas federal funds rate approaching levels that are more neutral.[100]

*Ms. **Shkendije Nahi** was born on December 5, 1978 in Pristina. In 2002, she has completed her studies at the Faculty of Economic of the University of Pristina. She was also shortlisted for the following the ACE programmed of the Faculty of Economics and Econometrics of the Univesiteit van Amsterdam during the first semester of the Academic Year 2002/2003.*
In 2008, she completed Master studies at the same University. In the course 2014, Ms. Nahi became a PhD Candidate, Banking and Finance, University of Pristina.
From 2011 until 2015 she was working part - time as Teaching Assistant for Financial Decision and Financial Strategy-Master Program and Lecturer for Risk Management - Bachelor Program to the Universum College.
Ms. Nahi joined Central Bank of the Republic of Kosovo (CBK) from 2001. Currently she is Director of the CBK's Asset Management Department.
She is also member of the CBK's Investment Committee and the Macro-Prudential Advisory Committee and Liquidity Committee. In her role as Director of the Asset Management Department, she works for recommendations to the CBK's Investment Committee for the CBK investment strategy and on changes to the CBK investment Policy.
In 2011, she was appointed as Project Manager for the Government Securities Project.
During her professional career, Ms. Nahi has participated in a number of international conferences, trainings and various workshops closely related to the field of Asset Management and Financial Investments.

[100] Swedbank Macro Research, 2018. Market turmoil will not deter FOMC from a hike. Issue

GREAT BRITAIN UNCONVENTIONAL MONETARY POLICY

The other major case of a developed economy that has taken similar measures to non-traditional monetary policy is the Bank of England. The Bank of England (BoE) is oriented as FED towards mortgage-backed assets and UK government long-term bonds. Unlike the Fed where the targeted unemployment rate was used, the BoE has consistently repeated that low rates will stay for a prolonged period.

Between 2009-2012 the BoE, via its Asset Purchase Facility (APF), was authorized to purchase assets valued at £375 billion. QE was implemented to address the threat of deflation with the official Bank Rate being cut to 0.5 per cent in March 2009. Asset purchases affected by purchases of long-term securities with greater duration or higher credit risk. BoE commits to a monetary policy by reducing short and long-term interest rates and increasing bank deposits and reserves created by asset purchases from non-bank institutions.

The BoE applied QE by involved the purchase of public and private sector assets using central bank money while supporting price stability and the government's economic policies for growth and employment. The BoE electronically creates new money and uses it to purchase from private investors such as pension funds and insurance companies. With low yields and low return, tend to use it to purchase other assets, such as corporate bonds and shares. That lowers longer-term borrowing costs and encourages the issuance of new equities and bonds.[101]

ECB ROLE DURING FINANCIAL CRISES

The ECB's reaction is based on monetary policy framework based on two pillars the monetary policy strategy, to maintain price stability and the operational framework, whereas ECB has the desired interest rate.[102]

The euro area crisis is facing the weaknesses of financial and banking system by lacking of a properly banking policy framework. Another aspect of the crisis is a big divergence development between northern countries such as Germany, France and southern European countries such as Greece, Portugal, Spain and Italy. The divergence of the southern euro states are structural, acting on productivity and economic growth.[103]

*Mr. **Flamur Mrasori** was born on September 5, 1983 in Gjakova. In 2005, he has completed his bachelor studies at the Faculty of Law of the University of Prishtina. In recognition of his achievements during the studies, he was given the "Distinguished Student" award by the University of Pristina. In 2008, he completed the Master studies at the Faculty of Law of the same University. In the course of his academic development, in 2016, Mr. Mrasori has completed his doctoral studies in the field of International Law at the University of Prishtina. Currently, he is Professor at the Faculty of Law in the University of Pristina, the International Law Department. His focus is on the European Union Right and Private International Law. During his academic career, Mr. Mrasori has published various scientific works from the field of jurisprudence and European integrations. He has also participated in a number of international conferences and workshops, which are closely related to the field of jurisprudence and integration in general, and particularly in financial integration.*

[101] Timothy Sharpe and Martin Watts, 2013. Unconventional Monetary Policy in the UK: A Modern Money Critique. 18, Part 2(Economic Issues, pp. 43-46.
[102] Angelos Delivorias European Parlament, February 2015. Monetary policy of the European Parlament., p. 3.
[103] Magdalena RADULESCU, 2015. ECB'S MONETARY MEASURES DURING THE FINANCIAL CRISIS.

Italian impact on the economy of the Eurozone is rather limited and government proposals are completely out of line with the European budget rules. It is necessary to convince Northern Eurozone Member States of the benefits to increase mutual risk sharing.[104]

Italy's anti-establishment coalition proposed to issue securities which are called as mini-BOTs as short term Treasury Bills as a form of money to be "spent anywhere, to buy anything."

Italy's public debt, already is the highest in the euro zone after Greece's. It could be out of EU rules giving the ECB exclusive power to issue new currency in the euro zone.[105]

The ECB has interefered about outstanding Italian government debt through its QEP and net supply of government bonds is projected to be negative for the remainder of the year. Italy's high debt-to-GDP ratio, is 130%, the second largest in the Eurozone after Greece and the world's fourth largest.[106] Italian bonuses offered the alternative with better returns and at the same time higher risk. In this scenario, alluding that there will be no government breaks in Italy and will continue with the measures to reduce the budget deficit; the horizon seems unclear until the end of 2018. Of course, debt instruments from Germany, Belgium, France and the Netherlands will continue to offer minimal returns to investors as the level of risk is not so clear until the monetary policy measures of the ECB show expected results or show that it has need for stronger new measures. Until then, investors in these markets may eat not well but sleep safely.

CONCLUSION

Treaty of Lisbon had rapidly improved the legal base for ECB to take the adequate measures in order to pass the challenges that comes from the crisis. Especially the extension of the ECB competences on the member states banks supervision shows that the legal measures mention about performed by ECB was and are necessary.

Compared to the FED and non-Eurozone countries (CBs) the ECB legal measures was more effective and not only on supporting the price stability and monetary policy as key duties of ECB but they had effect also on recuperation of member states banking sector and its economies in general.

ECB interventions so far have been limited by the purchase of government bonds of so-called "peripheral" countries during the Euro 2011-12 crisis to calm the financial markets and prove that a lender of last resort existed in the Eurozone. Since that time, the ECB has used its communication more than concrete actions with the balance.

Recent economic developments, where low inflationary pressures dominated are urging the ECB to seriously consider further actions similar to BeE and FED. Lending in the Eurozone is still largely dependent on the traditional banking sector and not from the financial markets. Consequently, the purchase of various financial assets may not be the optimal solution for the ECB. Italian bond yields have come down, as the government has been approved by the

[104] RaboResearch Global Economics & Markets mr.rabobank.com, June 2018. And the it happened; Is the Eurozone (economy) in trouble?. *RaboResearch* , Issue

[105] Reuters, 2018. How Italy's mini-BOT 'parallel currency' would work. *World news*, Issue p. 1

[106] Goldman Sachs -Asset Management, Investment Commentary June 2018 . *Global Fixed Income Monthly - European Politics: Italy Update.* s.l.:Goldman Sachs –Asset Management;

president, but future policy remains very uncertain. Confrontation with the EU, reversing past reforms, expansion of fiscal deficit could create fear and volatility again.
Italy will increased uncertainty regarding ECB policy normalisation and risk of contagion to Spain, Portugal, and France.

The three main problems that highlighted the financial crisis were; firstly in advanced countries, a lack of monetary policy transmission through interest rates, between different asset classes and credit spreads, was noted; Secondly, the weaknesses and uncertainties of the increased contractures of some markets; Third, the sharpness of the recession brought monetary policy to react more, bringing interest rates to their zero rates.

Lastly, as a counter-response to the above-mentioned problems, central banks acted through non-trivial policies to address mainly two objectives: return to good functioning of financial markets and financial intermediation, as well as providing a major stimulation to monetary policy. These are different, but at the same time very linked, as they aim to support the country's macroeconomic stability, and reduce the risks posed by the crisis to emerge from the financial system's collapse, depression and deflation.

BIBLIOGRAPHY

Both treaties known as Lisabon Treaty, which is the latest Treaty of the EU.

European Central Bank, 2011. *The MoneTary Policy of the ECB 2011.* Frankfurt: http://www.ecb.europa.eu/pub/pdf/other/monetarypolicy2011en.pdf?806851948acaa66136356457a4641a6c.

This is a formulation that is written in all Constitutions of the member states of EU as a garuantee of well functioning of the economies of each members.

Official Journal of the European Union, 2012. *Protocol (No 4)on the Statute of the European System of Central Banks and the European Central Bank.* C 326/230 ed. Frankfurt: https://www.ecb.europa.eu/ecb/legal/pdf/c_32620121026en_protocol_4.pdf

Cour-Thimann, Philippine; Winkler, Bernhard, 2013. *The ECB's non-standard monetary policy measures the role of institutional factors and financial structure.* 1528 ed. page no.5 paragraph 1,2. *https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2239093&download=yes:*

Marcel Fratzscher DIW Berlin, Humboldt-University Berlin and CEPR, 2014. *ECB Unconventional Monetary Policy Actions: Market Impact, international Spillovers and Transmission Channels.* Washington DC: IMF https://www.imf.org/external/np/res/seminars/2014/arc/pdf/fratzscher_loluca_straub.pdf.

Marcel Fratzscher DIW Berlin, Humboldt-University Berlin and CEPR, 2014; *Unconventional Monetary Policy Actions: Market Impact, International Spillovers and Transmission Channels* *. JEL Codes: E52, E58, F32, F34, G15. ed. Washington: IMF Paper presented at the 15th Jacques Polak Annual Research Conference page number 5,6 &7 . https://www.imf.org/external/np/res/seminars/2014/arc/pdf/fratzscher_loluca_straub.pdf.

Gregory Claeys, Álvaro Leadro and allison Mandra, March 2015, 2015. ECB *Quantitative Easing : The detailed Manual.* na ed. Belgium: BruegelPolicy Contribution. http://bruegel.org/wp-content/uploads/imported/publications/pc_2015_02_110315.pdf.

ECB Press Release, 2015. *ECB announces expanded asset purchase programme.* 1 ed. Frankfurt: https://www.ecb.europa.eu/press/pr/date/2015/html/pr150122_1.en.html.

European Central Bank (ECB), 2018. *Public sector purchase programme (PSPP) - Questions & answers* . https://www.ecb.europa.eu/mopo/implement/omt/html/pspp-qa.en.html.

The **Taylor rule** is a reduced measure for each one-percent increase in inflation, the central bank tends to raise the nominal interest rate by more than one percentage point. Taylor rule was proposed by John B. Taylor.

Michael Joyce, David Miles, Andrew Scott and Dimitri Vayanos, 2012. QUANTITATIVE EASING AND UNCONVENTIONAL MONETARY POLICY – AN INTRODUCTION*. F271–F288; http://personal.lse.ac.uk/vayanos/Papers/QEUMCI_EJ12.pdf

ECB Key Rate, https://www.ecb.europa.eu/stats/policy_and_exchange_rates/key_ecb_interest_rates/html/index.en.html

Swedbank, 2018. ECB Preview: all eyes and ears on the end date of the QE. *Macro focus*, Issue p. 1https:// research.swedbank.se/default.aspx?cdguid=00568478-14D7-46AF-B40C-5C2710BDAFA6

Swedbank Macro Research, 2018. Market, https://research.swedbank.se/default.aspx?cdguid=846DE394-97F3-4800-A4F3-EC05811C7E4F, p. 1.

Timothy Sharpe and Martin Watts, 2013. Unconventional Monetary Policy in the UK: A Modern Money Critique. 18, Part 2(Economic Issues, pp. 43-46. http://www.economicissues.org.uk/Files/2013/213Sharpe.pdf

Angelos Delivorias European Parlament, February 2015. Monetary policy of the European Parlament., p. 3. http://www.europarl.europa.eu/EPRS/EPRS-IDA-549005-Monetary-policy-ECB-FINAL.pdf

Magdalena RADULESCU, 2015. ECB'S MONETARY MEASURES DURING THE FINANCIAL CRISIS, p. 2 paragraph 2&3.*http://economic.upit.ro/RePEc/pdf/2015_1_11.pdf*,

RaboResearch Global Economics & Markets mr.rabobank.com, June 2018. And the it happened; Is the Eurozone (economy) in trouble?. *RaboResearch* , Issue, https://mail.rabobank.nl/public/preview?zm3OvriPMfujO4SaGbpKBwdHhrFUglavpzLqY**ADBw_QEpGZBAy_6_tGlPKWDrq

Reuters, 2018. How Italy's mini-BOT 'parallel currency' would work. *World news*, Issue p. 1, https://www.financialexpress.com/world-news/how-italys-mini-bot-parallel-currency-would-work/1181377/

Goldman Sachs -Asset Management, Investment Commentary June 2018 . *Global Fixed Income Monthly -European Politics: Italy Update.* s.l.:Goldman Sachs –Asset Management; https://www.gsam.com/content/gsam/us/en/advisors/market-insights/gsam-connect/2018/European_Politics_Italy_Update.html.

DEVELOPING E-BANKING PLATFORM IN CONTEMPORARY WORLD

Zarko Radjenovic[107]
Tatjana Boshkov[108]

DOI: https://doi.org/10.31410/eraz.2018.185

Abstract: *Banks play a crucial role in promoting online businesses. Banks are trustworthy intermediaries in the online transactions and they provide a bold opening in the online business. Banks have e-payment systems like Internet banking, electronic fund transfers, plastic money (credit card & debit card) and mobile banking. These systems provide payment to online transactions. For the real working of these e-services, the need of e-banking platform development is an inevitable feature.*
This paper examines the efficient utilization of developing e-banking platform which have all the infrastructures for availing the same. For this reason we explore the impact of systems factors for E- banking platform development (scalability, interoperability, fast server response, user-friendliness ect.), Organizational factors for E- banking platform development (multistakeholders perspective, bank image and resource allocation)and Economic factors (operational efficiency, administration costs, innovation diffusion, financial information assistance). The change of economy from a traditional way to the recently demanded form needs a huge technological support and effort, better planning and efficiency in implementation thus pushing the banks to design various electronic money products.

Key words: *e-money, e-banking, platform, software alternatives.*

1. INTRODUCTION

A well-functioning financial system plays a crucial role in the transformation process from a centrally- planned economy towards one that is market-oriented. It is essential that developing countries consider steps towards financial liberalization or deregulation, which will help open the borders for capital flows and attract new investments and ideas. While financial liberalization does not guarantee quick economic growth for developing countries, it helps increase the chances for progress and creation of opportunities for financial development. Developing countries have learned through their own history and the evidence from around the world that, in order to start liberalization processes, it is essential to first ensure adequate regulation of their financial systems in line with country-specific requirements and circumstances. It is often wrongly assumed that economies with greater connection and dependencies on international trade require stronger liberalization. It is important to recognize that, when it comes to financial systems and economy, each developing country follows their own practices, processes and traditions and should also find the most appropriate liberalization model that suits their circumstances.

Banks are intermediaries in the online transactions and they provide a bold opening in the online business. Banks have e-payment systems like Internet banking, electronic fund transfers, plastic

[107] Faculty of Economics, University of Nish, Serbia
[108] Faculty of Tourism and Business Logistics, Goce Delcev University – Shtip, Macedonia

money (credit card & debit card) and mobile banking. These systems provide payment to online transactions. For the real working of these e-services, the need of e-banking platform development is an inevitable feature.

This paper examines the efficient utilization of developing e-banking platform which have all the infrastructures for availing the same. For this reason we explore the impact of systems factors for E- banking platform development (scalability, interoperability, fast server response, user-friendliness ect.), Organizational factors for E- banking platform development (multistakeholders perspective, bank image and resource allocation) and Economic factors (operational efficiency, administration costs, innovation diffusion, financial information assistance). The change of economy from a traditional way to the recently demanded form needs a huge technological support and effort, better planning and efficiency in implementation thus pushing the banks to design various electronic money products.

2. LITERATURE REVIEW

From the era of barter economy, metal and coins to gold and silver, continuing to the modern monetary systems and checks, and ending with the latest developments in the global currency, such as the introduction of cryptocurrency like Bitcoin, have passed centuries. Each type of money plays a crucial role in transactional activities in some period of time. As human society and markets developed in particular, there was a need for more sophisticated instruments for the exchange of goods.

There are two reasons for the emergence of electronic money and digital currencies. The first, according to the Austrian School of Economic Analysis money is a "social institution" subject to the already initiated institutional change and is interpreted as a consequence of a spontaneous evolution that should overcome the shortcomings of the swap and the double coincidence of desires [6, 7]. Today e-money is the last stage of this development and represents an additional degree of institutional change [8].

Their main role is to support online e-commerce, enable transactions, reduce their costs, or replace the payment of money and coins in retail. The second reason for the emergence of e-money is the Information Revolution, which is characterized by the integration of electronic information processing and telecommunication technologies, which reduces the geographical differences by means of which information can be transmitted to the whole world. The Information Revolution has changed the financial sector, making payment modes more secure and more efficient, giving an additional reason for the emergence of new monetary innovations [5].

Unlike the information revolution, the emergence of e-money is a new way of processing information for transferring purchasing power. Many financial innovations are not a new form of money, but a different way of using existing money in transactions [9]. Regardless of the consequences of the mentioned technological development, the nature of the money is still identical i.e money serves as a means of exchange, as an asset and as a value. The nature of the money will never change, so the money will remain only an intermediary in the exchange of goods and services. The e-money card is a different payment method that allows electronic transfer of the value from the card to the terminal or from the card in the wallet, both in real time and through networks [3]. It is considered that e-money is the most important achievement that transfers the predetermined monetary value so it can be used for more transactions of lesser value. The e-pocket consists of a microcomputer that contains information about the monetary

value that can be used. It is a higher degree of technological development compared to magnetic tape cards. Also, the e-pouch is more secure, which can reduce deception because cards with a chip can be more difficult to abuse than magnetic tape cards.

3. OVERVIEW OF THE IT REVOLUTION AND INNOVATIONS RELATED TO MONEY

From the aspect of the development of the e - payment method, digital currency is not physically printed by the Central Bank, too. For now, digital currency is considered with its own rules of the game. In the literature, all those who support the use of Bitcoin underscore the characteristic as a currency that does not cause financial crises. Namely, the view is that as banks can print more money to cover their national debt, thus devaluing their currencies, Bitcoin does not function in such a way.

Electronic payment method exists from the 1960s, i.e from the development of Electronic Funds Transfer (EFT), which became more sophisticated and applicable in a growing number of countries [2]. EFT implies the application of computer and telecommunication technology in payment. This method was used by banks and other financial institutions to exchange and transfer a large amount of money on a national and international level. The basis for the operation of EFT is that the money moves through a network as a substitute for cash or checks to execute a transaction. In this way, the time for paying should be shortened and the transaction costs reduced. The use of EFT has significantly increased with the emergence and acceptance of ATMs, which allow money transfer at the point of sale (EFTPOS). EFT is considered as first degree in the electronization of transactions.

In the early 1980s, thanks to the development of network technology, the costs of telecommunications and data processing were reduced, and electronic payments became more useful with the appearance of credit and debit cards, which for several years (after their appearance) became the most popular electronic small transaction tool. Also, the development of encryption has played a major role in successful card payments. This innovation is considered as a second degree in the electronization of transactions.

The growth and acceptance of card payments had negative consequences for the traditional way of payment. Many countries have made a move from the use of paper instruments, such as cash and checks, to the use of electronic instruments. For the first time in many countries, the number of checks payments has been reduced. Namely, checks as a very popular payment instrument loose the market role, thereby reducing their use [4].

4. E- PAYMENT AND TRANSACTION COSTS

Payments in classical trade require at least one buyer and one seller, with both having to have accounts in banks that are connected through clearing houses. Payments with traditional instruments such as checks require intervention of a financial intermediary like bank. Payment with e-money is similar to the traditional scheme - there are two parties - one or two banks. However, the whole process becomes more efficient and easier. The transaction does not require any code and cannot exceed the previously defined amount. If the amount that is on the chip is fully spent, the card can be automatically refilled at the merchant, without charging any fees, thanks to the special POS mechanism [1].

Once the chip is full, the user does not need to require an ATM or an exact amount of cash. Additionally, the problem of stealing or losing money is reduced to a minimum. An e-money transaction does not require an intermediary at present because the money expressed in units (called bits) is electronically transferred from the buyer to the seller. The amount of money that has been paid is prepared at the seller's terminal, i.e. from time to time his account is transferred to the financial institution.

Payment with e-money reduces transaction costs, and time is shortened compared to other forms of payment. Humphrey and colleagues estimate that "the cost of using electronic money amounts to one third to half of the cost of paying paper money. When all transactions in one country would be carried out electronically, it would be possible to save more than 1% per year BDP.

5. E- BANKING PLATFORM ANALYSIS USING MULTICRITERIA DECISION SOFTWARE: EXPERT CHOICE

5.1. EXPERT CHOICE ANALYSIS

The Expert Choice program is based on the principles of multi-criteria decision-making using the method of analytical hierarchical processes (AHP). On the other hand, the AHP method in determining weight coefficients and deciding on the optimal alternative is based on the Saaty scale. In order to find the best software alternative for the development of the electronic banking platform, the first seven best software solutions were selected in the world. The current positioning of these software solutions in electronic banking does not mean that they are the best choice for a given banking organization, since each organization has its own specificities in the way it operates. It is important to note that using the Expert Choice program and the application of the AHP method, the model consistency index should be considered, which should not be greater than 0.1 in order to satisfy the validity of the model itself and the relationship of attributes and alternatives. In order to best optimize the ranking of these software solutions, certain attributive factors have been selected which in the best possible way represent the characteristics of the electronic banking platform in the author's opinion. They are grouped into three major parts:

- **Systems factors for E- banking platform development:**

- Scalability,
- Interoperability,
- Fast server response,
- User- friendliness,
- Networking,
- Big data analysis,
- Data aggregation,
- Security,
- Easy application navigation,
- Real time information transmission,
- Web- based platform,
- Providers,
- Expert chat availability.

- **Organizational factors for E- banking platform development:**

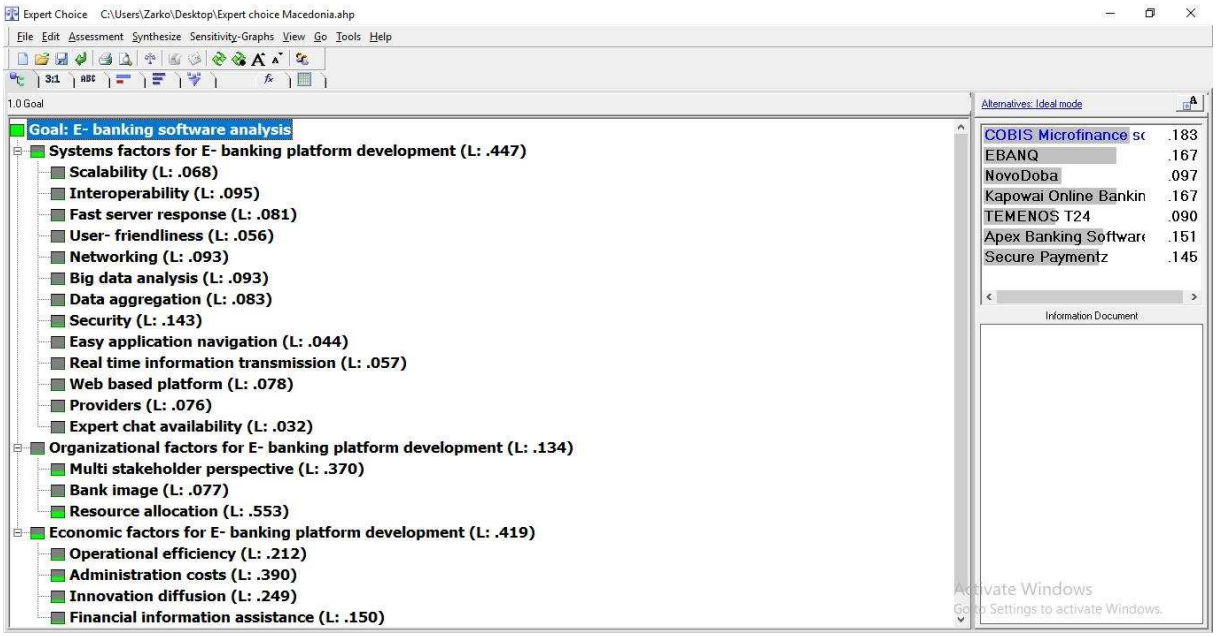
- Multistakeholders perspective,
- Bank image,
- Resource allocation.

- **Economic factors for E- banking platform development:**

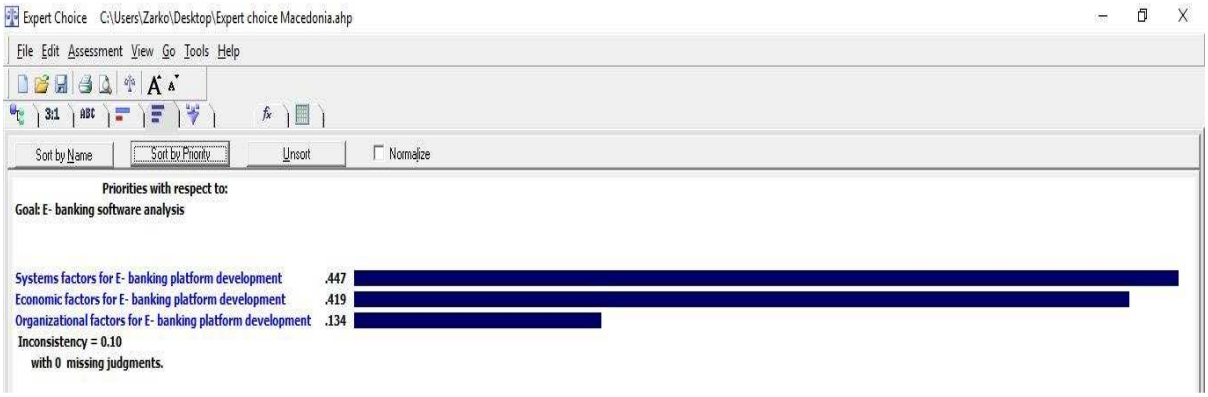
- Operational efficiency,
- Administration costs,
- Innovation diffusion,
- Financial information assistance.

The top seven world software alternatives for e- banking platform according to Capterra are:

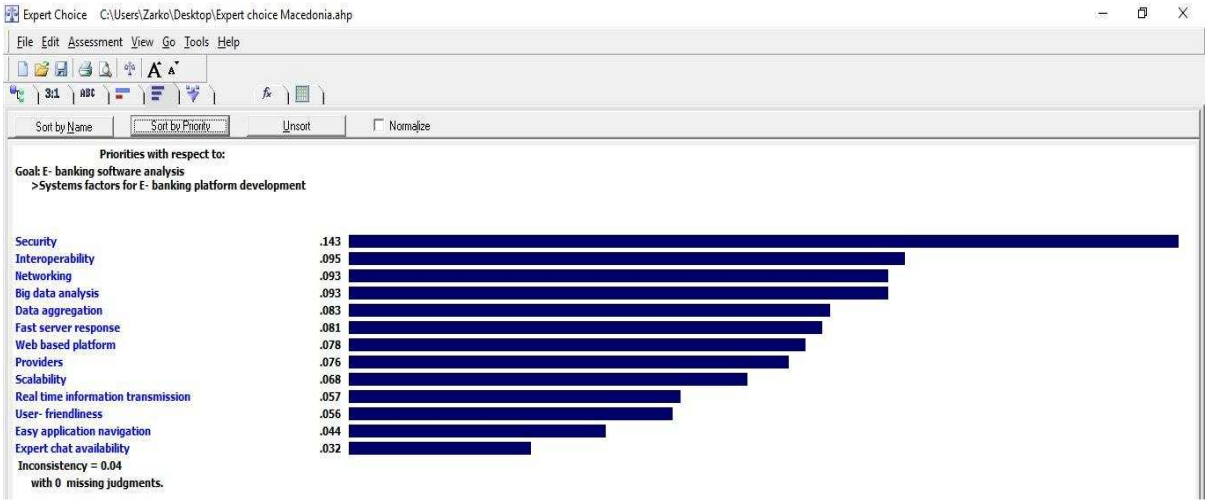
- COBIS Microfinance Softwares,
- EBANQ,
- NovoDoba,
- Kapowai Online Banking,
- TEMENOS T24,
- Apex Banking Software,
- Secure Paymentz.



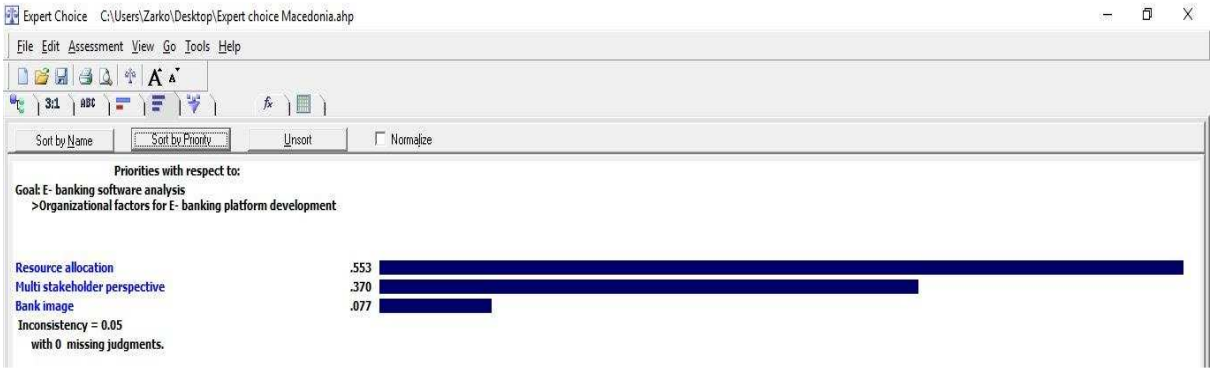
Based on the first picture, it can be concluded that the ranking of the best ranked alternatives based on the aforementioned criteria has changed in view of the specificity of the banking sector and business practices, but that COBIS Microfinance Softwares retained its original position. On the other hand, alternatives such as EBANQ (0.167), Kapowai Online (0.167) and Apex (0.151) match each other and show favorable ranking in the overall score. The last alternative of which is the 0.09 rank is TEMENOS T24.



The most influential factors in choosing a software solution for electronic banking are Systems factors for E- banking platform development.



Also, the factor that is most distinguished within the mentioned group is of importance Security. Also this criteria is followed by Interoperability, Networking and Big data analysis.



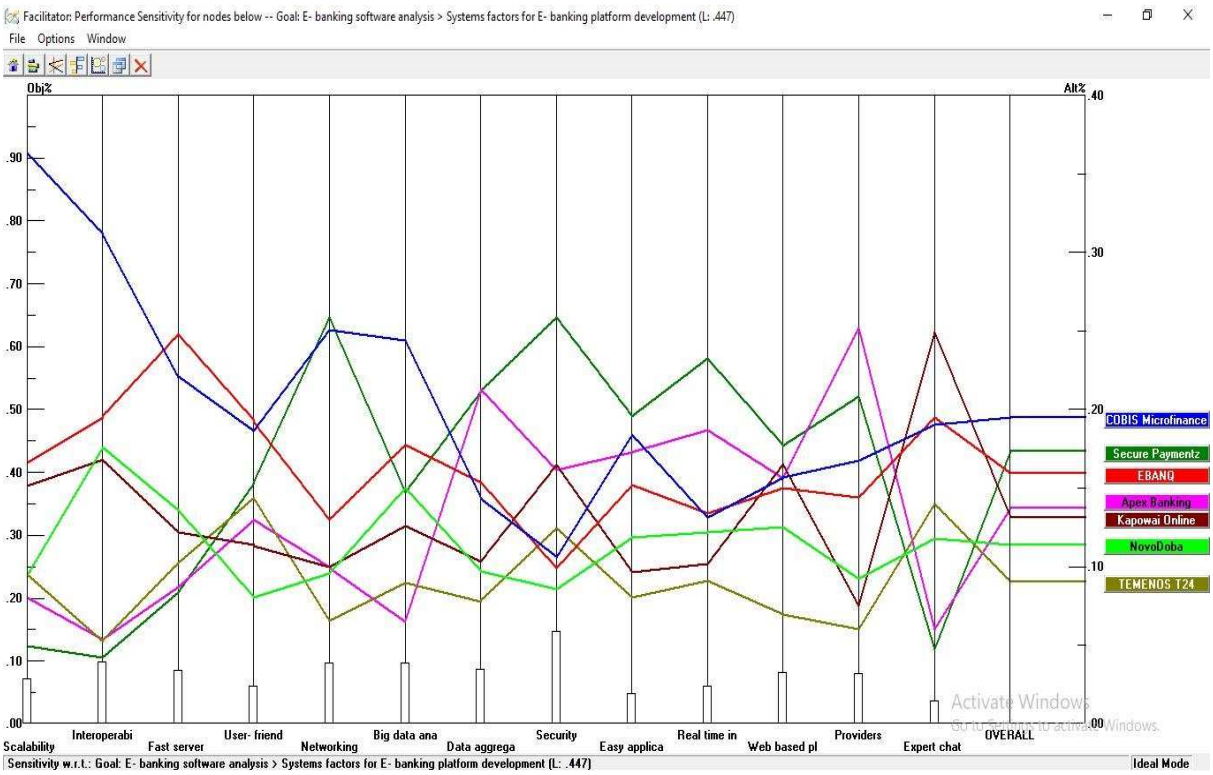
On the other side, the most ranked criteria from the second factor group is Resource allocation.

In the group of economic factors which influences on the e- banking software decision the most important criteria are Administrative costs.

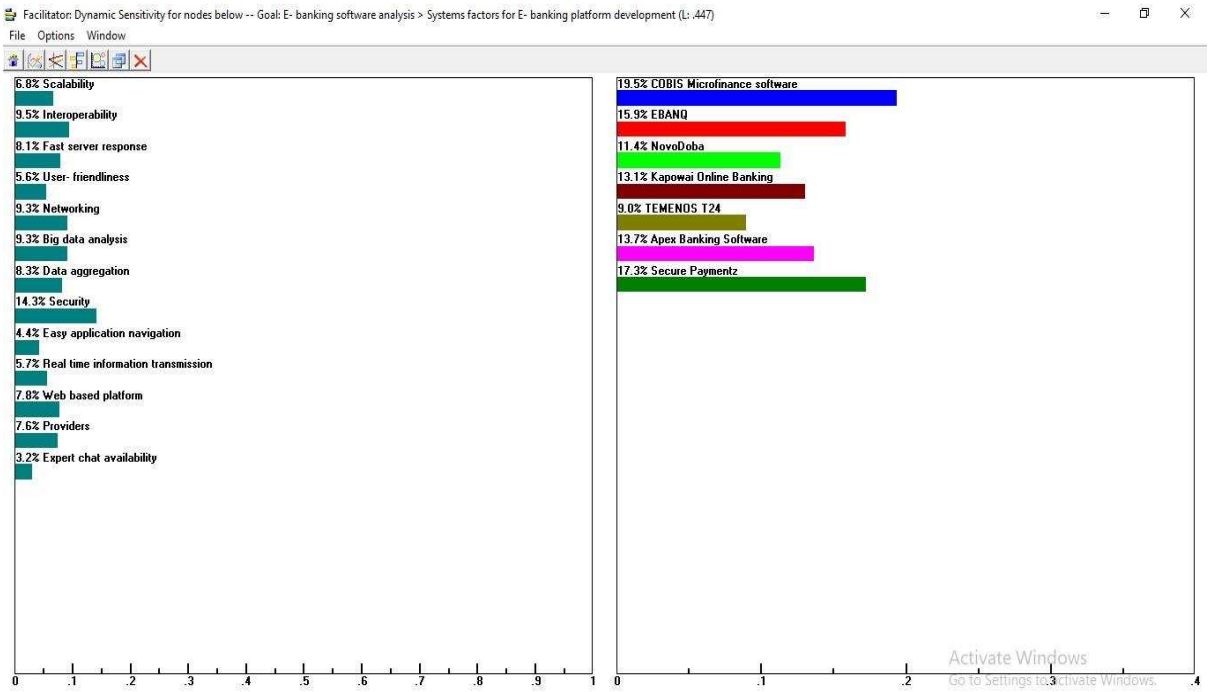
Particular attention is paid to Performance Sensitivity Analysis, which shows the influence of particular criteria from the first group of factors on the ranking of alternatives in the final order. The influence of the weight of all criteria on the final ranking of the alternatives leads to the fact that the chart clearly reads the best alternative, as well as its advantage over competitors according to the chosen criteria.

The value of the criteria and the sensitivity of their movement in a given interval are shown by vertical rectangles, while the alternatives are represented by horizontal lines. The weight of the criterion is defined by the height of the rectangle, which is read on the left axis of Obj%. On the other hand, the priority of the alternative according to a given criterion is formed in the cross section of their horizontal lines with a vertical line of criteria, which can be read on the right axis Alt%. The values of the criteria determined by the height of vertical reagents are of a dynamic type, and by their shift, the values of the criteria themselves change, but also their influence on the alternatives themselves and their ranking.

For example, sensitivity analysis give us different ranking according to systems factors which have the biggest impact on the e- banking software solutions beside the other two factor groups. On the second plays now is Secure Paymentz and the factors with the biggest impact on its implementation from the first factors group are noticed on peaks of its chart: networking, security, real time information transmission and providers.



By applying dynamic analysis, one can see how dynamically changing the priorities of the alternatives in changing the weight of particular criteria. This view allows us to review the overall contribution of the weight of particular criteria in prioritizing alternatives. If we change the weight of one criterion, the other weights change proportionally to the initial weight of the criteria. On the left side are shown the percentage values of the impact of particular criteria on the priorities of the alternative. The expert chat availability criteria has the lowest contribution in e- banking software ranking and further implementation according to the first factors group.



6. CONCLUSION

Advances in information and communications technology have enabled the appearance of new methods of electronic payment in the real world and the virtual world. The reason for the spread of these products has been their greater effectiveness compared with the traditional payment systems. However, statistics on payment systems indicate that electronic money development is still at an early stage of development and that cash continues to be the most important means of payment for retail transactions. Thus, contrary to some early expectations, cash has not been yet replaced by electronic money.

Tatjana Boshkov *is a University Professor at Goce Delcev University, Stip. Her subjects of researching are: Exchange Rates, International Finance, EU Convergence, Macroeconomics.*

Boshkov is a Rotary member and author of many papers published in international journals and 8 books as participant in projects, conferences, Researchers Club of NBRM.

The most influential factors in choosing a software solution for electronic banking are Systems factors for E- banking platform development. Also, the factor that is most distinguished within the mentioned group is of importance Security. Also this criteria is followed by Interoperability, Networking and Big data analysis. On the other side, the most ranked criteria from the second factor group is Resource allocation.

In the group of economic factors which influences on the e- banking software decision the most important criteria are Administrative costs. Particular attention is paid to Performance Sensitivity Analysis, which shows the influence of particular criteria from the first group of factors on the ranking of alternatives in the final order. The influence of the weight of all criteria on the final ranking of the alternatives leads to the fact that the chart clearly reads the best alternative, as well as its advantage over competitors according to the chosen criteria.

For example, sensitivity analysis give us different ranking according to systems factors which have the biggest impact on the e- banking software solutions beside the other two factor groups. On the second plays now is Secure Payments and the factors with the biggest impact on its implementation from the first factors group are noticed on peaks of its chart: networking, security, real time information transmission and providers.

By applying dynamic analysis, one can see how dynamically changing the priorities of the alternatives in changing the weight of particular criteria. This view allows us to review the overall contribution of the weight of particular criteria in prioritizing alternatives. If we change the weight of one criterion, the other weights change proportionally to the initial weight of the criteria. The expert chat availability criteria has the lowest contribution in e- banking software ranking and further implementation according to the first factors group.

Governments could play a potentially significant role in changing the habit persistence problem and thus promoting the use of e-money. For instance, by encouraging the use of e-money in small transactions such as public parking meters and public transportation services, they could significantly increase the number of users of electronic forms of payment, helping to achieve the critical mass of users necessary to trigger network effects.

7. REFERENCES

[1] Baddeley, M., 2004. 'Using E-Cash in the New Economy: An Economic Analysis of Micropayment Systems' [online]. *Journal of electronic commerce,* 5 (4), 239-253.

[2] Bounie, D. and Abel, F., 2006. "Les déterminants de la détention et de l'usage des instruments de paiement: éléments théoriques et empiriques". *Revue d'Economie Financière*, 174.

[3] Chakravorti, S. and Victor, L., 2006. "Payment instrument choice: The case of pre-paid cards". *Economic Perspectives*, 2Q, 29-44.

[4] European Central Bank, 2005. *The Blue Book.* Bucharest: European Central Bank.

[5] Goodhart, C. A. E. and Krueger, M., 2001. "The Impact of Technology on Cash Usage". *The magazine of De La Rue*, (4), 9-11.

[6] Hayek, F. von., 1976. *Denationalisation of Money: An Analysis of the Theory and Practice of Concurrent Currencies.* Londres: Institute of Economic Affairs.

[7] Menger, C., 1892. "On the origin of money". *Economic Journal*, 2 (83), 239-55.

[8] Schmitz, S. W., 2001. "The Institutional Character of Electronic Money Schemes: Redeemability and the Unit of Account" in M. Latzer and S. W. Schmitz, eds. *Carl Menger and the Evolution of Payment Systems: From Barter to Electronic Money*. Cheltenham, UK and Northampton, MA: Edward Elgar.

[9] White, L. H, 1996. "The Technology Revolution and Monetary Evolution" in J. A. Dorn, ed. *The Future of Money in the Information Age*. Washington, D.C.: CATO Institute

WILL THE INTERNATIONAL ACCOUNTING STANDARDS BOARD'S DECISION TO INTRODUCE 'THE EXPECTED LOSS MODEL' UNDER IFRS 9 CONTRIBUTE TO GREATER TRANSPARENCY OF FINANCIAL STATEMENTS INFORMATION? IS IT TRUE OR IS IT TOO EARLY TO ADDRESS THE QUESTION?

Hristina Oreshkova[109]

DOI: https://doi.org/10.31410/eraz.2018.195

Abstract: *The most recent global crisis of 2007 to 2009 exposed considerable vulnerability and numerous weaknesses of the financial system worldwide. More specifically the crisis highlighted the costs incurring because of delays in recognition of credit losses on loans and receivables not only on the part of banks, but also on the part of other financial institutions and lenders. All this proved out to be inconsistent with the philosophy of prudence, for long considered an overriding accounting principal especially in Continental Europe and an essential theoretical concept in the Anglo-Saxon world. Subsequently the debates on the matter have extremely intensified, and it has become more than obvious that the strategic far-reaching goal of making efforts to globally improve not only the resilience of the financial system, but the lending practices as a whole should be regarded as being of highest priority.*

Logically the considerable part of the discussions has focused extremely on the essence of various shortcomings in accounting standards that embody or are based on a prudential philosophy, the relevant requirements, and, on the everlasting societal and social necessity of neutral and well-balanced compliance with the guiding principles of prudential policy as well as on the key importance of regulatory oversight process as emphasized by the G20.

Consequently a major area of focus for a long time up to now has been the development of coherent approaches, and attempts have been globally made to search for and propose well-grounded models of accounting recognition of objects, whose valuation needs estimation, so as to resolve the most crucial problems as the issue of provisioning for loan losses. All this has not occurred unexpectedly. The recognition of loan losses and the provisioning for loan losses consistent with the previous International Accounting Standards approaches have also been criticized as not being designed on a prudential basis even to the point of being unsound. As a result the new IFRS 9 Financial Instruments was intended to respond to attacks on the part of large number of academicians, professionals and other stakeholders. The major motive was that IAS 39 Financial Instruments: Recognition and Measurement was perceived as too complex, inconsistent in the approaches to recognizing losses experiencing because of impairment of financial assets of various categories, and inconsistent with the manner entities manage their business activities and inherent risks. There was criticism and disapproval because some of the rules under IAS 39 give rise to significant delays in the recognition of credit losses on loans and loan receivables until it is too late in the credit cycle.

The key question of whether the International Accounting Standards Board's decision to introduce the model of expected credit losses will contribute to achieve greater transparency of the information produced for and provided by financial statements, and whether it will improve its quality, still stands. It is too early probably to give an objective and unambiguous answer, and any attempt to generalize would most probably be not unmistakable. At present the most realistic answer perhaps is that this will largely depend on the specific circumstances,

[109] University of National and World Economy (UNWE), Faculty of Finance and Accounting Sofia, Bulgaria

since too much subjective judgements regarding the possible impact of various external and internal factors and indicators, including ones related to the forward-looking macroeconomic conditions, will influence the reliability (consistency) of the estimates of the expected credit losses; the reliability of these judgments will depend first and foremost on the competencies, professionalism, expertise, integrity and the independence and professional responsibilities of people at the highest levels of corporate governance and management.

The underlying argument, central to the present article, supporting the author's view, is that too much discretionary power in modelling expected credit losses is retained, that is, set aside for entities' officials, executives, high-ranking managers and other superiors. The discussions on the possible implications of the expected credit loss model under IFRS 9 often emphasize that such circumstance may potentially inhibit the long-standing efforts targeted at achieving greater transparency of information, which is inherent in IFRS 9 main objectives.

Managerial shifts towards more prudential policies can be expected, and that in turn can possibly improve the transparency not only in theory. However, in practice that may not be the case at all times. The implementation of the new expected credit loss model poses challenges for many undertakings concerned. Actions are needed on the part of policy makers to ensure consistency in its development and implementation, in order to constrain the emergence of potential dissimilarities in respect of the reported results even if created under the burden of similar set of risky circumstances. As regards disclosure of information related to the inputs, assumptions and techniques used to duly identify significant increases in credit risk and to estimate expected credit losses (ECLs), they will continue to be crucial, and its quality not just quantity will be of great importance for improving transparency and taking advantage of the forecasted (predicted) reduced procyclicality.

A complete understanding of the importance of auditors' key role would be also critical. This could be constructive in promoting an improvement of auditing practices worldwide, and, as a result of this, in achieving the long-desired higher degree of quality of financial statements information, and globally restoring trust in its credibility.

Key words: *Prudence, incurred loss model, expected loss model, transparency, managerial discretion, financial accounting and financial reporting;*

"Landmark Lifts Reserve, Takes $28 Million Loss"

"PNC to Boost Loss Reserves by As Much As $450 Million"

"Big loan-loss provisions, reflecting gloomy economic prospects, continued to color the earnings reports of regional banks …"

"UJB Raises Loan Reserves and Posts $17 Million Loss"…

"Bank of Boston reported Thursday that it lost $187 million in the fourth quarter, after taking a $280 million provision for credit losses. The company also announced plans to cut 1000 jobs …"

(J. R. Walter**, Economic Review, 1991, p. 20**)

(American Banker various 1991 issues)

*"Achieving a true and fair view is subject to the compliance, by good faith, of the accounting principles (**Horomnea**, 2012), and those which have refined the concept of financial reporting were the conceptual accounting frameworks (**Gorgan**, 2013)."*

1. INTRODUCTION

The most recent global crisis (of 2007 to 2009), arisen as a financial one in the US, evolved into an economic one on an unprecedented scale, exposed considerable vulnerability and numerous weaknesses of the financial system worldwide. Specifically, the crisis highlighted the systemic (attributable to the system as a whole) costs incurring because of delays in recognition of loan losses not only on the part of banks but also on the part of other financial institutions and lenders. Subsequently, the debates on the matter have extremely intensified, and it has become more than obvious that the strategic goal of making efforts to globally improve the resilience of the financial system as a whole should be regarded as being of highest priority. Logically, a substantial part of the discussions has been focused on the essence of various shortcomings of the prudential requirements under IFRS, the everlasting societal and social necessity of compliance with the guiding principles of prudential strategies, as well as on the key importance of supervisory oversight process as emphasized by the G20. The leaders of G20, many investors, regulatory institutions and other authorities on guidelines of prudential policies emphasized the necessity of decisive action on the part of the most influential accounting standards setters as to improve the approaches and the specific rules inherent in the guiding principles of prudential policies, and, therefore, the practices of provisioning for loan losses both in the financial and non-financial sectors. Key aspects of the Basel Committee on Banking Supervision supervisory guidance, 2015[110].

Consequently, for a long time up to now a major area of focus has been the development

*Associate Professor, D-r **Hristina Oreshkova** is a lecturer at the University of National and World Economy (UNWE), Sofia, since 1992/1993 academic year. After a successful competition Mrs. Oreshkova was appointed to be an assistant professor at the UNWE.*

Hristina Oreshkova has been acquiring her teaching experience in Bachelor and Master's degree courses as well as in courses conducted at the Institute of Postgraduate studies and Professional Qualification at the UNWE, Sofia.

Mrs. Oreshkova acquired the degree of MSc in economics and accounting (1991) and a second speciality and educational degree of pedagogics, pedagogical competences, and legal capacity for teaching (1992).

In 1995 Hristina Oreshkova specialized in the field of Financial Accounting and Reporting in Great Britain.

In 2002 Hristina Oreshkova has acquired professional qualification and legal capacity of an expert in Forensic Accounting and Reporting.

In 2005/2006 Hristina Oreshkova was awarded the scientific degree of Doctor (PhD) by the Higher Attestation Commission at the Council of Ministers of the Republic of Bulgaria, and as a natural development came her habilitation.

Associate professor D-r Hristina Oreshkova has presented the UNWE at prestigious international events in Bulgaria, Belgium, Serbia, Croatia, Romania, and elsewhere.

She has more than 70 scientific publications in the field of theory and methodology of Financial Accounting and Financial Reporting, some of which are published abroad

[110] Discussing the supervisory guidance principles, the Basel Committee on Banking Supervision highlighted that banks must maintain sound corporate governance over their credit risk management and ECL estimation processes. Sound methodologies for assessing credit risk and estimating ECL should cover all lending exposures, including for restructured and credit impaired loans, should be subject to independent reviews, and must go beyond historical and current data to consider relevant forward-looking information ['Key aspects of the Basel Committee on Banking Supervision supervisory guidance', 2015].

of coherent approaches to assessment of objects, respectively items, whose financial statement presentation, including valuation is essentially complex, and subsequently, attempts have been internationally made to search for and to propose well-founded models of recognition of such items. That is because of the fact that the evaluation in practice imposes even often requires subjective judgements in the estimation process (procedure); however, it is supposed that such judgements should be competently made; however, that is not always the case in practice. As a consequence, robust efforts have been globally made to resolve some of the most crucial problems such as the issue of provisioning for loan losses, and all that has not become a fact unexpectedly. The recognition of allowances for loan losses arising out of impairment of financial assets as well as the provisioning for loan losses in compliance with the approaches of IAS 39 have been considerably and deservedly criticised as not being designed and executed on a prudential basis even to the point of being unsound.

What was in fact the main reason for that common observation? Under the previous approach of the incurred loss consistent with IAS 39, the recognition of credit losses focused just on past events that had actually occurred already instead of focusing primarily on possible unfavorable events (at present or in future). However, it must be considered that such events potentially exist during the full time of the credit cycle; thus such events may possibly occur even in case the probability of their occurrence is judged as insignificant (immaterial). Under the IAS 39 Financial Instruments: Recognition and Measurement, accrual of provisions for loan losses has been mainly based upon an objective evidence of an incurred loss, caused by a specific "triggering event". A non-exhaustive list of "triggering events" that are indicators of impairment is provided by IAS 39. Reporting entities are not allowed to incorporate the effects of future events that will occur after the balance sheet date, even if such events are reasonably expected. More specifically, the model of recognising loan losses under both previous standards of the IASB and the US FASB is commonly discussed that way since it requires recognition of credit losses that have actually incurred as of the balance sheet date but not (of) losses that can be expected by the reason of unfavorable forthcoming events in the future, i.e., even if it is highly probable that such events will inevitably occur. Potentially unfavorable events that might cause losses always exist. Previously the identification of loss was mostly based on the occurrence of "a causing event", supported by observable evidence of significant deterioration in the credit quality of the financial asset (for example, a debtor's loss of employment, a decrease in the value of the property serving as collateral, a status of overdue credit etc.) usually combined with an expert subjective judgment. That practice led in fact to the emergence of incurred losses that were recognized far too late, and, moreover, to the overestimation of the recognized interest revenues until the moment of failure to pay. All this is consistent with the concept of the incurred loss, and that theory underlies the relevant incurred loss model (ILM).

The incurred loss model (ILM) of accounting for losses on loans and loan receivables is designed and applied across the world through the standards, including the IFRS, US GAAP and UK GAAP[111], to counteract admissible managerial inclinations of creating hidden reserves during periods of economic upsurge that can be reversely used, that is opportunistically, depending particularly on the specific conditions, in order to flatten, enhance or reinforce earnings during periods of downturn. As it has been discussed in my previous research, focused on the problem, the deliberate creation of hidden reserve when/where there is in fact no surrounding uncertainty is neither cautious nor prudential response to something even nonexistent, but merely concealment of facts; and, in my view, it is not compatible with the

[111] Generally Accepted Accounting Practice in the UK (UK GAAP) is the body of accounting standards and other guidance published by the UK's Financial Reporting Council (FRC). A new financial reporting framework in the UK is effective on 1st January, 2015.

essence of the traditional prudence in accounting, and moreover, with the guiding principles of prudential policy. Therefore, the main considerations were to ultimately constrain excessively conservative managerial attitudes, inclined to unreasonably trust most pessimistic prognoses or unfavorable scenarios, and further, to prevent possible consequences of such unprofessional behaviour on financial statement performance. Any attempts of conducting such destructive policies would lead to complete distortion of data as well as of accounting information, and would bring about all the negative implications. All that, was contrary to the essence of a number of core accounting principles or concepts as they are referred to in the UK, e.g., as the one of prudence or independence of the separate reporting periods, the matching concept, and others. The approach under IAS 39, commonly discussed as backward in nature, lead to loan losses being recognized that have been broadly regarded as "too little, too late". Essentially, this means that loan losses are only considered when the probability of default (PD) is near to 100%. It is argued by authoritative authors like Zoltán Novotny-Farkas[112] that: "A fundamental problem with the incurred loss model is that impairment allowances for credit losses tend to be at their lowest level before an economic cycle trends downward and actual losses begin to emerge". With regard to that common observation appreciating the significance of the important improvements introduced along with IFRS 9, concerning problems of classification and measurement of financial assets, the expected credit loss model for calculating and accounting for losses of impairment of financial assets and provisioning for loan losses, the general hedge accounting requirements and others, Hans Hoogervorst admitted (2014) that accounting standards around the world, including the IFRS, US GAAP and UK GAAP, are based (Hoogervorst has in mind the relevant approaches as implemented at that time in 2014) upon the incurred loss impairment model, designed that way to limit management's ability to create hidden reserves during good times that could be used to flatten earnings during bad times[113] [114].

It was more than obvious that the IASB's members were confronted by the complex task to develop rules, designed for well-thought-out, well-organized and disciplined management of earnings and risks, and that responsibility has probably been considered to be the main concern. As a result, in July 2014, the International Accounting Standards Board (IASB) issued IFRS 9 *Financial Instruments*[115], and in 2016 the Financial Accounting Standards Board (US FASB) in the US published its final standard that is based on 'the current expected credit losses' (CECL) approach.[116]

The author's main goal is to highlight problems that as potentially existent give rise to concerns even though the newly introduced improvements will most probably imply more prudential

[112] Novotny-Farkas, Z. (2015) "The Significance of IFRS 9 for Financial Stability and Supervisory Rules', 2015, pp.1-54, European Parliament", Brussels: European Union, 2015.
[113] Hoogervorst, H. (2014) "Charting progress towards global accounting standards", *Conference Singapore*, pp.1-9
[114] Further the IASB Chairman points out that "during this most recent crisis the model has been accused of resulting in impairment being 'too little, too late'. In practice … impairment was only recognised just before a loan defaulted. …loan losses were often recognised far too late. As a result, many investors lost trust in the quality of banks' balance sheets… For this reason we decided to move from an incurred loss model to an expected loss model." [H. Hoogervorst, 2014, pp.1-9]
[115] In July 2014 the IASB issued IFRS 9 *Financial Instruments* with mandatory implementation from January 1st, 2018. The IFRS 9 supersedes all previous versions and is mandatorily effective for periods beginning on or after January 1st, 2018 with early adoption permitted (subject to local endorsement requirements). For a limited period, previous versions of IFRS 9 may be adopted early, provided the relevant date of initial application is before February 1st, 2015 (subject to local endorsement).
[116] It is expected that both of the new standards will come into effect in the period between 2018 and 2021.

policies on the part of the entities mostly impacted by the changes, and as well as to support the relevant considerations with comprehensive arguments.

2. WHY SHOULD MODELS OF PROVISIONING FOR LOAN LOSSES BE BASED ON ESTIMATES OF EXPECTED LOSSES?

Critical questions have been raised in the debates on the matter, and many of these questions have been encouraged by the long-standing implications of the recent global crisis on the financial status and performance of thousands of entities both in financial and non-financial sectors as well as on the social status of millions of people. Researchers like Cohen and Edwards Jr [117] brought up the issue of "*whether models of provisioning, including the effect of provisioning on regulatory capital levels, contributed to procyclicality by spurring excessive lending during the boom and forcing a sharp reduction in the subsequent bust" (Emphasis added).* Furthermore, Cohen and Edwards Jr thoroughly discussed the crucial question of *why entities should provision for expected credit losses*[118], focusing on interesting insights of many other researchers. For example, Cohen and Edwards Jr discussed the views of Borio and Lowe (2001), who argue that, "conceptually, if lending rates accurately reflected credit risks, banks would have no reason to set aside additional provisions at the initiation of a loan to cover *expected losses*". In Borio and Lowe's view, the core reasoning in the case is that: "The higher margin of interest on a risky loan would reflect the increased risk of non-payment, while a higher rate of discount, which reflects greater risk relating to the loan's cash flows, would counterbalance the higher interest margin in guiding the decision of lending." Regarding this Borio and Lowe deliberated that "capital would still be needed to cover unexpected losses." As specified by these authors "Provisions would then be appropriate, if the riskiness of the loan increases after initiation, to recognize the higher discount rate and the reduced likelihood of repayment, or, equivalently, the value of the loan would be marked down as part of a fair value accounting approach". Similarly, in Cohen and Edwards's view, "a bank might even take negative provisions" (an increase in asset values), if riskiness were to recede"[119]

The critical question that should be raised at this point as it distinctly stands, is namely why then provisions should be based on estimates of expected losses since the moment a loan is initiated. It is pointed out in the quoted article, that one answer is that loan pricing may not completely reflect the risks for the reason of transitory (temporary, passing) market conditions that will soon recede, and that explanation can be accepted as an objective and reasonable one. "If past experience and sound modelling suggest that credit risks are not fully reflected in loan pricing decisions, prudential risk management would presuppose supplementing market signals with additional evidence."[120] More explanations related to capital are also further discussed since the issue of capital adequacy is no less important. In their analysis, Cohen and Edwards Jr referred to Peek and Rosengren (1995), for example, as well as to Dugan (2009), who noted that the need to maintain adequate capital (or rebuild deficient capital) is less likely to bind banks' decisions in good times than in bad times, creating a bias to lend freely during economic upsurges. "Forward-looking provisioning essentially brings the capital cost of a lending

[117] Cohen, B. H., and G. A. Edwards Jr. (2017) "The new era of expected credit loss provisioning", BIS Quarterly Review, March, pp.39-56 (40-42 and following ones).
[118] Cohen, B. H., and G. A. Edwards Jr. (2017) "The new era of expected credit loss provisioning", BIS Quarterly Review, March, pp.39-56 (40-42 and following ones).
[119] Cohen, B. H., and Gerald A. Edwards Jr. (2017) "The new era of expected credit loss provisioning", BIS Quarterly Review, March, pp.39-56 (40-42).
[120] Ibid, pp. 40.

decision forward in time, restoring to some extent the incentive value of capital for marginal lending decisions, even in times when the capital buffer itself is not a binding constraint."[121]

The essential explanation underlying most incompatible arguments advocated by opponents is that allowing too much judgment in setting provisions could enable banks and not only banks but other financial institutions and corporate entities to deliberately use those opportunities of exercising provisioning practices, to smooth earnings, and as a consequence, to significantly impair the transparency of financial statement information, therefore, to significantly reduce its usefulness to investors and other counterparties. It should be emphasized that, *in order to avoid such possible consequences or scenario, provisioning needs to be based on clear rules of when and how provisions are recognized and adjusted over time, alongside transparency of the methodologies and assumptions*.[122]

Vast majority of scientific research support the widely maintained conclusion that delayed provisioning or backward-looking provisioning practices lead to the procyclicality of lending, while forward-looking provisioning reduces procyclicality. It is comprehensively discussed by Cohen and Edwards Jr (2017), that Laeven and Majnoni (2003), for example, looking at 1,419 banks in 45 countries in the period between 1988 to 1999, find a positive relationship between provisions and pre-provision earnings, suggesting that banks use provisions to smooth income, and that a negative relationship holds between provisions and growth in lending and GDP, implying that provisions are procyclical. Some findings of other authors also discussed by Cohen and Edwards Jr (2017) are those Beatty and Liao (2011), who looking at quarterly data on 1,370 US banks in the period of 1993 to 2009, find out that a longer delay in banks' loan loss recognition increases the negative impact of recessions on bank lending. These scientists find out this result for several measures of delayed loss recognition at bank level: a flow measure (the responsiveness of provisions to past non-performing loans), a stock measure (the ratio of loan loss allowances to contemporaneous non-performing loans) and a market measure (the link between a bank's current reported income and future equity returns). Cohen and Edwards Jr referred to the findings of more researchers like Bushman and Williams (2012), who apply a similar approach to banks in 27 countries, and investigate the relationship between banks' loan-loss provisions and their past and future non-performing loans. They find out that banks' risk-taking discipline (the tendency to reduce leverage when asset volatility rises) is greater for banks that take provisions well ahead of actual loan losses.[123]

In general, loan loss reserves designed to absorb current losses, are represented on the balance sheet via a contra-asset line item; such reserves differ in essence from capital and its comprising components, represented on the balance sheet through an equity line items, usually intended to absorb future unexpected losses. Loan loss reserves are developed, i.e., accumulated over time through accrual of provisions for loan losses along with recognition of an impairment expense item on the income statement, in order current losses on loans to be recognized. Under IAS 39 *Financial Instruments: Recognition and Measurement*, loan loss provisions have been largely reported on an ex-post basis. More specifically, the accrual of provisions subsequently, after the "loss event" has in fact occurred, is constructed upon the techniques of the incurred loss models. In complete unanimity with Gebhardt and Novotny-Farkas (2011) Nicolas Stefano reasonably deliberated[124] that since the incurred loss models focus on objective evidence of

[121] Ibid, pp. 40-41.
[122] Cohen, B. H., and Gerald A. Edwards Jr. (2017) "The new era of expected credit loss provisioning", BIS Quarterly Review, March, pp.39-56 (40-42).
[123] Ibid, pp. 41-42.
[124] Stefano, N. (2017) Norges Bank Economic Commentary, no. 8, 2017, IFRS 9, Implementation, pp. 1-10, p.3.

loss, that can limit the potential for earnings management through discretionary loan losses provisioning as it is also noted by Gebhardt and Novotny-Farkas (2011), to whom the author refers. Stefano respected the extensive research focused on the problem – the possibility for capital and earnings management through discretionary, optional or flexible loan loss provisioning, and discussed opinions of authoritative authors like Moyer (1990), Beatty et al. (1995), Collins et al. (1995), Liu and Ryan (2006), and Norden and Stoian (2013)[125]. Stefano soundly suggested that market participants often searching for transparency of financial statements information may have appreciated such methodical approaches even before the crisis. Those assumptions are supported through a reference to Dugan (2009), who also noted that provisioning based upon incurred loss models, in practice reinforced the procyclicality effects, observed during the financial crisis. More than a few analyses have supported the opinion that delays in provisioning for loan losses under incurred loss models have contributed to procyclicality [18.N. Stefano, 2017][126]. Moreover, it is argued that the employment of such models can lead to incomparable results due to the potential for varying underlying assumptions and inconsistency in application that can inhibit transparency[127].

Under IFRS 9 provisioning for loan losses will largely rest on an ex-ante basis. Specifically, provisions will be recognized before the "loss event" has actually occurred even though such loss event may not occur; this in itself supposes that provisioning will *(should)* be based upon forward-looking trustworthy and provable information and that the loan losses will be calculated through the techniques of expected credit loss models. Therefore, the new IFRS 9 embodies philosophy imposing a shift in focus towards more prudential considerations in future provisioning practices for loan losses. Under the new approach, provisioning will no longer be focused on past one-off events, but rather on reasonable expectations that should be based on reliable, i.e., verifiable and supportable information, and methodically weighed probability of what could possibly happen over the full lifetime of the financial asset. It is argued that against the backdrop of a financial cycle, such an approach may reduce procyclicality[128]. However, it is actually admitted that the results have not yet been observed in practice [129].

The purpose of estimating expected credit losses is neither to estimate the worst-case scenario nor to estimate the best-case scenario. Instead, an estimate of expected credit losses shall always reflect the possibility (probability) that a credit loss occurs and the possibility that no credit loss occurs even if the most likely outcome is no credit loss[130].

It is emphasized in IFRS 9, Paragraph 5.5.17(a), that the estimate of the expected credit losses should reflect an unbiased and probability-weighed amount, which is determined by evaluating a range of possible outcomes. It is explicitly highlighted in IFRS 9 that in practice estimating expected credit losses may not necessarily need to be a complex process of analysis, and that an entity does not need to identify every possible scenario. In some cases, relatively simple modelling may prove to be sufficient, without the need for a large number of detailed

125 See also Moyer (1990), Beatty et al. (1995), Collins et al. (1995), Liu and Ryan (2006), and Norden and Stoian (2013).

126 Nicolas Stefano refers (2017) to many authoritative authors like Laeven and Majnoni (2003), Beatty and Liao (2011) and Bushman and Williams (2015).

127 Ibid, pp. 1-10, p.3.

128 The IASB and the US FASB issued their standards since they believe the ECL approaches would provide more useful information for investors. The Boards did not seek to address procyclicality issues. Nevertheless, the Financial Stability Forum noted, the earlier recognition of ECL should nonetheless help to mitigate procyclicality.

129 Stefano, N. (2017) Norges Bank Economic Commentary, no. 8, 2017, IFRS 9, Implementation, pp. 1-10, p.3.

130 IFRS 9 Financial Instruments as issued by the IASB.

simulations of scenarios. In other cases, entities will need to determine how many more scenarios are required. IFRS 9 also permits the use of models for estimating expected losses that do not require explicit scenario and probability analysis. For example, it is stated that the average credit losses for a large group of financial instruments with shared risk characteristics may be a reasonable estimate of the probability-weighed amount. In other situations, the identification of scenarios that specify the amount and timing of the cash flows for particular outcomes and the estimated probability of those outcomes will probably be needed. In those situations, the expected credit losses shall reflect at least two outcomes in accordance with Paragraph 5.5.18[131]. As a general rule, the maximum period to consider in measuring expected credit losses is the maximum contractual period (including extension options). For lifetime expected credit losses, an entity shall estimate the risk of default occurring on the financial instrument during its expected lifetime. 12-month expected credit losses are a portion of the lifetime expected credit losses, and represent the lifetime cash shortfalls that will result if a default occurs in the 12 months after the reporting date (or a shorter period if the expected life of a financial instrument is less than 12 months), weighed by the probability of that default occurring. *Therefore, 12-month expected credit losses are neither the lifetime expected credit losses that an entity will incur on financial instruments that it predicts will default in the next 12 months nor the cash shortfalls that are predicted over the next 12 months*[132].

It is required by IFRS 9 the estimates of the expected credit losses to reflect the amount, reliably determined (measured) and weighed on the basis of probability by evaluating the scope of possible outcomes (results), however passing through the professional judgement.

The new IFRS 9 *Financial Instruments* impairment model was proposed to respond to robust attacks on the part of great number of academicians, professionals, and stakeholders that IAS 39 *Financial Instruments: Recognition and Measurement* is too complex, besides inconsistent with the manner entities manage their business activities and inherent risks. Another criticism was that some of the IAS 39 rules defer the recognition of credit losses on loans and loan receivables until too late in the credit cycle. It should be admitted that some members of the International Accounting Standards Board (IASB) have realized the necessity of reconsidering the models of IAS 39 *Financial Instruments: Recognition and Measurement*, and have intended to introduce requirements as to presuppose more prudential accounting policies.

3. THE PROSPECTS WITH REGARD TO THE POSSIBLE CONSEQUENCES OF IFRS 9 *FINANCIAL INSTRUMENTS* EXPECTED LOSS MODEL

The stakeholders' forecasts mostly discussed with regard to the possible implications of IFRS 9 *Financial Instruments* alongside its new expected credit loss (ECL) model include:

- The appropriate application of the expected credit loss model under IFRS 9 imposes much more relevant information (historical, current and forecast) to be collected, accumulated and incorporated in the process of identifying, recognizing and estimating expected future credit losses, a circumstance that may be considered a prerequisite the credit quality of financial assets to be better reflected. Therefore, it addresses the appeal of G20 and other globally interested groups for strengthening the accounting recognition of loan losses by including a broader range of information. It was specified that the purpose of estimating expected credit losses is neither to estimate the worst-case (pessimistic) scenario nor to estimate the best-case scenario. Instead, an estimate of an expected credit loss shall (should) always reflect the possibility (probability) that a credit loss occurs (may occur)

[131] IFRS 9 *Financial Instruments* as issued by the IASB.
[132] IFRS 9 *Financial Instruments* as issued by the IASB.

and the possibility (probability) that no credit loss occurs (may occur) even if the most likely outcome is no credit loss.

- It is supposed that some of the changes ever since the standard is effective will contribute to more volatility with regard to the income statement/statement of profit or loss and other comprehensive income as IFRS 9 potentially raises the likelihood (probability) of that more financial assets to be measured after initial recognition at fair value through profit or loss (FVTPL), and, therefore, it can be expected that possible significant changes in fair values will be recognized in profit or loss as soon as they arise.
- As highlighted previously, earlier identification and recognition of probable future losses due to impairment of financial assets on loans and receivables including trade receivables, is expected, since entities will have to start providing for possible future credit losses in the very first reporting period a loan is recognized in the accounts – even if it is highly probable that the asset will be completely and timely collectible as provided for under the lend arrangement of repayment. The earlier and probably higher impairment allowances can limit the possibilities of distributing overstated profits in the form of dividends and premiums, and also to constrain high-ranking managers' excessively optimistic expectations. With regard to the broadly discoursed assumptions for earlier recognition of loan losses, the European Financial Reporting Advisory Group (EFRAG) as an active group who has always contributed to the IASB's due process has confirmed their standpoint. EFRAG conducted a test in the field with the National Standard Setters of leading states as France, Germany, Italy and the UK. The objective was to assess whether the proposals set out in the Exposure Draft ('ED') would address the weaknesses of the incurred loss model consistent with IAS 39, whether the proposals were operational, and the likely costs of expected loss model implementation (EFRAG's Comment Letter - Financial Instruments: Expected Credit Losses). EFRAG also agreed with the analysis in Paragraph BC170 of the ED that the proposed model would ensure more responsiveness to the changes in the credit quality compared to IAS 39, and, therefore, would result in an earlier recognition of expected credit losses.
- An increased accrual of provisions is expected from the moment IFRS 9 comes into force. "Since this convergence (between the Basel regulatory framework and IFRS) comes with some challenges with regard to the pressure on the capital ratios due to an increased accrual of provisions, the credit institutions must estimate the degree of impact on their capital, and be active in designing a plan for the execution of developed models as early as 2017, before IFRS 9 comes into effect as of January 1st, 2018."[133]
- In that way, IFRS 9 can mitigate the amplifying effect of the incurred loss approach on procyclicality and can enhance financial stability. [Zoltán Novotny-Farkas, The Significance of IFRS 9 for Financial Stability and Supervisory Rules, 2015, pp.1-54]
- It can also be suggested that those entities that are more significantly impacted by the introduced considerable quantitative and qualitative disclosure requirements may need new systems and processes to collect, accumulate and provide the essential data and information. Disclosure practices will need to fortify prudential assessment and management of risk through market discipline. Results of many surveys indicate a need for that central banks and other prudential authorities to be more active in encouraging banks to devote more resources to implementing expected credit loss provisioning requirements in a more robust, consistent and transparent manner.
- It is reasonably argued that a great degree of discretionary power in modelling expected credit losses on loans and long-term trade receivables is reserved for entities' officials,

[133] Milanova, E. (2017) "Compatibility between IFRS 9 Financial Instruments and the Basel framework for capital requirements", Yearbook 2016: IDES/ICPA in Bulgaria, 2017, pp. 31-78.

executives, high-ranking managers and other superiors at corporate governance level. A great margin of discretion – freedom of choice, i.e. leeway to maneuver, is retained for the representatives of corporate governance; the major concern is that potential exists of turning that circumstance into a prerequisite for reducing the long desired and looked-for effect of all efforts targeted at achieving a higher degree of transparency, inherent in the main objectives of IFRS 9. The discussed changes signify potential shifts towards more prudential approaches that may hypothetically improve or might not improve the transparency of information. The implementation of the new accounting standards poses challenges that should be thoroughly comprehended by policy makers, and, therefore, skillfully managed by them. Actions that ensure consistency in the development and implementation of models in such way as to minimise potential differences in financial statements information provided will remain crucial to enhancing disclosure in practice. That issue is of key importance to achieve better transparency and to realize the benefits of the anticipated decrease in procyclicality.

- Entities will need to assess their business models of holding financial assets. For some entities, such as non-financial corporates, the assessment may be relatively simple as their financial assets may be limited to trade receivables and bank deposits that are obviously held to collect contractual cash flows. Entities that have a broader range of activities involving financial assets, for example lenders, investors in debt securities held for treasury activities and insurance entities, will need to perform more thorough analysis to understand the relevant business model and consider the motivations that would lead to disposals of financial assets.[134]

4. FURTHER INFERENCES

It can be argued as discussed by specialists that IFRS 9 *Financial Instruments* along with the new impairment model, which it proposes, if applied consistently, will (may) lead to the recognition of provisions for loan losses in a more timely fashion manner than that kind of practice was performed (executed) under IAS 39 *Financial Instruments: Recognition and Measurement*. The possible improvements primarily due to the requirement or opportunity for earlier recognition of 12-month ECL for all the exposures allocated (positioned) in Stage 1, of earlier recognition of lifetime loses as soon as it is noticed that credit risk significantly increases in Stage 2, and of the usage of a considerably broader range of data and information, including information pertaining to macroeconomic conditions and forward-looking one, can be actually realized only if the requirements are properly implemented. In particular, the ECL model under IFRS 9 imposes changes in the probability of default be taken into account earlier in comparison with the relevant model under IAS 39. With regard to rapidly expanding loan portfolios, when that process is logically combined with rising expectations probability of default to increase over time, under IFRS 9 ECL model it is required earlier and higher loan loss allowances to be recognized. It can be suggested that the new extended requirements of disclosure (qualitative and quantitative) may contribute to raise the level of transparency of loan loss provisioning and credit risk profile, and to improve management of credit risk.

However, there are preconceptions giving rise to concerns regarding the effects of IFRS 9 ECL model implementation. The scheme of 'the three stage classification' is based on a relative

[134] Entities will also need to reassess their business models each reporting period, to determine whether the business model has changed since the preceding period. Increasing levels of sales of financial assets held within a business model that previously had met the pressure on the capital ratios due to an increased accrual of provisions, will enforce institutions to estimate the degree of impact of these changes on their capital, and be responsible in designing a plan for the execution of previously thought-out actions, adequate to the new circumstances.

credit risk model. It means that all assets are initially allocated to the first stage (Stage 1), and furthermore, that subsequent reallocations from one stage to another will occur only when initial credit risk expectations substantially change, that is, when the credit quality of a financial asset significantly deteriorates. Under the absolute credit risk model, financial assets on loans would be initially allocated to one (any) of the three possible stages on the basis of the assessments of their absolute risk; that means that loans bearing higher risk would be directly classified either into the second stage (Stage 2) or the third one (Stage 3). As a main disadvantage of the credit risk absolute model is highlighted that it would require immediate recognition of lifetime losses, which conceptually would be questionable (can be questioned) since initially expected credit losses can be assumed to be incorporated in the pricing on the loan. The relative credit risk model mitigates this possible initial 'mismeasurement' only to some extent by recognising the 12-month expected credit losses (ECL). As a potential drawback of this model is pointed out by Novotny-Farkas [Novotny-Farkas, 2017, pp.15-16] that one and the same asset could be classified as to be included in Stage 1 by one bank and by another one in Stage 2, and that might impair comparability of information provided by financial statement of different financial institutions. Those concerns are partly mitigated by the presumption that riskier assets positioned in Stage 1 will probably have a higher 12-month ECL and also larger periodic adjustments of 12-month ECL[135] [136].

It is believed that "the IFRS 9 expected loss approach represents a reasonable compromise between providing relevant information and catering for the needs of supervisors to enhance financial stability."[29.Novotny-Farkas, 2015, p. 8-9, pp. 41-42][137] However, it is emphasized that the alignment of accounting and supervisory rules in combination with the increased minimum capital requirements under the Capital Requirements Regulation (CRR)[138] will probably reinforce incentives or motivations of bank superiors to opportunistically manipulate loan loss amounts in order to avoid breaches of regulatory thresholds, which, in turn, trigger limitations of dividend payments.[139]

It is argued by specialists that the expected credit loss (ECL) model under IFRS 9 stands much closer to the regulatory and supervisory framework requirements. The new impairment approach is based on prudential considerations predominantly; in addition, it is designed that way, in order to presuppose earlier and probably higher or at least more realistic impairment allowances, if applied consistently. For that reason, there is likelihood the application of IFRS 9 expected credit loss model to mitigate the tendencies of procyclicality considered an emblematic drawback of IAS 39 incurred loss model (ILM). The expectations about more reliable provisioning practices under IFRS 9 ECL model along with the anticipated improved

[135] Zoltán Novotny-Farkas (2015) "The Significance of IFRS 9 for Financial Stability and Supervisory Rules", pp.1-54, European Parliament, Brussels: European Union, 2015.

[136] Novotny-Farkas reasonably argues that the initial recognition of 12-month ECL is somewhat arbitrary and lacks conceptual justification. Moreover, the author highlights potentially existent problems due to the stepwise recognition of loan losses in Stage 1 and Stage 2 that will often lead to an over- or understatement of loan loss allowances, and the magnitude of these deviations will depend on that how timely entities incorporate relevant information and update loan loss allowances, particularly an issue – in his view, with regard to financial assets moving from Stage 1 and Stage 2 and the switch from 12-month ECL to the recognition of lifetime ECL. Novotny-Farkas reveals the most critical question – if management is not able or is not willing to identify 'significant increases' in credit risk on a timely basis, the switch from Stage 1 to Stage 2 would result in significant 'cliff effects' creating the same problems as IAS 39. [Zoltán Novotny-Farkas, 2015]

[137] Ibid.

[138] Regulation (EU) 2017/2401 of The European Parliament and of The Council of 12 December 2017 amending Regulation (EU) No 575/2013 on prudential requirements for credit institutions and investment firms.

[139] Zoltán Novotny-Farkas (2015) "The Significance of IFRS 9 for Financial Stability and Supervisory Rules", pp.1-54, European Parliament, Brussels: European Union, 2015.

transparency of financial statement information, may (might) contribute to enhancing financial stability.

The IFRS 9 model provides a considerably larger scope for managerial discretion than IAS 39 model. The expected loss model under IFRS 9 introduces a significant increase of managerial discretionary power with regard to the timing of recognition of expected credit losses and the assessment. There is a substantial scope for subjective judgment in determining whether significant increases in credit risk has incurred, and, if it is so, that will trigger (cause) the switch from the 12-month ECL to the recognition of lifetime losses. Management might be inclined to delay the movement of assets from Stage 1 to Stage 2, in order to avoid such 'cliff effects', and in such case impairments that would be recognised, would also be 'too little, too late'. In a downturn, when problems develop quickly, the initial delay of recognition of losses in Stage 2 can exacerbate the 'cliff effect' with a sudden and substantial increase in loan loss allowances and a hit to regulatory capital causing the same problems as observed with IAS 39 incurred loss model. In addition, "the longer the forecast horizon that has to be considered in the measurement of expected losses the greater the valuation uncertainty and subjectivity."[140] With respect to this concern it is broadly admitted in the accounting literature that "discretion is a double edged sword"[141]. Therefore, whether the looked-for potential benefits of IFRS 9 will be realised will ultimately depend on the specific manner in which the approaches are applied – and the right way is the approaches to be applied properly and consistently, in any case, not depending on the conjuncture. This, in turn, requires systematic and joint efforts to be made on the part of professional accountants as prepares as well as on the part of auditors[142], supervisors and policymaking bodies.

It is reasonable to argue, therefore, that clear roles and responsibilities for validation of the IFRS 9 ECL model are needed along with adequate independence and competence, sound documentation and independent process review[143]. In conclusion, the key question of whether the International Accounting Standards Board's decision to introduce the model of the expected credit loss will contribute to greater transparency of the information provided by financial statements of general purpose, and whether it will improve the quality of financial reporting, still stands. Probably it is too early to give an objective and unambiguous answer, and any attempt to generalize would most probably be not unmistakable. At present, the most realistic answer perhaps is that this will largely depend on the specific circumstances, since subjective judgements regarding the possible impact of various external and internal factors as well as indicators, including the forward-looking macroeconomic conditions, will influence the estimates of the expected credit losses and their reliability; the reliability (consistency) of these

[140] See Zoltán Novotny-Farkas (2015), p.33.

[141] See Bushman and Landsman (2010); See also Bushman (2015), p. 11.

[142] Cohen and Edwards Jr emphasized that authorities can encourage auditors to achieve a greater understanding of IFRS 9 as well as related implementation efforts and supervisory guidance. Supervisors should gain a better understanding of auditor roles, in their view. These authors consider that could be helpful in encouraging an improvement in the quality of auditor practices. Furthermore, the authors argued that: "Models will need to be validated and regularly reviewed… Disclosure practices will need to reinforce prudent risk measurement and management through market discipline. Survey results indicate a need for central banks and other prudential authorities to become more active in encouraging banks to devote more resources to implement ECL provisioning requirements in a more robust, consistent and transparent manner. New, forward-looking thinking will be needed for a new era." [B. H Cohen and G. A. Edwards Jr, The new era of expected credit loss provisioning: BIS Quarterly Review, 2017]

[143] See 'Key aspects of the Basel Committee on Banking Supervision supervisory guidance, 2015'. http://lavieeco.com/news/economie/la-norme-ifrs-9-va-bouleverser-le-mode-de-comptabilisation-des-provisions-bancaires.html, https://www.bankingsupervision.europa.eu/press/speeches/date/2015/html/se150421.en.html

judgments will depend first and foremost on the competencies, professionalism, expertise, integrity and the independence and professional responsibilities of people at the highest levels of corporate governance, policymaking and supervisory or controlling.

5. THE PERSPECTIVE OF CONVERGENCE BETWEEN THE IFRS 9 *FINANCIAL INSTRUMENTS* ECL MODEL AND THE US GAAP RELEVANT MODEL

The project of IFRS 9 *Financial Instruments* was a substantial part of an initiative of the two Boards – the International Accounting Standards Board (IASB) located as known in London, and the US Financial Accounting Standards Board (US FASB) in the US. Unfortunately, the Boards are not working any more on this project except for issues focused on impairment of financial instruments as loans and loan receivables as the Boards' members were unable to reach an agreement on key problems though great efforts had been made over the years to develop a converged, mutually acceptable approach. As a result priorities have been given to other projects; however, it should be admitted that the two regulatory environments differ, which in turn poses challenges, and may make the alignment of the two accounting models impracticable. The alignment both in principle and application would be meaningful to compare the financial performance of those reporting entities that prepare financial statements under the approaches and rules of the two different regimes. Ultimately, the Boards' members do agree on principles for measuring impairments of loans and loan receivables, but they do not agree on the critical question of the timing of recognition.

The new similar US FASB's standard alongside its relevant model of impairment, which it proposes, will be effective for Securities and Exchange Commission (SEC) filers for years beginning on or after December 15th, 2019. The adoption is allowed one year earlier and one year later for other entities. Under the analogous US FASB's standard on the subject of provisioning for expected credit loss, all expected credit losses are considered over the lifetime of the loan from the time the asset is recorded on the balance sheet. Probably that will result in higher overall provisioning levels. It is reasonable to argue that the approach under the US FASB's comparable standard may prove to be more conservative in principle, in comparison with IFRS 9 expected credit loss (ECL) model.

LITERATURE

Alexander, D, Nobes, C. (2010). *Financial accounting: An International Introduction*, Prentice Hall.

Bank for International Settlements (2011) Basel Committee on Banking Supervision Consultative document: "The internal audit function in banks", December, pp.1-27.

Bank for International Settlements (2015) Basel Committee on Banking Supervision Guidelines: "Corporate governance principles for banks", July, pp. 1-43.

Bank for International Settlements (2017) FSI Insights on policy implementation No 5 Prudential policy considerations under expected loss provisioning: lessons from Asia, by F. Restoy and R. Zamil, October, pp.1-32.

Cohen, Benjamin H., Gerald A. Edwards Jr. (2017). The new era of expected credit loss provisioning, BIS Quarterly Review, March, pp.39-56.

Deloitte & Touche, IFRS 9: Financial Instruments – high level summary, April 2016.

Dugan, J. (2009). "Loan loss provisioning and pro-cyclicality", remarks by John C. Dugan, Comptroller of the Currency, before the Institute of International Bankers, March, Washington DC.

E&Y (2017) “Financial Instruments: A summary of IFRS 9 and its effects”, March.
EFRAG (2013) Comment Letter – *Financial Instruments: Expected Credit Losses*, July, pp.1-25.
European Banking Authority (2016) “Report: On results from the EBA impact assessment of IFRS 9”, November, 2016.
European Banking Authority (2017) “EBA report on results from the second EBA impact assessment of IFRS 9”, July.
European Systemic Risk Board (2017) “Financial stability implications of IFRS 9”, July, 2017.
Financial Services Commission (FSC) Guidance Note (2013): Internal Audit Function in Banks, pp.1-20.
G20 2009 The Global Plan for Recovery and Reform and Declaration on Strengthening the Financial System, G20 London Summit, April, 2009.
G20, London Summit – Leader’s Statement, 2nd April, 2009; https://www.imf.org/external/np/sec/pr/2009/pdf/g20_040209.pdf
Gebhardt, G. & Z. Novoty-Farkas. (2011). Mandatory IFRS Adoption and Accounting Quality of European Banks, *Journal of Business Finance & Accounting*, 38, April, pp. 289-333.
Gorgan, C. (2013). Convergenta contabilă internaţională. Implicaţii asupra raportării financiare, Editura ASE, Bucharest.
Horomnea, E. (2012). Dimensiunile ştiinţei, sociale şi spirituale în contabilitate, Editura Tipo Moldova.
IFRS 9, Official Journal of the EU, Commission Regulation (EU) 2016/2067 of 22 November 2016, L323.
IFRS 9: Matters for Non-Financial Entities Extract, IFRS Discussion Group Report on the Meeting, May 30, 2017.
IFRS Foundation (2017) IFRS Standards and financial stability, pp.1-20.
Laeven, L. and G. Majnoni. (2003). Loan loss provisioning and economic slowdowns: too much, too late?, *Journal of Financial Intermediation*, 12 (2), April, pp. 178-197.
Măciucă, Geanina, Hlaciuc, Elena and Ursache, Antonela. (2015). The role of prudence in financial reporting: IFRS versus Directive 34, Procedia Economics and Finance 32 (2015), pp. 738 – 744.
Milanova, E. (2012). Accounting aspects of anti-cyclical policy of the banks in Bulgaria”, Jubilee International Scientific Conference: ‘Crisis and Economic Growth’, UNWE, Sofia, University Press, pp. 111-119.
Milanova, E. (2017). Compatibility between IFRS 9 Financial Instruments and the Basel framework for capital requirements, Yearbook 2016 IDES (ICPA) in Bulgaria, pp.31-78.
Niklas Frykström and Jieying Li, Financial Stability Department of the Riksbank (2018) IFRS 9 – the new accounting standard for credit loss recognition, No. 3, 2018.
Novotny-Farkas, Z. (2015) ‘The Significance of IFRS 9 for Financial Stability and Supervisory Rules’, European Parliament, Directorate General for Internal Policies Policy Department A: Economic and Scientific Policy, Brussels, European Union, 2015, Study for the ECON Committee.
Official Journal of the European Union, L 323, Commission Regulation (EU) 2016/2067 of 22 November 2016 amending Regulation (EC) No 1126/2008 adopting certain international accounting standards in accordance with Regulation (EC) No 1606/2002 of the European Parliament and of the Council as regards International Financial Reporting Standard 9.
Peek, J and E Rosengren (1995): “The capital crunch: neither a borrower nor a lender be”, *Journal of Money, Credit and Banking*, Vol. 27, pp 625 – 638.
Regulation (EU) 2017/2401 of the European Parliament and of the Council of 12 December 2017 amending Regulation (EU) No 575/2013 on prudential requirements for credit institutions and investment firms.

Restoy, F. & Zamil, R. (2017). Prudential policy considerations under expected loss provisioning: lessons from Asia, Financial Stability Institute (FSI) Insights on policy implementation No 5, Bank for International Settlements (BIS), October, pp.1-32.

Stefano, N., Norges Bank Economic Commentary, no. 8, 2017, IFRS 9, Implementation. N. Stefano thanks Henrik Andersen, Arild Lund, Kjell Bjørn Nordal, Elise Vik Sætre, Ylva Søvik and Sindre Weme for comments.

Sunder, S. (2016). Rethinking Financial Reporting: Standards, Norms and Institutions, Foundations and Trends in Accounting, Vol. 11, No. 1-2 (2016), 1-122.

Vítor Constâncio: Resolving Europe's NPL burden – challenges and benefits: Keynote speech by Mr. Vítor Constâncio, Vice-President of the European Central Bank, at an event "Tackling Europe's non-performing loans crisis: restructuring debt, reviving growth", organised by Bruegel, Brussels, February 2017, pp.1-13, BIS central bankers' speeches.

Walter, J. R., (1991): "Loan Loss Reserves, *Economic Review"*, July/August, pp.20-30.

ZAO Deloitte & Touche CIS (2016) "IFRS 9: Financial Instruments – high level summary", April, pp.1-18.

ANALYTICAL SUPPORT FOR MANAGEMENT OF VENTURE FINANCING OF INNOVATIVE ENTERPRISES

Mykola Gorodysky[144]
Hanna Khomenko[145]
Olena Syvak[146]

DOI: https://doi.org/10.31410/eraz.2018.211

Abstract: *This article deals with the peculiarities of innovative enterprises management in the conditions of risk and uncertainty of the economy. Innovative type of modern economy development envisages intensification of processes in the field of alternative sources search of business financing for enterprises support and development, as well as sustainable development in the country. One of the available sources of financing innovative activity of small and medium enterprises is venture financing.*

The economic strategy of any country should be based on the fact that only the activation and effective use of its innovative potential will be able to ensure the sustainable development of the economy and society as well as will radically change the factors of its attractiveness for foreign investors.

Taking into account the need to provide management stuff with operational information on the availability and condition of venture financing at the enterprise, a two-step method of economic analysis of venture financing has been suggested aimed at improving the information base for the formation and use of attracted venture investments in the form of own and loan venture capital, its quantity and quality, which allows to define the further method of management of its elements in the operational mode.

Having calculated the suggested indicators based on the data of the activities of innovative enterprises of Ukraine, Russia, Poland and Bulgaria, we can conclude that the share of venture financing of innovative enterprises in the form of own venture capital (i.e, the acquisition of shares of the enterprise by venture capital investors) in the total amount of venture financing is larger, compared with a share of venture financing of an innovative enterprise in the form of loan capital (through the acquisition of venture company bonds). This is due to the fact that, first of all, venture financing is a risky investment, thus venture investors are trying to reduce the risks of such financing, mainly using financing in the form of acquiring shares of the innovative enterprise. As the result of research methodic provisions of the analysis of innovative enterprises venture financing have been improved by developing a complex analysis method of condition, availability and efficiency of venture financing in the part of factor analysis of the profitability of own as well as loan venture capital, by multiple regression model building for defining the impact of venture capital on the results of enterprise's innovation activity, enable to identify cause-effect relationships for the development of appropriate measures to optimize risk venture funding as well as finding ways to attract additional financial resources from venture capital investors.

Key words: *innovation potential, sustainable development, innovative enterprises, venture financing, multiple regression model*

[144] Zhytomyr State Technological University, 103, Chudnivska str., Zhytomyr, 10005, Ukraine
[145] Zhytomyr State Technological University, 103, Chudnivska str., Zhytomyr, 10005, Ukraine
[146] Zhytomyr State Technological University, 103, Chudnivska str., Zhytomyr, 10005, Ukraine

1. INTRODUCTION

Economic analysis is a necessary management function that, based on accounting data and reporting, provides information to management staff in the form of analytical summaries. The management of an innovative enterprise is carried out under conditions of risk and uncertainty of the economy, therefore the overall assessment of the activity of the innovative enterprise, and subsequently an in-depth analysis of the efficiency of the use of venture financing, will improve the management of the venture capital investments and will provide the opportunity to make sound decisions on the directon of usage as well as the necessity for additional attraction of venture financing.

The amount of venture financing should meet the needs and capabilities of the enterprise to create and implement innovative products. The effectiveness of venture financing of an innovative enterprise depends on how economically feasible they are. In the long run, the most important criterion for the effectiveness of using venture financing in general is the stable financial position of the company and the prospect of its future development, that is, its solvency, liquidity, business activity, financial sustainability, profitability of its activity.

The essence of the issue of increasing the efficiency of the use of venture financing is that for each of its unit we should achieve the maximum possible increase in production and profits. Quantitative certainty and the content of the criterion is reflected in specific indicators of the effectiveness of the use of venture financing of economic entities. In addition, the availability and state of venture financing at the enterprise is a top priority in predicting bankruptcy, since its value is first and foremost taken into account in existing methods.

2. COMPLEX METHODOLOGY OF ECONOMIC ANALYSIS OF VENTURE FINANCING OF INNOVATION ENTERPRISES

Taking into account the necessity of providing management staff with operational information on the availability and state of venture financing at the enterprise, we consider it expedient to carry out the analysis in a phased manner: a general analysis of the activity of the innovative enterprise and an in-depth analysis of the efficiency of the use of venture financing. The lack of an integrated methodology for analyzing venture financing leads to ineffective enterprise policy on the use and attraction of the required amounts of venture financing. This, in turn, causes a deterioration of the overall economic situation of an innovative enterprise. In the process of studying the peculiarities of venture financing, it has been established that venture financing can be in two forms, due to its dual nature, namely in the form of own and borrowed capital, therefore we have identified objects of analysis of venture financing: own venture capital, loan venture capital.

Consequently, the suggested methodology of general evaluation of the financial state of the innovation enterprise includes: 1. Analysis of the economic potential of the enterprise. 2. Analysis of the development and performance of the enterprise. 3. Analysis of the probability of insolvency and bankruptcy of the enterprise. The methodology of general assessment of the financial state of the innovation enterprise corresponds to the generally accepted methodology of carrying out the analysis of the economic potential of the enterprise, analysis of the development and performance of the enterprise, analysis of the probability of insolvency and bankruptcy of the enterprise [1-6; 8-10].

Let's stop more closely on the methodology of in-depth analysis of venture financing, which involves four main areas: 1. Assessment of the availability and state of venture capital. 2. Factor analysis of profitability of own and borrowed venture capital. 3. Analysis of the effect of the amount of the use of venture financing on the total profit by constructing a multiple regression model. 4. Analysis of the effectiveness of the venture investment project. The main objects of analysis at this point are: own and borrowed venture capital, growth rate; the proportion of individual components of venture capital is calculated, including structural changes of venture capital are studied; the assessment of the level of venture financing provision of the enterprise as well as a number of coefficients is calculated.

First of all, it is necessary to assess the level of venture financing or venture capital provision of an innovative enterprise by analyzing its availability, state and composition. During the implementation of this stage: the cost and growth rate of the components of the venture capital of the innovative enterprise in absolute terms are defined; the proportion of individual components of venture financing is calculated; the dynamics of the structure of venture capital for a number of reporting periods is studied, the relationship between different types of venture capital is estimated; the influence of the change of the structure of venture capital on the coefficients and the results of the enterprise activity by using the models of deterministic factor analysis is determined; an assessment of the level of the venture financing provision of the company is given, for this aim a number of factors is calculated.

The phase of in-depth analysis of venture financing, which involves analyzing the provision of innovative products by venture financing, characterizes the level of innovation products financing provision in the form of own and / or borrowed venture capital. At the present stage, we suggested to calculate the following coefficients: the coefficient of providing innovative products with its own venture capital (CPIP_OwVenchC), the coefficient of providing innovative products by the borrowed venture capital (CPIP_BVenchC), the coefficient of providing innovative products with venture capital (CPIP_VenchC), which characterize which part of the innovation products is provided by own or borrowed sources of venture financing, as well as overall by venture capital. At the stage of determining the effectiveness of venture financing it is expedient to determine the following indicators of profitability: the profitability of own venture capital (POwVenchC), profitability of borrowed venture capital (PBVenchC), probability of venture financing (venture capital) (PVenchF(VenchC)). The calculation of these indicators reflects the level of additional

Mykola Gorodysky

In 2006 graduated from the Zhytomyr State Technological University, Ukraine, specialty "Accounting and Auditing". In 2011 defended thesis for obtaining the scientific degree of Candidate of Economic Sciences by speciality 08.00.09 – accounting, analysis and auditing (by types of economic activity) – "Accounting and internal control of transactions on contractor agreements: organization and methods". Currently works as an Assistant Professor of the Department of Accounting and Auditing in Zhytomyr State Technological University, Ukraine. Scientific interests: problems of accounting and control in Ukraine, peculiarities of electronic document flow and reporting of enterprises, innovative technologies in accounting and auditing, peculiarities of IFRS introduction by business entities in Ukraine. Published more than ten scientific papers as author and coauthor, which were presented at domestic and international conferences

income for venture capital in different variants of the structure of the sources of its formation and shows how many percent will increase the profitability of venture financing as a result of obtaining funds from venture capital investors in the form of either own or borrowed venture financing.

Having calculated the suggested indicators based on the data of the activities of innovative enterprises of Bulgaria, Poland and Russia and the amounts of their venture financing, we can conclude that the share of venture financing of innovative enterprises in the form of own venture capital (i.e. share acquisition by venture capital investors) in the total amount of venture financing compared to the share of venture financing of an innovative enterprise in the form of borrowed capital (through the bond acquisition of venture company) is larger. This is due to the fact that, first of all, venture financing is a risky investment, so venture investors are trying to reduce the risks of such financing, mainly using the form of financing in the form of acquiring shares of the innovative enterprise.

Also, it is equally important in the process of analyzing the availability and state of venture financing of innovative enterprises, its high profitability, and, accordingly, the calculations carried out − from 6.99% to 9.78%. That is, in the case of venture financing of enterprises − the risk is justified, as in the case of successful implementation of innovative products, venture capital investors are able not only to repatriate primary investments, but also to obtain high profits, which is not typical for other types of capital investments.

3. FACTOR ANALYSIS OF PROFITABILITY OF OWN AND BORROWED VENTURES CAPITAL

Without factor analysis of the indicator of the profitability of own and borrowed venture capital, it is impossible to take into account all factors that will have an impact on the financial performance of an innovative enterprise. This is first and foremost the features of innovative products, the quality of managerial abilities of the management of the enterprise, the choice of areas for the use of venture financing, etc. Therefore, the next step in the in-depth analysis of venture financing is important − this is a factor analysis of the profitability of own and borrowed venture capital. To calculate the influence of factors on the change in the profitability of own and borrowed venture financing, we use the acceptance of expansion of factor systems. On the basis of this reception, the following factor model was constructed:

$$P_{VenchF(VenchC)} = \frac{FR}{VenchC} = \frac{FR}{VenchC} \times \frac{BVenchC}{BVenchC} \times \frac{OwVenchC}{OwVenchC} = \frac{FR}{OwVenchC} \times \frac{OwVenchC}{BVenchC} \times \frac{BVenchC}{VenchC} \quad (1)$$

where FR – financial result before taxation (total profit) of the innovative enterprise; VenchC – total amount of venture capital; OwVenchC – own venture capital; BVenchC – borrowed venture capital.

However, comparison of financial results before tax with the amount of own venture capital allows to calculate the profitability of its own venture capital (POwVenchC) and shows the effectiveness of its use. In addition, comparison of the amount of own and borrowed venture financing among each other allows to determine the stability coefficient of venture financing ($C_{StVenchF}$) and compare borrowed venture capital with venture capital in general − concentration coefficient of borrowed venture capital ($C_{ConcBVenchC}$). In view of the above, the effective probability indicator of venture financing will be presented in the form of a multiplicative model:

$$P_{VenchF(VenchC)} = P_{OwVenchC} \times C_{StVenchF} \times C_{ConcBVenchC} \quad (2)$$

We will test the specified factor model, using the initial data of the activities of the innovative enterprise of Ukraine during 2016-2017.

Indicator	*2016.*	*2017*	*Absolute deviation*
The amount of venture financing in the form of own capital (OwVenchC), thou. UAH	870,0	985,0	+115,0
The amount of venture financing in the form of borrowed capital (BVenchC), thou. UAH	980,0	982,0	+2,0
Total amount of venture capital (VenchC), thou. UAH	1850,0	1967,0	+117,0
Financial result before taxation (total profit) of the innovative enterprise (FR), thou. UAH	7100,0	8450,0	+3971,0
Stability coefficient of venture financing (CSTVenchF)	0,89	1,0	+0,11
Concentration coefficient of borrowed venture capital (CConcBVenchC)	0,53	0,5	–0,03
Profitability of venture financing (venture capital) (PVenchC)	3,84	4,3	+0,46
Profitability of venture financing attracted in the form of own capital (POwVenchC)	8,16	8,58	+0,42

Table 1: Output data for factor analysis of the venture capital profitability (venture financing) of the Ukrainian innovation enterprise

Using the method of absolute differences, we will conduct a factor analysis of the profitability of venture financing of the innovation enterprise of Ukraine:
Δ PVenchC (POwVenchC) = 8,58*0,89*0,53 – 3,84 = 0,21 points;
Δ PVenchC (CStVenchF) = 8,58*1,0*0,53 – 4,3 = 0,25 points;
Δ PVenchC (CConcBVenchC) = 8,58*1,0*0,5 – 4,55 = -0,26 points;

Thus, in 2017, an increase in the profitability of venture financing by 0.46 points is observed at the enterprise of Ukraine, indicating an improvement in the efficiency of the use of such financing. This increase in profitability was due to the following factors: increased profitability of own venture financing led to an increase in the profitability of total venture financing by 0.21 points; the increase of the coefficient of stability of venture financing also positively influenced the profitability of venture financing, which led to an increase of 0.25 points; the decrease of the coefficient of the concentration of borrowed venture capital by 0.03 points negatively affected the profitability of venture financing and led to its decrease by 0.26 points.

Consequently, the increase of profitability of venture financing in the form of own capital and the stability coefficient of venture financing had the positive impact on the increase of the profitability of venture capital, while a decrease in the concentration coefficient of the borrowed venture capital of the innovative enterprise of Ukraine had the negative impact on the profitability of venture financing.

4. ANALYSIS OF THE INFLUENCE OF THE AMOUNT OF USAGE OF VENTURE FINANCING ON GENERAL PROFIT BY THE CONSTUCTION OF MULTIPLE REGRESSION MODEL

Hanna Khomenko

In 2012 graduated from the Zhytomyr State Technological University, Ukraine, specialty "Accounting and Auditing". In 2014 received Certificate of Proficiency in Polish as a Foreign Language (level B2). In 2015 defended thesis for obtaining the scientific degree of Candidate of Economic Sciences by speciality 08.00.09 – accounting, analysis and auditing (by types of economic activity) – "Accounting and analytical support for management of venture financing of innovative enterprises". In 2016 received a qualification in specialty "Language and Literature (Polish)". Currently works as an Assistant of the Department of Accounting and Auditing, Zhytomyr State Technological University, Ukraine. Scientific interests: problems of accounting, analysis and taxation of transactions with venture financing of innovative enterprises, especially the use of the mechanism of venture philanthropy in financing charitable activities. Research efforts have resulted into more than 30 scientific papers, two books. Is a regular participant in national and international conferences both in Ukraine and abroad. Also is constantly engaged in many projects and campaigns as a leader and a part of a project team.

As it is rather difficult to reflect the link between the results of the enterprise and the level of use of venture financing, since only a set of factors in their relationship can give a more or less complete picture of the nature of the phenomenon under investigation. In this case, it is advisable to create a mathematical model based on the methods of multi-factor correlation-regression analysis, which will allow assessing the degree of influence on the researched productive indicator (results of the activity of the innovation enterprise) on each of the factors (own venture capital and borrowed venture capital) introduced into the model at a fixed position on the average of other factors. Multi-factor correlation analysis involves the following stages of constructing a multiple regression model: identification of factors that influence the investigated indicator, and the choice between them is essential for the implementation of correlation analysis; accumulation and evaluation of the source information for the correlation analysis; studying the nature and constructing a model of the relationship between factors and a productive indicator (compiling a mathematical equation that most accurately reflects the nature of the investigated dependence); realization of calculation of indicators of correlation relationship; statistical estimation of the results of correlation analysis and their practical application.

Following the selection of factors (in our case, this is our own and borrowed venture capital) and the corresponding assessment of the source information, an important task of the correlation analysis is to model the relationship between the factor and the performance indicators, that is, the selection of the corresponding equation, which will best characterize the investigated relationships.

If the relation between all the factor indices with the resultant is straightforward, then a linear function is used to record such dependencies [7, c. 91]:

$$Y = b_0 + b_1 x_1 + b_2 x_2 + ... + b_m x_m , \quad (3)$$

where Y is the calculated regression value, which is an estimate of the expected value of Y for fixed values of the signs X_1, ..., X_m;
X_1, ..., X_m are the most significant independent variables;
b_0 is a parameter that shows the average impact on the resultant indicator of factors that are not included in the model (or not highlighted to the study);
b_1, ..., b_m − regression coefficients, each of which shows by how many units will change Y with the change of the corresponding sign of x per unit, in condition that the last signs are not changed.

We will test the above methodology for constructing a multiple regression model to determine the impact of the components of venture financing (own and borrowed venture capital) on the financial results (total profit) of Ukrainian enterprises. Then the regression equation will have the following form:

$$Y = b_0 + b_1 x_1 + b_2 x_2, \quad (4)$$

where X_1 − attracted venture financing in the form of own capital,
X_2 − attracted venture financing in the form of borrowed capital,
b_0, b_1, b_2 − parameters of the regression equation that can be calculated by the least squares method, solving the system of normal equations (5):

$$\begin{cases} \sum y = nb_0 + b_1 \sum x_1 + b_2 \sum x_2, \\ \sum yx_1 = b_0 \sum x_1 + b_1 \sum x_1^2 + b_2 \sum x_1 x_2, \\ \sum yx_2 = b_0 \sum x_2 + b_1 \sum x_1 x_2 + b_2 \sum x_2^2 \end{cases} \quad (5)$$

Output data for the solution of the system of equations are given in Table 2, and the estimated data in Table 3, respectively.

Year	***Financial Result (y), mln. UAH***	***The amount of venture capital in the form of own capital, mln. UAH (X_1)***	***The amount of venture capital in the form of borrowed capital, mln. UAH (X_2)***
2008	1 250	145	89
2009	1 436	199	92
2010	1 596	235	96
2011	1 745	241	101
2012	1 986	255	125
2013	2 015	269	132
2014	2 256	270	145
2015	2 560	279	156
2016	2 896	299	170
2017	3 033	356	196

Table 2: Output data for the enterprise for the correlation analysis

$\sum y$	$\sum yx_1$	$\sum yx_2$	$\sum x_1$
20773	5038061	2900321	2548
$\sum x_2$	$\sum x_1^2$	$\sum x_2^2$	$\sum x_1 x_2$
1302	678196	181528	348777

Table 3: Estimated data for determining the parameters of the regression equation

Let us substitute the obtained data (Table 3) into the system of normal equations (6):

$$\begin{cases} 20773 = 10b_0 + b_1 2548 + b_2 1302, \\ 5038061 = b_0 2548 + b_1 678196 + b_2 348777 \\ 29003212 = b_0 1302 + b_1 348777 + b_2 181528 \end{cases} \quad (6)$$

We find the determinant of the system and partial determinants, on the basis of which we calculate the parameters of the regression equation:
$\Delta = 578749878$; $\Delta b_0 = 152531299074665$; $\Delta b_1 = 4508569565822$; $\Delta b_2 = 7660940579250$ and, respectively, $b_0 = 263553.06$; $b_1 = 7790.19$; $b_2 = 13237.05$.

Then the equation of relationship, which determines the dependence of the resultant sign of the total profit on two factors (own and borrowed venture capital), will have the following form: $Y = 263553{,}06 + 7790{,}19\ x_1 + 13237{,}05\ x_2$.

Thus, with the increase of venture financing at the expense of own capital instruments for 1 UAH total profit grows by UAH 7790.19, and with the growth of venture financing at the expense of borrowed capital instruments per unit, the total profit increases by 13237.05 UAH. The above equation allows us to construct a trend line and carry out a forecast for subsequent years regarding the size of the total profit depending on the change in the amount of separate own and borrowed venture capital. However, based on the coefficients of regression, one cannot judge which factor most influences the result, since the regression coefficients are not comparative to each other. In order to identify the relative strength of the influence of individual factors and their reserves, statistics calculates the partial elasticity coefficients ε_1 by the formula [7, c. 95]:

$$\varepsilon_i = b_i \frac{\overline{x}_i}{\overline{Y}}; \quad (7)$$

where b_i − coefficient of regression at the i-th factor; $\overline{x}_i$ − average value of the i-th factor; $\overline{Y}$ − average value of the calculated (theoretical) dependent variable.
Partial coefficients of elasticity indicate by how much percentage dependent variable will change in average with change of 1% of each factor and the fixed position of other factors.

Accordingly, the coefficients of elasticity are:

$$\varepsilon_1 = b_1 \frac{\bar{x}_1}{\bar{Y}} = 7790{,}19 \cdot \frac{254{,}8}{397195{,}38} = 0{,}4997;$$
$$\varepsilon_2 = b_2 \frac{\bar{x}_2}{\bar{Y}} = 13237{,}05 \cdot \frac{130{,}2}{397195{,}38} = 0{,}4339. \quad (8)$$

The analysis of partial elasticity coefficients shows that the greatest impact on the total profit has own sources of venture financing, in particular, with an increase in the value of own venture capital by 1%, the total profit increases by 49.97%, and with an increase in the value of borrowed venture capital by 1% the total profit increases by 43.39%.

The tightness of the link between the resultant sign and the set of factor characteristics is studied using the aggregate determination coefficient [7, c. 96]:

$$R^2_{yx_1x_2\ldots x_m} = \frac{\sigma^2_{yx_1x_2\ldots x_m}}{\sigma^2_Y}, \quad (9)$$

where $\sigma^2_{yx_1x_2\ldots x_m}$ – dispersion of theoretical values of the dependant variable, calculated with the multiple regression equation; σ^2_Y – total variance (dispersion of the actual y).

The aggregate determination coefficient characterizes the percentage of the variation of the dependant variable, which is linearly related to the variation of factors included in the regression equation.

The theoretical variance is calculated by the formula [7, c. 96]:

$$\sigma^2_{yx_1x_2\ldots x_m} = \frac{1}{n}(b_0 \sum y + b_1 \sum x_1 y + b_2 \sum x_2 y + \ldots + b_m \sum x_m y) - \bar{y}^2 \quad (10)$$

Substituting the necessary formulas for the given data, we obtain: R^2=0,78. Thus, at the investigated innovation Ukrainian enterprise, 78% of the variation in total profit is linearly related to different levels of indicators of own and borrowed venture financing.

5. CONCLUSION

The study of theoretical approaches to the economic analysis of venture financing of innovative enterprises in modern conditions will provide an opportunity to determine the efficiency of obtaining information by management staff regarding the availability, state and composition of the attraction of this type of financing. Taking into account the lack of a comprehensive methodology for economic analysis of venture financing of innovative enterprises and the importance of its availability and efficiency in the enterprise, a step-by-step methodology of economic analysis of venture financing at the innovation enterprise has been suggested, which involves the implementation of a general assessment of the financial state of the innovation enterprise and an in-depth analysis of venture financing at the enterprise. At the stage of

carrying out a general assessment of the financial state of the innovation enterprise it has been suggested to carry out: 1. Analysis of the economic potential of the innovative enterprise. 2. Analysis of the development and performance of the innovative enterprise. 3. Analysis of the probability of insolvency and bankruptcy. Conducting in-depth economic analysis of venture financing in the company depends on the management's decision. The procedure of in-depth analysis of venture financing has been suggested, which involves assessing the availability and state of venture capital, conducting factor analysis of the profitability of own and borrowed venture capital, analyzing the impact of the amount of used venture financing on total profit by constructing multiple regression, analyzing the effectiveness of a venture investment project.

The ultimate performance of an innovative business depends on its ability to effectively use financing of venture investors. In the process of in-depth analysis of venture financing, much attention should be paid to factor analysis of the effectiveness of its use. Factor analysis of the efficiency of the use of venture financing of innovative enterprises determines the need to identify the direct factors that affect it. The efficiency of using venture capital depends on many factors, in particular, on external factors such as the general economic situation in the country, the level of targeted financing, interest rates on loans, etc. It is also important to analyze the impact of the level of venture financing of innovative enterprises on the financial result of operating activities by constructing multiple regression, since the ultimate operating performance of any business entity depends on its ability to effectively use available financial resources that are involved by venture financing, which occupies a significant place in the financing of risky innovation projects.

Olena Syvak

In 2011 graduated from the Zhytomyr State Technological University, Ukraine, specialty "Accounting and Auditing". In 2015 received a qualification in specialty "Language and Literature (English)". In 2016 defended thesis for obtaining the scientific degree of Candidate of Economic Sciences by speciality 08.00.09 – accounting, analysis and auditing (by types of economic activity) – "Accounting and analytical support for management of charitable assistance expenses as part of the social capital of the company". In 2014 received Cambridge English Level 2 Certificate in ESOL International (Advanced) (level C1). Currently works as Lecturer of the Department of Foreign Languages, Zhytomyr State Technological University, Ukraine. Teach courses: General English, Business English, English for specific Purposes (Accounting), Corporate Social Responsibility. Scientific interests: Business English, Accounting Theory, Finance, Financial Accounting, Managerial Accounting, International Accounting, Auditing, Economic Analysis, Reporting of the Enterprise. Had published numerous papers in scientific journals and participated in dozens of international and domestic scientific conferences. Is coauthor of two books.

REFERENCES

[1] Bank, V. R., Bank, S. V., Taraskina, A. V. (2006) *The financial analysis.* Textbook. –Moscow: TK Velbi, Publishing house Prospekt. [In Russian]. [Банк В.Р. Финансовый анализ: учеб. Пособие / В.Р. Банк, С.В. Банк, А.В. Тараскина. – М.: ТК Велби, Изд-во Проспект, 2006. – 344 с.].

[2] Batkovski, A. M., Batkovski, M. A., Gordeyko, S. V., Merzlyakova, A. P. (2011) *Improvement of the analysis of financial stability of the enterprise.* Audit and financial analysis. Vol. 5. p. 0-6. [In Russian]. [Батьковский А.М. Совершенствование анализа финансовой устойчивости предприятия / А.М. Батьковский, М.А. Батьковский,

С.В. Гордейко, А.П. Мерзлякова // Аудит и финансовый анализ. – 2011. – № 5. – С. 0-6].

[3] Butko, A. D. (2005) *The theory of economic analysis.* Textbook. Kyiv: Kyiv National University of Trade and Economics. [In Ukrainian]. [Бутко А.Д. Теорія економічного аналізу / А.Д. Бутко: Підруч. – К.: Київ, нац. торг.-екон. ун-т, 2005. – 411 с.].

[4] Volkov, I. A. (2012) *The analysis of financial stability and efficiency of the enterprise on the example of Davlekanivsky road repair and construction management department.* Problems of Economics and Management: Scientific and Practical Journal. Vol. 10 (14). PP. 130-157. [In Russian]. [Волков И.А. Анализ финансовой устойчивости и эффективности предприятия на примере Давлекановского дорожного ремонтно-строительного управления / И.А. Волков // Проблемы экономики и менеджмента: научно-практический журнал. –2012. –№ 10 (14). – С. 130-157].

[5] Gutsaylyuk, Z. V. (2012) *Operational accounting and operational economic analysis in the accounting system.* Galician Economic Herald. Vol. 2 (35). p. 166-170. [In Ukrainian]. [Гуцайлюк З.В. Оперативний облік та оперативний економічний аналіз в системі бухгалтерського обліку / З.В. Гуцайлюк // Галицький економічний вісник. – 2012. – № 2 (35). – С. 166-170].

[6] Durneva, E. N. (2012) *Comparative analysis of the current methods of diagnosing the financial and economic condition of the enterprise with the purpose of determining the key safety indicators.* Problems of Economics and Management. Vol. 8 (12). p. 91-98. [In Russian]. [Дурнева Е.Н. Сравнительный анализ действующих методик проведения диагностики финансово-экономического состояния предприятия с целью определения ключевых индикаторов безопасности / Е.Н. Дурнева // Проблемы экономики и менеджмента. – 2012. – № 8 (12). – С. 91-98].

[7] Ivanenko, V. O., Maslovska, A. Yu. (2014) *Assessment of the impact of the formation and use of current non-monetary capital on the amount of operating profit of the enterprise*. Accounting and analytical management support: domestic and international experience [text]: [Monograph]. 352 p. P. 89-99. [In Ukrainian]. [Іваненко В.О. Оцінка впливу рівня формування та використання оборотного немонетарного капіталу на величину операційного прибутку підприємства / В.О. Іваненко, А.Ю. Масловська // Обліково-аналітичне забезпечення управління: вітчизняний і міжнародний досвід [текст]: [Монографія] / за заг. ред. д.е.н., проф. М.Г. Білопольського, к.е.н., доц. О.А. Сизоненко; Макіївський економ.-гуманіт. ін.-т. – Донецьк: Дмитренко Л.Р. [Видавник], 2014. – 352 с. – С. 89-99].

[8] Kanraeva, O. V. (2010) *Accounting and analysis of innovative activity of enterprises: organization and methodology:* monograph [Text]. Zhytomyr: FOP Kuzmin Dn. L. 424 p. [In Ukrainian]. [Кантаєва О. В. Бухгалтерський облік і аналіз інноваційної діяльності підприємств: організація і методологія: монографія [Текст] / О.В. Кантаєва. – Житомир: ФОП Кузьмін Дн. Л., 2010. – 424 с.].

[9] Kovalev, V. V. (2002) Financial Analysis: Methods and Procedures. Moscow: Finansy i statistika. 560 p. [In Russian]. [Ковалев В.В. Финансовый анализ: методы и процедуры / В.В. Ковалев. – М.: Финансы и статистика, 2002. – 560 с.].

[10] Moshenski, S. Z., Oliynyk, O. V. (2007) Economic analysis. Textbook. 704 p. [In Ukrainian]. [Мошенський С.З., Олійник О.В. Економічний аналіз: Підручник для студентів економічних спеціальностей вищих навчальних закладів / За ред. д.е.н., проф., Заслуженого діяча науки і техніки України Ф.Ф. Бутинця. – 2-ге вид., доп. і перероб. – Житомир: ПП “Рута”, 2007. – 704 с.].

MULTIPLE REVENUE STREAMS MODEL OF WINERIES

Katarína Remeňová[147]
Nadežda Jankelová[148]

DOI: https://doi.org/10.31410/eraz.2018.222

Abstract: *The revenue model consists of set of revenue streams and depicts how company monetizes its value. The type of revenue model (one stream or multiple streams model) also depends on the nature of the business model. In order to generate sufficient revenue streams, a company have to create an appropriate mix of sales channels and pricing models in relation to the needs of the serving customer segment. The research article monitors the impact of particular business model parameters on the Scope of revenue model (in terms of revenue streams). Examined are parameters such as „Scope of online sales channels“, „Number of off-line channel types“, „Scope of key business activities and „Scope of additional business activities“. All variables represent interval data. The results of the linear regression analysis confirmed statistically significant influence of parameters (p value ≤.05) - "Scope of Additional Business Activities", "Scope of Key Business Activities" and "Scope of Off-line Channels" on the Scope of the Revenue model (in this order). Pearson's R shows a very high dependency between the Scope of Additional Business activities and the Scope of Revenue model, while the model explains up to 93% variability of the dependent variable.*

Key words: *Revenue model of a winery, Revenue streams, sales channels, pricing model, customer segment*

1. INTRODUCTION

Slovakia is located at the northern edge of Europe where grapevines can be cultivated and, therefore, a disadvantage is more unfavourable climatic conditions than in southern Europe. Only 50% of winegrowers' production capacities have actually been utilised over years [Rogovská, 2018], and yet Slovakia's wine industry is generating long-term positive revenues despite difficult growing and production conditions. Measures of central tendency for revenue in the wine sector analyzed in 2017 were ME = 126,546 €, where M = 794,756 €. The production of wine, where both winegrowers and wineries are equally involved, is a specific sector characterised, in comparison to other sectors, by several specific features such as bounding to the territory, especially raw material, and product sales bound to purchasing power and the EU's regulation of the sector. All these businesses operate on the basis of a particular business model that represents the way they generate value for the customer and manage it [Kähkönen, 2012]. The foundation for the business model used by wineries in the food industry is the production and sale of wine.

[147] University of Economics in Bratislava, Faculty of Business Management, Department of Management, Dolnozemská 1/B, Bratislava, Slovakia
[148] University of Economics in Bratislava, Faculty of Business Management, Department of Management, Dolnozemská 1/B, Bratislava, Slovakia

Revenue model of a winery

The business model consists of three basic components: value streams for customers and partners, revenue streams and logistics streams [Mahadevan, 2000]. Every business model includes a revenue model – a method for business owners to earn income [Baker, 2010]. Along with other components such as customer value proposition [Kintler, 2016; Hrušovská & Štetka, 2017] and relationships with partners, everything comes together to create the concept of a business model [Zott, et., al., 2011]. According to Bednár & Tarišková, revenue model is characterized as a conceptual framework for revenue generation, profits and generating higher than average return on investment [Bednár &Tarišková, 2017]. All sources of revenue flowing into an enterprise are called a revenue stream. Since revenue streams provide financial stability for business development, enterprises are tasked with planning a strategy to create all available streams [Canzer, 2006], combining basic pricing [Remeňová, 2015] and distribution strategies to generate sufficient revenue streams within the revenue model [Kehal, Singh, 2005]. From the point of view of the concept of the business model it is its eighth element and it measures the ability of a firm to translate the value it offers its customers into money and incoming revenue streams [Osterwalder, & Pigneur, 2010].

Authors Weill, Malone, D'Urso, Herman and Woerne [Weill et al., 2005] studied 1,000 businesses in the United States, focusing on effectiveness of their business models and analyzing revenue streams in relation to the business's financial performance. A survey was conducted using data from the 2000 fiscal year. Results from the study showed business models to be a better indicator of financial performances than the industry's own financial performance indicators. Accordingly, they were able to distinguish between well-functioning and average-operating business models. Weill et al. proved that a business model is composed of two types of revenue models. It could either be a single revenue model or a combination of several models. Also Zagoršek et. al examined effectiveness of business and revenue models of small companies in relation to ,,first mover" or ,,systematic approach" classification [Zagoršek et. al, 2017]. By transforming the generation of revenue into sales of customer value, a business becomes an enterprise with a future focused on profitability. Profitability rates are different in every enterprise, even though they operate in the same industry and have the same cost structure. The level can be influenced by several indicators: fixed and variable costs, sales volume, costs and customer retention [Baker, 2010].

A company's revenue model can be composed of different revenue streams that can all have different pricing mechanisms [Osterwalder & Pigneur, 2002]. In practice, there are two types of revenue models applied – single revenue stream and multiple revenue streams, depending on the nature of the business model. Some more sophisticated revenue models include, in addition to single or multiple streams, interdependent revenue streams or a revenue stream nicknamed "loss leader" [Gartner & Bellamy, 2010]. Types of revenue streams:

- Single stream - one main source of revenue;
- Multiple streams – several major revenue streams;

Katarína Remeňová *Is Assistant Professor at University of Economics in Bratislava, Faculty of Business Management, Department of Management, where she has been since 2010. Her research interest is concerned with business decision making in field price management.*

- Interdependent – a revenue source from one stream supports product sales/services in different streams;
- "Loss leader" - several revenue sources, but not all are as profitable. Some are even losing to support the profitability of others. Then, revenue model can be described by the following assumptions:
- the count of potential revenue streams is not limited (some boundaries result from company´s activity potential),
- company has defined the number of revenue streams (one or more revenues streams),
- the count of potential customers is not limited.

2. METHODOLOGY AND DATA ANALYSIS

The aim of the research paper is to identify the impact of particular business model parameters such as key business activities (in analysis termed as Scope of key business activities), additional business activities (termed as Scope of Additional Business Activities) and sales channels (termed as Scope of off-line channel types and Scope of online sales channels) on the revenue model of a winery (in terms of revenue streams). The original research sample (N= 100) consists of Slovak wineries of all size types. The researchers have ensured the measurement objectivity by using data collected in on-line form from company's websites and from secondary sources that represent the financial statements, annual corporate reports and analyzes of external entities. All variables represented interval data. Random sampling was conducted as part of computer analysis in PSPP as ‚approximately 50% of all cases".

Linear regression analysis was used to ascertain the specific dependence between the dependent variable revenue model (represented by number of revenue streams) and the independent variables such as „Scope of online sales channels", „Scope of off-line channel types", „Scope of key business activities and „Scope of Additional Business Activities". Scope is represented by numbers. The interrelationship of the variables is depicted as follows:

$$Y = b0 + b1 * X + e$$

The obtained data were analyzed in the PSPP statistical software. Hypotheses were tested at the significance level of $\alpha \leq 0.05$ (Hanák, 2016).

3. ANALYSIS AND RESULTS

Before looking at the dependence of a revenue model on selected business model parameters, here is a description of the basic data set using a frequency table and measures of central tendency. Based on frequency table results, it is possible to state that the highest variability between values reaches the variable "Number of Revenue Streams" (SD = 1.51), while on the other hand the lowest variability between values is reported with "Scope of online sales channels" (number of online channels) (SD = 0.38; M = 1.13).

Nadežda Jankelová *Is Assistant Professor at University of Economics in Bratislava, Faculty of Business Management, Department of Management, where she has been since 2006. Her research interest is general decision making.*

Tab. 1 - Frequency table for decision making style score

Variable	*N*	*Mean*	*S.E. Mean*	*Std Dev*	*Variance*	*Kurtosis*	*S.E. Kurt*	*Skewness*	*S.E. Skew*	*Min*	*Max*
Scope of key business activities	100	1.11	.04	.42	.18	14.50	.48	3.92	.24	1.00	3.00
Scope of Additional Bus. Activities	100	1.54	.14	1.36	1.85	.32	.48	.91	.24	.00	6.00
No. of Revenue Streams	100	2.65	.15	1.51	2.29	.25	.48	.97	.24	1.00	7.00
Scope of off-line channel types	98	1.97	.10	.99	.98	-.69	.48	.65	.24	1.00	4.00
Scope of online sales channels	63	1.13	.05	.38	.14	10.23	.59	3.16	.30	1.00	3.00

Source: researchers' own processing with PSPP

The average number of revenue streams is M = 2.65, with the smallest number of streams from which wineries earn revenue being one and the highest number seven. The average number of Additional Business Activities is M = 1.54 with SD = 1.36 together with Number of Revenue Streams showing the highest dispersion of values from the mean. The highest number of Additional Business activities of wineries is zero, which means no ABA, there are 6 at most. Analyzed wineries indicate the range of Core Business Activities from 1 to 3, on average M = 1.11 with variability SD = 0.42. The average number of Offline Channels Type is M = 1.97, (SD = 0.10). The distribution normality was monitored through kurtosis and skewness. Based on the kurtosis data for Number of Revenue Streams (kurtosis = 0.25), Additional Business Activities (kurtosis = 0.32), Core Business Activities (kurtosis = 14.5), Online Channels (kurtosis = 0.32), we can state that there is a more pointed division and the data is close to the mean. The only data where "Number of Offline Channel Types" has a flatter distribution (kurtosis = 0.69) is where more extreme values were found. The skewness also points to the non-normal distribution in all data sets. Skewed values are greater than zero for all variables, indicating left-sidedness distribution that means lower values.

Using linear regression analysis, functional dependence was identified between the dependent variable in the revenue model (composed of the number of revenue streams) and the independent variables Scope of key business activities, Scope of additional business activities Number of Revenue Streams, Scope of off-line channel types and Scope of online sales channels. The following hypotheses were tested:

H0: Number of key business activities, additional business activities, number of Revenue Streams, number of off-line channel types and number of Online Channels have no statistically significant dependence on the scope of revenue model measured by linear regression analysis.

H1: There is statistically significant dependence between analyzed variables.

In order to determine the relationship between variables, Pearson's correlation coefficient was used (Table 4).

Table 2: Model summary of linear regression analysis

Variables	Scope of Revenue Streams		
	R	R^2	Sig.
Scope of Key Business Activities	*.49*	*.24*	*.000*
Scope of Additional Business Activities	***.96***	***.93***	***.000***
Scope of Off-line Channel's type	.25	.06	.014
Scope of online sales channels	.09	.01	.492

Source: own processing in PSPP

Table 2 ,,Model summary" shows aggregated results of Pearson's correlation coefficient for variables Scope of Key Business Activities R = .49 (what indicates moderate level of correlation), Scope of Additional Business Activities (R = .96) and Scope of Off-line Channel's type (R = .25) as a positive correlated with Scope of Revenue Streams. The highest correlation is between Scope of Revenue Streams and Scope of Additional Business Activities, which means extremely high correlation. 93% variability of dependent variable ,,Scope of Revenue Streams" is explained by the independent variable ,,Scope of Additional Business Activities". Pearson's correlation coefficient for the variable Scope of Online Sales Channels R = 0.09 is a number that is very close to zero. This implies that no dependency is confirmed between Scope of Revenue Streams and Scope of Online Sales Channels.

The following tables (3 to 6) present an ANOVA test evaluating how well our regression model described the data. The regression model for the variables Number of Revenue Streams and *Scope of Key Business Activities* describes well the analyzed data (Table 3). The result of the F test (F = 30.26) is a statistically highly significant p = 0.000.

Table 3 ANOVA for Scope of Key Business Activities

	Sum of Squares	*df*	*Mean Square*	*F*	*Sig.*
Regression	53.50	1	53.50	30.26	.000
Residual	173.25	98	1.77		
Total	226.75	99			

Source: own processing in PSPP

Since the model describes well the relationship between the analyzed data, the following regression equation can be compiled:

$$Y = 0.73 + 1.73*X$$

By virtue of the regression coefficient b1 = 1.73, it can be asserted that incrementing the value of the independent variable Scope of Key Business Activities by 1 unit raises the Number of Revenue Streams variable by 1.73 units.

The regression model for the variables Number of Revenue Streams and *Scope of Additional Business Activities* also describes very well the analyzed data (Table 4). The result of the F test (F = 1220.22) is a statistically highly significant p = 0.000.

Table 4 ANOVA for Scope of Additional Business Activities

	Sum of Squares	*df*	*Mean Square*	*F*	*Sig.*
Regression	209.89	1	209.89	1220.22	.000
Residual	16.86	98	.17		
Total	226.75	99			

Source: own processing in PSPP

Since the model describes well the relationship between the analyzed data, the following regression equation can be compiled:

$$Y = 1 + 1.07*X$$

By virtue of the regression coefficient b1 = 1.07, it can be asserted that incrementing the value of the independent variable Scope of Additional Business Activities by 1 unit raises the Number of Revenue Streams variable by 1.07 units.

The regression model for the variables Number of Revenue Streams and *Scope of Off-line Channel‘s type* also describes very well the analyzed data (Table 5). The result of the F test (F = 6.25) is a statistically highly significant p = 0.014.

Table 5 ANOVA for Scope of Off-line Channel‘s type

	Sum of Squares	*df*	*Mean Square*	*F*	*Sig.*
Regression	13.67	1	13.67	6.25	.014
Residual	209.88	96	2.19		
Total	223.55	97			

Source: own processing in PSPP

Since the model describes well the relationship between the analyzed data, the following regression equation can be compiled:

$$Y = 1.93 + 0.38*X$$

By virtue of the regression coefficient b1 = .38, it can be asserted that incrementing the value of the independent variable Scope of Off-line Channel‘s type by 1 unit raises the Number of Revenue Streams variable by .38 units.

Results in Table 6 for F statistics F = .48 are statistically independent p = .492. On the basis of analyzed data, the regression model for the variables Scope of Revenue Streams and Scope of online sales channels cannot be good enough described.

Table 6 ANOVA for Scope of online sales channels

	Sum of Squares	*df*	*Mean Square*	*F*	*Sig.*
Regression	1.20	1	1.20	.48	.492
Residual	153.66	61	2.52		
Total	154.86	62			

Source: own processing in PSPP

CONCLUSION

The core business model for all the analyzed wineries is the production and sale of wine. Some wineries have expanded the basic model with the sale of additional assortments and provision of supplemental services in the form of events (renting their place or organizing wine-tastings for individuals and businesses) and other services (vineyard care). These business activities, which form the foundation for their key business activities, are parameters for how the business generates value and to whom it is distributed. From the analyzed data, the wine sales model can be said to have multiple streams. Based od analyzed data we can state, that revenue model of wineries can be termed as multi revenue streams model. The results of the linear regression analysis confirmed statistically significant influence of parameters (p value < .05) - "Scope of Additional Business Activities", "Scope of Key Business Activities " and "Scope of Off-line Channels" on the Scope of the Revenue model (in this order). Pearson's R shows a very high dependency between the Scope of Additional Business activities and the Scope of Revenue model, while the model explains up to 93% variability of the dependent variable.

Acknowledgement
The authors are thankful to VEGA No.: 1/0109/17 The innovative approaches to management and their influence on the competitiveness and the successfulness of the companies within the conditions of the global economy for financial support to carry out this research.

LITERATURE

1. Baker, R. (2010). *Impelenting Value pricing. A radical business model for Professional firms*. New Jersey: Wiley&Son. ISBN 978-0470584613 368
2. Bednár, R., & Tarišková, N. (2017). Revenue streams as key determinant of scalability of start-up business model. *Podnikateľské modely a podnikateľské stratégie startupov III*. Bratislava: Vydavateľstvo Ekonóm. ISBN 978-80-225-4457-3
3. Canzer, B. (2006). *E-business:strategic thinking and practise*. Cincinnati: South-Western College Pub. ISBN 978-0618519880.
4. Escobar, C., & Gil, J. M. (2016). Marketing channels for small wineries: a means-end chain approach, *New Medit*, 15(4), 33-42.
5. Gartner,W.B., & Bellamy,M.G. (2010). Enterprise. Mason: South-Western Cengage Learning. ISBN 978-0-324-78533-3
6. Hrušovská, D., & Štetka, P. (2017). *Vzťah medzi celoživotnou hodnotou zákazníka a vernosťou zákazníka*. Moderné marketingové prístupy a možnosti merania ich marketingovej výkonnosti 2017. Bratislava: Vydavateľstvo EKONÓM. ISBN 978-80-225-4398-9
7. Kähkönen, A.K. (2012). Value net – a new business model for food industry? *British Food Journal*, 114 (5), 681-701. ISSN 0007-070X.
8. Kehal, H., & SINGH,V.P. (2005). *Digital economy. Impacts, Influences and Challenges.* Hershey: Idea Group Pub. ISBN 978-1-5914-0363-0
9. Kintler, J. (2016). *Vplyv analýzy hodnotového systému spotrebiteľa na cenotvorbu firmy*. Ekonomika, financie a manažment podniku. Bratislava: Vydavateľstvo EKONÓM. ISBN 978-80-225-4280-7
10. Mahadevan, B. (2000). Business Models for Internet-based e-Commerce: An anatomy, *California Management Review*, 42 (4), 55-69. ISSN 0008-1256
11. Osterwalder, A., & Pigneur, Y. (2002). An eBusiness model ontology for modeling eBusiness. Bled 2002 Proceedings, 2. Retrieved from:

http://aisel.aisnet.org/bled2002/?utm_source=aisel.aisnet.org%2Fbled2002%2F2&utm_medium=PDF&utm_campaign=PDFCoverPages (13.6.2018)

12. Osterwalder, A., & Pigneur, Y. (2010). *Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers.* Hoboken*:* John Wiley & Sons ISBN 978-0470-876-41-1
13. Rappa, M. (2004). The utility business model and the future of computing services. In *IBM Systems Journal*, 43 (1), 32-43. ISSN 0018-8670
14. Remeňová, K. (2015). Price differentiation - the efficiency strategy for revenue growth. In *Moderné trendy v manažmente a ich uplatňovanie v podnikoch na Slovensku*. Bratislava: Vydavateľstvo EKONÓM. ISBN 978-80-225-4165-7
15. Rogovská, V. (2018). Konkurencieschopnosť slovenského vinárskeho priemyslu v európskom hospodárskom priestore s dôrazom na krajiny Vyšehradskej štvorky, *Vedecký časopis Ekonomika poľnohospodárstva*, 18 (1), 100-112. ISSN 1338-6336
16. Weill et al. (2005). Study: Do Some Business Models Perform Better than Others? A Study of the 1000 Largest US Firms. MIT Sloan School of Management, MIT Center for Coordination Science Working Paper No. 226.
17. Zagoršek, B., Procházková, K., Bednár, R. (2017). *Importance of systematic and first mover approach in startups.* Vision 2020: sustainable economic development, innovation management and global growth. International business information management association conference (IBIMA). Norristown: International Business Information Management Association. ISBN 978-0-9860419-9-0
18. Zott, C., Amit, R., & Massa, L. (2011). The business model: recent developments and future research, *Journal of management*, 37(4), 1019-1042. DOI:10.1177/014920631140626

INVESTMENTS IN REPAIR OF OUTDATED METAL FORMING MACHINES AND EVALUATION OF THIS INVESTMENTS

Burim Fejzaj[149]
Milan Vukcević[150]
Mileta Janjić[151]

DOI: https://doi.org/10.31410/eraz.2018.230

Abstract: *The production of various details with deformation always wants work, accuracy and expenses. The purpose of these expenses at the beginning of the project also gives hope that these investments will return to us together with profit. In the Balkan countries, as we know, production in metal forming has stagnated. The privatization is not done so well that many metal forming factories have been returnet into various supermarkets. The few remaining factories are facing various problems. Among the problems with which most of them are faced is outdated machinery which in developed countries is sophisticated.*
The purpose of this paper is to present the possibility of investment in such machineries by taking as an example a metal forming press as well as evaluating the investment project in manufacturing of these press dies (tools). These evaluation of this investment will be done using IRR method. Application of internal rate return (IRR) method sends us in terms of investment assessment and potential benefit, taking into account all project data of investment.

Key words: *Investment, metal forming machines, repair, evaluation, IRR method*

1. INTRODUCTION

Project evaluation is of particular importance. The use of the appropriate methods of assessment is also of particular importance. From the experience of life we know that private sector projects are always intended to benefit not to overlook the public sector as well. The methods used for the evaluation of private sector projects are numerous but the most widely used method is that of the IRR. Deformation process and project evaluation of this type is what will be analyzed in this paper. Manufacturing of the open die for deformation process of sink barrow as well as the costs will be analyzed using the above mentioned method. The presentation of knowledge for the assessment of the benefit during the production of the sink barrow and the process in general are introduced here.

2. THEORETICAL VIEW

The **internal rate of return (IRR)** is a rate of return used in capital budgeting to measure and compare the profitability of investments [4]. Authors [8] say that Internal Rate of Return is not, as its name suggests, a measure of the return on an investment. Internal rates of return are commonly used to evaluate the investments or projects in this case manufacturing of open die for sink barrow production. The higher a project's internal rate of return, the more desirable it is to undertake the project. Assuming all projects require the same amount of investment, the

[149] Faculty of Mechanical Engineering, Bulevar Džordža Vašingtona bb, 81000 Podgorica, Montenegro
[150] Faculty of Mechanical Engineering, Bulevar Džordža Vašingtona bb, 81000 Podgorica, Montenegro
[151] Faculty of Mechanical Engineering, Bulevar Džordža Vašingtona bb, 81000 Podgorica, Montenegro

project with the highest IRR would be considered the best and undertaken first. A firm (private sector) should, in theory, undertake all projects or investments available with IRR- s that exceed the cost of capital. Investment may be limited by availability of funds to the firm and by the firm's capacity or ability to manage numerous projects [5]. Internal rate of return is a discounted cash flow rate of return used in capital budgeting to measure and compare the profitability of investments [4].

The main purpose of project is economic analysis to help design and select projects that contribute to the welfare of a country. The tools of economic analysis can help us answer various questions about the project's impact on the entity undertaking the project, on society, on the fisc, and on various stakeholders, and about the project's risks and sustainability [6].

The most popular indicator of the profitability of a project is, without doubt, the Internal Rate of Return [7]. Moreover, if the cash flows are multiples, there are more than one IRR, which makes its use impractical [3].

Burim Fejzaj *was born on 01.08.1981. in Istog. Primary school had ended in the birthplace at the elementary school "Ndre Mjeda" in Rakosh. Burim completed secondary school in Istog at SHMT "Mithat Frashëri" in the technical direction of the machinery. He started engineering studies in 2000/2001 at the University of Prishtina - Faculty of Mechanical Engineering which he completed in 2005. Since academic year 2005/06 he has been employed as a professor of machanical field at SHMT "Mithat Frashëri" in Gurrakoc, Istog. Master studies he had enrolled in 2012/2013 at the University of Prishtina "Hasan Prishtina" at the Fakulty of applied science, and finished on 24.07.2014. In the academic year 2017/2018 he has enrolled doctoral studies at the University of Montenegro, Faculty of Machinery - direction - Production Machinery.*

He has over a thousand hours of professional training in the field of education and has been the CNC machine trainer in various projects. He possesses good skills for different software and speaks six foreign languages.

2.1. Formulas and calculation

According to the definition of the IRR for somebody to be able to estimate its precise height, as long as we refer to a specific investment project, we should solve the equation [5].

$$NPV = \sum_{t=0}^{t=T} \frac{R_t}{(1+i)^t} - \sum_{t=0}^{t=T} \frac{C_t}{(1+i)^t} \tag{2.1}$$

Where: R_t and C_t - the revenues and costs respectively per year;
T - Investment lifetime;
i - Discount rate.

The period is usually given in years, but the calculation may be made simpler if is calculated using the period in which the majority of the problem is defined (e.g., using months if most of the cash flows occur at monthly intervals) and converted to a yearly period thereafter. Any fixed time can be used in place of the present (e.g., the end of one interval of an annuity); the value obtained is zero if and only if the NPV is zero.The equivalent value can be calculated using any of the three methods mentioned above. The interest rate that is obtained is called IRR. Using the formula for the present value, the IRR is interest i´ %, and from which we can take the yield in another form [1].

$$\sum_{k=0}^{N} R_k (P/F, i'\%, k) = \sum_{k=0}^{N} E_k (P/F, i'\%, k) \quad (2.2)$$

Where are:
R_k - neto revenues or saving for k – years;
E_k – net expenditures including any investment cost for k – years;
P – Present value of money;
F – Future value of money;
k –number of years.

Another way to determine the internal salary for the alternative is to determine i´ so its present value is zero. Then the IRR can be determined from the equation.

$$\sum_{k=0}^{N} R_k (P/F, i'\%, k) - \sum_{k=0}^{N} E_k (P/F, i'\%, k) = 0 \quad (2.3)$$

R_k - neto revenues or saving for k – years;
E_k – net expenditures including any investment cost for k – years.

A current value graph, for an alternative to the investment cost in the present (k = 0) and a series of positive cash payments in the period N, in the function of the interest rate of return as headline 1 in which Pw = 0 determined i´ and then its named internal wage rate for that project.[1]

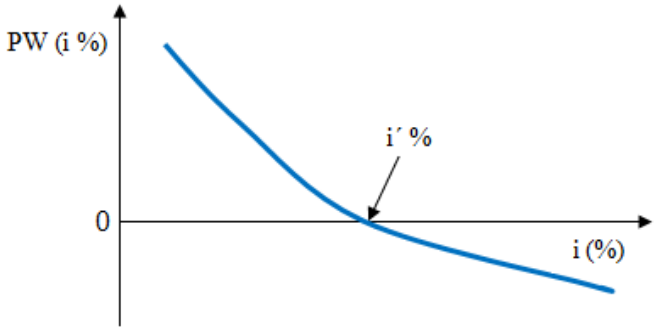


Figure 1. Pw depending on interest rates

The Investment Balance Diagram is another way in which the IRR can be presented.

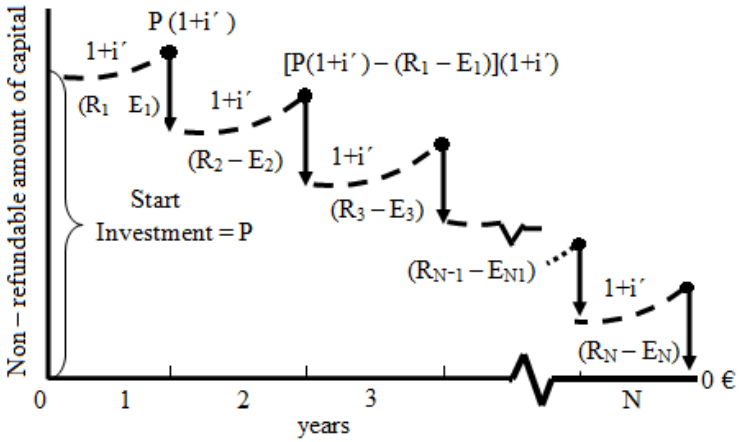


Figure 2. Investment diagram showing the IRR

3. PRACTICAL PRODUCTION PROCESS WITH DEFORMATION OF SINK BARROWS

Deep drawing materials are easily shapeable materials, because of their high ductility. Aluminum alloy materials are classified in the deep drawing materials group because they are easily shapeable. In order to increase the strength, materials are made an alloy by adding some chemical additives [2]. But here it is necessary to achieve the precision of the metal forming details, especially the bigger details.

3.1. Practical conditions of production in factory:

Company name: Interested to invest **"Company A"**

Number of workers – 2, Press machine from 400 tons, Material – plates of metal (ST – 7). The calculation is made to evaluate the accuracy that will be gained with the new tools. Analysis and evaluation will be made only for this purpose and will not include other parameters.

Figure 3. Press and open die tools, final shape

Milan Vukčević *was born in 1954. Primary and secondary school he finished in Podgorica. After that, Mechanical faculty – University of Montenegro, as first in class. Master degree he finished at Mechanical faculty – University of Belgrade. PhD thesis he worked at University Lomonosov - Moscow and finished in 1989.*
University career he began in 1978. He passed through all stages of university career - from assistant to full professor, and The Dean of Mechanical Faculty for two mandates.
His areas of scientific work in his 40 years-long university career are: Applied mechanics, Technology, Engineering economy, Standardization.
He attended the following abroad: 1980/1981, 6 months at institute STANKIN in Moscow; 1982, 2 months at Polytechnic in Lublin- Poland; 1987/ 1988, 14 months at University Lomonosov in Moscow; 1992, 8 months at University in Birmingham – England (Postdoctoral fellowship of European Community).
Professional work*: has published 4 books, 6 course textbooks. more then 230 papers at Conferences and Journals in 10 countries. He has worked on more then 20 projects, as manager, or member of a working team.*
Teaching: *full professor in Mechanical faculty – Podgorica; Faculty of navigation- Kotor; Faculty of production and management – Trebinje.*
Other activites*: Expert of Quality Center. Member of International Board of FOSI CG, Member of Board for Quality of Montenegro, Director of Diaspora Center of Montenegro…*

3.2. Data of project:

The data for the project should consider these ranked factors.
Duration of project – 4 years, Production for hours 20 pieces – production for day (8 x 20) = 160. Production days (365 – 115) = 250 days, Total production days for 4 years excluding holidays = 1000 days. The purpose of this project is to invest in the manufacturing cost of new tools for sink barrow in order to achieve accuracy and profit.

4. APPLICATION OF (IRR) METHOD IN EVALUATION OF MANUFACTURING PROCESS OF OPEN DIE FOR SINK BARROW IN METAL FORMING

However use of the IRR method is characterized from several problems. Now from the upper date the investment in project is 6500 € and the profit for four years 3367.5 €, and for four years the company will have market value of 1580 €. Annual costs will be 1625 €, the company is willing to play for a project that generates revenue of 11% per years, before tax on profits, on total investment.

Project data	*Cost and duration*
Investment for project	6500 €
Life time of project	four years
Market value of the project in the end	1580 €
Interest value of incomes for 4 years	3367.458
Annual income	2466.864 €
Annual costs	1625 €

Table1. Project date

4.1. Evaluation process

Project evaluation will be based on the cash flow of money.

Pw = 0 = - 6500 € + (841.864 €) (P/A, i´%, 4) + 1300 € (P/F, i´%, 4), i´%=?

For the investment assessment we will use the 6% variation, which means that the first rate will be 7 % and the second 13%.

For i´= 7 %: Pw = -2443.05 €

For i´= 13%: Pw = -3026.85 €

Percentage	7%	8%	9%	10%	11%	12%	13%
Pw (€)	-2443.05	-2550.29	-2653.28	-2752.24	-2847.37	-2938.85	-3026.85

Table 2. Eligibility for profit-based assessment

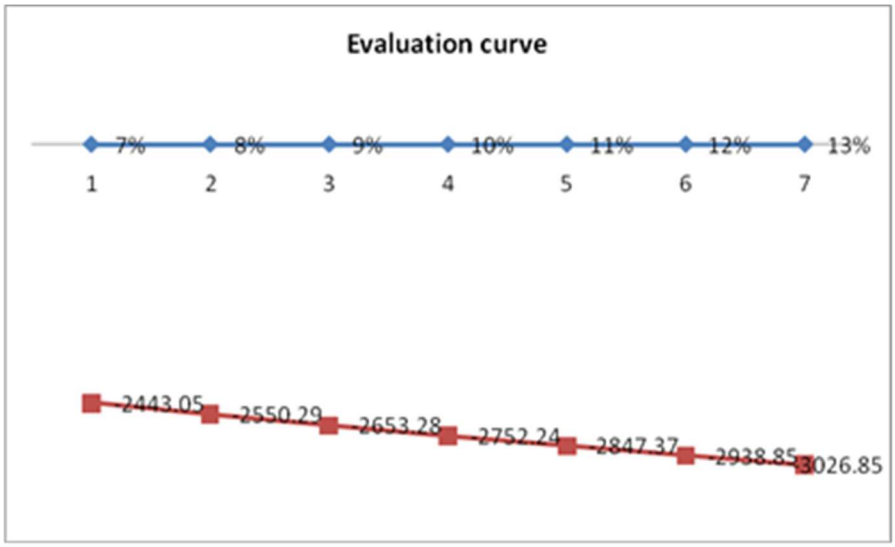


Figure 4. Evaluation curve

The assessment of economic reasonability for machining parts of press machine should be seen in a sphere in which the benefits are to be in longer periods. Project evaluation for more years (10 years) but with the same percentage is presentet down.

Pw = 0 = - 6500 € + (1195.624 €) (P/A, i´%, 10) + 650 € (P/F, i´%, 4), i´%=?

Percentage	7	8	9	10	11	12	13
Pw (€)	2227.987	1823.808	1447.67	1097.193	770.224	464.822	179.227

For i´= 7 %: Pw = 2227.987 €

For i´= 13%: Pw = 179.227 €

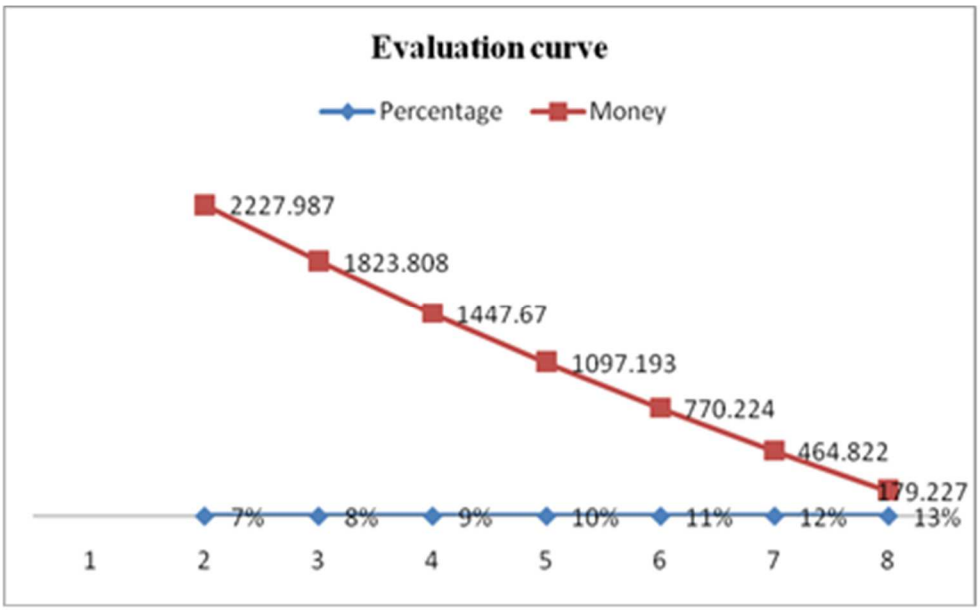


Table 5. Eligibility for profit-based assessment

5. CONCLUSION

The values obtained during the project evaluation for the manufacturing of open dies tool for production of sink barrow give us an important insight understanding. The tools are of particular importance as they revitalize this machine to make a production. The company's investment,
which aims at invest money for the four-year period is not economically feasible. It is seen from the diagram that the company for such investment will work with loss so it is not worth investing so much money in order to get it for four years. But if the same project is invested the same amount but lifetime of project is 10 years can be called a good investment and from diagram 5 we can see that investing in such a project would be appropriate for the company as the work would be functional from the other hand there would be no risk even though the profit would be lower. So we can say that such investments in repay of outdates metal forming machines for short periods it is not good but for longer period is appropriate.

6. LITERATURE

[1] Vukcevic M., Inzinjerska ekonomija, Universitet Crne Gore –Masinski fakultet, Podgorica 2012

[2] Karali M., Examination of the strength and ductility of aa-1050 material shaped with the multi-stage deep drawing method, DOI: 10.2478/v10172-011-0026-8, volume 56/2011

[3] Nobrega, Marcos. The limits and the application of Internal Rate of Return (IRR) in the Concessions and Public-Private Partnerships (PPPs) in Brazil (2017).

[4] Project Economics and Decision Analysis, Volume I: Deterministic Models, M.A.Main, Page 269

[5] Athanasios Cristodoulou “The internal rate of return problems and manners of solution, school of Foresll and rural Environment, Thessaloniki, Greece 1996

[6] Pedro Belli. Jock Anderson, Howard Barnum, John Dixon, Jee-Peng Tan” Handbook - economic analysis of investment operations” January, 1999

[7] Kelleher, John e MacCormack, Justin. Internal Rate of Return: A Cautionary Tale. The McKinsey Quarterly. October 20, 2004.

[8] Jonatan Langthon, The False Reinvestment Assumption and the Propagation of Incorrect Ideas, 2010

Mileta Janjić

Present position: Assistant Professor at University of Montenegro - Faculty of Mechanical Engineering,
Years with presently employing firm: 17 years

After graduating he started work at the University of Montenegro - Faculty of Mechanical Engineering 01/09/1992. After taking his Masters degree he was appointed assistant for the subjects: Metal Forming, Quality Control and Mechanical Materials. After taking Ph.D. degree he was appointed assistant professor for the subjects: Metal Forming, New technologies, Projecting of technological processes at Faculty of Mechanical Engineering, and Technique with informatics at philosophical faculty.
His specialty is bulk forming processes and numerical FEM simulations of the next processes like hot and cold forging in open and closed dies, hot and cold extrusion, upsetting.
He has published 57 scientific papers at conferences in country and abroad, and in domestic and foreign magazines. He participated in 7 scientific research and professional projects.

Other skills:
- *Finite Element Method (DEFORM, EESY-FORM, ABACUS)*
- *ProEngineer, AutoCAD, Corel*
- *Turbo Pascal, C++, MATLAB*
- *Microsoft Office: Word, Excel, PowerPoint*

IMPACT OF FINANCIAL STRUCTURE ON ECONOMIC RETURN (ROA - RETURN ON ASSET); CASE STUDY: WHOLESALE OF MOTOR VEHICLE PARTS AND ACCESSORIES (NACE: 4531)

Rodica Baciu (Boanta)[152]
Petre BREZEANU[153]

DOI: https://doi.org/10.31410/eraz.2018.237

Abstract: *The purpose of this research is to determine whether there is a relationship between **capital structure** and **economic performance** of **firms** active in Romania in the wholesale of motors vehicle parts and accessories (NACE 4531). **Capital structure** refers to how a **firm** chooses to finance their investments and future growth by dividing debt into subcategories (bank, commercial) and time horizon, while **economic performance** is evaluated by the return on assets (net result divided by total assets in the balance sheet). By determining this relationship, **firms** in these sectors should have a better understanding of how to finance long and short term investments to maximize the return on assets and exceed the cost of capital. The main output of the study consists in the fact that the **financial structure divided by debt components** of the companies explains significantly the return on assets, while the model can be improved by adding operating profits and asset turnover to better explain economic return.*

Key words: *capital structure, return on assets, operating leverage*

1. INTRODUCTION

The current paper aims to evaluate the impact of financial structure on the return on assets. According to the literature review presented in the following section, it is very important to understand the principal drivers of the economic return to understand important indicators reflecting the long term solvency of any company, starting with the assets performance and cost of capital coverage. Methodology and sample description are presented in the third section, providing further details on the multifactor regression initial and improved model. The first model is adjusted due to multicolinearity issues among financial structure independent variables. The results are presented in the fourth section for both the initial and adjusted model. According to the multifactor regression equation results in E-Views, we conclude that subcomponents of financial structure explaining 64% from the variation of the return on assets. Moreover, general leverage together with new independent variables included (operating margin and asset turnover, described in the second model) explain up to 78% of the economic performance for the appraised companies. In the end, we recommend future research under volatile interest rates inflationary pressures specific to Romania during the current year, which can significantly affect companies active in wholesale activity!

[152] The Bucharest University of Economic Studies Department of Finance, Bucharest, Romania
[153] The Bucharest University of Economic Studies Department of Finance, Bucharest, Romania

2. LITERATURE REVIEW

Return on assets (ROA), or the economic return, is one of the most important indicators to reflect the performance of investments on both long and short term (Christensen et al., 2015). Companies can be competitive only if they constantly search for investment in new projects, markets, products / services or technology to generate growth opportunities (Kato et al., 2016). This is mostly important in emerging countries, where business cycles are higher in amplitute (Kannadhasan et al., 2016) and the process of distruptive regeneration is more intense (Botosan et al., 2011). Hence, during recessionary periods companies default, creating opportunities for the existing firms to expand their capacity of production and increase sales (Giacomini et al., 2016). This is mostly beneficial during the initial recovery period, when interest rates are low to encouragen spending and investments (Liu and Li, 2012), assets are usually undervalued and future growth perspective should support investments (Galsband, 2010). Following the initial investment, management should develop a process of monitoring the performance of execution from both operational and financial point of view. To the latter respect, investments in assets should generate enough return to cover the cost of capital necessary to finance the initial cash outlay (Jung, 2016). To this perspective, companies use the weighted average cost of capital to reflect the financing effort. For an estimate **of the weighted average cost of capital (WACC, eng: Weighted Average Cost of Capital)** one must determine the cost and weight of each capital components, as it follows:

*Mrs. **Rodica Baciu** is the Deputy General Director of SC Materom SRL since 1998, a company established by Rodica and her husband, Ioan Matei Baciu, integrally with Romanian capital. She is specialized in economics, finance, management with two master degrees, and is a Ph. D student at Bucharest Academy of Economic Studies.*

Besides her leadership, speaking and writing skills, she is also very appreciated for her financial management style, based on KPI, an objective financial planning. The experience in creating efficient financial strategy is proven by the results of the company Materom that grows every year, and face with success the difficult years of the last financial crisis. In the same time she is passionate about marketing solutions in making her company known in the country, and also for providing personal initiation programs.

As a coordinator of the company, with over 20 years of activity, Mrs. Rodica is investing in her personal development in order to help and determine students and employees to reach out for their highest capability, development and acknowledgement.

This year she presented one of her works to ICESS Conference that took place in Bucharest. Her article „Insolvency Risk. Application of Altman Z-score to the auto parts sector in Romania" is about to be published this year, for the ISI Proceeding journal.

Rodica also wrote an article for European Journal of Business and Social Sciences, paper entitled " THE LEVERAGE EFFECT IMPACT" that was published in Volume 6, May 2017.

[1] Debt contracted from different lenders: credit institutions, affiliated entities, or different State funds borrowed (bonds, syndicated loans or club). However, not all lenders charge a "cost of money". Suppliers provide services and/or deliver goods for which they issue bills with a profit margin. The State provides services to the public and ensure general infrastructure financing activities which charge different taxes (tax on profit/income, VAT, social contributions, etc.). Thus, the only creditors who actually perceive a "cost of money" are credit institutions, through the effective annual interest rate (Martins and Martins, 2015). The average annual effective interest rate paid by a company during a year, for all contracted loans from credit institutions, can be calculated using the formula:

$$K_d = \frac{\text{Expenses regarding the interest}_t}{\frac{D_t + D_{t-1}}{2}};$$

where

D = total debts contracted from the credit institutions

When calculating the effective annual interest rate corresponding to loans contracted, we must consider the fiscal / tax deductions. There are certain borrowings (from Group entities, associates/shareholders, etc.) for which the deductions are restricted (depending on the interest rate ceiling or supported limit on the degree of indebtedness of capital). Nevertheless, for the most common situations (bank loans or financial leasing contracts), interest expenses are fully deductible in determining the taxable profit, irrespective of the level of indebtedness or a certain level of the interest rate. Thus, the deductible nature of borrowings contracted from credit institutions generates a tax saving. In this context, when we calculate the weighted average cost of capital, we will consider the value of the respective annual net interest after adjusting the level of tax charges, namely **Kd x (1-t)**

[2] Equity capitals attracted from shareholders. Unlike the actual annual interest level, which is a calculable variable based on the company's financial statements, the cost of capital raised from shareholders is not directly observable. Thus, shareholders who invest in the company are having some expectations of future returns. The objective expectations of the shareholders should be set according to the three prime: **country risk** (in which company is located), **the sector risk** (operating company) and **the risk of the company** (Wibowo, 2005).

Some researches have found that modest return on assets and suboptimal capital structure are the principal cause of companies insolvency risk increase on the long run, because expectations from all capital provides can't be settled simultaneously (Kruger et al.,

BREZEANU PETRE

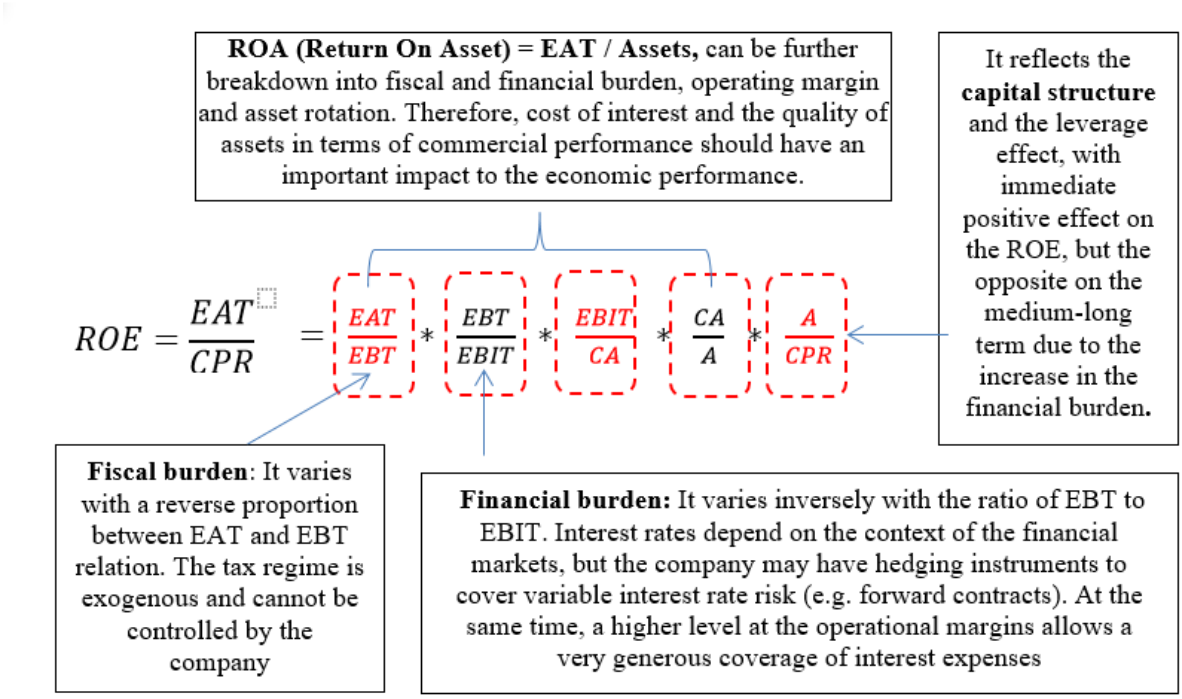
Professor
The Bucharest University of Economics Studies, Bucharest (Romania)

- *Teaching activities and seminars in Romanian and French to undergraduate and master cycle;*
- *Scientific Steering PhD;*
- *Activity training and scientific coordination of dissertations and diploma works in Romanian and French;*
- *Scientific research projects of national and international research;*
- *Tutorial activities;*
- *Organizational activities.*

Organisational / managerial skills:

- *During 2001-2012 Vice-Dean of the Faculty of Business Administration, teaching foreign languages, French department coordinator, ASE Bucharest;*
- *Coordinator of faculty from all events were related to the french language during 2001-2012*
- *Coordinator of the faculty for the student scientific sections FABIZ, ASE Bucharest in the period 2001-2010;*
- *Deputy Director of the Master of financial products in insurance, Faculty of Finance, Insurance, Banking and Stock Exchange, ASE Bucharest in the period 2004-2008;*
- *Member of the organization 10 years after the establishment of the Faculty of Economic Studies in Foreign Languages from 1991 to 2001, ASE Bucharest;*
- *Coordinator of the studies in economic education open and distance, Faculty of Finance, Insurance, Banking and Stock Exchange, ASE Bucharest in 1999-2001;*
- *Coordinator of the international internships (2001) and national level during 2001 to 2012;*
- *President of the committee degree and dissertation committees in departments of the Business Administration, teaching foreign languages (FABIZ) and Department of the Finance, Insurance, Banking and Stock Exchange (FABBV), ASE Bucharest.*

2015). If this happens, best practices recommend that shareholders should postpone the dividend distribution, because the company cannot provide enough return to cover for the shareholder's expectations. Under this circumstances, the operating cash flow should be directed to coper principal financial needs (debt reimbursement) and perpetual investments in working capital (Fernandez, 2011). Using the 5-variable DuPont model, we can better understand the financial performance component (Melvin et al. (2004), Kasilingam and Jayabal (2012)), where the opposite effect of the leverage effect on financial return (the increase in the indebtedness degree implies the reduction of capitalization and, implicitly, the increase of the financial return by the basis effect) and the degree of the financial burden (the increase of the indebtedness feeds the increase of the interest and implicitly the erosion of the operational profit), like explained here:



Where:

- EAT = the exercise net result (eng. "Earnings After Tax")
- CPR = shareholder's equity
- EBT = gross result (eng. "Earnings Before Tax")
- EBIT = operating result (eng. "Earnings Before Interest and Tax")

The impact of the capital structure by debt components was found only in the recent research of the literature review. Chadha and Sharma, 2015, evaluate the impact of capital structure on firm performance and find that increasing financial leverage has a positive impact over the economic return provided the company has enough operating profit to cover interest costs, and recommend that interest coverage ratio to exceed five time for financial comfort during business cycles, whereas companies with interest coverage ratio bellow 3 are exposed to increasing financial burden that would offset the beneficial effect of leverage and reduce economic return. Tudose, 2012, found that companies that higher trade credit (payables with extended payment terms to suppliers) instead of financial debt from credit institutions will generate higher return on equity due to lower financial burden and cost of capital. Other researchers focus in their studies on the structure and assets, with interesting findings showing that financial assets (like

long term investments in financial instruments, or short term speculative „held-for-trading" stocks) will cap the economic performance because of increasing trading costs and volatility (Miller and Bradford, 2001), or capital is not invested in the core activity of the company (Song, 2011). Moreover, when assets are overvalued with receivables not fully provisioned, perished inventories or outdated equipments, the economic performance is undervalued due to the basis effect and large asset base (Gerlach and Maurer, 2015).

3. METHODOLOGY AND SAMPLE DESCRIPTION

METHODOLOGY

To capture the impact of capital structure on economic return, the initial model used is a multifactor regression with six independent variables to explain the return on equity:

$$\boldsymbol{ROA_i = \alpha_1 + \alpha_2 * X1_i + \alpha_3 * X2_i + \alpha_4 * X3_i + \alpha_5 * X4_i + \alpha_6 * X5_i + \alpha_7 * X6_i + \mu_{it};}$$

where**:**

ROA = Net Result / Assets
X1 = Equity / Assets
X2 = Turnover / Assets
X3 = Debt from credit institutions on short term plus long term / Assets
X4 = Commercial debt contracted from non-credit institutions (payables, fiscal, diverse) / Assets
X5 = short term debt borrowed from credit institutions / Assets
X6 = Interest expense / Debt from credit institutions

Because of the multicolinearity issues (large R-squared coupled with small p-values for the t-test related to financial debt independent variables (coefficients are not statistically significant)), the initial model was adjusted with the following adjustments: general leverage indicator was introduced as independent variable to replace the short term debt structure (bank and non-credit institutions components of debt), and two new variables were introduced (operating margin and asset rotation), in line with DuPont model 3 factors model. The second model used is a multifactor regression equation with three independent variables:

$$\boldsymbol{ROA_i = \alpha_1 + \alpha_2 * X1_i + \alpha_3 * X2_i + \alpha_4 * X3_i + \alpha_5 * X4_i + \alpha_6 * X5_i + \mu_{it};}$$

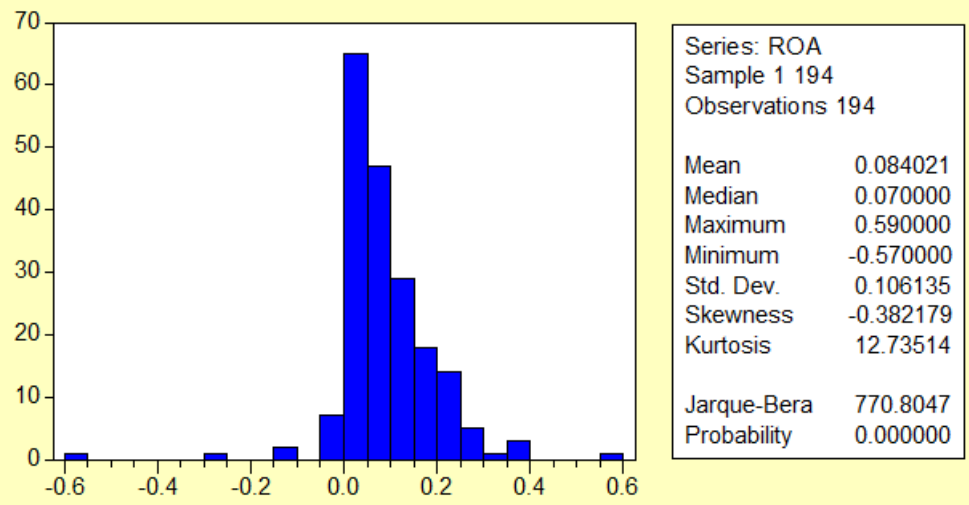
where:

ROA = Net Result / Equity
X1 = EBIT / Turnover
X2 = Equity / Assets
X3 = Turnover / Assets
X4 = Commercial debt (non-financial)
X5 = Financial debt borrowed from credit institutions on both long and short term

As illustrated and explained in the results section, the second improved model generates better results from both coefficient of determination and statistical significance of coefficients.

Sample description

For the analysis of the components of the economic return according to the variables previously explained in the methodology section, the information in the extended financial statements (particularly with regard to the profit and loss account) is required. For this reason, companies that are active in the wholesale of motor vehicle parts and accessories (NACE: 4531) were selected and for which the financial statements are available in extended format for 2016 financial exercise (the latest available year for large sample of companies at this moment). Thus, 194 companies have been identified that meet the criteria mentioned above, being companies with a turnover of more than 1 mil euro and generating a consolidated market share of about 85% for the entire selected sector. The descriptive statistics for the return on assets computed for all selected companies is illustrated next.



As observed, the mean value of economic performance is 0,084, above the median value of 0,07, indicating the existence of large values overstating the arithmetic average. The negative skewness value indicate the negative asymmetry, indicating the return on assets tendency to decrease in the selected sample of companies. The kurtosis value of 12,73 is above 3, indicating the distribution is leptokurtotic, with higher probability of extreme events as compared to the normal distribution (higher height). As we will observe further, both negative skewness and leptokurtokic distribution are explained by high values of leverage observed for the appraised companies.

$$S = \frac{1}{N}\sum_{i=1}^{N}\left(\frac{y_i - \bar{y}}{\hat{\sigma}}\right)^3 \qquad K = \frac{1}{N}\sum_{i=1}^{N}\left(\frac{y_i - \bar{y}}{\hat{\sigma}}\right)^4$$

Where:

S = skewness
K = kurtosis
Σ = standard deviation
N = number of observations (194 in our case)

4. RESULTS

Applying the first multifactor regression equation previously described on the data panel in E-Views, we obtain the following result:

Dependent Variable: ROA
Method: Least Squares
Date: 05/13/18 Time: 13:11
Sample: 1 194
Included observations: 194

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EQUITY	0.112855	0.047887	2.356682	0.0195
TURNOVER	0.010824	0.002873	3.768225	0.0002
BANK	-0.262422	0.180080	-1.457248	0.1467
DEBT_3RD	-0.003978	0.047677	-0.083442	0.9336
BANK_STD	0.163717	0.175373	0.933534	0.3517
INTEREST	0.021467	0.282028	0.076117	0.9394
C	0.034464	0.047922	0.719176	0.4729

R-squared	0.411527	Mean dependent var	0.084021
Adjusted R-squared	0.392646	S.D. dependent var	0.106135
S.E. of regression	0.082714	Akaike info criterion	-2.111442
Sum squared resid	1.279378	Schwarz criterion	-1.993530
Log likelihood	211.8099	F-statistic	21.79527
Durbin-Watson stat	1.742723	Prob(F-statistic)	0.000000

This way the equation becomes:

$$\boldsymbol{ROA_i = 0,0344 + 0,1128 * X1_i + 0,0108 * X2_i - 0,2624 * X3_i - 0,00039 * X4_i + 0,1637 * X5_{\ i} + 0,0214 * X6_i + \mu_{it};}$$

where:

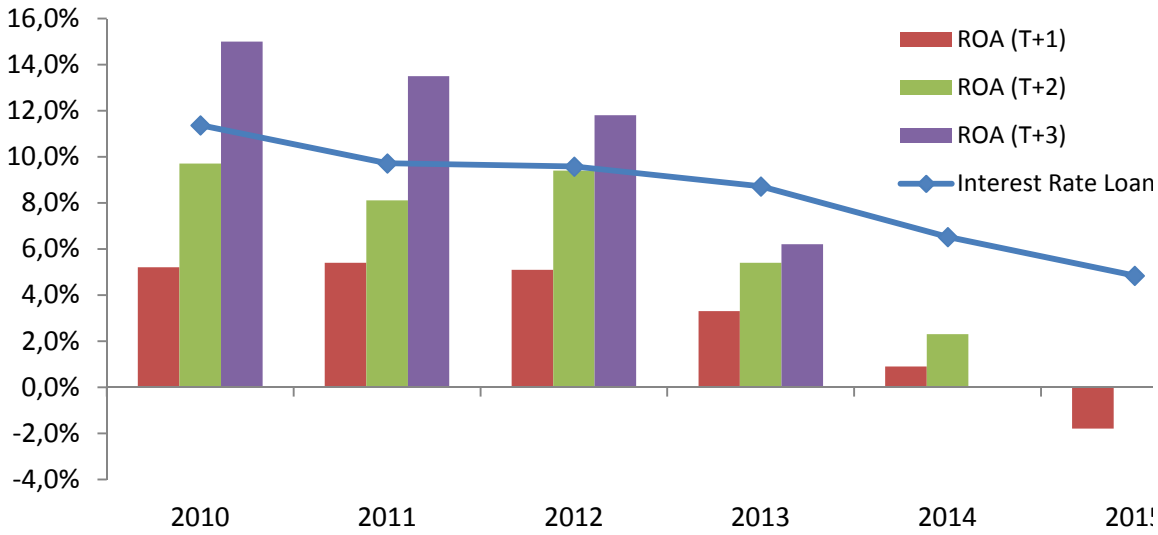
Interpretation of elasticities (without any simultaneous changes to other variables):

- if X1 (equity /assets) raises with 100bp, then economic return increases with 11bp,
- if X2 (turnover /assets) raises with 100bp, then economic return increases with 1bp,
- if X3 (bank loans /assets) raises with 100bp, then economic return decreases with 26bp,
- if X4 (operating debt /assets) raises with 100bp, then economic return decreases with 0,3bp,
- if X5 (bank loans on short term /assets) raises with 100bp, then economic return raises with 16bp,
- if X6 (interest cost / bank loans) raises with 100bp, then economic return increase with 2bp.

The explanation for the modest impact of operating debt component on economic return, coupled with the coefficients not relevant from statistical point of view (according to the t-test employed next), can relate low cost of capital generated by trade credit. Usually, if invoices are delayed on payment, suppliers will not invoice penalties because of poor collection perspectives and high fiscal burden (VAT is not carried by penalties, but tax on profit / revenue is liable). The finding that interest rates are positively correlated with economic return is intriguing, because it contradicts the financial logic and cost and effect. Although the elasticity is modest, the model applied to the selected pool of companies indicates the higher the interest rates the better the economic return. To better understand the phenomenon, we have evaluated the performance of all long term investments in fixed assets with cost of borrowed funds. More

specifically, all companies active in Romania with CAPEX values exceeding 100.000 RON were included in the analysis, and economic return for the next 3-5 years following the initial investments have been correlated with the cost of interest valid in the initial investment moment. Results are displayed in the next graph, and reflect that higher interest rates favor good investments, and low interest rates finance investments with low economic return.

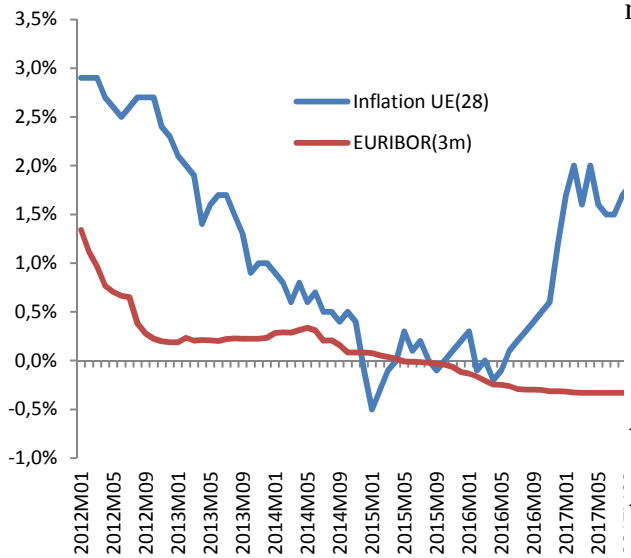
Graph 1. Economic return vs Interest cost for new loans – all companies in Romania



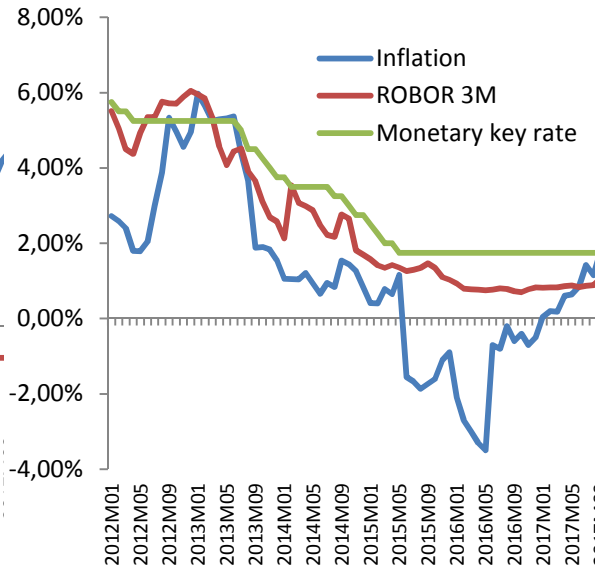
Source: NBR, Ministry of Finance, Trade Register, data processed by the author

This finding is very important, especially considering the context of QE (Quantitative Easing) program coordinated by the ECB (European Central Bank), generating almost 2.500 bn EUR injected in the economy through consecutive bond repurchases. Hence, the excess of liquidity kept EURIBOR (3 months maturity) rates close to zero during 2015, and further negative in the consecutive years, to encourage investments and consumption, avoiding thus the deflationary spiral. The Romanian Central Bank policy was relaxed and correlated with the ECB, given that the key rate was lowered from 6% (2012) down to 1,75% (December 2017) after 15 consecutive cut actions, lowering thus ROBOR 3 months maturity rates from 6,04% (maximum level recorded in December 2012) down to 0,7% (minimum level in October 2016). Hence, it is yet to see what will the “cheap money policy” results will be in terms of the quality of investments, given the current study indicate a negative correlation between the two variables, with negative impact over the long term strength of the business environment.

Graph 2: EU – Inflation and interest rates



Graph 3: Romania – inflation and interest rates



Source: Eurostat, NBR, data processed by the author

Testing the key assumptions of the classical multifactorial regression are:

- Homoscedasticity: the variance of the error terms is constant. If not, the regression equations has a problem of heteroscedasticity (effect indicates the incorrect values of the standard error for the initial regression equation and can create significant disturbances to the regression estimates);
- There is no multicollinearity among the multiple independent variables;
- Error terms are independently distributed;
- Normality: the error terms are distributed normally;
- The expected value of the error terms equals zero.

A very important indicator that shows if the model is well-specified is R-squared. This indicates how many percent of the total dependent variable variance is explained by the independent variables using the following formula

R-squared = (TSS-SSE)/TSS = RSS/TSS = 0,4115

The higher the value of this indicator aims to 1, the better the model. **In our case, 41,15% of the return on assets is explained by the six independent variables of the model**. This is relatively acceptable, considering the F-test (further explained) is statistically relevant, with all the independent variable not equal to zero simultaneously and jointly explaining the variation of the economic return. The R-squared indicator increases as new independent variables are added to the multifactorial regression equation, but it also causes loss of degrees of freedom (Gujarati, pag 637). Therefore, an adjusted measure of R-squared is better because it takes into account the number of independent variables included in the regression (Codarlasu and Ghidesciuc, pp. 44). The latter is calculated using the following formula:

$$\overline{R}^2 = 1 - \left(\frac{n-1}{n-k}\right) \cdot \left(1 - R^2\right),$$

Where:

n is the number of observations,
k - the number of independent variables included in the regression.

The E-Views results indicate a value of 39,26%% for the adjusted R-squared coefficient, very close to the R-squared coefficient.

t-Test

To test if the estimated coefficients are relevant from the statistical point of view (different from zero), we can use the t-test, with the following assumptions:

$H_0: \beta_1 = 0$
$H_1: \beta_1 \neq 0$

According to the E-Views results, the t-test value for the six exogenous (independent) variables, are presented next, using the previous formula (example illustrated for the first independent variable):

$t = \frac{\hat{\beta}_1 - \beta_0}{se(\hat{\beta}_1)} = \frac{0{,}1128 - 0}{0{,}0478} = 2{,}3566$ (for X1)

Considering that the probability associated is above compared to the relevant level employed (5%), then the null hypothesis cannot be rejected and the coefficient is not considered to be significant statistically. This can be verified if the displayed value of the t-test is bellow the critical value. The latter, can be calculated using the following formula: $t_c = t_{\frac{\alpha}{2};n-m}$; where α represents the relevance level (5%) divided by 2 (because the test checks if the estimated value is equal or different form 0), n represents the observations number (194), and m represents the number of estimated parameters (6). So the $t_{0{,}025;188}$ value is approximately 1,980. We observe that only for the equity rate and asset rotation (turnover / assets) independent variables the t value computed is above the Tc (2,052), meaning the null hypothesis is rejected only for this two variables. Instead, the probability associated with the other four independent variables is above the relevant level (5%), which implies that the null hypothesis is accepted and the coefficients aren't statistically significant, (not different from zero value).

F-test

This test indicates to what extent a set of independent variables explains, as a group, the variation of the dependent variable, and determines the extent to which all coefficients of the regression equation simultaneously have zero values. The hypotheses are:

$H_0: \boldsymbol{\alpha}_1 = \boldsymbol{\alpha}_2 \ldots \ldots = \boldsymbol{\alpha}_6 = 0,$

$H_1: \boldsymbol{\alpha}_1 \neq \boldsymbol{\alpha}_2 \neq \cdots \ldots \neq \boldsymbol{\alpha}_6 \neq 0,$

The value of the F-test calculated by E-views is 2,2561 and is obtained using the formula:

$$F = \frac{\frac{R^2}{m-1}}{\frac{1-R^2}{n-m}} = \frac{\frac{0{,}0675}{7-1}}{\frac{1-0{,}0675}{194-7}} = 21{,}7952$$

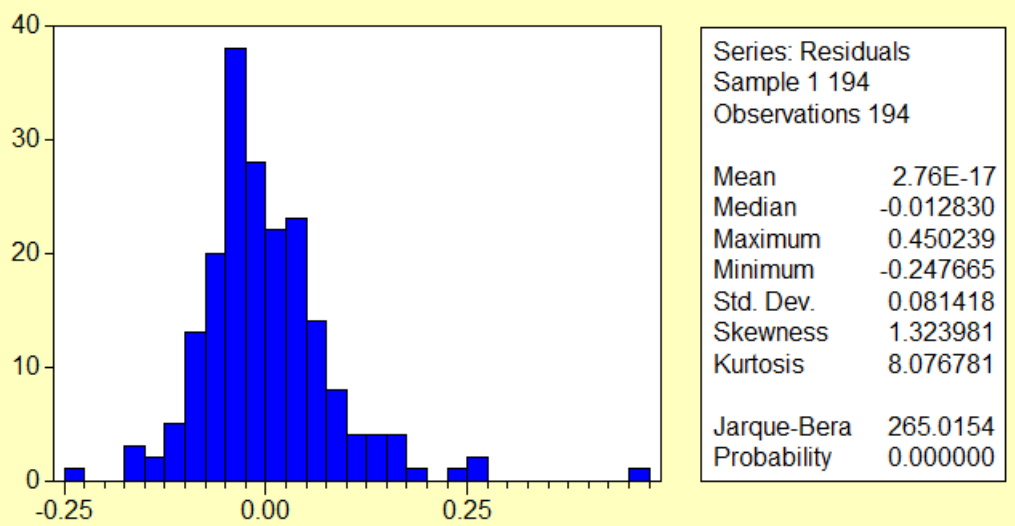
The F test follows a distribution F, and the critical value is determined as follows: $F_c = F_{\alpha;\, m-1;n-m} = F(0{,}05; 5; 187) = 2{,}08$. Since the calculated value (21,7952) is above than the critical value (2,08), then the null hypothesis is rejected. The same conclusion is reached if we observe that the associated probability is inferior to the level of relevance to which it is being worked (5%). The small values of t-statistic related to four out of six variable independently selected, coupled with the relevant F-statistic test (all variable jointly together are different than zero) and high R-squared indicates issues of multicollinearity. This is expected, given the multitude of capital structure components included among the independent variables. For example, if debt contracted from banks and credit institutions increases (the 3rd independent variable), normally interest expense will increase (the 6th independent variable), short term bank loans can also increase (if the additional debt is contracted on short term) and operational debt (non-financial liabilities) might decrease as a percentage from total assets. So, there is both positive and negative correlation among independent variables.

Durbin-Watson test

Another statistical alternative to determine if the residuals are autocorrelated is to use the Durbin-Watson stat, with the value from the regression analysis of 1,74 below 2 indicating positive autocorrelation.

Normality test

Jarque-Bera tests is employed for normal distribution analysis of the residuals, by using the difference between the skewness and kurtosis. The null hypothesis is that residuals are normally distributed, which is accepted if the probability is above the significance level (5% used in our case). As the p-value (0,00000) is less than the 0,05 significance level considered, the null hypothesis is rejected, showing that residuals are not normally distributed, most likely due to statistical outliers (which can be solved by using dummy variables to account for structural changes.



Because of the multicollinearity issues (small p-values for the t-test related to financial debt independent variables (coefficients are not statistically significant) coupled with relevant F-test and large R-square), the initial model is modified with the following adjustments: eliminate the short term debt from financial institutions and interest expense (correlated between), add operating margin (EBIT divided to turnover). The results of new adjusted model are illustrated next:

Dependent Variable: ROA
Method: Least Squares
Date: 05/13/18 Time: 13:13
Sample: 1 194
Included observations: 194

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EBIT	0.484879	0.047400	10.22958	0.0000
EQUITY	0.098982	0.037260	2.656549	0.0086
TURNOVER	0.012109	0.002220	5.455673	0.0000
DEBT_3RD	0.014294	0.036821	0.388213	0.6983
BANK	-0.055209	0.054352	-1.015770	0.3110
C	-0.009696	0.034606	-0.280182	0.7796

R-squared	0.620188	Mean dependent var	0.084021
Adjusted R-squared	0.610087	S.D. dependent var	0.106135
S.E. of regression	0.066274	Akaike info criterion	-2.559607
Sum squared resid	0.825735	Schwarz criterion	-2.458539
Log likelihood	254.2819	F-statistic	61.39645
Durbin-Watson stat	1.786824	Prob(F-statistic)	0.000000

This way the equation becomes:

$$\boldsymbol{ROA_i = -0,0096 + 0,4848 * X1_i + 0,0989 * X2_i + 0,0121 * X3_i + 0,0142 * X4_i - 0,00552 * X5_i + \mu_{it}.}$$

Interpretation of elasticities (without any simultaneous changes to other variables):

- if X1 (EBIT / turnover) raises with 100bp, then economic return increases with 48,48bp
- if X2 (equity /assets) raises with 100bp, then economic return increases with 9,89bp
- if X3 (turnover /assets) raises with 100bp, then economic return increases with 1,2bp
- if X4 (operating debt /assets) raises with 100bp, then economic return increases with 1,4bp
- if X5 (financial debt /assets) raises with 100bp, then economic return decreases with 5,5bp

As we can observe in the new model, the R-squared value improved and increased to 62%, with three out of five independent variables statistically different from zero (operating margin, capitalization ratio and asset turnover), whereas the debt structure components (banks and non-financial institutions) aren't statistically different from zero since the associated p-value is superior to the level of relevance to which it is being worked (5%). F-test value is 61,39, above the critical value $F_c = F_{\alpha;\, m-1;n-m} = F(0{,}05; 2; 188) = 8{,}54$, and with associated probability bellow the level of significance, indicating that all independent variables are jointly different from zero (rejecting the null hypothesis).

5. CONCLUSIONS

The literature reviewed demonstrates the critical role that the economic return has over the long term sustainable development of any company. Large return on assets coupled reflect asset performance to generate sales and profits, and further cover the cost of capital (debt and equity) necessary to cover the initial cash outlay when the investment is done. Therefore, understanding the components and key drivers of the return on assets is of principal interest to highlight the future development of any business and improve investment strategy. To this respect, two models have been applied to all the companies active in the wholesale of motor vehicle parts and accessories, NACE 4531, with extended financial statements submitted for 2016, resulting a total number of 194 firms with turnover above 1 mil EUR and concentrated market share of 85%. By applying a multifactor regression equation in E-views, we observe that debt components (credit institutions, commercial debt) coupled with interest cost, leverage and asset turnover explain almost 41% **of the economic return. Nevertheless, the small t-test value coupled with statistically relevant F-test and large R-square, indicating the model might not be well specified due to multicollinearity (independent variables are correlated between).** Therefore, a second model was used, by eliminating the short term debt from financial institutions and interest expense (correlated between) and adding operating margin (EBIT divided to turnover). The second model indicate better results, with improved R-squared up to 62%, better coefficients of significance for the estimated slopes of the independent variables and F-test.

Future research to evaluate return on assets sensitivity under stress test scenarios would be very useful to provide an insight of economic return amid increasing interest rates and different fiscal tax on dividend. This is very necessary especially given the very unpredictable fiscal environment in Romania. The pro-cyclical fiscal measures cause GDP growth to reach 7% during 2017 in Romania, significantly above the potential level of 3%-3,5%. The rapid growth of GDP, coupled with large fiscal deficit of -3% during last year (due to low public revenues (modest VAT revenue increase of only 3% although consumption growth was 10%) and large social expenses (public wage increase by 23%, social help expenses +12%) is fueling increasing inflationary pressure, steaming to almost 5% during the first semester of 2018 and 3,2% Central Bank of Romania latest estimate for 2018 full year. That will force the Central Bank to launch an restrictive pace of the monetary policy, already visible with monetary rate hike from 1,75% to 2% during January 2018, reaching 2,5% in May 2018. Under this context, increasing financial burden of companies with translate in lower operating margins. Moreover, the proposal of dividend tax cut down to zero starting 2019 (according to the latest government plan) would motivate shareholders to distribute profits as dividends and lower the retained earnings, Both factors will have an important impact over the economic return and sustainable growth rates of companies on the long term. Therefore, testing the elasticity of economic return amid such scenarios would be useful to provide an additional insight over the researched topic. Moreover, panel data models for 5 or 10 years of historical data would reflect if the impact of capital structure on the economic return would change under volatile interest rates framework. Ultimately, the impact of capital structure on the return on assets can be evaluated by using different clusters of companies divided by turnover range, to understand of the impact changes depending on company dimension.

REFERENCES

Anton Sorin Gabriel, Ionel Bostan (2017), "The Role of Access to Finance in Explaining Cross – National Variation in Entrepreneurial Activity: A Panel Data Approach", Sustainability 2017, 9, 1947, Journal homepage: http://www.mdpi.com/journal/sustainability;

Anton Sorin Gabriel, Elena Toader, Bogdan Firtescu (2016), "Does Risk Management Using Derivatives Improve the Financial Performance of Pension Funds? Empirical Evidence from Romania", Transformations in Business & Economics, ISSN: 1648 – 4460, Vol. 15, No 3 C (39C), Journal homepage: http://www.transformations.knf.vu.lt/23;

Anton Sorin Gabriel (2016), "The Impact of Leverage on Firm Growth. Empirical Evidence from Romanian Listed Firms", Review of Economic & Business Studies, Volume 9, Issue 2, ISSN: 1843 – 763X, Journal homepage: http://www.rebs.ro/;

Botosan, C., Plumlee, M. and Wen, H. (2011). The Relation between Expected Returns, Realized Returns, and Firm Risk Characteristics. Contemporary Accounting Research, 28(4), pp.1085-1122.

Botoc Claudiu, Gabriel Anton (2017), "Is profitability driven by working capital management? Evidence for high – growth firms from emerging Europe", Journal of Business Economics and Management, ISSN: 1611-1699 (Print), 2019-4433 (Online), Journal homepage: http://tandfonline.com/loi/tbem20;

Chadha, S. and Sharma, A. (2015). Capital Structure and Firm Performance: Empirical Evidence from India. Vision: The Journal of Business Perspective, 19(4), pp.295-302.

Caruntu Constantin, Lapadusi Mihaela Loredana (2009), "Financial Return on Assets. The impact of the Financial Return on Assets over the company's development", Annals of "Constantin Brancusi" University of Tg. Jiu, Economic Series, No 2/2009, Journal homepage: http://www.utgjiu.ro/revista/ec/pdf/2009-02/9_CONSTANTIN_CARUNTU.pdf

Christensen, B., Nielsen, M. and Zhu, J. (2015). The impact of financial crises on the risk–return tradeoff and the leverage effect. Economic Modelling, 49, pp.407-418.

Codarlasu, A. si Ghidesciuc, N, (2008), Applied Econometrics, pp.44-55.

Fernandez, P. (2011). WACC: Definition, Misconceptions and Errors. SSRN Electronic Journal.

Fărcaş Pavel, Daniel Manaţ (2011), "THE PERFORMANCE OF ROMANIAN FINANCIAL INVESTMENT COMPANIES DURING THE FINANCIAL CRISIS", Studia Universitatis "Vasile Goldiş" Arad, Economic Series, Anul 21/2011 Partea I, Journal homepage: http://www.studiauniversitatis.ro/;

Galsband, V. (2010). The cross-section of equity returns and assets' fundamental cash-flow risk. Financial Markets and Portfolio Management, 24(4), pp.327-351.

Gerlach, P. and Maurer, R. (2015). Return-based classification of absolute return funds. Journal of Asset Management, 16(2), pp.117-130.

Giacomini, E., Ling, D. and Naranjo, A. (2016). REIT Leverage and Return Performance: Keep Your Eye on the Target. Real Estate Economics, 45(4), pp.930-978.

Gujarati, D. (2004), Basic Econometrics, Fourth Edition, The McGraw-Hill Companies, pp.637-643

Jung, K. (2016). LIQUIDITY RISK AND TIME-VARYING CORRELATION BETWEEN EQUITY AND CURRENCY RETURNS. Economic Inquiry, 55(2), pp.898-919.

Kasilingam, R. and Jayabal, G. (2012). Profitability and Solvency Analysis of A Manufacturing Company using Dupont and Altman Model. BVIMR Management Edge, 5(2), pp.31-50

Kato, R. and Tsuruga, T. (2016). The safer, the riskier: A model of financial instability and bank leverage. Economic Modelling, 52, pp.71-77.

Kruger, P., Landier, A. and Thesmar, D. (2015). The WACC Fallacy: The Real Effects of Using a Unique Discount Rate. The Journal of Finance, 70(3), pp.1253-1285

Liu, L. and Li, E. (2012). Intangible Assets and Cross-Sectional Stock Returns: Evidence from Structural Estimation. SSRN Electronic Journal.

M. Kannadhasan, Vinay Goyal and Parikshit Charan (2016). The Role of Financial Performance as a Moderator on the Relationship Between Financial Leverage and Shareholders Return. Journal of Modern Accounting and Auditing, 12(7), pp.81-98.

Martins, E. and Martins, V. (2015). ACCOUNTING AND FINANCE: THE RECKLESS USE OF WACC. Revista Universo Contábil, pp.25-46.

Melvin, J., Boehlje, M., Dobbins, C. and Gray, A. (2004). The Dupont profitability analysis model: an application and evaluation of an e□learning tool. Agricultural Finance Review, 64(1), pp.75-89.

Miller, S. and Bradford, G. (2001). Teaching Net Present Value Analysis: Returns-to-Assets versus Returns-to-Equity. Review of Agricultural Economics, 23(1), pp.223-241.

Song, Z. (2011). Asset Growth and Idiosyncratic Return Volatility. SSRN Electronic Journal.

Tudose, M. (2012). Capital structure and firm performance, 15(2), pp.76-82

VINTILĂ, Georgeta; GHEORGHE, Ilie; POCAN, Ioana Mihaela; ANGHEL, Mădălina Gabriela (2012), "Factorial Analysis of Profitability", Romanian Statistical Review, 2012 Issue Sup., Journal homepage: www.revistadestatistica.ro/index.php/romanian-statistical-review-42017/;

COMPARATIVE RISK ANALYSIS OF HUNGARIAN AND ROMANIAN TRADE AND SERVICE COMPANIES

Tibor Tarnóczi[154]
Edina Kulcsár[155]

DOI: https://doi.org/10.31410/eraz.2018.252

Abstract: *To sustain the tolerable risk level it is essential to map risk factors. According to the previous, the main aim of our research is to find those factors that affect corporate risk if we measure the corporate risk with the degree of operating and financial leverage. To perform our goal, we have chosen some specific financial ratios of trade and service companies in two neighboring counties of Hungary and Romania. In this research, we performed a comparative risk analysis of Hungarian and Romanian enterprises by investigating the relationship between the degree of operating and financial leverage (DOL, DFL) and specific financial ratios. The database used for risk analysis is based on five-year financial statements data of Hungarian and Romanian companies. To analyze the relationship between operational and financial leverage and financial ratios, we used panel regression models. The panel model combines the analysis of cross-sectional and time series data. The calculations of the comparative corporate risk analysis was performed by using the packages of R statistics system. Based on the results of the analysis we can conclude that the quantile panel regression gives better results than the conventional panel model.*

Key words: *company risk factors, DOL, DFL, financial ratios, quantile panel data model*

1. INTRODUCTION

The risk is one of the most determinative and most controversial questions of economics. Risk assumption is a key element of profit generation and the shareholder capital maximizing. Therefore, the determination of the risk factors is an essential task for companies.

[1] defines risk as a chance, probability of loss, and gives more risk definitions and the most commonly mentioned: the probability of variant results, the deviation from the expected results, the symmetrical chance of gain and loss. [2] defines the risk as "a situation in which there is a possibility of deviation of expected result from the desired result". According to [3] "Risk and uncertainty are the most controversial phenomena in economics. It has never been the subject of controversy that both of them affect economic decisions."

One of the most known risk concepts was formulated by [4] who thinks that there is a difference between risk and uncertainty. In his opinion, the main difference between risk and uncertainty lies in measurability. One of the strongest criticisms of [4] risk concept stems from [5] who states that "monitoring of the past values cannot solve the uncertainty of economic future" and

[154] University of Debrecen, Faculty of Economics and Business, Institute of Accounting and Finance, Debrecen, Hungary
[155] Partium Christian University, Faculty of Economics and Social Science, Department of Economics, Oradea, Romania

"the future human decisions (…) cannot depend on strict mathematical expectations, because this kind of calculations have no basis" [6]. Other authors consider that risk has two components, namely uncertainty, and variability [7, 8]. [9] in [7] deem that variability is the temporal, spatial heterogeneity of values.

According to [10], the economic risk is reflected in the fluctuations of corporate's outputs, that company's management cannot predict that. Many researchers think that economic risk means negative change in revenue, cost and market share. [11] consider that economic risk appears in the dynamics of net operating results and net cash flow. The study deals only with the most relevant corporate risks: the financial and operating degree of leverage.

It is essential to map and determine risk factors to make better decision-making. Moreover, working out activities for managing them should be important, as well.

The main aim of the research is to find those factors that can affect corporate risk. Regarding this, we have chosen to analyze the leverage ratio of Hungarian and Romanian companies.

We have set apart the following issues in the research:

1. Which are the main factors that influence corporate risk?
2. Could we establish a relationship between leverage ratios (Degree of Operating Leverage - DOL, Degree of Financial Leverage - DFL, and Degree of Combined Leverage - DCL) and some financial ratios?

2. REVIEW OF LITERATURE

One of the most important theorems of financial management is the "return-risk trade-off", which means that the increase in profit is in close connection with risk. According to Modigliani's and Miller's proposition II., the extent of return on capital depends on two factors, on the return on assets and the capital structure of the company [12]. The 1st component is significantly influenced by the nature of company's operating activities, so it is called operating leverage (operational or business risk). The 2nd component is determined by the company's financing policy and by the cost of debt, of which name in English literature is *leverage*. The M&M proposition II. shows that if the company does not use debt financing, the Return on equity ratio (ROE) is equal with Return on assets ratio (ROA). Therefore, the 2nd component appears only if debt financing appears in a company's capital structure, which means higher risk exposure. The 2nd component can be considered as a financial risk (financial leverage). Debt financing may increase the ROE if the ROA > debt cost, and the financial leverage and the financial risk also increase [13, 14].

In the corporate finance books, we have found that firm's risk measure is the DCL which consists of two essential elements: DOL and DFL. The DOL and DFL indicators are elasticity indicators.

The investigation of leverage ratios provides a comprehensive financial statement analysis because the leverage ratios are based on financial statements. The DOL is dealing with the top of the income statement (ending to EBIT) and the DFL with the bottom of it (from EBIT). Based on this, [15] called the DOL a first-stage indicator and the DFL as a second-stage indicator.

The DOL reflects the ratio of the changes in Sales and changes in Earnings Before Interest and Taxes (EBIT). According to [16] the DOL shows the percentage changes in operating income caused by 1% changes in sales. Therefore, the sensitivity of sales to economic cycles and changes in macroeconomic rules can significantly affect the company's profit. The degree of changes in operating profit means how sensitive is the operating profit to the changes in the level of fixed costs. The higher fixed cost proportion in the total cost results in higher operating profit sensitivity, which leads to a higher operational risk suggested by greater DOL value [17]. Thus, the variable and fixed cost proportion in the total costs can have a determinative impact on the operating profit. Therefore, the changes in fixed costs cause positive (similar way) changes in the DOL value. We can say the DOL value is the function of a company's fix costs [18].

DFL shows the percentage changes in net profit, which results from changes in operating profit. The DFL also highlights the close relationship between the DFL and cost of debt. If there is no debt in a company's capital structure, the DFL value is 1, which means that 1% changes in operating profit cause 1% changes in net income. If interest expenses appear in Income Statement, the DFL value is greater than 1, which means a higher financial risk level. So, DFL is relevant when the company uses debt financing [19]. There is a direct, positive relationship between DFL value and the cost of debt.

In favorable circumstances, the higher DFL value provides an opportunity to corporate's profit increase when the ROA is greater than the cost of debt. However, this also leads to a rise in a company's financial risk. According to [17], under favorable circumstances, the cost of debt may increase the profit. At the same time, in case of companies with debt financing, the volatility of profit influences the EBIT in a greater way. The volatility increases the risk of capital investment of company [17, 13].

The firms' total risk expressed by the DCL is the product of the DOL and the DFL. DCL shows the effect of 1% changes in sales on the net profit. The interpretation of leverage ratios may differ because they are industry and activity-dependent [20].

To determine the relationship between the degree of DOL, DFL, and financial ratios, we are calculated financial ratios.

3. RESEARCH METHODOLOGY

The database used for the comparative analysis is based on data from financial statements of registered (settled) SMEs from neighboring counties (Bihor and Hajdú-Bihar) of two neighboring countries (Romania and Hungary). We used as database the financial statements in a simplified form of SMEs. An essential aspect of the data collection was the distribution of several sectors of countries' annual net sales. The major parts of the two counties corporate database were trading companies and firms acting in the processing industry. In Hungary, we used 172 SMEs' from Hajdú-Bihar County, of which 74.42% operate in trading and 25.58% companies in the processing industry. In the Romanian Bihor County, we used 173 SMEs' statements, of which 78.03% were trading firms and 21.97% processing firms.

We have chosen SMEs because more than 90% of companies in the European Union are classified in SMEs. A similar situation can be seen in the chosen two neighboring countries. The SME sectors have key economic roles in both countries.

To answer the research questions, we analyzed the relationship between DOL and DFL and financial ratios for Romanian and Hungarian companies. We used the method of panel regression. Panel data analysis can be viewed as multilevel hierarchical modeling which allows us to examine different variables. Compared to traditional data analysis methods one advantage of panel data analysis is that very heterogeneous variables can be included in the sample [21]. The panel model combines the analysis of cross-sectional and of time series data. The panel data analysis is widely used in social science, and its great advantage is the introduction of idiosyncratic effect, which means both the individual and time effect on the dependent variable [22]. We applied the random panel regression. The calculations were performed using the 'plm' package of R statistical system.

***Tarnóczi Tibor**, PhD is currently associate professor at the University of Debrecen, Faculty of Economics and Business and he teachs: Financial Management, Controlling, Option theory, Risk management and assessment, Economic and financial analysis, Financial modeling and Investments. He is also the Head of Department of Finance.*

He has PhD in Economics from Economics Doctoral School at University of Debrecen in 2006. His PhD thesis title was "Decision support systems and their applications in financial analysis and planning". He also graduated in Master of Business Administration – MBA in 1994.

The main research fields are: financial performance evaluation, risk analysis and modeling, Bayesian statistical applications in finance, real options in business valuation, financial indicators in managerial decision-making.

Due to the large dispersion of the variables involved in the analysis, we felt it necessary to apply quantile regression. Quantile regression models allow the researcher to account for unobserved heterogeneity and heterogeneous covariates effects, while the availability of panel data potentially allows the researcher to include fixed effects to control for some unobserved covariates [23].

[24] developed a new regression method to evaluate the impact of changes in the distribution of the independent variables on quantiles of the unconditional distribution of a dependent variable. Their approach builds on the concept of the influence function what is a widely used tool in the robust estimation in statistics or econometrics. We applied the 'uqr' package of R statistical system what is suited to estimate and conclude inference for unconditional quantile regression[156]. The 'urq' function returns a Recentered Influence Function regression of given quantiles. Panel data analysis is performed by extending the correlated random effects (CRE) model to an unconditional quantile regression framework. The 'urqCI' function provides standard errors and confidence intervals for the recentered influence function regression fit 'urq' function. The inference is obtained through a Bayesian bootstrap drawing observation weights from a Dirichlet distribution.

4. RESULTS OF RESEARCH

In our study, we want to determine what financial indicators that affect leverage degree ratios significantly. Because we have cross-sectional and time series data, we chose the panel regression model to perform the investigation. For both countries, we calculated the fixed and random effect panel regression models, and we used Hausman-test to compare the results. In

[156] https://cran.r-project.org/web/packages/uqr/uqr.pdf (author: Nembrini, S., 2017)

case of operating leverage (DOL), the one-way random effect panel regression models were consistent in case of both countries. The results of the random effect panel regression model of two countries are disclosed in Table A1.

We can determine from Table A1 that none of the coefficients are significant at least 5% of the significance level. Romanian companies' net working capital to current assets ratio and Hungarian companies' current liabilities to total assets ratio and return on sales ratio are significant at 10% level. Based on the results in Table A1, we cannot determine the explanatory variables which influence the DOL as a result variable significantly. The cause of the problem is probably the high values of coefficient of variation in the case of the explanatory variables. Table A1 also shows that the coefficients of the Romanian and Hungarian regression equations differ significantly in the majority of variables. However, the individual values of the regression coefficients are not interpretable because they are not significant, which means that it cannot be explicitly stated that they are different from zero. The reason we do not get good estimations is probably that the main statistical characteristics of financial ratios for the four years showed that the investigated indicators are strongly heterogeneous in both countries. In the case of Romanian companies, at the 80% of investigated indicators, the coefficient of variance showed values greater than 100%. Moreover, in the case of Hungarian companies, the situation is a little bit worse, because at the 90% of calculated indicators the coefficient of variance was greater than 100%.

Edina Kulcsár, *PhD candidate, is currently assistant lecturer at the Partium Christian University (Romania, Oradea) and she teachs: Finance, Corporate finance, Controlling, Economic and financial analysis, Insurance and reinsurance subjects. She attends PhD courses at University of Debrecen, Faculty of Economics, Management, Károly Ihrig Doctoral School. She is currently PhD candidate with dissertation title "Comparative risk analysis of the Hajdú-Bihar and Bihor counties' small and medium-sized enterprises".*

The main research fields are: financial risk management of small and medium-sized enterprises, risk and growth analysis of small and medium-sized enterprises, analysis of small and medium enterprises' bankruptcy risk, analysis of relationship between risk and financial ratios, backtesting value at risk models, comparative analysis of stock market indices and exchange rates, Eurozone debt crisis - causes and solutions.

Regarding extremely high dispersion (high coefficient of variance), the regression analysis was not suitable for the proper exploration of relationships between degree of operating leverage and financial ratios. We decided to use the quantile random panel regression rather than the conventional random panel regression to solve the previous problem. Using quantile regression, we can divide the total population into more homogeneous classes. We use the same variables for the quantile random panel regression as we did before.

Table 1 shows the results of quantile panel regression for Romanian companies. The results of various quantiles in Table 1 show that each of them differs considerably in point of both regression coefficients and significance levels. Table 1 shows that there are 9 variables out of the 21 explanatory variables, which are significant on at least 5% in case of each quantile. (Significant variables for each quantile are emphasized in the Table 1.) Based on the results, it can be stated that to divide the database to the quantiles improves the result of the regression. Considering the results reported in Table 1, we can also conclude that variables affecting DOL as a risk indicator are in Romania:

1. Ratio of current assets to total assets;
2. Ratio of non-current assets to current assets;
3. Total asset turnover rate;
4. Inventory turnover rate;
5. Turnover rate of current liabilities;
6. Operating return on sales;
7. Ratio of operating profit to total cost;
8. Ratio of non-current liabilities to total assets;
9. Return on sales.

Table 1: Quantile panel regression for Romanian companies (dependent variable: DOL)

Name of regression coefficients	Quantile 0.2		Quantile 0.4		Quantile 0.6		Quantile 0.8	
	Regr. coeff.	Signif. level	Regr. coeff.	Signif. level	Regr. coeff.	Signif. level	Regr. coeff.	Signif. level
Intercept	-2.77754	***	-0.95500	***	0.35565	*	1.91703	***
Ratio of current assets to total assets	1.38179	***	1.93882	***	1.88473	***	6.81949	***
Ratio of non-current assets to current assets	0.09722	**	-0.10605	**	0.24524	***	0.82145	***
Current ratio	0.04174	-	0.02262	-	0.04560	***	-0.18295	***
Quick ratio	0.02516	-	0.12589	***	-0.12334	**	-0.38315	**
Cash ratio	0.03511	-	-0.26389	**	0.06544	*	0.27136	**
Total asset turnover rate	-0.18284	***	-0.10084	***	-0.13516	***	-0.38391	***
Inventory turnover rate	0.00005	***	-0.00007	***	-0.00004	***	-0.00006	***
Receivables turnover rate	-0.00142	***	-0.00065	***	-0.00020	-	-0.00017	-
Turnover rate of current liabilities	-0.01008	**	-0.00442	*	-0.00389	**	0.05200	**
Operating return on sales	38.83583	***	18.57444	***	-13.24005	***	-36.77787	***
Operating return on assets	1.64521	.	1.77922	***	2.93384	***	1.04758	-
Ratio of operating profit to labor cost	0.00339	**	0.00102	-	-0.00619	***	-0.06477	*
Ratio of operating profit to total cost	-16.60066	***	-6.50635	*	9.07825	***	21.18482	***
Debt to equity ratio	0.00216	***	0.00093	***	0.00136	-	0.00620	***
Ratio of current liabilities to total assets	-0.65688	**	-0.66564	**	-0.11211	-	-1.62624	*
Ratio of non-current liabilities to total assets	-1.71079	***	-1.29043	***	-1.27931	***	-1.11972	**
Ratio of net profit to operating profit	-0.04516	-	0.06300	***	0.04026	.	0.02312	.
Ratio of net working capital to current assets	-0.64870	***	-0.31101	-	0.31564	***	0.56107	***
Return on sales	-13.94901	***	-6.02248	***	5.12818	***	21.76196	***
Return on assets	0.56658	-	-1.78443	***	-4.77752	***	-9.74370	***
Return on equity	-0.09915	***	-0.11122	***	0.08531	.	0.16017	***

Source: own calculations using R statistical system

Then, using the same financial indicators, we also performed the analysis of Hungarian companies, the results of which are shown in Table 2. Concerning Table 2, we can be made similar statements as we did in case of Table 1. Table 2 shows that there are 10 variables out of the 21 explanatory variables, which are significant on at least 5% in case of each quantile. Considering the results reported in Table 2, we can also conclude that variables affecting DOL as a risk indicator are in Romania:

1. Ratio of non-current assets to current assets;
2. Current ratio;
3. Quick ratio;
4. Total asset turnover rate;

5. Receivables turnover rate;
6. Operating return on assets;
7. Debt to equity ratio;
8. Ratio of current liabilities to total assets;
9. Return on assets;
10. Return on equity.

Comparing the variables affecting the risk factor DOL considering the two countries, we can see in Table A2 that there are only two cases which have identicalness. Thus, it can be concluded that there are different variables in the investigated two counties what have an impact on the DOL.

Table 2: Quantile panel regression for Hungarian companies
(dependent variable: DOL)

Name of regression coefficients	Quantile 0.2		Quantile 0.4		Quantile 0.6		Quantile 0.8	
	Regr. coeff.	Signif. level	Regr. coeff.	Signif. level	Regr. coeff.	Signif. level	Regr. coeff.	Signif. level
Intercept	-1.38112	-	1.23235	***	3.85182	***	3.07976	.
Ratio of current assets to total assets	0.08342	-	-0.75835	*	-0.77391	-	11.14859	***
Ratio of non-current assets to current assets	-0.63101	***	-0.22488	***	-0.22670	***	0.44385	*
Current ratio	-0.32640	***	-0.12962	***	-0.14636	***	-0.24689	***
Quick ratio	0.51793	**	-0.11171	***	-0.07957	***	-1.04160	***
Cash ratio	-0.20629	-	0.32294	***	0.34111	***	1.68592	***
Total asset turnover rate	-0.37976	***	0.06596	***	0.22715	***	1.71795	***
Inventory turnover rate	-0.00123	***	-0.00014	-	0.00388	**	0.01791	***
Receivables turnover rate	-0.00019	***	-0.00020	*	-0.00015	***	-0.00041	***
Turnover rate of current liabilities	0.03698	***	0.01780	***	0.02932	***	0.07083	**
Operating return on sales	-7.68653	***	-2.90525	***	-0.74136	-	9.17527	-
Operating return on assets	37.45601	***	5.30531	*	-15.58483	**	-111.86858	***
Ratio of operating profit to labor cost	1.09112	***	0.48379	***	-0.13166	***	0.32739	-
Ratio of operating profit to total cost	0.17216	-	-0.06503	***	-0.06333	***	-0.15806	***
Debt to equity ratio	0.01592	***	0.00658	***	0.01033	***	0.06680	***
Ratio of current liabilities to total assets	-4.33811	***	-1.65357	***	-1.80221	***	-9.70510	***
Ratio of non-current liabilities to total assets	-0.03210	-	-0.07935	.	0.31864	***	1.91722	***
Ratio of net profit to operating profit	0.04814	-	-0.01381	-	0.05541	-	0.45353	*
Ratio of net working capital to current assets	-0.61745	***	0.36436	***	-0.24105	-	-4.02039	***
Return on sales	9.39910	***	5.45884	***	-2.54396	-	-10.79040	-
Return on assets	-40.20173	***	-4.87104	*	17.98023	***	109.52046	***
Return on equity	-0.16002	***	-0.11870	***	-0.14278	***	-0.66300	***

Source: own calculations using R statistical system

We have also performed the analysis for DFL the result of which is shown in Table A3. Table A3 shows that we obtained better results considering DFL than DOL. For DFL, there are 7 significant variables at Romanian companies, while only two at Hungarian ones. The significant variables for Romanian companies are:

1. Ratio of current assets to total assets;
2. Operating return on sales;
3. Operating return on assets;
4. Ratio of operating profit to total cost;
5. Ratio of current liabilities to total assets;
6. Ratio of net working capital to current assets;

7. Return on assets.

Even so, we performed the quantile panel regression with DFL. The quantile panel regression results related to the DFL for the Romanian companies is shown in Table 3. Table 3 shows that there are 7 variables out of the 21 explanatory variables, which are significant on at least 5% in case of each quantile. Considering the results reported in Table 3, we can also conclude that variables affecting DOL as a risk indicator are in Romania:

1. Total asset turnover rate;
2. Operating return on assets;
3. Debt to equity ratio;
4. Ratio of non-current liabilities to total assets;
5. Return on sales;
6. Return on assets;
7. Return on equity.

We can see there are only two variables that appear in both enumerations. The dividing can cause the difference to quantiles.

Table 3: Quantile panel regression for Romanian companies
(dependent variable: DFL)

Name of regression coefficients	Quantile 0.2		Quantile 0.4		Quantile 0.6		Quantile 0.8	
	Regr. coeff.	Signif. level	Regr. coeff.	Signif. level	Regr. coeff.	Signif. level	Regr. coeff.	Signif. level
Intercept	0.93011	***	1.15074	***	1.30017	***	1.84945	***
Ratio of current assets to total assets	-0.71172	***	-0.37256	***	-0.30028	***	-0.20447	-
Ratio of non-current assets to current assets	-0.10427	***	-0.01536	.	0.00380	-	-0.00429	-
Current ratio	0.00591	-	-0.01458	**	-0.00043	-	0.00886	-
Quick ratio	-0.00665	-	0.02662	***	-0.04612	*	-0.05109	*
Cash ratio	-0.03869	.	0.02916	.	0.02128	-	-0.09338	***
Total asset turnover rate	-0.08167	***	-0.02922	***	-0.04692	***	-0.08006	***
Inventory turnover rate	0.00002	***	-0.00002	***	-0.00001	***	-0.00001	.
Receivables turnover rate	0.00016	-	-0.00033	***	-0.00068	***	-0.00072	***
Turnover rate of current liabilities	0.00274	**	0.00015	-	0.00336	***	0.00547	.
Operating return on sales	-13.28193	***	-1.83679	.	0.77077	**	-0.17525	-
Operating return on assets	3.97017	***	2.02962	***	1.91147	***	3.48932	***
Ratio of operating profit to labor cost	0.01691	**	0.00575	***	0.00178	***	0.00041	-
Ratio of operating profit to total cost	6.85398	***	-0.45459	-	-2.09775	***	-2.49052	***
Debt to equity ratio	0.00117	*	-0.00024	**	-0.00077	***	-0.00144	***
Ratio of current liabilities to total assets	0.00112	-	0.12490	**	0.28100	***	0.39441	*
Ratio of non-current liabilities to total assets	-0.96240	***	-0.17598	**	0.19186	***	0.82794	**
Ratio of net profit to operating profit	0.04873	**	-0.00473	**	-0.00648	-	0.06295	**
Ratio of net working capital to current assets	0.13162	**	0.07951	***	0.07592	***	0.05820	-
Return on sales	5.76000	***	1.86607	***	1.79197	***	3.80542	**
Return on assets	-3.67941	***	-1.89355	***	-2.31208	***	-4.91999	***
Return on equity	0.01624	*	-0.03377	***	-0.00894	***	-0.03005	***

Source: own calculations using R statistical system

The quantile panel regression results related to the DFL for the Hungarian companies is shown in Table 4. Table 4 shows that there are also 7 variables out of the 21 explanatory variables,

which are significant on at least 5% in case of each quantile. Considering the results reported in Table 4, we can also conclude that variables affecting DFL as a risk indicator are in Romania:

1. Ratio of non-current assets to current assets;
2. Cash ratio;
3. Total asset turnover rate;
4. Ratio of operating profit to labor cost;
5. Ratio of net profit to operating profit;
6. Return on sales;
7. Return on assets.

Table 4: Quantile panel regression for Hungarian companies (dependent variable: DFL)

Name of regression coefficients	Quantile 0.2		Quantile 0.4		Quantile 0.6		Quantile 0.8	
	Regr. coeff.	Signif. level	Regr. coeff.	Signif. level	Regr. coeff.	Signif. level	Regr. coeff.	Signif. level
Intercept	0,71503	***	0.98007	***	1.28699	***	1.87846	***
Ratio of current assets to total assets	-1,74987	***	0.01914	-	-0.25346	***	-0.61525	***
Ratio of non-current assets to current assets	-0,11879	***	-0.01626	***	0.00825	*	0.19248	***
Current ratio	-0,02423	-	-0.01667	***	-0.02065	***	-0.04327	***
Quick ratio	-0,1074	***	-0.00017	-	0.00548	**	0.01823	***
Cash ratio	0,06578	***	0.00814	*	0.00988	***	0.02157	**
Total asset turnover rate	0,01	*	-0.02196	***	-0.01767	***	-0.0239	*
Inventory turnover rate	0,00042	-	0.00004	**	-0.00015	***	-0.00093	***
Receivables turnover rate	-0,00004	**	0	-	0	-	-0.00002	***
Turnover rate of current liabilities	0,00215	***	0.00384	***	0.00108	**	0.00014	-
Operating return on sales	2,818	***	0.75177	***	-0.1926	***	-0.5582	.
Operating return on assets	-11,58798	***	0.40607	-	4.45334	***	14.27037	***
Ratio of operating profit to labor cost	0,07124	***	0.01901	***	0.01802	***	-0.10973	***
Ratio of operating profit to total cost	0,01621	*	0.00048	-	0.0018	*	-0.00658	***
Debt to equity ratio	-0,00014	-	0.00028	***	-0.00033	***	0.00024	***
Ratio of current liabilities to total assets	0,2183	***	0.06215	*	0.014	-	0.13343	*
Ratio of non-current liabilities to total assets	0,09	***	0.0079	-	0.02386	*	-0.02279	-
Ratio of net profit to operating profit	0,08819	***	0.02168	***	-0.01277	***	-0.03161	***
Ratio of net working capital to current assets	0,0998	***	-0.02669	**	0.07139	***	0.11125	.
Return on sales	-7,8481	***	-0.67757	***	0.37032	***	2.24695	***
Return on assets	4,20486	***	-0.69364	*	-4.70343	***	-14.55143	***
Return on equity	0,00498	***	0.00045	***	-0.00041	-	-0.02008	***

Source: own calculations using R statistical system

Comparing the variables affecting the risk factor DFL considering the two countries, we can see in Table A4 that there are only three cases which have identicalness. Thus, it can be concluded that there are different variables in the investigated two counties what have an impact on the DFL.

5. CONCLUSION

In case of variables with large dispersion, the panel regression cannot be used effectively for the total population. The quantile panel regression can provide better results than conventional panel regression because it divides the database into quantiles. The quantile panel regression

helped to determine variables affecting DOL and DFL. The result of the calculations, we can conclude that the variables which affect the DOL and the DFL are different. There are only two variables that are the same for both DOL and DFL: Ratio of non-current assets to current assets and Total asset turnover rate. The results also show that there are differences in case of significant variables related to the neighboring counties which affect the DOL and the DFL. Further testing possibilities should be developed to the quantile panel regression method To make the results more plausible.

REFERENCES

[1] Alastair, L. D. (2009) *Mastering Risk Modelling*, Prentice Hall, Financial Times, Pearson Education.

[2] Gallati, R. (2003) *Risk management and capital adequacy*, The McGraw-Hill Companies, Inc., United States of America, p. 8.

[3] Bélyácz, I. (2004) *A kockázat változó szerepe az értékszámításban, akadémiai székfoglaló előadás anyaga*, http://www.mta.hu/fileadmin/szekfoglalok/000873.pdf, p. 1.

[4] Knight, F. H. (1921) *Risk, Uncertainty, and Profit*, Boston MA: Hart, Schaffner and Marx; Houghton Mifflin.

[5] Keynes, J. M. (1937) *The General Theory of Employment*. Quarterly Journal of Economics, Vol. 51, pp. 209-223.

[6] Bélyácz, I. (2011) *Kockázat és bizonytalanság a döntésbeli alkalmazhatóság tükrében.* Hitelintézeti szemle, Tizedik évfolyam 4 szám, p. 380.

[7] Molak, V. (1997) *Fundamentals of risk analysis and risk management*. Lewis Publishers (CRC Press, Inc.), New York.

[8] Cullen, A. C., Frey, C.H. (1999) *Probabilistic Techniques in Exposure Assessment: A Handbook for Dealing Variability and Uncertainty in Models and Inputs*, Plenum Press, New York.

[9] Wilson, R., Shlyakhter, A. (1997) *Uncertainty and Variability in Risk Analysis*. (in Molak, V. (ed.): Fundamentals of risk analysis and risk management. Chapter I.3) Lewis Publishers (CRC Press, Inc.), New York.

[10] Conklin, D. W. (2002) *Analyzing and managing country risks*. Ivey Business Journal, 66 (3) (January/February), 36–41 p.

[11] Gabriel, S. C., Baker, C.B. (1980) *Concepts of business and financial risk*, American Agricultural Economics Association.

[12] Modigliani, F., Miller, M.H. (1958) *The Cost of Capital, Corporation Finance, and the Theory of Investment*, American Economic Review 48, 1958, pp. 261-297.

[13] Berk, J., DEMarzo, P. (2014) *Corporate Finance*, Third Edition, The Pearson Series in Finance, p. 489., p. 496.

[14] Ross, S. A., Westerfield, R. W., Jordan, B. D (2013) *Fundamentals of Corporate Finance*, Standard Edition, McGraw-Hill Irwin, New York, p. 532.

[15] Ehrhardt, M. C., Brigham E. F (2017) *Corporate finance: A Focused Approach*, Sixth Edition, South-Western College Pub.

[16] Brealey, R. A., Myers, S. C., Allen, F. (2014). Eleventh Global Edition, Mc Graw Hill Education, UK.

[17] Damodaran, A. (2015) *Applied Corporate Finance*, Fourth Edition, JohnWiley & Sons, Inc., p. 117, p. 119.

[18] Tarnóczi, T., Fenyves, V. (2010) *A vállalatértékelés komplex szimulációs modellje*, Társadalomtudományi Csoport. Acta Scientiarum Socialium. Universitas Kaposváriensis. Kaposvár. ISSN 1418-7191, 95-107 p.

[19] Illés, I-né (2007) *Vállalkozások pénzügyi alapjai*. SALDO Pénzügyi Tanácsadó és Informatikai Zrt., Budapest.
[20] Pálinkó, É., Szabó, M. (2006) *Vállalati pénzügyek*, Typotex, Budapest.
[21] Baltagi, B. H. (2005) *Econometric Analysis of Panel Data*, Third Edition, John Wiley and Sons., England.
[22] Tarnóczi, T., Fenyves, V., Bács, Z., Böcskei, E. (2015) *Versenyképesség és gazdasági etika*. Vállalati teljesítmény elemzése panel regresszióval, Polgári Szemle, 12.-ik évf., 1-3 sz., 4 p.
[23] Canay, I. A. (2011) *A simple approach to quantile regression for panel data*, Econometrics Journal, Vol. 14, No. 3, pp. 368–386. https://doi.org/10.1111/j.1368-423X.2011.00349.x
[24] Firpo, S., Fortin, N. M., Lemieux, T. (2009) *Unconditional Quantile Regressions. Econometrica*, Vol. 77, No. 3, pp. 953-973. http://doi.org/10.3982/ECTA6822

Appendices

Table A1: The results of the random effect panel regression of two countries (dependent variable: DOL)

Name of ratios	Romanian companies		Hungarian companies	
	Regression coefficients	Sign of significance level	Regression coefficients	Sign of significance level
Intercept	-1.87969	-	5.58533	-
Ratio of current assets to total assets	4.75741	-	4.75175	-
Ratio of non-current assets to current assets	1.14602	-	-0.86119	-
Current ratio	0.04272	-	-0.32974	-
Quick ratio	0.77788	-	-0.04602	-
Cash ratio	-0.40884	-	0.30189	-
Total asset turnover rate	0.18937	-	0.50826	-
Inventory turnover rate	-0.00008	-	-0.00438	-
Receivables turnover rate	-0.00580	-	-0.00054	-
Turnover rate of current liabilities	-0.05020	-	0.07102	-
Operating return on sales	-37.08724	-	-36.17881	-
Operating return on assets	24.01520	-	-19.23182	-
Ratio of operating profit to labor cost	-0.10124	-	0.30979	-
Ratio of operating profit to total cost	-21.16890	-	-0.04416	-
Debt to equity ratio	-0.01003	-	0.02346	-
Ratio of current liabilities to total assets	-0.32020	-	-8.47957	.
Ratio of non-current liabilities to total assets	5.28031	-	2.238510	-
Ratio of net profit to operating profit	1.25936	-	-0.76348	-
Ratio of net working capital to current assets	-8.79095	.	-3.26226	-
Return on sales	62.24046	-	35.71478	.
Return on assets	-5.3116	-	19.90651	-
Return on equity	-1.35167	-	-0.18497	-

Source: own calculations using R statistical system

Table A2: Significant variables in case of the two analyzed countries studied (dependent variable: DOL)

Name of regression coefficients	Significant variables in case of Romanian companies	Significant variables in case of Hungarian companies
Ratio of current assets to total assets	X	
Ratio of non-current assets to current assets	X	X
Current ratio		X
Quick ratio		X
Cash ratio		
Total asset turnover rate	X	X
Inventory turnover rate	X	
Receivables turnover rate		X
Turnover rate of current liabilities	X	
Operating return on sales	X	
Operating return on assets		X
Ratio of operating profit to labor cost		
Ratio of operating profit to total cost	X	
Debt to equity ratio		X
Ratio of current liabilities to total assets		X
Ratio of non-current liabilities to total assets	X	
Ratio of net profit to operating profit		
Ratio of net working capital to current assets		
Return on sales	X	
Return on assets		X
Return on equity		X

Source: own calculations using R statistical system

Table A3: The results of the random effect panel regression of two countries (dependent variable: DFL)

Name of ratios	Romanian companies		Hungarian companies	
	Regression coefficients	Sign of significance level	Regression coefficients	Sign of significance level
Intercept	3.26803	.	0.55834	-
Ratio of current assets to total assets	-6.73609	**	3.24412	-
Ratio of non-current assets to current assets	-0.16866	-	0.02388	-
Current ratio	0.01992	-	0.00885	-
Quick ratio	0.10154	-	0.04759	-
Cash ratio	0.11256	-	-0.05871	-
Total asset turnover rate	-0.17875	-	0.01048	-
Inventory turnover rate	-0.00002	-	0.00214	-
Receivables turnover rate	-0.00189	-	-0.00077	***
Turnover rate of current liabilities	-0.01649	-	-0.00519	-
Operating return on sales	-74.23527	**	5.21685	-
Operating return on assets	16.73808	**	-11.82564	-
Ratio of operating profit to labor cost	0.02760	-	0.00587	-
Ratio of operating profit to total cost	36.28955	*	0.06746	-
Debt to equity ratio	-0.00173	-	-0.00096	-
Ratio of current liabilities to total assets	5.57983	**	-3.13837	.
Ratio of non-current liabilities to total assets	1.07431	-	0.53390	-
Ratio of net profit to operating profit	0.16893	-	0.16082	-
Ratio of net working capital to current assets	3.68717	***	-2.64009	**
Return on sales	12.65036	-	-6.38735	-
Return on assets	-15.69104	*	15.22678	-
Return on equity	0.08660	-	-0.10421	-

Source: own calculations using R statistical system

Table A4: Significant variables in case of the two analyzed countries studied (dependent variable: DFL)

Name of regression coefficients	Significant variables in case of Romanian companies	Significant variables in case of Hungarian companies
Ratio of current assets to total assets		
Ratio of non-current assets to current assets		X
Current ratio		
Quick ratio		
Cash ratio		X
Total asset turnover rate	X	X
Inventory turnover rate		
Receivables turnover rate		
Turnover rate of current liabilities		
Operating return on sales		
Operating return on assets	X	
Ratio of operating profit to labor cost		X
Ratio of operating profit to total cost		
Debt to equity ratio		
Ratio of current liabilities to total assets		
Ratio of non-current liabilities to total assets	X	
Ratio of net profit to operating profit		X
Ratio of net working capital to current assets		
Return on sales	X	X
Return on assets	X	X
Return on equity	X	

Source: own calculations using R statistical system

CONTEMPORARY APPROACH TO THE ANALYSIS OF THE PURCHASING FUNCTION IN THE PRODUCTION COMPANY

Miroslav Cavlin[157]
Radivoj Prodanovic[158]
Pavle Pocuc[159]

DOI: https://doi.org/10.31410/eraz.2018.266

Abstract: *The aim of the paper is to highlight the strategic value of the purchase function, its orientation to the goals and the position in the entire value chain, in order to try to create an adequate theoretical and methodological concept for analyzing the procurement function. The traditional approach to the procurement analysis is oriented to the prices of the procurement facilities, which does not correspond to the real needs of the company. The modern approach emphasizes the necessity of developing a procurement analysis model based on the analysis of financial and non-financial information in order to improve the efficiency and competitiveness of manufacturing enterprises in the Republic of Serbia.*

Key words: *purchasing function, performance, business analysis, enterprise.*

1. INTRODUCTION

Procurement costs in the business account for more than 65% of all costs, which gives the procurement function a special importance and responsibility. Without procurement, companies cannot function, or realize the set goals. Although the decisive role of procurement in trade and manufacturing enterprises can be highlighted, procurement is significant because it is responsible for supplying inputs that are designed to successfully carry out the production process. In modern conditions, the development of the market and production is taking place, and the products become more complex, the assortment is expanding and demand is generated. Changes in the development of business have led to affirmation of the strategic, while the operational dimension of procurement is not neglected. By introducing new products, expanding cooperation with international suppliers, partnership as a measure of relations with strategic suppliers and introducing long-term contracts, involving suppliers in developing new products and accessing information, has contributed to savings in business and quality improvement, as well as positioning of procurement as strategic business functions.

2. THE GENESIS OF DEVELOPMENT OF THE PROCUREMENT AS A STATE BUSINESS FUNCTION

It is relevant to the procurement function, as the primary objective from the internal sphere, to collect and summarize the procurement requirements, and from the external sphere of communication and the choice of suppliers. In our theory, procurement issues have not been sufficiently explored, as opposed to foreign ones, where the role of procurement in increasing

[157] Faculty of Economics and Engineering Management in Novi Sad, Cvećarska 2, 21 000 Novi Sad, Serbia
[158] Faculty of Economics and Engineering Management in Novi Sad, Cvećarska 2, 21 000 Novi Sad, Serbia
[159] Provincial Secretariat for Economy and Tourism of AP Vojvodina, Bulevar Mihajla Pupina 16, Novi Sad, Serbia

the competitiveness of the company is largely explored. The approach of Reck and Long [1] through the design of the four stages of the analysis of procurement development is focused on the involvement of the acquisition in the management of the company, and for a decade later, Stannack and Jones [2] developed a substantially correlating concept with four stages of the analysis of procurement development, on the efficiency of procurement in the function of managing the company. In the table view (Table 1), as authors, we tried to integrate the essence of the approach of these authors in order to provide an adequate and clearer understanding of the developmental genesis of companies.

Table 1 Access to procurement development[160]

PHASE	THE ROLE OF THE PROCUREMENT FUNCTION IN THE COMPANY
Procurement as a passive product-oriented function	Procurement is an operational function that routinely responds to the requirements of other business functions. The focus on purchasing physically tangible products that is needed at the right price, in the right quality, in the right quantity in the right place at the right time.
Procurement as an independent process-oriented function	Procurement defines profitability and aims to reduce costs, whereby, independently of other business functions, it determines and applies a methodology adapted to a predetermined strategic plan. Aim to improve the efficiency of the procurement process.
Procurement as a function of support-oriented relationships	Procurement improves the company's competitiveness and participates in strategic sales / production planning. Orientation on the development of the relationship with suppliers.
Procurement as an integrative performance-oriented function	Procurement is fully involved in strategic planning and a significant factor of strategic management. Orientation to the strategic position that the company has in relation to direct and indirect customers and suppliers in order to increase the efficiency of the entire supply chain.

Based on an analysis of Reck and Long's approach, Stannack and Jones distinguished four stages of procurement development, which are not exclusive, but intertwined and complemented. Summarizing the essence of the approach of these authors, we can point out that earlier procurement was treated as a passive operational business function, which is oriented towards cost reduction, while today it is increasingly becoming a strategic business function aimed at creating value.

3. ESSENCE OF OPERATIONAL AND STRATEGIC DIMENSION OF PUBLIC MANAGEMENT

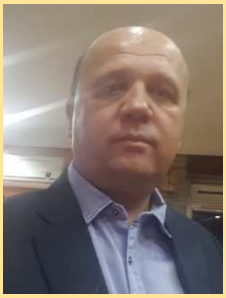
In economic theory, the understanding of procurement appears in a narrower and broader sense [3]. Procurement in the narrower sense (operational) is oriented to the analysis of the efficiency of doing business in the process of obtaining operational procurement objects. Procurement in a broader sense (strategic) is oriented to the creation of value and profit for the company, and procurement objects in the broader sense are: the procurement of services, rights, energy and means of work. Contemporary Procurement is a market function that must be integrated into

[160] Modified by: Reck, R.F., Long, B.G. (1988). Purchasing: a competitive wapon, Internacional Journal of Purchasing and Materijals Managament, 24 (3), str. 2-8; Stannack, P., Jones, M.E. (1996). „The death of Purchasing“, *IPSERAConference Papers*, April, Eindhoven University of Technology.

value creation processes for other business entities and combine the results of work with the needs of your own organization process, including the establishment of methods, instruments and procedures for their implementation [4]. Monczka et al. [5] suggest that the change from a traditional to a value-oriented procurement manifests itself in three directions: changing the way of doing business in the supply market, changing the materials that are acquired and changing business with suppliers. As a matter of urgency, we emphasize that the procurement strategy needs to ensure in the long run the success of the company's operations through efficiency in the operational and strategic dimension.

Operational management of the procurement function is focused, on the one hand, on lowering the cost of procurement facilities, and on the other hand, reducing the costs of the organization and executing the procurement process. The strategic dimension of procurement management was authored by A.T. Kearney [6] points out that on the side of the competitive strategy the factors are deteriorating: connecting the quantity, the best price, the internationalized procurement, and that the long-term strategy is deteriorating by factors of change: a new definition of technical changes, optimization of the overall supply chain, restructuring of relations with suppliers. It is precisely the necessity of a strategic understanding of procurement factors that is an essential prerequisite for improving the efficiency of business decisions and reducing risk in procurement, and with the application of creating a comprehensive analytical procurement management model.

Miroslav Cavlin, *Ph.D., Associate Professor, was born on January 28, 1971. in Zadar, Republic of Croatia.*



He completed his basic studies in the field of accounting and finance at the Faculty of Economics in Subotica, University of Novi Sad in 1995, where he completed both postgraduate and master's studies in the direction of: Finance and Trade Finance Management - Finance and Accounting with a total average grade of 8.66 and 2004, he defended master's thesis.

Doctoral dissertation at the University of Novi Sad in 2008 on the topic of Controlling as an expert support to corporations with a view to the possibility of implementation in the healthcare sector.

He was engaged at the Faculty of Economics in Subotica and several other higher education institutions in the Republic of Serbia, and in 2009 he was elected Assistant Professor at the Faculty of Economics and Engineering Management in Novi Sad, where he also founded a working relationship. He was elected as associate professor in 2015 at the faculty of the same name.

He is in charge of Business Analysis and Management Accounting.

He published a textbook and several papers as an author and co-author in the field of business economics, finance, management and tourism.

He speaks English.

4. CRYSTALIZATION OF A MODEL FOR A MODERN CONCEPT FOR ANALYSIS OF THE PROCUREMENT FUNCTION IN THE PRODUCTION ENTERPRISE

The qualitative unity of economic parameters in the strategic and operational dimension, in the analysis of the internal and external fields, presupposes maintaining the identity unification of the methodology, analysts and the company [7]. The basic principle of approach is the dynamic and comprehensive view of the procurement function in the company, and the procurement analysis model is based on the internal and external field of the procurement function in the company.

The subject of strategic procurement analysis starts from the analysis of a wider and narrower procurement environment that corresponds to an integral analysis of the company and its strengths and weaknesses.

The analysis of the wider environment encompasses general-social, socio-cultural, political, legal, economic, technical-technological, ecological development. The analysis of the more environment is related to the analysis of the branch, the area of activity of the company and its competitors, and depending on the power and position of the company, it can influence the changes in the business more or less. The further development of the strategic procurement analysis starts from determining the following factors:

The analysis of the purchasing category profile gives a special emphasis on the analysis of the prosperity of the so-called. homogeneous purchasing groups (HGNs) [8] generated by the criterion of similarity of costs, services or suppliers and analysis of key purchasing categories.

The analysis of the relationship management with suppliers gives a special emphasis on the analysis of the strategy of partner, competitive, supply security, supply of routine products in relations with suppliers, ie analysis of types of suppliers: strategic, collaborative and transactional.

***Radivoj Prodanovic**, Ph.D., Assistant professor was born on September 25, 1977. in Zadar, Republic of Croatia.*

He graduated in agricultural economics at the Faculty of Agriculture in Novi Sad in 2001 with an average grade of 8.67. He studied at the Faculty of Economics and Engineering Management in Novi Sad, in the field of Engineering Management in Biotechnology, in 2010.

Doctoral studies at the Faculty of Economics and Engineering Management in Novi Sad, Department of Engineering Management in Biotechnology, enrolled in 2010 and defended the doctoral dissertation in 2015.

In 2008, he was chosen as a teaching assistant at the Faculty of Economics and Engineering Management in Novi Sad, where he also founded a working relationship.

At the faculty of the same name, he was selected as an assistant in 2010, as assistant professor in 2015. He is in charge of Agricultural Economics, Engineering Management in Agribusiness, Engineering Management of Farms in Sustainable Production, Agrarian Policy and Rural Development.

He has published several papers as author and co-author in the field of economics of production and processing of food, marketing and management in agribusiness.

He speaks English and German.

The analysis of the source of supply is oriented to the analysis of information management on the procurement market and the analysis of the source of supply in the function of advanced cost management, innovation and growth, and risk management and continuous supply. In the analysis it is necessary to examine and objectively assess the effects of supply from sources from the local and global markets. The analysis is complemented by the assessment of the effects of insourcing and outsourcing, in order to improve competitive advantages in the market.

Analysis of network management needs is oriented to the analysis of the commodity, information and financial flow coordination between affiliated companies, ie logistics network comprised of suppliers, manufacturers, warehouses, distribution centers and retail facilities in the function of cost optimization. The analysis gives special emphasis on the evaluation of the following relations: change in the number of products - reliability; demand planning - change in inventory volume, productivity and economy; cost change - change in customer service level

- productivity, economy, inventory; change in the duration of the production cycle and delivery deadlines - stocks and angled capital - level of service to the customer.

Analysis of knowledge management in procurement is oriented to the analysis of the system of support of technology, people, relationships, organization, talent, skills, innovation, or their contribution to productivity, operational efficiency, profitability and customer experience.

The subject of the analysis of operational procurement starts from the procurement estimation from the aspect:
- analysis of company procurement in comparison with related companies or competition,
- analysis of the procurement plan (by quantity and value),
- analysis of procurement dynamics.

Further development of procurement analysis starts from the examination and evaluation of the quality (structure) of the following purchasing categories:

- Quantity analysis is aimed at assessing the requirements of security and cost-effectiveness of procurement, ie the optimal quantity of procurement, inventories, the relationship between the quantities of own production and procurement, the ratio of investments and leases, or leasing, and horizontal and vertical cooperation in procurement.
- The stock analysis is aimed at assessing the continuous progression of the process of reproduction and economy, ie, optimum quantity of procurement. Special focus is on the analysis of disproportions on the relation: the norms of the stock (minimum, standard, signal, maximum, optimal) according to the consumption / sale of materials / goods, procurement conditions (purchase period, prices and procurement costs), transport conditions, storage.
- Quality analysis focuses on assessing the quality of purchased goods and services according to user requirements and the conditions of the use of goods, with a particular focus on analyzing the possibility of suppliers for standardization, complaints and deviations in product quality, quality control costs and operating costs with materials of poor / inadequate quality.

Pavle Počuč *was born on June 29, 1969. in Bačka Palanka. He finished elementary and high school in Backa Palanka, graduated from the Technical Faculty "Mihajlo Pupin" in Zrenjanin, and received his master's degree in 2013 at the International University of Brcko.*
After ten years of work in education as a professor (Technical School "9 May") in Bačka Palanka, since 2012, dedicates to the affirmation and promotion of the social economy as a socially responsible and economically efficient business model.
A large number of local governments and NGOs throughout APV are engaged as lecturers and educators on the subject of social economy and social entrepreneurship. In the meantime, he published three professional publications from the social economy, which, in the absence of literature, have found their wide application. Since 2016 he has been appointed deputy of the Provincial Secretary for Economy APV with special responsibility in the position of program coordinator and measures of support to APV's social entrepreneurs by the provincial secretariat and the government of APV. He actively works on creating lines of support for social enterprises, he is lecturer at numerous expert meetings organized by the Provincial Secretariat and NGOs, participates in the preparation of provincial strategic documents in the field of social entrepreneurship, as well as in the drafting of the draft-working version on social entrepreneurship at the national level.

- Analysis of purchasing prices is aimed at assessing the contribution of prices to the objectives of material business and ensuring the competitiveness of its own products on the market. A special focus is on the analysis of the dynamics of prices, the effects and the way of changing the purchase prices during the period of purchase (fixed or slip price), the upper and lower price limits, the economic effects of purchase prices and discounts: quantity, special, fidelity, producer, bonus, super discount.
- The supplier selection analysis focuses on the evaluation of the supplier management system prior to contracting, but also during the performance of each individual transaction, and upon completion of the contract. Key factors for the supplier selection are: direct (price, quality, quantity, delivery time, payment terms, supplier's references, etc.), indirect (procurement level, cooperation with research and development, outsourcing, reciprocity..) immaterial (transfer of knowledge, openness in relationships, ..) and risk factor ("bottleneck" of the procurement market, the only sources, the effect of technological development).

A special segment and focus is on analyzing the contribution of advertising policy and public relations in the function of realizing specific procurement tasks, as well as the analysis of concluded procurement contracts.

According to concluded procurement contracts, we examine the share of the so-called. contracted procurement in total purchases - according to contracts for the purchase / purchase and sale of goods, services, works, cooperation, procurement of rights and alliances. In analyzing the realization of the procurement contract, the effects of the contracting risk and the contract execution risk should be considered.

The analysis of delivery / logistics deadlines is focused on the assessment of disproportions in the realization of basic logistics activities - physical flows of goods through the distribution channel: transport, material handling, giving and receiving information; but also logistical activities of the basic service - customer service flows on all channels of the distribution channel through logistic responses to the service (waiting time, availability and delivery).

Analysis of purchases related to other categories: revenues, expenditures, production, fixed asset ratios, labor productivity.

The subject of procurement analysis in the production company is complemented by an analysis of the rational use and economical wearing of materials [9]. Material costs most often occupy an impressive place: in the tobacco industry, about 35% to 40%, and in ferrous metallurgy, up to 85% in individual companies, and even up to 90% of the total production costs make up the "material costs" position. The content of the analysis of the economics of spending the subject of work, encompassing the material in the broadest sense of the word, the system starts from the following criteria:

- The analysis of material consumption norms is focused on the existence of realistic norms and the estimation of quantitatively/costly consumption in relation to planned expenditures (for the unit of production and the volume of production).
- Internal Reserve Survey is focused on analyzing the consumption of materials by individual items according to the set norms, the norm of material consumption in conjunction with the actual material consumption per unit of product, the quantity of consumed material according to the most suitable variant.
- An analysis of the influence of quantitative and value factors on the cost of materials, on the economy of material use: a more rational construction of the product, the dimensions

of the materials we are procuring, material substitution, scrap, the use of inevitable waste, the time of product bearing between individual operations, tool savings, tools, fuel transportation.

Everything that is learned about the analysis of the economy of wearing materials is predominantly typical for industrial production. Certain differences in this must be borne in mind and respected in the analysis, when it comes to agricultural production and trade.

5. CONCLUSION

Procurement is a function that has been historically treated as a passive and operational business function that responds to the demands of other business functions. In the modern business, the company transforms the position and importance of procurement, and research shows that the impact of procurement on the results of the company's overall business will grow in the future and which gives it even greater importance.

The purpose of the procurement is to link and harmonize the needs of its own organization for resources, services and energy, which it does not produce itself, with the interests of the suppliers of these supply facilities. Without neglecting operational, strategic procurement is a very important process for every company and its future on the market.

In this paper, for the purpose of managing the company, a theoretical model for a comprehensive analysis of the procurement function in a production company was designed, whose efficient application requires permanent testing and assessment of potentials in order to inform managers about the created business situation and possibilities for further development of business. An integrated view of the operational and strategic dimension of procurement is an essential prerequisite for job planning, organization of activities and personnel, control and efficient realization of company goals.

6. LITERATURE

[1] Reck, R.F, Long, B.G (1988). „Purchasing: a competitive weapon“, International Journal of Purchasing and Materials Management, 24, (3), 2-8.
[2] Stannack, P., Jones, M.E. (1996). „The death of Purchasing“, IPSERA Conference Papers, April, Eindhoven University of Technology.
[3] Ferišak V. (2002). "Nabava: politika-strategija-organizacija-managment", Zagreb.
[4] Žibret, B. (2007). "Strateška nabava"; Mate, Zagreb.
[5] Monczka, R., Handfield, R., Giunipero, L., Patterson, J. and Waters, D. (2010): Purchasing & Supply Chain Management, 4th Edition, Cengage Learning, Hampshire.
[6] A.T. Kearney (2008). Assesment of Excellence in Procurement, Chicago.
[7] Čavlin, M. S. (2015). Strategic analysis of the performance of companies trading pharmaceutical products in the Republic of Serbia: As a integrated system of indicators. *Megatrend revija,* 12 (1), 237-256.
[8] Schuh, et al. (2005). "The Purchasing Chessboard, Springer, Berlin, Heidelberg.
[9] Malešević, Đ., Čavlin, M. (2009). "Poslovna analiza", FIMEK, Novi Sad.

THE ROLE OF FIXED ASSETS IN THE DEVELOPMENT OF BUSINESS ACTIVITIES OF THE ORGANIZATION

Vuk Bevanda[161]
Aleksandra Živaljević[162]
Sara Stanić Jovanović[163]

DOI: https://doi.org/10.31410/eraz.2018.273

Abstract: *Basic business components: working capital, work items and workforce, are entered into the organization and technological process of the organization as the appropriate use value. Spending these components is a requirement for the creation of a new product or service. In the process of spending the assets and the business process of the organization, their use values are spent or completely lost. Consequently, their value is consumed, and the economic character of that spending is reflected in the transfer of value of assets to a new product or service.*

Key words: *Fixed assets, business operations, business cycle, organization, development.*

1. THE ROLE AND METAMORPHOSIS OF THE ASSETS

Each organization must have appropriate assets and assets at its inception. The basic problem in the business and quality of business is the adequate volume and quality of the assets that the organization has at its disposal. Founders - owners, in accordance with legal regulations, provide initial founding assets that become assets of the organization, that are fully available for use. The organization acquires and uses assets as a condition and component of its operation and business.

The function of the organization's assets is in their dedicated use and transformation. It consists of the constant movement and circulation of assets from one stage of business operations in the next, and from one form of assets into another. On this circular path, resources are produced at each stage of the production and business cycle in an altered or partially altered form. [1]

Moving and changing the form of assets at the transition from one phase of the business cycle to another, is called the metamorphosis of assets.

We can differ the assets of the organization according to their role and functions. In this sense, they appear in the form of working capital and work items.

The total amount of assets that an organization has at its disposal is not reproduced in a single cycle of reproduction and business, but in a larger number of cycles whose phases are time-varying and do not match. Therefore, in a given, or at any moment, time interval, the organization's assets exist in all known forms. Thus, total assets do not have a single movement

[161] Faculty of Business Studies, Bulevar Maršala Tolbuhina 8, Belgrade, Serbia
[162] Higher Colleges of Technology in United Arab Emirates; Faculty of Strategic and Operational Management in Belgrade, Serbia
[163] Surčin Cultural Center, Surčin, Serbia

in the business cycle, nor have simultaneous metamorphoses in their movement and transformation.

With the help of the workforce, as a necessary component of the work process, work items change the forms and functions in different phases of the organization's reproduction and operation.

As a result of the movement and use of resources, and the help of the workforce in the business and reproduction process, the result of the business operations is created, and different usable values are obtained. In further phases of operations and business cycle, they are transformed into the value, that is, the financial result of the organization's operations in the form of profit or loss. [1]

Without the appropriate type, volume and quality of assets, the organization cannot function in any form, and its assets have purpose only if they are used at the organization's business phases. Assets represent the necessary instrument and component of the operations of each organization as a business entity. In a wider sense, they are also a components of the quality of its business economics.

The assets of the organization are initially in cash form. They change their original form when they switch to a commodity or technological phase of business, transforming into buildings, machines, devices, equipment, land, raw materials, intermediate goods, etc. Therefore, the assets at these stages receive materialized forms, in accordance with the needs of the specific organization and its process of business operations and reproduction.

*PhD **Vuk Bevanda**, Associate Professor*

- *30.9.2011. he defended the doctoral dissertation entitled "Establishment of business incubators in the function of encouraging entrepreneurial activities and local economic development in the Republic of Serbia" at the Faculty of Business Studies*
- *20.03.2008. defended the master thesis "The Role of Business Incubators in Encouraging and Developing Entrepreneurship" at the Faculty of Business Studies*
- *05.07.2004. graduated at the Faculty of Business Studies in Belgrade as a student of the generation (middle grade 10.00), computer engineering course*
- *Since March 15th, 2005. he has been permanently employed at the Faculty of Business Studies at Megatrend University*
- *He published 2 books (3rd in preparation) and a number of papers at domestic and international scientific conferences, in thematic journals, magazines. A list of published papers can be found on Megatrend University website, Faculty of Business Studies.*

In the technological (production) phase, assets occur in the form of assets for work and work items. At that stage, their substance, purpose and content are changed.

From the technological process, the products come out in a new, qualitatively altered form: in the form of semi-finished products, finished products or unfinished products (in the case of a manufacturing organization), therefore in a new materialized form, as a specific use value.

In the phase of selling products on the market, the assets of the organization change their form again by turning into cash. With this phase, a cycle of circulation of assets was closed. This

circle is continuing and renewing, but in varying forms during the life cycle and business operations of the organization.

2. FORMS OF ASSETS

The total amount of assets that an organization has at its disposal is not reproduced in a single business cycle, but in a larger number of cycles whose phases do not coincide in time. Thus each organization has - at the same time - assets in all the forms, in which they can appear in the business process of the organization. The total assets do not have a single movement, nor they suffer the same amount of metamorphosis in that movement. They change partially, through various forms in which they are constantly found.

*Phd **Aleksandra Živaljević** is Associate Professor at the Higher Colleges of Technology in United Arab Emirates and at the Faculty of Strategic and Operational Management in Belgrade. Her expertize is Operations Management and Quality Management. In her wide carrier, she has worked at more than 20 projects designing and implementing quality management system in Serbian companies and institutions.She was the Quality Manager of Megatrend University for 9 years andthe Vice Dean for Scientific Research at the Faculty of Business Studies in Belgrade. She has published over 30 papers in recognizable scientific journals.*

Circulating in different forms and different amounts at all stages of the business cycle, the assets appear as: [1]

1) Free assets,
2) Assets related to the business process.

Free assets represent values in cash. In this form, they are not linked to any particular work and business process. They are free, available to use or spend for a particular activity or to perform a particular function in the business of the organization. Although these assets can have their particular purpose, they remain free in terms of their use. This usability of assets is universal until their final purpose is realized and the assets are not used for this particular purpose, or they are not related to a certain stage of business. Free assets are reduced and disappear with the transition from money to material or commodity. In any other form, except in cash, the organization's assets are related to the process of its business. They are engaged in this process in a specific purpose in which their function is realized in the production process.

These assets are blocked or related to their function by specific nature and their own characteristics, which, in fact, are engaged in the business process. However, the act of blocking assets for a particular purpose does not introduce assets into a function. Blocked assets are not yet in the business of the organization. The bonding of assets for the function begins with the change of their appearance, at the moment of transition from money to commodity, purchase of assets, raw materials, intermediate goods and equipment (labor and work items). By changing the appearance of the form, the tools change their use form and quality from the universal to the purpose and function. Assets in the organization remain blocked until the moment when they are not released from the sale of products or services on the market, i.e. until the moment in which they move from commodity to money, which again change their usability.

From a specific purpose and concrete commodity, the assets of the organization then become universally available, free and ready for further use, or transformation. During the time of blocking and engagement in an organization, the assets can be: a) in function, or b) out of function. a) From the point of view of the business economy, it is common and desirable that

the assets of the organization are in the function of its business process. They are in function when normally, without stopping, they move and turn in the business cycle, according to a certain technological or work process, going from one phase to another. Of course, the speed and degree of this movement are conditioned by the requirements and standards of this technological or work process of the organization. Time hold of assets in one form and one stage does not necessarily mean interrupting the continuity of the flow of their circulation or stalling in that circulation. [1]

The assets for a certain amount of time exist and last in every manifestation, e.g. in stock, finished products, spare parts, and the like. Applying the basic principle of functioning of the economy, which is reflected in the request for maximum results with minimal investments, conditions the shortening of the flow time of their circulation and duration at certain stages, in order to accelerate the cycle of reproduction of the organization's operations. In doing so, there is a technical minimum and an economic optimum of the time that the assets have to spend in each of their manifestations.

b) Certain assets that are in the proper form, at some point in their circular flow, may fall out of their function. This drop can be transient, temporary or permanent. A part of the resources falls out of function whenever there is a standstill in their circular flow (longer than that which is objectively needed and necessary), when there is no activity in the work process. The delay is interrupted and removed after a shorter or longer time, and the assets are returned into function, which prolongs and continues their circular motion, followed by metamorphoses.

Assets can also permanently fall out of function. In the event of a permanent discharge of assets from the function, the assets are decommissioned or unblocked and returned to their cash-generating form. In cash, they again get their universal usability, so they can be reused for some of the organization's business functions. The causes of the discharge of assets from the function are different factors of the organization's economy. They act internally - from its internal structure, and externally - from a macroeconomic, social or market structure. These can also be organizational factors that do not use available caps, stocks of unused materials, and some types of products or goods are too long on stock.

Regardless of the causes of the exclusion of organization assets from their business functions, the consequences of this phenomenon per organization are, in principle, negative and affect its performance. The basic requirement of the organization's economy in relation to assets is their constant use for efficient performance of the function they have in the business process of the organization. The economic criteria for assessing the way in which the assets are used and how they operate are in relation to the size - the volume of assets and the speed of their circulation, or the time of their engagement in certain stages and the achieved results of the organization. This relationship is considered and measured as a coefficient of turnover and engagement of assets. [1]

2.1. Economic forms of assets

The economic function of the assets in the process of work and business starts with their introduction into the organization as certain economic values. This function lasts until the assets are reproduced in their initial, cash form. The transformation of usable qualities is achieved through the process of spending the resources in the process of work, which changes or replaces their former usable forms and qualities. Along with changing, consuming and transforming these products, a new usable value is produced. Part of this new value is the value of the assets

spent on production and whose useful value is canceled or changed in the process of their spending. The value of the spent assets is transferred from the earlier usable value to a new product or service that, as a new use value, arises in the form of business results. By such a process and cycle of spending, the business process closes in a cycle of reproduction of assets in which the use value of the means of production is lost, and it receives a new use value expressed in the finished product.

The value of the spent means for production in the business cycle of the organization is transferred to the value of the new product. Given these characteristics of the means determining the way in which they are reproduced in the organization's cycle, the assets are divided into: working capital, which in one cycle of organizations completely lose their use value, and fixed assets, which in part of the product reproduction cycle partly transfer its value, retaining the use characteristics and functions until the end of its service life and durability.

3. FIXED ASSETS

A fixed asset is a long-term tangible piece of property that a firm owns and uses in its operations to generate income. Fixed assets are not expected to be consumed or converted into cash within a year. [4]

Fixed assets are a durable, material form of organization assets. Fixed assets are part of the total assets of the organization, which are gradually spent in the business process over a longer period of time and through a number of work cycles. The value of these assets is fully reproduced only after their use value has elapsed. During their use in the process of work and business, fixed assets do not change their form. The largest part of the organization's fixed assets is made up of equipment and means of work. However, not all means of working process are fixed assets. Low value and shorter-term assets (less than a year) are not included in the category of fixed assets. Fixed assets are made up of buildings, forests, land and other natural resources. Fixed assets include certain rights of long-term character, concessions, patents, licenses, long-term financial investments, as well as intangible investments. Spending on fixed assets (expressed in cash) is called depreciation. Cash from depreciation is in a special fund and is used to procure new, or reprogramming old, fixed assets of the organization. [1]

*PhD **Sara Stanić Jovanović***

She was born in 1983 in Belgrade. She graduated at the Faculty of Natural Sciences and Mathematics at the Department of Geography, Tourism and Hospitality at the University of Novi Sad, and a master study at the Faculty of Geography at the University of Belgrade, where she completed her PhD Thesis at the Department of Tourism in 2017. Since 2006 she has a Tourist Guide License of the Ministry of Tourism. She has worked as a tourist guide in the country and abroad, a representative of a tourist agency, a tourism manager, a director of the Public Tourism Company, a lecturer in preparatory teaching for licensing travel guides, a teaching assistant at the Faculty of Geography and since 2016 she has been employed in the Surčin Cultural Center. She is the author and co-author of over 60 scientific and professional papers in the field of tourism, economy and culture; manager and author of more than 20 projects, participant of a large number of national and international scientific conferences and a member of the Association of Tourist Guides of Serbia, the Sava Commission Working Group of the Ministry of Tourism for the development of eco tourism in the Sava River Basin, the Group for the Development of nautical, rural and manifestation tourism of the Association for tourism of the Serbian Chamber of Commerce and others.

Since the value of assets depreciates as it is utilized, as it ages, or as latest models are presented, it is critical for an organization to enlist and track depreciation from the time of procurement. Fixed assets are incorporated into the asset report at their initial expense, and after that depreciation all through their life until they are sold, supplanted on the accounting report at their residual esteem. [5]

A fixed asset appears in the financial records at its net book value, which is its original cost, minus accumulated depreciation, minus any impairment charges. Because of ongoing depreciation, the net book value of an asset is always declining. However, it is possible under international financial reporting standards to revalue a fixed asset, so that its net book value can increase. [6]

3.1. Types of fixed assets by status (function)

According to the state of the fixed assets in relation to the business process of the organization, they are differentiated in various forms: a) fixed assets in preparation, b) fixed assets in use, c) fixed assets out of use.

a) Fixed assets under preparation - This category of fixed assets consists mostly of ongoing investments intended for the preparation or expansion of the organization's core business. These are: start works on the construction of certain types of fixed assets such as construction facilities and equipment, land preparation by long-term plantations (orchards, plantations), as well as supplies of building materials. The assets in preparation after a certain period of time are included in the process of operation and business of the organization as fixed assets in use. Only in this form these assets are in the function of the business of the organization.

b) Fixed assets in use - Fixed assets used in material form include: land used for valuable purposes, construction objects of economic character and means of work. Land (which serves for economic purposes and needs) includes arable agricultural land, land from which certain products are produced (brick, tile, sand, etc.) and the land on which the organization's premises are operating. Industrial buildings include industrial, agricultural and other business buildings intended for carrying out economic activity, as well as traffic and hydraulic structures, energy transfer facilities, mining windows, deep wells, etc. The means of operation are used on the objects of work, in order to perform valuable activities and obtain certain products. It is possible to divide them into direct means of work - which directly deal with and modify the objects of work, and indirect - which do not directly engage in the processing of the subject of work, but allow the process of production to take place. These assets include, for example, inventory, devices, certain tools, and the like.

c) Fixed assets out of use - These assets are not in the function of the business process of the organization and serve as a reserve for the work process. These include unusable assets, defective assets, and assets that are intended for disposal. Out of use assets can be leased to other companies, sold or given. Those assets are classified as non-used fixed assets.

3.2. Fixed assets according to appearance forms

This division expresses the official legal nomenclature of the division of assets of the organization. According to this classification, assets that are stated as fixed assets of the organization comprise: a) intangible assets (rights), b) tangible assets, c) cash in the form of long-term financial placements. [1]

a) Intangible assets (rights) - This category consists of various long-term investments and placements of organization assets for various purposes: founding investments in diverse forms of companies, investments in development and research, as well as investments in trial production. The second group of non-material investments consists of concessions, patents and licenses. Concessions represent long-term investments or transfers of property and natural resources such as: roads, mines, railways, land, etc. for exploitation and use. The rights of the concession have the character of the organization's assets, as intangible investments. Patents and licenses represent certain documents that protect an invention or disclosure. They are exclusively the right of the inventor, that is the owner of the patent and the license. The invention is also considered as any new solution to a particular technical problem that can be taken into account in the economy, or in the process of business operations of the organization.

The patent is a transferable right in whole or in part. As a basic asset, a patent represents a repurchased right to use a particular invention for a certain period of time or permanently. The license is the right to use another's patent. Under the Patent and Technical Assignments Act, the patent holder may, in whole or in part, grant the right to exploit the invention to another person or to a business entity. Patents and licenses are considered to be fixed assets if their payment (fee for their use) which is made at once - in full amount. If the contract stipulates that the fee for the use of the patent and the license is paid annually, then it is the current operating expenses of the organizations, which are not included in fixed assets.

b) Material form of fixed assets - This group includes a variety of fixed assets that are used for the purpose of performing business activities. One group of these resources is related to natural factors and natural resources. These include: land, forests, perennial plantations, basic herds. These fixed assets have the most significant role in the organizations in the field of agriculture. The second group consists of means of work in the form of: construction objects, equipment and assets in the preparations. The means of work include: devices, plants (facilities), means of transport, tools and inventory. Devices are tools that basically serve to provide technical and other conditions for work and business. They can be energy devices and serve to supply organizations with energy (electricity networks, gas pipelines, oil pipelines, steam pipelines, etc.). [1]

Production devices are used directly in the production process (furnaces, boilers, tanks, casks, chimneys, etc.). Transport devices are used in the internal and external transport of organizations. The plants are various propulsion and working machines, which enable the production process to unfold. Drive plants can be primary (steam engines, turbines, locomotives, diesel motors), and secondary ones, i.e. actuators that convert some already produced type of energy into another (electrical generators, electric motors, etc.) and working machines with which employees work on objects of work, causing certain changes in these objects of work. Transport means appear in the function of internal and external transport. The means of transport are used for the transport of goods and equipment into warehouses and production facilities, as well as for the dispatch of finished products to the warehouses of finished products and on the market.

Tools are part of assets that directly affect the work items. Tools can be machine-made (tools, knives for metals, milling cutters, etc.) and hand-held (hammers, pliers, keys, files, needles, etc.). The tools also include models for shaping the subject of work (patterns, molds, templates) and devices (instruments for measuring properties). The inventory is the means by which it is not possible to carry out the work process. The inventory appears as a propulsion and a business.

The plant inventory is used in the production unit, the plant, and the business inventory in non-productive activities of the organization.

c) Long-term financial investments - This category represents the basic assets of the entity in cash. Long-term placements of the organization include: investments in the capital of the organization in the so-called affiliated companies, which achieve certain business functions or organization goals; participation in the capital of other legal entities, which is the case when the organization buys shares or other securities of other legal entities for co-ownership, or capitalization through dividends; long-term loans, which the organization has placed for certain companies, for example, for the purpose of securing raw materials or for developing long-term cooperative relationships with other organizations, business partners, etc.; long-term securities represent long-term investments of organizations in the form of purchases of government bonds, shares of various companies, records, as well as other securities that are placed on the capital market.

4. CONCLUSION

Engagement and spending of assets are forms of investments in the reproduction and business process of the organization. At the same time, they represent an expression of the quality of the economy and the business of the organization. The goal of spending the assets is the production of new value-added services, and the goal of engaging is to ensure the continuity of the use of the engaged assets.

.

Values spent in producing a new usable value can be less than or greater than the value of a new product - service. One of the hallmarks of spending is exactly the difference between the produced and consumed values in the reproduction process. On the other hand, the characteristics of the assets engaged do not change, and also the difference between the resources engaged at the beginning and at the end of the engagement process does not occur.

Engaging assets in an organization precedes its spending. The company first acquires the necessary resources to put them into the process of working or spending. In this sense, engagement is a condition for their spending. It is not possible to spend assets that are not provided.

Assets are universally available and can be used for various purposes - at all stages of the work process and parts of the organization. Material assets have engagement cycles that differ in time. Thus, for example, fixed assets are engaged in one cycle at one time, and spend in a larger number of cycles and in a longer period of time. Their main role is to ensure an uninterrupted and continuous performance of the business process.

5. LITERATURE

[1] Živković, M., Ilić, S., Bevanda, V. (2014), *Ekonomika poslovanja*, sedmo izmenjeno i dopunjeno izdanje, Megatrend, Beograd
[2] Jovanović, P. (2013), *Upravljanje investicijama*, VŠPM, Beograd
[3] Jovetić, S. (2015), *Merenje performansi preduzeća*, Ekonomski fakultet, Kragujevac

Internet sources:

[4] https://www.investopedia.com/terms/f/fixedasset.asp, date of access 4.5.2018.

[5] https://www.profitbooks.net/what-is-fixed-asset/, date of access 6.5.2018.
[6] https://www.accountingtools.com/articles/2017/5/10/fixed-asset, date of access 6.5.2018.

COMPARISON OF THE USE OF METHODS FOR INCREASING THE QUALITY AND PERFORMANCE OF PROCESSES IN THE SLOVAK ECONOMY

Pavol Gejdoš[164]
Ľubica Simanová[165]

DOI: https://doi.org/10.31410/eraz.2018.282

Abstract: *The article deals about the analysis of methods for increasing the quality and performance of processes in enterprises in several sectors of the Slovak economy. It presents the results of the research carried out in 2017 on the sample of more than 500 different enterprises of the Slovak economy. Performed analysis provides a realistic picture of the possibilities of using various methods and tools in business practice. The application and implementation of the investigated methods brings positive results in achieving continuous improvement of the quality of products and services as well as improving the performance of business processes.*

Key words: *Quality, performance, process, methods, change*

1. INTRODUCTION

Nowadays, processes, process management, and process changes to improve quality and performance have become a very common subject. We can look at the issue from different angles. Continuous growth of competing claims and customer demands forces companies to analyse the attributes of their processes in detail, to use new methods, tools, techniques, and approaches to analysing, evaluating, managing, making changes and optimizing them. This article is part of the research project VEGA 1/0286/16 - Management of Changes Based on a Process Approach. The research, which was carried out in 2017, addressed 508 enterprises from different sectors of the economy of the Slovak Republic. Research was focused on identifying ways to use methods and tools to improve the quality and performance of business processes. The first part of the questionnaire survey contained general questions about the average number of employees, the main subject of the activity of the company, the ownership of capital, the sector and the profitability. The partial result of the project solution is to compare the use of methods to increase the quality and performance of processes in enterprises. For comparison, we chose the wood processing industries (WPI) and the mechanical, automotive and electro technical industries that formed one automotive group (Automotive).

[164] Department of Business Economics, Faculty of Wood Sciences and Technology, Technical University in Zvolen, Zvolen, Slovakia
[165] Department of Business Economics, Faculty of Wood Sciences and Technology, Technical University in Zvolen, Zvolen, Slovakia

2. THE PROCESS, PROCESS MANAGEMENT, CHANGE MANAGEMENT, QUALITY AND PERFORMANCE

Process represents integrated activities that generally require participation of several activities. Processes must be purposeful and efficient, they should serve customers, not the company [8].

Authors [5] define process as a set of activities that require one or several types of inputs and creates outputs that have a certain value for the customer.

The definition of the process and its essence is analysed by several authors [10], [13], [18] and [19]. Based on the content of the above definitions, we can state that some authors do not distinguish the concepts of the business process and process, their definitions are similar. By combining multiple definitions, we can define a simple process definition, such as input to output transformation, through various activities and activities that meet the goals of the corporate strategy.

The concept of quality is general and everyone can understand it in a different sense. For some, it's speed, precision, or good material. The author [1] considers quality as a special function, subject, or property that is considered in thought or speaks of its nature, state or properties. The definition of quality as an entity is supported by "dimension", while "properties" are indicators or components of dimensions.

Pavol Gejdoš

Education:
1990 – 1994: *Grammar – school in Poprad Poprad, Slovakia*
1995 – 2000: *Faculty of Forestry, Technical University in Zvolen, Zvolen, Slovakia*
Specialization: Management and financing of forestry companies
2000 –2003: *Faculty of Wood Science and Technology, Technical University in Zvolen, Zvolen, Slovakia*
PhD study – Department of business economy
Specialization: 62-03-9 Economics of business and industry

Work experience:
2002 *Agricultural technological centre of research, vocational training & education - C. V. T. Georgikis Anaptixis, Larrisa, Greece*
"Trans - European Knowledge Transfer in Environmental Management"
2003 – 2018: *Faculty of Wood science and technology, Technical University in Zvolen, Zvolen, Slovakia*
Lecturer - Department of business economy
2004 – 2018: *External economic adviser of LIGE company, Kukova, Slovak Republic*
2013*: Member of the Senate of the Faculty Wood Science and Technology of the Technical University in Zvolen*
2014*: Member of the Quality Council of the Technical University in Zvolen*
2014 *: Director of Folklore Group Poľana at the Technical University in Zvolen*
2015*: Member of the Senate of the Technical University in Zvolen*

Comparing the main ideas of the authors [2], [6], [12], [16], [20] and [22] the classification and structure of methods, tools and techniques for managing and changing processes can be diverse. A classic breakdown of these methods used to ensure quality in all phases of the production cycle is the breakdown of methods into seven traditional and seven new tools of the quality management.

The basic idea of process approach according to [21] is that the cause of potential problems in the organization is poorly conceived and ongoing processes that need to be redesigned and simultaneously eliminate all activities that do not bring value to the customer.

The principle of process management is based on the maximum integration of activities between individual organizational units, where the fundamental innovation represents the perception of the process as a whole, and it is not decisive whether the entire process takes place in one organizational unit or goes through the entire organization.

Process thinking is based on the principle of a horizontal process, unlike a functional one that is based on a vertical hierarchy. The difference between process and functional management lies in defining responsibilities. While functional management determines the responsibility for the individual sections, the process management defines the responsibility for each process [9].

Author [7] defines a process approach as the goal of understanding and organizing company resources at the same time as their activities to optimize business operations. Applying a process approach requires identification of the main management and subsidiary business processes.

Changes that may occur in the enterprise in technology, in consumer preferences, markets, organizational structure, business environment, procedures, and practices, in individuals where employees need to change their habits, attitudes, skills, and capabilities, depending on the rapidly changing environment [3].

Change management in the enterprise by [11] can be seen as a project for which it is necessary to observe the following steps: defining targets and milestones, identify the person, their roles and responsibilities, determine the form and extent of communication, establishing a timetable.

Successful change requires adaptation of methods, techniques, strategies and implementation tactics to specific history, culture, and people in the organization. The change process is very complex, but there are models to make the change [17].

Ing. ***Ľubica SIMANOVÁ****, PhD.*

Work experience:
*2***007 – onwards: RESEARCHER**
Technical University in Zvolen
2003 – 2007*: Director*
BB Investície Ltd.
1986 – 2002*:* T*echnologist, a Chief of pruduction, Director*
Smrečina Holding Ltd., Banská Bystrica
1977 – 1981: accounting, economics, shorthand, statistics
School of Economic, Banská Bystrica
1982 – 1986*: Engineer „Ing.“*
The Faculty of Wood Sciences and Technology of the Technical University in Zvolen

Courses, certification:
- *Course of university pedagogy:*
  Organization name: Technical University of Košice
  Period: 5 September 2015 - 8 September 2016
- *Statistical education focused on statistical programs and processing for science and research*
  Organization Name: StatSoft CR s.r.o.
  Period: May 12, 2015 - May 14, 2015
- *Strategy planning and modeling using the Balanced Scorecard methodology*
  Organization name: Inekon systems s.r.o.
  Period: 19 January 2015 - 23 January 2015
- *English language course*
  Organization name: Center for Further Education, TUZVO Zvolen
  Period: 2015 -2016
  Course of university pedagogy in Zvolen, Technical University of Košice, 2015 - 2016
- *Corporate performance management*
  Organization Name: Inekon systems s.r.oPeriod: September 16, 2014 - September 19, 2014
- *Managerial course of Enterprise management*
  Organization name: Technical University in Zvolen 1992
  Period: 1991 -1992

Author [15] argues that the management of changes is a core set of knowledge and skills that are essential to ensure the required quality solutions to the problems of organizational changes. Change means a qualitative transformation of certain characteristic parameters that describe the state of the object or event.

As [14] point out, the value of an enterprise is determined by its performance. If we want to increase the value of an enterprise, we need to increase its performance. That is, if we want to increase business performance, we should increase the performance of business processes, especially the major processes.

Measuring enterprise performance is not an end in itself. The goal is not to measure but to enable performance improvement. Measurement using certain indicators must therefore be part of the ongoing program of analysing, evaluating and improving operational performance [4].

3. RESULTS AND DISCUSSIONS

From the partial survey results listed in the table: 1, we can see that up to 82. 36% of WPI enterprises can be classified as small businesses. In automotive, we recorded higher% in medium and large enterprises. From the above we can state that in Slovakia WSP is concentrated mainly in small and medium-sized companies. More large companies in the Automotive, are mostly companies producing cars and medium-sized firms in engineering and electrical engineering focus, supplying components for automakers.

Sector	***Number of employees in %***					
	0 – 10	***11 – 20***	***21 – 50***	***51 – 250***	***Over 250***	***Together***
WPI*[166]	42.12	25.61	14.63	7.30	7.30	100.00%
Automotive*[167]	26.19	9.52	28.57	11.90	23.81	100.00%

Table 1: What is the average number of employees in your company?

Sector	***The main subject of the activity***				
	Production	***Business***	***Service***	***Distribution and transportation***	***Together***
WPI	86.59	9.76	2.44	1.22	100.00%
Automotive	73.81	4.76	21.43	0.00	100.00%

Table 2: What is the main subject of activity?

From Table 2, it is clear that WPI and Automotive dominate the main activities of production, business and service. Only 1.22% of WPI companies are focused on distribution and transportation of wood.

Sector	***The ownership of the company***				
	Net domestic capital	***Prevailing domestic capital***	***Prevailing foreign capital***	***Net foreign capital***	***Together***

[166] WPI – wood processing industry
[167] Automotive - engineering, automotive and electro technical industries

WPI	79.27	14.63	1.22	4.88	100.00%
Automotive	69.05	16.67	4.76	9.52	100.00%

Table 3: What is the ownership of your company?

Up to 93.90% in WPI and 85.72% in Automotive dominate net domestic capital or prevailing domestic capital. Greater% of net foreign capital is in Automotive.

Sector	***ROE - Return on Equity***						
	ROE < 0	***0%-2%***	***2%-4%***	***4%-7%***	***7%-10%***	***Over 10%***	***Together***
WPI	7.32	25.61	15.85	31.71	15.85	3.66	100,00%
Automotive	4.76	21.43	23.81	23.81	4.76	21.43	100,00%

Table 4: What was the return on equity (ROE) in your company in 2017?

The results in Table 4 show that 92.68% in the WPI enterprises and 95.24% in the Automotive enterprises achieve ROEs greater than 0. For Automotive businesses, up to 21.43%, the ROE is above 10%.

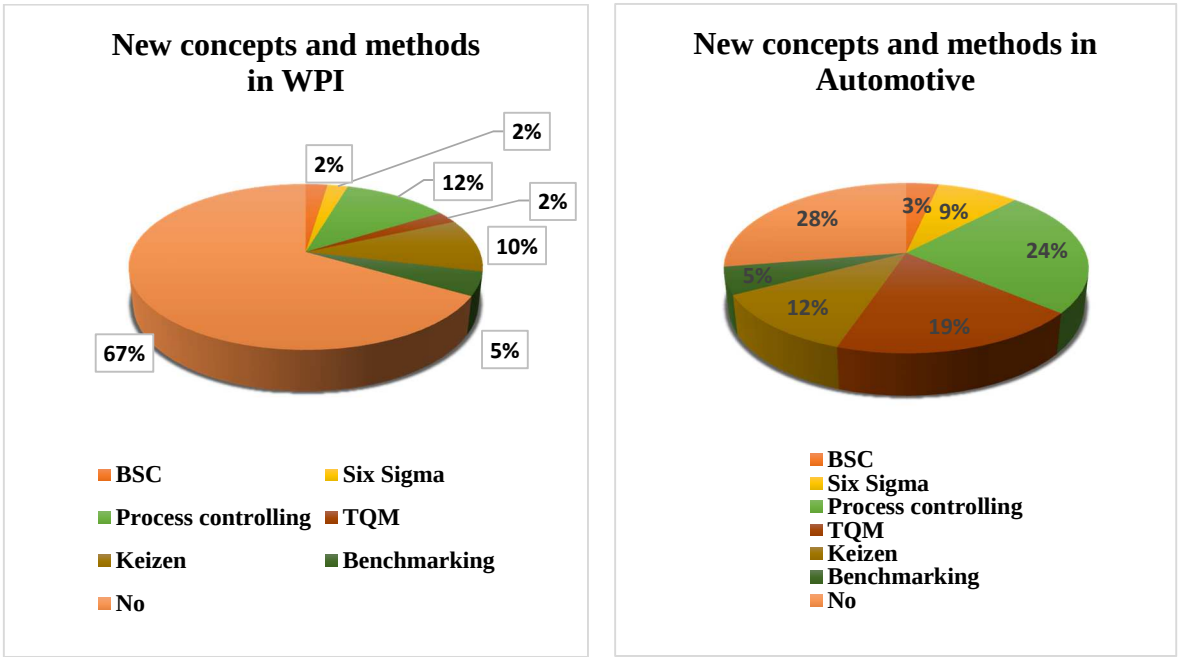


Figure 1: What new concepts and methods have you used or used to improve processes? (More options)

In the graphs 1 - 4, we can see a comparison of new concepts, methods, approaches implemented, process modeling tools and models for analysis and optimization of processes in the WPI and Automotive.

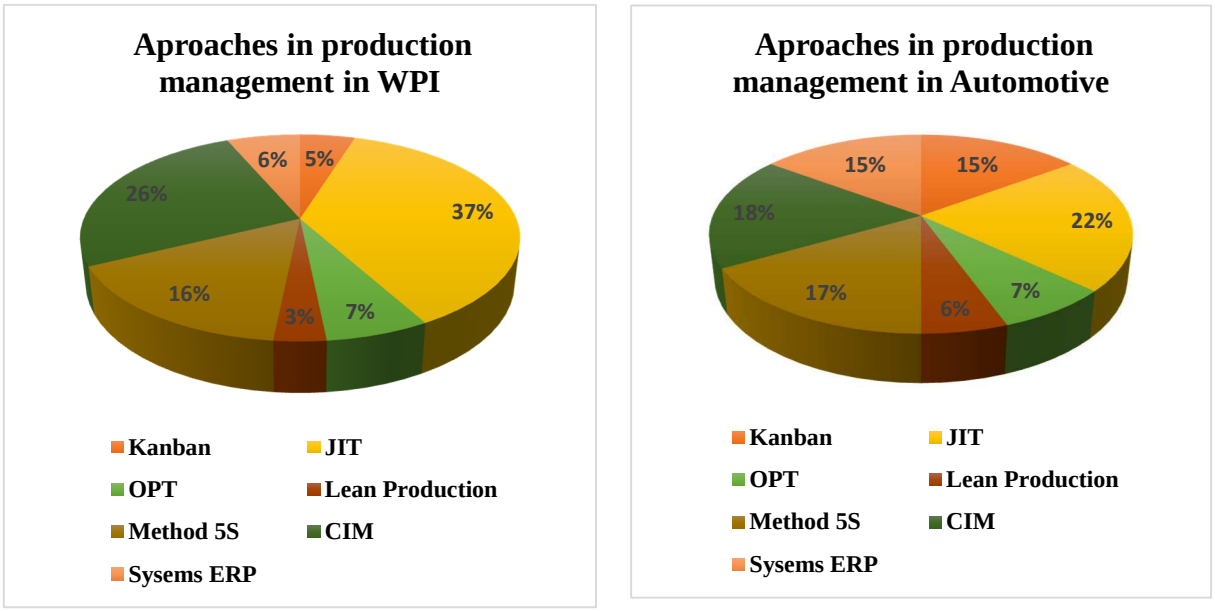


Figure 2: What approaches have you implemented to manage production? (More options)

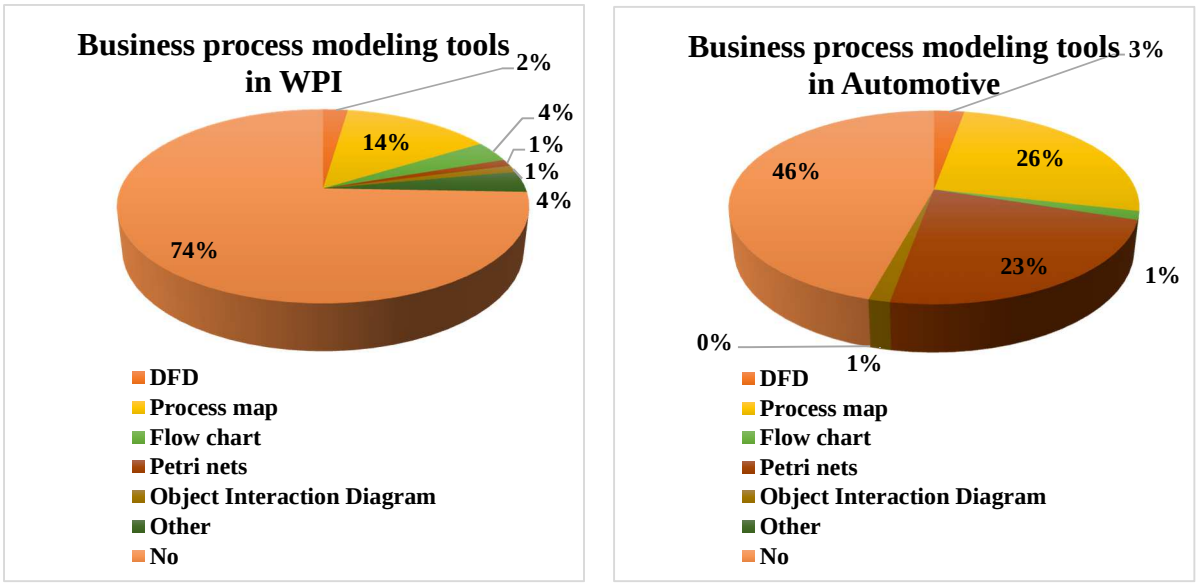


Figure 3: What business process modeling tools does your company use? (More options)

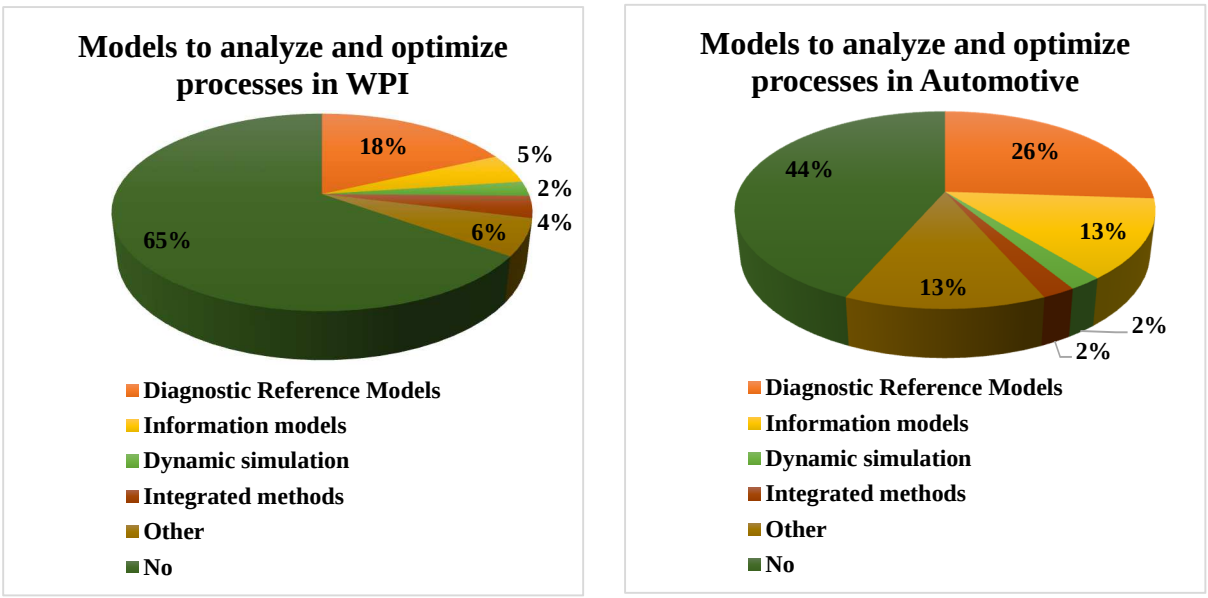


Figure 4: What models does your business use to analyze and optimize processes? (More options)

From Figure 5 and 6, there is a correlation between enterprise size and the application of new quality improvement methods. Large enterprises use the methods listed, all medium enterprises almost all. The worst situation is for small businesses up to 50 employees, there is a variance of responses is relatively small and is inclined to the view that small businesses in most cases, new methods used. In the automotive industry, it is similar, where large businesses also use quality improvement methods and tools, the medium enterprise is about the same as the WPI business, and a much better situation is for small businesses where most of the answers were in favor of using these methods.

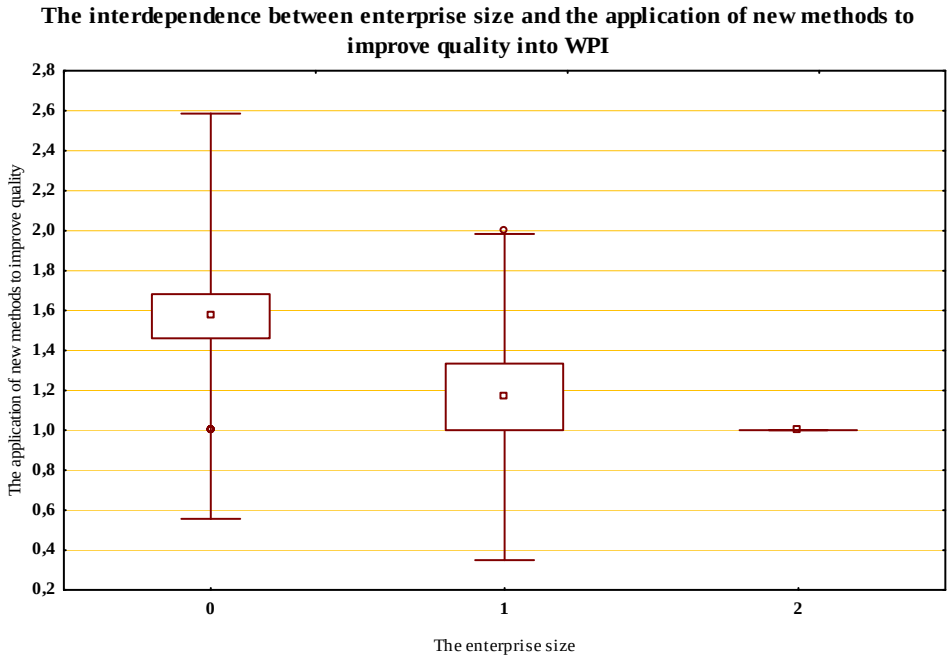


Figure 5: The independence between enterprise size and the application of new methods to improve quality into WPI

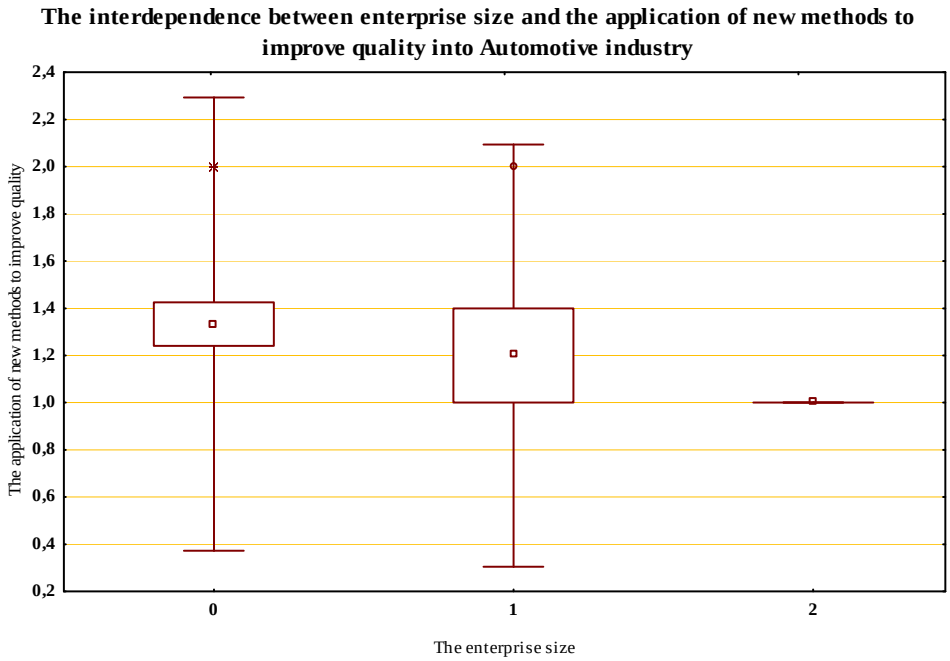


Figure 6: The independence between enterprise size and the application of new methods to improve quality into Automotive industry

When we analyzing the use of business modeling tools in WPI and the automotive industry (Figure 7 and 8), we can say that the better situation is in WPI, large businesses use business modeling tools all, in automotive almost all, medium-sized businesses are better once again WPI enterprises and worse situation is only for small WPI businesses that do not use business modeling tools at all.

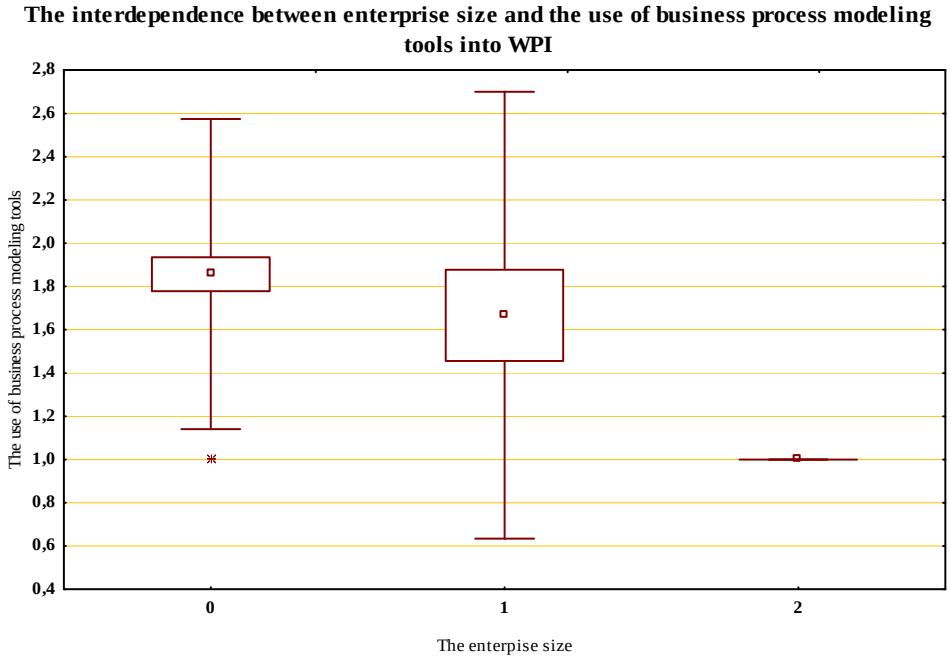


Figure 7: The independence between enterprise size and the use of business process modeling tools into WPI

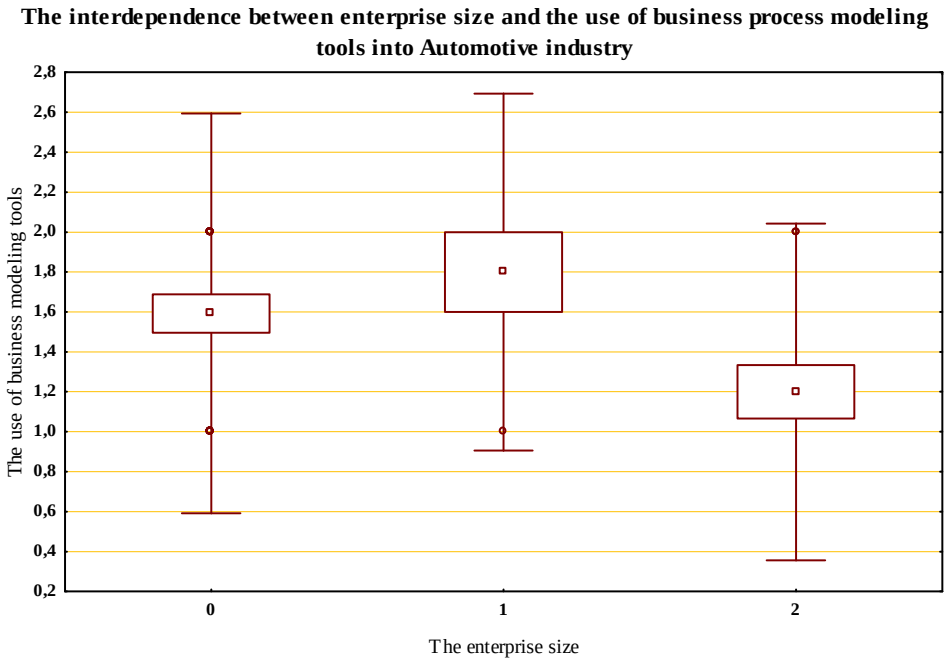


Figure 8: The independence between enterprise size and the use of business process modeling tools into Automotive industry

4. CONCLUSION

In the past, quality management was only attractive to large organizations. The quality certificate is also of interest to medium and small businesses, especially if it is attractive to them to make quality policy attractive, even if it is a step ahead of competition, or to apply for state commitments. Since research has shown that many of the organizations that have been approached by a quality management system according to an ISO standard, it is to know that in our wood – processing industry, most have already understood that modern management methods and systems are needed. The added value of modern methods and systems is enormous. In quality management systems, top management would need to call for the introduction of these systems into their organization. This also involves the need to motivate and inform all employees of all the benefits that the certificate brings to the organization. But also to inform about the whole process of building quality management systems so that business is not affected and so as to avoid undesired situations and conflicts.

Acknowledgements: We wish to thank project VEGA - Scientific Grant Agency of the Ministry of Education, Science, Research and Sport of the Slovak Republic (Project No.1/0286/16 and No. 1/0537/16) and KEGA agency, Slovakia (Project No.11TU Z-4/2017) .

REFERENCES

[1] Basu, R. (2012) .*Advances in Project Management*: *Managing Quality in Projects*. Ashgate Publishing Group, pp. 272.
[2] Čierna, H.; Sujová, E. (2016) *Application of modern QMS - KAIZEN management system*. In MM science journal, pp. 1456-1464.
[3] Drucker, P.F. (1992) *Management.Budoucnost začína dnes*. Praha : Management Press, pp. 128.
[4] Hammer, M. (2007). *Jak zlepšit provozní výkonnost*. In: Moderní řízení, pp.32-36.

[5] Hammer, M., Champy, J. (2000*) Reengineering - radikální proměna firmy: Manifest revoluce v podnikání* 3.vyd. Praha Management Press, pp. 267.
[6] Janać, J., Mamatkulov, O., Rentková, K. (2013) *The role of the small and medium sized enterprises (SME) within the regional development of the Slovak republic, of the Republic of Serbia and of the Republic of Tajikistan*. ICEIRD, Istanbul: Lookus Scientific, pp 808-816.
[7] Kapsdorferová, Z. (2014) *Manažment kvality*, Garmond, Nitra, pp.149.
[8] Kassay, Š. (2013) *Riadenie organizačné štruktúry*, štvrtá časť, Veda, Vydavateľstvo SAV, Bratislava, pp. 192.
[9] Kryšpín, L. (2005) *Řízení a správa podniku*. Oeconomica, Praha, pp. 120.
[10] Lee, L., Wei, C. (2009), *Reducing mold changing time by implementing Lean Six Sigma*, Quality and Reliability Engineering International , Vol. 26 No. 4, pp. 387-395.
[11] Majtán, M. (2002) *Projektový manažment*. Nové trendy v manažmente. Bratislava: Ekonóm, pp. 233.
[12] Marcineková, K., Sujová. A. (2015). *The influence of the process control level on the enterprises' roe.* Conference: 9th International Scientific Conference on Business Economics and Management (BEM), Book Series: Procedia Economics and Finance No: 34. 290-295.
[13] Nenadál J., Plura J. (2008) *Moderní management jakosti*, Computer press, Brno, pp. 317 – 325.
[14] Neumaierová, I. Neumaier, I. (2002) *Výkonnost a tržní hodnota* firmy, Grada, Praha, pp. 215.
[15] Palán, J. et al. (2002) *Řízení změn.* Credit Praha, pp. 256.
[16] Pande, P.S., Cavanagh, R.R., Neuman, R.P. (2002) *Zavádíme Metodu Six Sigma: aneb jakým způsobem dosahují renomované světové společnosti špičkové výkonnosti*. TwinsCom, Brno, pp. 386.
[17] Rosenau, M. D. (2000) *Řízení projektů*. Computer Press, Praha,pp. 344.
[18] Šmida, F. (2007) *Zaváděni a rozvoj procesního řizení ve firmě*. In: Management v informační společnosti. Grada, Praha, pp. 293 .
[19] Smith, H., Fingar, P. (2003) *Business Process Management – the Third Wawe*. Tampa - Florida: Methan – Kiffer Press, pp 295.
[20] Töpfer A. et al. (2008) *Six sigma*, Computer Press, Brno, pp.508.
[21] Wagner, J. 2009 *Meření výkonnosti: Jak meřit, vyhodnocovat a využívat informace*
[22] Závadský, J. (2006) *Metódy, nástroje a techniky manažérstva kvality*. Banská Bystrica: Univerzita Mateja Bela, Ekonomická fakulta, Banská Bystrica, pp 180.

THE PROSPECTS FOR IMPLEMENTATION OF BLOCKCHAIN TECHNOLOGY IN THE HOUSING SECTOR OF THE RUSSIAN FEDERATION

Stanislav Viktorovich Pridvizhkin[168]
Ulyana Petrovna Degtyareva[169]

DOI: https://doi.org/10.31410/eraz.2018.292

Annotation: *The research paper contains the implementation analysis of a new technology known as blockchain in the housing sector of the Russian Federation. The novelty of the research is the way of new project introduction that is being discussed by experts of various sectors in Russia. The article has the operating principle of blockchain technology, analysis of its benefits and challenges, its influence on the housing market in Russia.*

Key terms: *blockchain, new technologies, technological modernization, housing sector of the country, e-mortgage.*

I. Introduction

Russia has been investigating blockchain technology for 10 years, but only now in 2018 it is been introduced at governmental level. The new project is expected to be a modern form of housing sector development in the future.

Maintaining the balance between supply and demand in the housing sector requires a number of policy measures, which determine the development of the housing market, namely, conversion of mortgage lending market into electronic format via blockchain.

The important conditions for electronic format development are possibility for client remote identification and introduction of e-mortgage in order to reduce the time for closure of a deal and the costs. In early 2018 Rosreestr[170] is going to start using blockchain system. The system is expected to be a self-sufficient tool of development in state management system, economics and construction.

This technology can be deservedly called a breakthrough in the modern world. However, despite high expectations, there are some contradictions that cause numerous debates.

[168] Ural Federal University; Russia
[169] Ural Federal University; Russia
[170] Federal Service for State Registration, Cadastre and Cartography (in the Russian Federation)

II. Operating principle of blockchain

Blockchain is a rules-based continuous coherent chain of blocks (linked list) that contains information. Typically, copies of chains of blocks are stored on numerous different computers, independently of each other [1].

The main operating principle of the technology is the transparency of operations with no chance to change them without authorized access. Information in blocks is unencrypted and it is open, but 'no change' state is verified cryptographically through electronic signature element. It ensures the prevention of data theft, fraud, property regulations violation etc.

Blockchain is formed as a continuously growing chain of blocks with records about all the transactions; its volume is increasing as soon as new data received. Transaction is to be confirmed when its format and signature are verified. All blocks make up a chain with information about all operations from database. If one of these blocks fails, it is being automatically replaced by another.

The process of transaction, Image 1 [2].

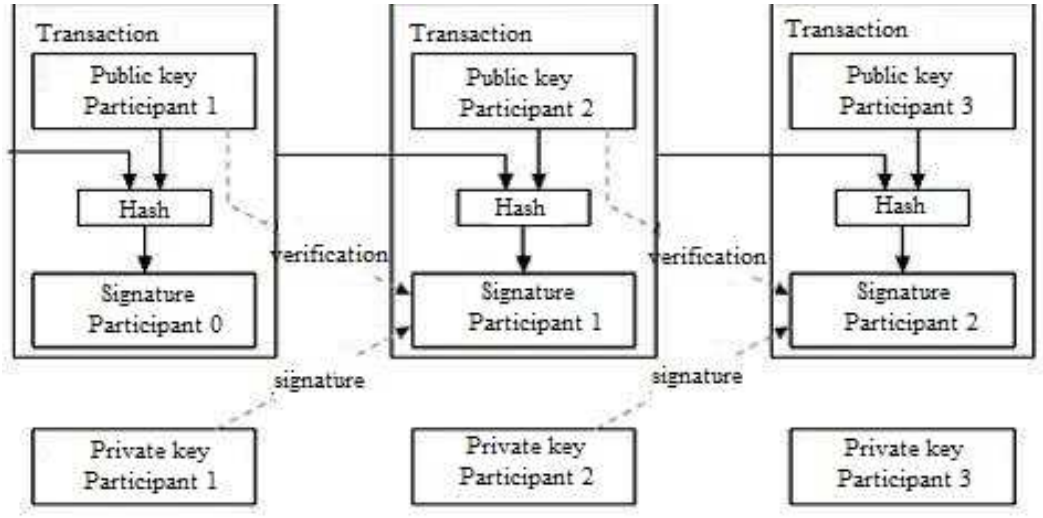


Image 1. Transaction legitimacy confirmation scheme

Stanislav Viktorovich Pridvizhkin
Doctor of Economics, Professor
Ural Federal University

In order to put data into database, a new participant is required to install new software and then he gets two types of cryptographic keys: the public one– for verification and confirmation of data, the private one– for encryption of transaction.

The next step for the participant is to confirm data files of the previous transaction (hash) and the public key, and put this information at the end of the transaction. Since the data is confirmed, each participant of the network is able to control and verify every chain of transactions.

The experts, who study blockchain technology, bring out the following key features of it:

- decentralization;
- open data;
- mathematically cryptographical information security;
- prevention of unauthorized data change in database.

According to Melanie Swan, the author of the book *Blockchain Blueprint for a New Economy*, blockchain can be a reliable storage for records of value to society: registers of documents, events, personal data and assets. Each asset in blockchain is encrypted with a unique identifier, which provides monitoring of this asset, its control and exchange, sale or purchase. It means that it is possible to register any types of tangible (e.g. houses, automobiles etc.) and digital assets and perform transactions via blockchain [3].

Thus, new technology can serve as a new means of registration and tracking in government, economic, construction and other sectors in the Russian Federation, and can perform exchange of tangible (property) and intangible (e.g. items of intellectual property, goodwill) assets.

III. Blockchain as a tool for development of the housing sector in the Russian Federation

Blockchain system now is being introduced into mortgage lending segment of the housing sector of Russia. Banking sector will be able to issue applications for mortgages; brokers and originators will be able to conduct automated underwriting of lendee's application and all buyers of mortgages at the same time. Thus, the lendee immediately receives all the offers, having sent only one application.

The creation of mortgage credit could be made online with the help of *smart contracts* – self-executing commercial contracts in blockchain. All the deals with property will be conducted online, so intermediaries like notary officers, lawyers, brokers, and agencies might no longer be necessary.

The backup process of contracts and signatures of the participants of the deal in blockchain (distributed ledger) already can guaranty a fair deal due to one of the main features: prevention of unauthorized change in database – the data (e.g. property owners, land size or buildings) can only be edited. This promises to solve such issues like documentation fraud, and reduce possible corruption risks.

The database with all real property items, deals, registrations, and property rights are going to be transparent with the access via mobile applications. Every land property or real property will have a blockchain-passport with specifications. It will facilitate the process of collecting of all documents: there will be no need to inquire a fact sheet from the Bureau of Technical Inventory or any other document; property evaluation process will be accelerated.

The development of e-mortgage has been pursued by Russian Association of Cryptocurrencies and Blockchain (RACB). The working group has representatives of major banks and Housing Mortgage Lending Agencies (HMLA); their aim is to elaborate the process of creation of mortgage credit in blockchain system. Besides, they shall solve technological, lawmaking and consulting issues for quicker and more efficient leap of mortgage market to the newest technological concepts. The main challenge for the experts shall be the creation of the system that reduces operating risks for lending banks. The technological solution on a *smart contract* base shall ensure the security of all records from mortgage history and transparency of the chain of lenders and lendees's activity [4].

Furthermore, the United Institute of Development in the housing sector, established on the base of HMLA, launched a couple of pilot projects with the blockchain technology. The following data is transferred now to Rosreestr via blockchain system:

- remote identification;
- closure of a deal;
- registration of partnership agreements;
- monitoring of EGRN[171] information;
- securitization;
- acquisition of e-mortgage.

Thus, it can be stated that in case of successful implementation of e-mortgage interest rates on mortgage credit can hit the low percentage by means of cost saving and reduction in operational expenses associated with document circulation.

The consistent reduction in interest rates on mortgage credit will allow to enlarge the mortgage market. In terms of real wages increase and steady prices for property it favorably affects the housing affordability of citizens in Russia. Thus, for example, in January 2018 the total number of credits created was 78,000 with total amount of 148.3 bln RUB that is twice as much as it was in February 2017.

In order to confirm it, we would like to give the diagram of weighted average mortgage interest rates of HMLA in January 2014-2018 in Image 2, according to given analytics [5-9].

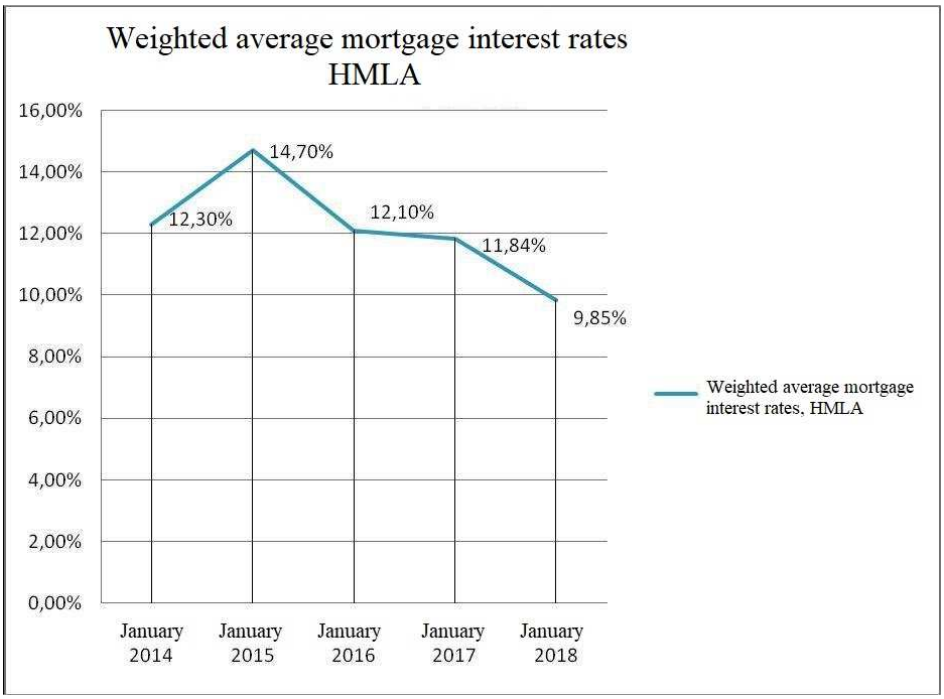


Image 2. Diagram of weighted average mortgage interest rates of HMLA in January 2014-2018

Having analyzed the weighted average mortgage interest rates of HMLA in January 2014-2018, we would like to give the diagram of comparison of mortgage credit creation in January 2014-2018 [10], Image 3.

[171] Unified State Register of Taxpayers (the Russian Federation)

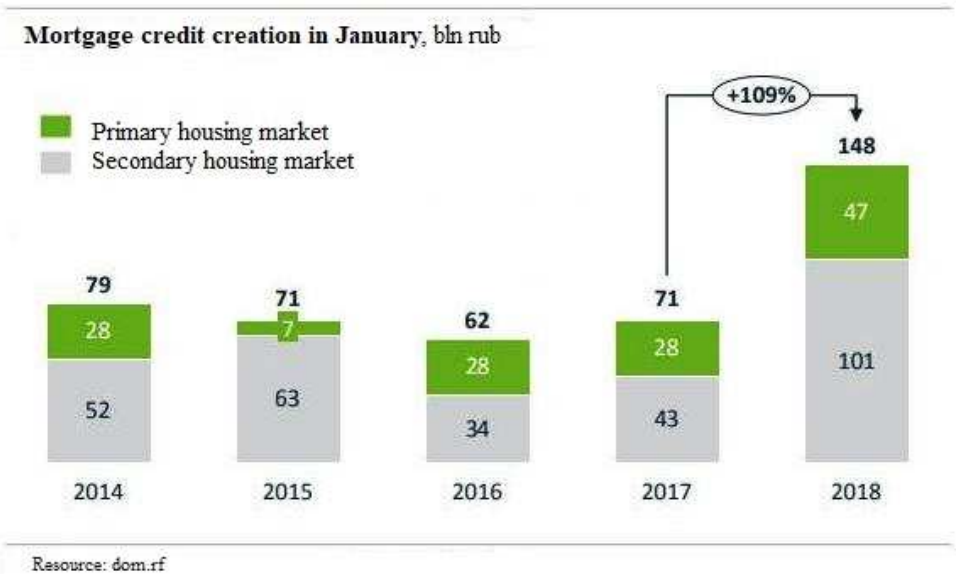


Image 3. Mortgage credits creation in January 2014-2018, bln RUB

Along the clear advantages, the technology has some strong challenges. Firstly, it requires complex technological modernization. Project implementation is divided into three stages: research and development, experimental development and production. The research and development works would take 2-3 months and a group of 3 specialists; at the end the client has the task formalization. It would cost 10,000-90,000 USD, depending on scope. The pilot of *smart contract* system would cost 100,000-500,000 USD for an enterprise, including a group of 6-10 specialists (developers, UI/UX designer, analyst etc.) working for 3-6 months. The developers of open platform for blockchain-auctions *eAuction* have spent on development 30,000 USD [1].

From the very beginning lots of resources are to be required in order to introduce the new system into informational technical sector of Russia. Lack of information on economic viability of the project results in numerous debates upon blockchain introduction.

Expenditures connected with energy consumption also matter. Considerable use of power and combination of factors might result in operational slowdown of blockchain or system malfunction, and it will stop the processes. Emerging issues and prompt response shall be managed by qualified personnel.

The reasons mentioned above do not imply only considerable expenses, but also labor shortage and high pay for specialists, working with blockchain. Understaffing is worldwide. Lack of skilled workers in distributed ledger technology is being experienced by banks, startups, manufacturing companies and state entities.

Without stable legal and technological framework process of conversion will cause financial losses and loss of confidence in promising and efficient tool. Consequently, there should be created such elements like trade floors, registry holders, and e-courts, united in the verification web for each transaction. The participants of the system shall have clear regulations on whom to contact, how to qualify errors, and know how to record the status of contract liabilities, deliveries and settlements.

The highest risk is to suffer loss of confidential data and collapse of system stability. The efficiency of blockchain system security, with the help of cryptographic keys, does not take off the risk for it to be hacked or attacked. Nonetheless, protection and security of data are the most important issues while operating, regardless of what means or how many efforts have been put into development and implementation of the technology.

Ulyana Petrovna Degtyareva
Master's Degree student
Ural Federal University

In addition, it should be admitted that evaluation of the technology is rather contradictory. On the one hand, some experts reckon that, infrastructure will be simpler with the help of blockchain. Considerable expenses at the beginning can be paid off in a short period of time and balanced out with advantages while operating without intermediaries. On the other hand, some of them assume that the switch to digital economics will cause a lot of difficulties and losses.

IV. Conclusion

Maintaining the balance between supply and demand in the housing segment requires a number of policy measures that determine the development of the housing market.

Cooperated Ministry of Construction, Housing and Utilities of the Russian Federation, Centre of Strategical Developments, and Centre of Macroeconomic Analysis and Short-Term Forecasting, with the results of public opinion surveys conducted by VCIOM[172], they have elaborated the Housing Sector Development Strategy till 2025 (hereinafter – Strategy). The document has a list of major aims of the Strategy, which one of them is "to raise the housing affordability by means of development of mortgage credit market" [12]. It is assumed that the aim can be reached by conversion of housing mortgage credit market into electronic format.

It is necessary to launch a widespread blockchain program with the help of Russian companies and research IT-centers, entrusted with its development and implementation. There are numerous reasons for introduction of this system; it would solve many tasks.

In the first place, blockchain system implies cost minimization associated with large amount of paper records; in the second place, it will result in risk mitigation associated with information loss of paper records; in the third place, it provides reduction of mortgage interest rates with the following acceleration of closing process of deals. Buyers save not only their money, but their time, and, looking forward, it might lead to a Russian 'housing token' invention, equivalent of a certificate for apartment purchase or lease.

The widespread launch of blockchain is held back by a number of factors: legal uncertainty, lack of specifications and awareness, knowledge about the technology. In order to adopt and use it as a central registry, it will be indicated to revise or amend some parts of legislation of the Russian Federation. It will take a lot of time and efforts to settle the issues from the both sides – Government and qualified specialists. While developers are in search of new ways of application of the technology, the Government shall prepare its legal support.

[172] Russian Public Opinion Research Center (the Russian Federation)

The analysis of blockchain technology and its adoption into the housing sector of the Russian Federation give reasons to believe that blockchain is highly likely to take the housing construction market on advanced technological level, and require a lot of means and efforts to implement the project without risk and losses.

Reference List

[1] Материал из Википедии — свободной энциклопедии // Блокчейн // [Электронный ресурс] URL: https://ru.wikipedia.org/wiki/Блокчейн

[2] Пряников М.М., Чугунов А.В. Блокчейн как коммуникационная основа формирования цифровой экономики: преимущества и проблемы // International Journal of Open Information Technologies ISSN: 2307-8162 vol. 5, no.6, 2017. С. 49-55.

[3] Blockchain Blueprint for a New Economy Melanie Swan. Blockchain by Melanie Swan Copyright © 2015 Melanie Swan. All rights reserved. Printed in the United States of America. Published by O'Reilly Media, Inc., 1005 Gravenstein Highway North, Sebastopol, CA 95472. С.190.

[4] «Электронная ипотека и блокчейн» // [Электронный ресурс] URL: https://zakonbase.ru/mortgage/elektronnaia-ipoteka-i-blokchein

[5] Аналитический центр АИЖК // Ежемесячный отчет, выпуск №2 // Развитие рынка ипотечного жилищного кредитования и деятельность АИЖК. Январь 2014 года. С. 17.

[6] Аналитический центр АО «АИЖК» // Выпуск №9 // Развитие рынка ипотечного жилищного кредитования и деятельность АО «АИЖК». 2015 г. С. 17.

[7] ДОМ РФ. Агентство ипотечного жилищного кредитования // Итоги развития ипотечного рынка за 11 месяцев 2016 года. С.4.

[8] Аналитический центр АИЖК // Итоги развития рынков ипотеки и жилья в 2017г. // Москва. 2018г. С. 21.

[9] Аналитический центр АИЖК // Итоги развития рынка за январь-февраль 2018г. // Москва. 2018г. С. 5.

[10] Аналитический центр ДОМ РФ. Аналитический материал за март 2018 г. Москва. 2018. С.5

[11] «Карточки: Нужен ли вам блокчейн и где его взять» // [Электронный ресурс] URL: https://rb.ru/longread/blockchain-cards/

[12] МИНСТРОЙ РОССИИ. ДОМ РФ. «Стратегия развития жилищной сферы Российской Федерации на период до 2025 года». С.1-92.

[13] Nakamoto S. A Peer-to-Peer Electronic Cash System // Bitcoin. – URL: https://bitcoin.org/bitcoin.pdf; Перевод статьи Сатоши Накамото. Биткоин: цифровая пиринговая наличность // Coinspot [21.12.2013]. – URL: http://coinspot.io/technology/bitcoin/perevod-stati-satoshi-nakamoto/

[14] Букасова А. Ю. Блокчейн-технология как инструмент децентрализованного мира // Современные тенденции развития науки и технологий. — 2016. — № 9. — С. 5–9.

[15] Вадим Калухов: «В блокчейне главное — не пережечь ожидания публики» // [Электронный ресурс] URL: http://bankir.ru/publikacii/20160429/vadim-kalukhov-v-blokcheine-glavnoe-ne-perezhech-ozhidaniya-publiki-10007496/

CONSUMER PERCEPTIONS TOWARDS CRYPTO CURRENCIES

Ismail Metin[173]
Enis Yakut[174]

DOI: https://doi.org/10.31410/eraz.2018.299

Abstract: *Crypto currencies have recently become an important investment tool. The lack of central authority behind it, being referred as a means for laundering illicit money, the lack of legal regulations and the hacking of some stock exchanges have raised question about the perceived trust and risk toward crypto currencies. In this study, an online survey was prepared and shared on social media. The total of 767 people participated in the online survey; and factor analysis, correlation analysis and linear regression analysis have been conducted. As a result, it has been concluded that there is a negative correlation between the risk perception of consumers and the perceived trust towards crypto currencies; and as the trust towards crypto currencies increases, the level of perceived risk declines. Additionally, it can be stated that, the trust toward crypto currencies develops and strengthens over time, the level of trust noticeably increases with the initial investment, and it continues to increase over time.*

Key words: *Consumer Behavior, Crypto Currency, Perceived Risk, Bitcoin, Perceived Trust*

1. INTRODUCTION

In recent years, a new type of commercial enterprise has come into being which is known as crypto currency. The most prevalent among crypto currencies is bitcoin (Bariviera et al., 2017: p.82). Bitcoin, which was launched into the market by a group of programmers who used the pseudonym of Satoshi Nakamoto is a crypto and virtual currency which is produced of mathematical algorithms and codes and perceived as an alternative to state-subsidized currencies (Cheah and Fry, 2015: p.32).

According to the Coinmarketcap data, the market volume of 1550 crypto currencies has reached an amount of 387,5 billion US dollars by 12 March 2018. While Bitcoin has been the most popular crypto money with the biggest volume of market (%41,5) with 163,2 US dollars, the alternative crypto currencies which are known as altcoins Ethereum has a market volume of 71,2 US dollars while Ripple has 32 billion, Bitcoin Cash (BCH) has 18,8 billion and Litecoin has 10,3 billion US dollars.

The lack of central authority behind it, being referred as a means for laundering illicit money, the lack of legal regulations and the hacking of some stock exchanges have raised question about the perceived trust and risk toward crypto currencies. Therefore, the perceived risk factors which effect the crypto currency buying and selling in online platform has been interpreted as a problem in consumer behaviours and the study was decided to be executed.

To begin with, “risk” is defined as “the danger of being harmed” by the Turkish Language Institute (TDK, 2018, p.1). Additionally, it is expressed as “the possibility of confronting a bad

[173] Manisa Celal Bayar University, Faculty of Business, Muradiye Campus, Manisa/Turkey
[174] Manisa Celal Bayar University, Faculty of Business, Muradiye Campus, Manisa/Turkey

result" (Küçükbay, 2016: p.27). "Perceived risk", on the other hand, involves the damages that the consumers expect in relation to the products they are about to buy (Karamustafa and Erbaş, 2011: p.103). The concept of perceived risk has first been suggested in Harvard scholar Bauer's research concerning consumer behaviour. In this study, Bauer defined perceived risk as uncertainty plus the seriousness of the result combination (Yang et al., 2015: p11).

Online trust factor, on the other hand, is the success factor for online entrepreneurship, electronic services and electronic communication and additionally increased perceived risk causes people to avoid operation (Hansen et al., 2018: s.199). In this context, trust is the leading one among the most important problems in online shopping (Altuğ and Özkan, 2012: p.3). Crypto currencies and processing stock markets involve trust problem and risk. This situation may affect the consumer behaviour in the developing crypto currency market. Therefore, a comprehensive model defining trust and perceived risk will procure the use of crypto currency by consumers and help scholars and practitioners.

2. LITERATURE REVIEW

Yelowitz and Wilson (2015) have questioned the determiners of the interest for Bitcoin by collecting data from Google Trends and they have formed four types of customers. These are computer programme addictives, speculative investors, liberalists and criminals. While the way of computer programming and illegal activity research are related to Bitcoin interest, liberalists and the way of investment have found out to be unrelated to it.

Tsanidis and his friends (2015), who have concentrated on non-users and impediments, have investigated the awareness, usage and trust level of Bitcoin in Greek society. As a result, they have found out that the success and future of Bitcoin is uncertain, that potential users have no knowledge concerning the easy use of Bitcoin and money and time saving.

Presthus and O'Malley (2017) have investigated the motivations and impediments of the last users who use Bitcoin as a digital money. They have collected data from 135 users via questionnaire method and demonstrated that the last users adopt because of individual interest. They have expressed that a big group of people do not use Bitcoin since they wait for others to use it, and have hesitations about value and security.

Ciaian and his friends (2018) have tested daily datum of 17 crypto currency units of 2013-2016 with time series analysis test in their study in which scrutinized the counter-dependencies of bitcoin and altcoin markets. They have attained the result that they are dependent on each other. Additionally they have found out that short term price relation between bitcoin and altcoin is stronger when compared to the short-term relation.

Dulupçu and his friends (2017) have tested the thesis that "the price increases in bitcoin occur in direct proportion to its popularity rather than its real value" via the Granger causality test and Variance Decomposition Analysis test which is based on the VAR model. Consequently, it was found out that the price of bitcoin increased in parallel with the increase of its awareness and that the current price of bitcoin is a result of speculative movements rather than its real value.

National and international studies in literature have solely concentrated on Bitcoin among all crypto currencies and they failed to move beyond theoretical knowledge. In this scope, a need for a comprehensive study concerning crypto currencies was felt in marketing literature. Especially Jarvenpaa and Teigland have stated in their study that the trust towards digital

environments and crypto currencies can be scrutinized in very different dimensions and that their study can constitute an example for the following studies. This study is also realized with this aim.

3. THEORETICAL FRAMEWORK AND RESEARCH HYPHOTHESES

3.1 Risk Perception and Trust

Perceived risk which occurs in many different shapes such as financial, product performance, social, psychological, physical and time, is defined as the belief of the consumer regarding the potential, uncertain and negative consequences (Chang and Chen, 2008, p.283). Although many detailed researches were executed concerning the risk perception, these factors remain attractive in the field of marketing. When the literature is scrutinized, it will be seen that it is associated with many consumer behaviours such as the concept of risk, store choice, advertisement activity, innovation and brand loyalty (Peter and Ryan, 1976, p.184).

Although there are many reasons which can explain the interest of researchers on this subject; the fact that the consumers focus on avoiding making mistakes rather than focusing on the utility-maximizing has an important role in the use of risk perception in understanding the consumer behaviours (Mitchell, 1999, p.163). While evaluating the decision-making process of consumers; it is important to note the reality that consumers handle the situation considering both the positive and negative aspects of it and that they decide by calculating the net value they will obtain (Kim, Ferrin and Rao, 2008, p.546). Thinking in this framework, it is possible to say that the increase in the risk perception of the consumer is a significant impediment, which influence the consumer decisions.

While explaining the relation between risk perception and trust, researches have evaluated the subject in different ways and there are studies stating that the risk is trust driven, that trust is equal to risk and that trust is risk driven (Kim, Ferrin and Rao, 2008, p.547). In this study, similar to some e-trade and technological adaptation studies, it is accepted that perceived risk has a negative impact on the trust (Chang and Chen, 2008, p.823). Moving from this point, H_1 Hypothesis is formed:

H_1: As the perceived risk increases, the trust felt towards crypto currencies decreases.

İsmail Metin

He was born in 1982, in Turkey. Graduated from the Faculty of Economics and Administritive Sciences, Department of Economics in Selcuk University in 2005; he got his master's degree in 2007 from the Social Sciences Institute in Dokuz Eylül University (DEU) specializing in the area of International Trade. His PhD topic was Reliability in Business to Business (B2B) electronic marketplaces and he got his degree from the same university (DEU) in 2012.

İsmail METIN currently works in the position of Assistant Professorship in Manisa Celal Bayar University, Faculty of Business, Department of Economics and Finance. His areas of specialization include International Marketing, Consumer Behaviors and international trade. He teaches Introduction to Business, Principles of Marketing, Entrepreneurship, International Economics, E-commerce and International trade Applications.

3.2 Duration and Trust

Researchers agree on the idea that the trust develops and strengthens in time. The time spent in a relationship at the same time corresponds to the investment done by both sides to this relationship (Doney and Cannon, 1997, p.39). The more frequently the consumers meet with the individual/company that provides products or services to them, the more knowledge they acquire about the industry. As the time of the relationship and the knowledge level increases, the uncertainty at the beginning of the service and risk decreases (Coulter and Coulter, 2002, p.43). In Pruitt's view, as the duration of the relationship increases the possibility of critical shocks will decrease, the trust will increase along with the time and a better relationship will occur (Armstrong and Yee, 2001, s.70; Mitchell, 1999, p.174). Hence:

H_2: As the duration of the relationship with the crypto currencies is prolonged, the trust felt towards crypto currencies will increase.

4. METHOD

An online survey study was prepared for data collection. The snowball sampling method was selected and the online questionnaire was shared via social media. The survey was sent to social media pages and individuals which focus on finance, crypto money, stock markets, and as a result a total of 767 people participated in the survey.

4.1 Scales

Even though the limited number of studies on crypto currencies in the literature enhances the importance of the current study, the lack of marketing scales related to crypto currencies necessitated the adaptation of risk and trust scales from other marketing studies.

The perceived financial risk scales was developed by DelVecchio and Smith (2005), and consists of six items with a cronbach's alpha of 0.827. The scale was translated to Turkish with back translation method with the help of professors from English department. After the translation, irrelevant and/or repetitive items were removed and the final version consisted of four items.

The perceived trust scales was developed by Aiken (2001) and have already been translated to Turkish by Aksoy (2006). The Turkish version had eleven items and was measuring the consumers' trust towards internet, therefore while adapting the scale to current study, irrelevant items were removed. The final version of the scale consists of seven items.

Duration of the relationship with the crypto currencies was measured with five responses which were; no investment, 0-3 months, 3-6 months, 6-12 months and More than 1 year.

4.1.1 Factor Analysis

A factor analysis, was conducted and the loadings of the financial risk and perceived trust scale were measured. Kaiser-Meyer-Olkin measure of sampling adequacy test revealed that the data is factorable (KMO=0.889) with a significant Bartlett's Test of Sphericity (KMO>0.6 and Bartlett sig<0.05). These results indicate that the sample size is adequate. The values on the communalities table are expected to be over 0.30. The results reveal that lowest value is 0.450 and therefore all items are above the cutout value. In order to assess the number of factor in the

data, total variance explained table was examined. By employing Horn parallel analysis method (N=767; Item=11; Factor1 > 1,1903; Factor2> 1,1391; Factor3> 1,0980) two factors were retained, where those two factors explained the %55 of the total variance, which is acceptable.

A second factor analysis was conducted with varimax rotation, and results revealed that risk1, risk2, risk3 and risk4 loaded on the first factor, trust1, trust2, trust3, trust4, trsut5 and trust7 loaded on the second factor. Trust6 did not load on any factor and therefore removed from the analysis.

4.1.2 Reliability Analysis

Reliability analysis results Show that financial risk scale has a Cronbach's' alpha of 0.629. Even though this value is expected to be over 0.7, Helmstadter (1964) stated that, a value of 0.5 and above is generally acceptable. Deletion of any items did not significantly improved the overall reliability of the scale therefore all the items are retained for further analysis.

Reliability analysis of the perceived trust scales revealed a Cronbach's' alpha of 0.897 and demonstrated a high reliability; therefore it is also acceptable for further analysis.

4.2 Demographic Characteristics

The sample consists of 767 participants, with a 14% female and 86% male. The details can be seen on Table 1, Table 2 and Table 3.

Table 1. Gender

	Frequency	Percent
Female	107	14,0
Male	660	86,0
Total	767	100,0

Most of the participants (76%) see themselves in the middle income group, and the number of participants in high income (13%) and low income (11%) groups are very close.

Table 2. Income Level

	Frequency	Percent
Low	82	10,7
Medium	582	75,9
High	103	13,4
Total	767	100,0

In terms of education, even though majority of the participants have an undergraduate and graduate degree (87%), it can be seen that the sample consists of participants with a varying level of education.

Table 3. Education

	Frequency	Percent
Middle School	5	,7
High School	58	7,6
Associate Degree	38	5,0
Undergraduate Degree	518	67,5
Graduate Degree	148	19,3
Total	767	100,0

4.3 Analysis Method

In order to test the hypotheses, first correlations among the variables were investigated. A correlation coefficient above 0.30 with a significance value of p = <.001 indicates that there is a relationship between variables. Additionally, a correlation above 0.70 is not desired since it indicates multicollinearity. After the correlation tests, linear regression analysis will be employed in order to see the effect of independent variables on dependent variables.

5. FINDINGS

5.1 Correlation Analysis

Correlation analysis revealed that, there is a significant negative relationship between trust and risk (r = -.525, p = < .001); and there is a significant positive relationship between trust and time (r = .485, p = < .001). Additionally, there is a significant negative relationship between the two independent variables (risk and time), and this relationship posits no multicollinearity since it is less than 0.70 (r = -.402, p = < .001) (See Table 4).

Table 4. Correlation Analysis

		Trust	Risk	Time
Trust	Pearson Correlation	1	-,525**	,485**
	Sig. (2-tailed)		,000	,000
	N	767	767	767
Risk	Pearson Correlation	-,525**	1	-,402**
	Sig. (2-tailed)	,000		,000
	N	767	767	767
Time	Pearson Correlation	,485**	-,402**	1
	Sig. (2-tailed)	,000	,000	
	N	767	767	767

**. Correlation is significant at the 0.01 level (2-tailed).

5.2 Linear Regression Analysis

In order to see that there is not multicollinearity, tolerance and VIF values were examined. Coefficients table revealed that (Table 5), tolerance values are greater than 0.10 and VIF values are smaller than 10 for both risk and time. (Risk, Tolerance = .839, VIF = 1.192; Time,

Tolerance = .839, VIF = 1.192). Therefore, it can be concluded that there isn't multicollinearity between the independent variables.

Table 5. Coefficients [a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	4,066	,135		30,096	,000					
	Risk	-,406	,033	-,393	-12,494	,000	-,525	-,412	-,360	,839	1,192
	Time	,251	,024	,327	10,403	,000	,485	,352	,300	,839	1,192

a. Dependent Variable: Trust

Secondly; normality, linearity and outliers were examined. PP Graph shows that the data was approximately normally distributed (See Figure 1). In order to see the outliers, Mahalanobis' Distance (MD) was inspected where any cases greater than critical value of 13.82 (for two independent variables) should be removed. Results revealed that there are not any outliers in the dataset. Additionally, Cook's Distances were smaller than the critical value of 1; and it can be concluded that the data is suitable for linear regression.

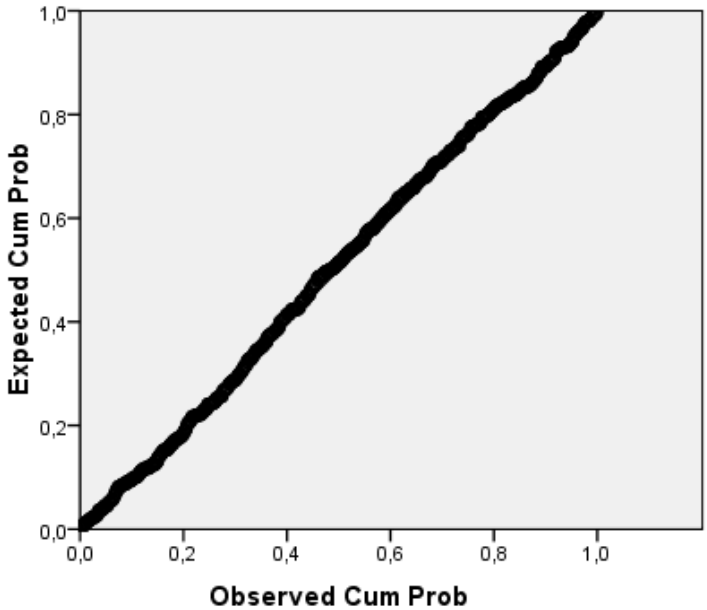


Figure 1: PP Graph (Dependent Variable: Trust)

Regression analysis was employed in order to test the model, which assumes that consumer trust was predicted by the perceived risk and time elapsed. R denotes the correlation between the independent variables (time and risk) and dependent variable (perceived trust). In this case, R = 0.601, which indicates a strong relationship. R^2 = .365 indicates the proportion of variance in perceived trust that can be explained by the two independent variables. The adjusted R^2 = .364 estimates the generalizability of the model, which in this case this model is generalizable.

Table 6. Model Summary [b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,604[a]	,365	,364	,80249	,365	219,821	2	764	,000

a. Predictors: (Constant), Time, Risk

b. Dependent Variable: Trust

Linear regression analysis shows that two independent variables explain the 37% of the variance (R^2=.36, F (2,764) = 219.821, p<.001). In order to assess the separate effects of independent variables, coefficients table (Table 5) was examined. Results show that both time and risk significantly affect perceived trust, but the effect of risk on perceived trust is higher than the time elapsed.

According to these results, consumer trust toward crypto currencies can be predicted by perceived risk and time elapsed. As the perceived risk decreases and elapsed time increases, consumer trust towards crypto currencies is positively affected. Standardized Beta coefficients show that, one unit decrease in perceived risk causes a 0.39 unit increase in trust towards crypto currencies, and one unit increase in elapsed time causes a 0.32 increase in trust towards crypto currencies. According to these results both H1 and H2 hypotheses are accepted. The relationship between the independent and dependent variables can be formulated as follows:

Enis Yakut

Enis graduated from Marmara University in 2002 with a Bachelor of Arts in Business Administration. He completed his MBA at the University of Hartford, and during this time he worked as a graduate assistant Barney School of Business. Afterwards, he spent one year as a Mid-America / Northwest Regional Specialist at ADVO Inc. Before starting his PhD in the area of marketing at Dokuz Eylul University, he hold several positions such as finance supervisor and production manager in the food industry. Currently he works on his dissertation and expecting to defend it in the summer of 2018. His area of interests include psychological aspects, judgments and decision making process of the consumers and experimental designs.

Trust towards crypto currencies = 4.066 + ((-0,406 x Perceived Risk) + (0.251 x Time elapsed))

6. CONCLUSION AND SUGGESTIONS

Conducted researches have demonstrated the fact that marketers should comprehend the risk factor in a detailed way because it is an important factor which effects the consumer choices (Bettman, 1973, p.189). It is clear that the trust problem occurs because of the risk which is present in the nature of the economic transactions. This situation becomes more apparent when two opponents are away from each other physically when it is difficult to guess the unexpected events beforehand and include them in the agreements and when cyber laws are not clearly defined (Mukherjee and Nath, 2003, p.7). Therefore, it is possible to accept that the consumer's risk perception is an important factor in depicting the feeling of trust towards crypto currencies.

The results attained in this study are supportive of this judgement and demonstrate the fact that there is a negative correlation between the risk perception of consumers and the trust felt towards crypto currencies and the fact that trust increases as the risk decreases. Additionally, it is demonstrated that the trust towards crypto currencies develop and strengthen in time, that it apparently increases in case of an investment and that it continues increasing along with the time.

In the literature, the number of the studies concerning the crypto currencies is limited. Therefore, there is an apparent need for studies of forming and developing scales. In addition, subjects such as the relation between national culture and the trust felt towards crypto currencies and technology, the legal regulation of crypto money market, the development and management of consumer trust can be studied in the following studies.

Although the interest towards crypto currencies has increased especially after the last months of 2017, the presence of uninterested consumers is also still known. In this study the perception of those consumers who invest or interested in crypto currencies and who are active in internet and social media has been tried to be measured. The application of a similar study to a larger mass along Turkey will lead to more generalizable results.

While this study is one of the pioneers in Turkey in the field of marketing, it is expected to make a contribution to the literature in terms of understanding the relation between consumer perception and crypto currencies. The importance of risk perception has been emphasized within the study. The increasing of the trust crypto currencies is possible with the changing of the risk perception.

Managers who target the adaptation of crypto currencies and the technology behind it may primarily make image-making studies concerning crypto currencies in order to increase the trust of the consumer and they can compare the risk with the traditional investment tools such as stock market, gold and foreign exchanges. Additionally, in comparison to traditional investment tools which are central-authorized; the blockchain system's independency from a central authority can be emphasized so as to decrease the risk perception and develop the trust perception in a positive way.

REFERENCES

Aiken, Kirk Damon (2001), Developing Consumers Trust in a Computer-Mediated Environment: An Investigation of Market Signals, The University of Oregon, Doctoral Dissertations, (Umi microform number 3018355).

Aksoy, R. (2006). Bir pazarlama değeri olarak güven ve tüketicilerin elektronik pazarlara yönelik güven tutumları. ZKÜ Sosyal Bilimler Dergisi, 2(4), 79–90.

Altuğ, N. ve Özkan, Ş. (2012). Trakya Bölgesi'ndeki Üniversitelerde görev yapan öğretim elemanlarının online alışverişten algıladıkları risk ve fayda üzerine bir araştırma, Öneri Dergisi, 10(38), s.1-10.

Armstrong, R. W., & Yee, S. M. (2001). Do Chinese trust Chinese? A study of Chinese buyers and sellers in Malaysia. Journal of International Marketing, 9(3), 63-86.

Bariviera, A.F., Basgall, M.J., Hasperue, W. ve Naiouf, M. (2017). Some Stylized Facts of the Bitcoin Market, Physica A., 484 (2017), 82-90.

Bettman, J. R. (1973). Perceived risk and its components: A model and empirical test. Journal of marketing research, 184-190.

Chang, H. H., & Chen, S. W. (2008). The impact of online store environment cues on purchase intention: Trust and perceived risk as a mediator. Online information review, 32(6), 818-841.

Cheah, E. ve Fry J. (2015). "Speculative Bubbles in Bitcoin Markets? An Empirical Investigation into the Fundamental Value of Bitcoin", Economics Letters, 130 (2015), 32-36.

Ciaian, P., Rajcaniova, M. ve Kancs, D. (2018). "Virtual Relationship: Shaort- And Long-run Evidence from Bitcoin and Altcoin Markets", Journal of International Financial Markets, Institutions & Money, 52(2018), 173-195.

Coinmarketcap, (2018). Kripto para Verileri, https://coinmarketcap.com/ Erişim: 9 Mart 2018

Coulter, K. S., & Coulter, R. A. (2002). Determinants of trust in a service provider: the moderating role of length of relationship. Journal of services marketing, 16(1), 35-50.

DelVecchio, D., & Smith, D. C. (2005). Brand-extension price premiums: the effects of perceived fit and extension product category risk. Journal of the Academy of Marketing Science, 33(2), 184-196.

Doney, P. M., & Cannon, J. P. (1997). An examination of the nature of trust in buyer-seller relationships. the Journal of Marketing, 35-51.

Dulupçu, M.A., Yiyit, M. Ve Genç, A.G. (2017). "Dijital Ekonominin Yükselen Yüzü: Bitcoin'in Değeri İle Bilinirliği Arasındaki İlişkinin Analizi", Süleyman Demirel Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, 22 (15), 2241-2258.

Gültekin, Y. ve Bulut, Y. (2016). "Bitcoin Ekonomisi: Bitcoin Ekosisteminden Doğan Yeni Sektörler ve Analizi", Adnan Menderes Üniversitesi SBE Dergisi, 3(3), 82-92.

Hansen, J.M., Saridakis, G. ve Benson, V. (2018). Risk, trust, and the interaction of perceived ease of use and behavioral control in predicting consumers' use of social media for transactions, Computers in Human Behavior, 80 (2015), 197-206.

Helmstadter, G. C. (1964). Principles of psychological measurement, Appleton-Century-Crofts, New York, NY

Hepkorucu, A. ve Genç, S. (2017). "Finansal Varlık Olarak Bitcoin'in İncelenmesi ve Birim Kök Yapısı Üzerine Bir Uygulama", Osmaniye Korku Ata Üniversitesi İ.İ.B.F. Dergisi, 1(2), 47-58

Jarvenpaa, S., & Teigland, R. (2017, January). Introduction to trust, identity, and trusted systems in digital environments minitrack. In Proceedings of the 50th Hawaii International Conference on System Sciences.

Kim, D. J., Ferrin, D. L., & Rao, H. R. (2008). A trust-based consumer decision-making model in electronic commerce: The role of trust, perceived risk, and their antecedents. Decision support systems, 44(2), 544-564.

Küçükbay, F. (2016). Bankalar ve Risk. Ankara: Nobel.

Metin, İ. ve Yakut, E. (2018). Kripto Para Girişimciliğinde Güven Faktörü Üzerine Bir Araştırma, 17. Uluslararası Katılımlı İşletmecilik Kongresi, 26-28 Nisan 2018, Çeşme, İzmir

Mitchell, V. W. (1999). Consumer perceived risk: conceptualisations and models. European Journal of marketing, 33(1/2), 163-195.

Mukherjee, A., & Nath, P. (2003). A model of trust in online relationship banking. International journal of bank marketing, 21(1), 5-15.

Norusis, M. J. (2011). IBM SPSS Statistics 19 Advanced Atatistical Procedures Companion. Prentice Hall, Upper Saddle Riveri, NJ, USA

Peter, J. P., & Ryan, M. J. (1976). An investigation of perceived risk at the brand level. Journal of marketing research, 184-188.

Presthus, W. ve O'Malley, N.O. (2017). "Motivations and Varriers for End-User Adoption of Bitcoin as Digital Currency", Procedia Computer Science 121 (2017), 89-97.

Tsanidis, C. Nerantzaki, D., Karavasilis, G., Vrana, V. ve Paschaloudis, D. (2015). Greek Consumers and The Use of Bitcoin, The Business & Management Review, 6(2), s.295-302.

TDK (Türk Dil Kurumu), (2018). Risk Tanımı, Erişim: 10 Mart 2018, http://www.tdk.gov.tr/index.php?option=com_gts&arama=gts&guid=TDK.GTS.5aa3a6d5649ed0.67973222

Yang, Q., Pang, C., Liu, L., Yen, D.C. ve Tarn, J.M. (2015). Exploring Consumer perceived risk and trust for online payments: An empirical study in China's younger generation, Computers in Human Behavior, 50 (2015), s.9-24.

Yelowitz, A ve Wilson, M. (2015). "Characteristics of Bitcoin Users: An Analysis of Google Search Data", Applied Economics Letters, 22(13), 1030-1036.

VARIETY OF THE BENEFICIAL OWNERSHIP CONCEPT

Sonja Cindori[175]
Toni Janković[176]

DOI: https://doi.org/10.31410/eraz.2018.310

Abstract: *Individuals involved in money laundering procedures are trying to take advantage of complex corporate structures in an international context in order to disguise their true identity. Consequently, the EU Member States endeavour to ensure that entities established in their national territory have access to up-to-date information regarding a natural person who is the ultimate owner or controls the company for the purpose of obstructing the misuse of legal persons for criminal activities. Similar structures can also be used by individuals to gain the benefit of taxation which they are not otherwise eligible for, using treaty or directive shopping.*

Key words: *beneficial owner, tax, evasion, avoidance, money laundering, register*

1. FOREWORD

The concept of beneficial owner used by the Double Taxation Conventions (hereinafter: DTC) is not separately defined in the Croatian tax legislation nor was the subject of administrative and judicial interpretation. However, Croatian involvement in the global economy, in particular the intensification of economic ties after joining the European Union, inevitably imposes a need for a discussion of this concept.

Although it is one of the cornerstones of the Directive 2015/849 and anti-money laundering and terrorist financing (hereinafter: AML/TF) legislation, it can also be found in the area of tax law. Regardless of the fact that theory and legislative related to taxation as well as to money laundering and terrorist financing (hereinafter: ML/TF) prevention use the same term „beneficial owner“, its meaning is not identical.

Distinguish among concept of beneficial ownership in the field of ML/TF prevention and DTC as well as Directive 2003/49/EZ [1] and Directive 2003/48/EZ [2], is considerable. In order to explain the crucial points of differentiation between various beneficial owner concepts, the paper briefly explains the purpose of defining the notion of the beneficial owner in DTC and the significance of defining that concept in the field of DTC abuse (as well as in European Union legislation) along with the determination of the beneficial owner's provisions related to Croatian AML/TF law. The complexity and diversity of defining the said concept consequently emphasizes the need of joint action.

2. DOUBLE TAXATION CONVENTIONS

The principal purpose of DTC is to promote, by eliminating international double taxation, exchanges of goods and services, as well as the movement of capital and persons. It is also a purpose of DTC to prevent tax avoidance and evasion [3]. Under these treaties, source countries

[175] Faculty of law, University of Zagreb, Trg Republike Hrvatske 14, Zagreb, Croatia
[176] Ministry of finance, Tax administration, Trg Franje Tuđmana 4, Split, Croatia

agree not to exercise their right to tax passive income (such as dividends, royalties and interest) paid to non-residents or to do so at reduced rates. This is often critical in tax planning structures [4].

2.1 DETERMINATION OF TERMS RELATED TO TAX AVOIDANCE

Although terms tax evasion and tax fraud, as well as tax avoidance, are used as synonyms it is necessary to highlight certain differences. Tax evasion includes the use of illegal methods of avoiding assessment or payment taxes owed, as well as not reporting income or reporting expenses which are not legally allowed. Vice versa, tax avoidance represents a legitimate way to minimize tax liability opposite to essential elements of tax evasion. Although the structure of a venture may be completely legitimate, it is usually contrary to the legislator's intention. In this respect, it is necessary to distinguish between acceptable and unacceptable tax avoidance. The traditional distinction between illegal tax evasion and legal tax avoidance (or planning, or mitigation) has been complicated by the efforts of the authorities to have some forms of avoidance seen as unacceptable even if they satisfy the letter of the law [6].

Acceptable tax avoidance has been explained by national courts during history in a similar way as it is now by the European Court of Justice. As an example can be mentioned Tomlin comments (UK, 1936) App. Cas. 1, 19 in Commissioners of Inland Revenue v. Duke of Westminster: "[e]very man is entitled if he can to order his affairs so that the tax attaching under the appropriate Acts is less than it otherwise would be“. The same state can be find in the case Gregory v. Helvering, 69 F.2d 809, 810 (SAD, 1934) which goes beyond that: "[a]ny one is not bound to choose that pattern which will best pay the Treasury; there is not even a patriotic duty to increase one's taxes“. Likewise, this issue has been approached in a verdict of the case Jaques v. Federal Commissioner of Taxation, 34 C.L.R. 328, 362 (Australia, 1924) and Cour de cassation, 1961 Pas. Bel. I 1082, 1089 (Belgium, 1961) [5].

2.1.1 DIFFERENT CATEGORY OF DOUBLE TAXATION CONVENTIONS ABUSE

DTC abuse represents the type of tax planning that uses artificial legal constructions aimed to secure the benefits of both the tax advantages available under certain domestic laws and the reliefs from tax provided for in DTC [7]. Treaty shopping is undesirable because the principle of reciprocity is breached, international income flowing may be exempted from taxation altogether or be subject to inadequate taxation in a way unintended by the contracting states and defeats an incentive for third-party States to negotiate DTC with the contracting states. However, countries that aspire to attract investment (at any cost) can consider treaty shopping as a useful tool. In this regard, Indian Supreme Court considered that treaty shopping was a necessary evil in developing economy and is generally valid under the Indian tax treaty network [8].

According to van Weeghel, the term “treaty shopping” connotes a situation in which a person who is not entitled to the benefits of a tax treaty makes use – in the widest meaning of the word – of an individual or legal person in order to obtain those treaty benefits that are not available directly [9]. Vogel provides a slightly different definition of treaty shopping by referring to a situation where transactions are entered, or entities are established, in other states, solely for the purpose of enjoying the benefit of particular treaty rules existing between the state involved and a third state which otherwise would not be applicable, e.g., because the person claiming the benefit is not a resident of one of the contracting states [10].

Specifically, limitation of benefits arising from DTC to the beneficial owner of income represents a suitable mean of combating DTC abuse. Beneficial owner concept restrains access to treaty benefits only for other contracting state residents and limits opportunities for taxpayers in third countries to indirectly enjoy benefits to which they are not eligible by setting up intermediate companies in the contracting state.

3. DIVERSITY OF BENEFICIAL OWNER CONCEPT

During the history, the concept of the beneficial owner in DTC has been changed. According to DTC, the concept of beneficial owner restricts the possibility of using the privileges from the DTC in such a manner that a state of source is not obliged to give up taxing rights over dividends, interest and royalties [11] if beneficial owner of such income is not resident of another member state. The term beneficial owner is not used in a narrow technical sense, rather, it should be understood in its context and in light of the object and purposes of the DTC, including avoiding double taxation and the prevention of fiscal evasion and avoidance [12].

Sonja Cindori *is currently working at the Faculty of Law, University of Zagreb at the Department of Financial Law and Financial Science, as Associate Professor (2017). Before receiving her PhD at the Faculty of Law, University of Zagreb (2009), she worked at the Ministry of Finance – Tax Administration and Anti-Money Laundering Office. She has attended numerous national and international scientific conferences and has published many research articles, research papers, review articles, books, and textbooks as author and co-author. She is the leader of The Croatian Science Foundation's project headed "Legal and Economic analysis of Anti-Money Laundering and Terrorist financing system" and associate on the project "New Croatia legal system" instituted by the Faculty of Law, University of Zagreb. Her field of interest includes Financial Law with an emphasis on Anti-money Laundering and Terrorist Financing System.*

Where an item of income is paid to a resident of a contracting state acting in the capacity of agent or nominee or where a resident of a contracting state simply acts as a conduit for another person who in fact receives the benefit of the income concerned, it would be inconsistent with the object and purpose of the DTC for the state of source to grant relief or exemption. The direct recipient of an item of income is not the beneficial owner because he is obliged (by a contractual or legal obligation) to pass on the payment received to another person [13].

Furthermore, Directive 2003/49/EZ is designed to eliminate taxes levied at source on payments of interest and royalties between associated companies of different Member States as well as permanent establishments of such companies. The Directive provides an exemption if the beneficial owner of the interest or royalties is a company of another Member State or a permanent establishment situated in another Member State of a company of a Member State. That company (or permanent establishment) shall be treated as the beneficial owner of interest or royalties only if it receives those payments for its own benefit and not as an intermediary, such as an agent, trustee or authorised signatory, for some other person.

The objective of Directive 2011/96/EU [14] is to exempt dividends and other profit distributions paid by subsidiary companies to their parent companies from withholding taxes and to eliminate double taxation of such income at the level of the parent company. The Directive does not explicitly require that a company located in the EU which receives dividends from companies

established in another Member State is a beneficial owner of that dividends. However, The Danish Eastern High Court referred two cases to the Court of Justice of the European Union (CJEU) [15], asking CJEU, among other things, to interpret the concept of beneficial ownership in the context of the Directive 2011/96/EU and to clarify the applicability of the OECD's Commentaries on the Model Tax Convention in this respect.

The term beneficial owner can also be found in Directive 2003/48/EZ as any individual who receives an interest payment or any individual for whom an interest payment is secured, unless he provides evidence that it was not received or secured for his own benefit.

Toni Janković

He works in the Ministry of finance, Croatian tax administration, Department for large tax payers, as the Head of reginal office in Split. He attends the postgraduate specialist study at the Faculty of Law in Zagreb "Fiscal system and fiscal policy". His main interest is taxation of e-commerce. He is a member of the Croatian team in OECD Task Force for Digital Economy

In a frame of AML/TF system such term has been defined differently due to the specificity of the observed issues. Simplified its definition, money laundering is the process of turning „dirty" money into the „clean" one [16], involving the use of criminal or illicit funds and assigns criminal liability to otherwise legitimate business practise [17]. Dirty money is considered as any money acquired through criminal offense and any assets derived from it [18].

Art 3 Par 6 of Directive 2015/849 more closely determines beneficial owner as any natural person(s) who ultimately owns or controls the customer and/or the natural person(s) on whose behalf a transaction or activity is being conducted. According to mentioned, as opposed to determining the actual beneficiary in the DTC, Directive 2015/849 is not satisfied with the determination of the beneficial owner within the meaning of the legal entity that controls the transaction, but also includes a natural person - beneficial owner of controlled transactions. Consequently, in Art 13 of Directive 2015/849 preamble emphasizes the need for identification and verification of beneficial owners which should extend to legal entities that own other legal entities, and obliged entities should look for the natural person(s) who ultimately exercises control through ownership or other means of the legal entity that is the customer. Whereas, Member States may stipulate a broader definition of the term beneficial owner in relation to Directive 2015/849.

Financial Action Task Force (FATF) describes beneficial owner as a natural person(s) who ultimately owns or controls a customer and/or the natural person on whose behalf a transaction is being conducted. It also includes those persons who exercise ultimate effective control over a legal person or arrangement. The terms "ultimately owns or controls" and "ultimate effective control" refer to situations in which ownership/control is exercised through a chain of ownership or by means of control other than direct control [19].

3.1 BENEFICIAL OWNERSHIP REGISTER

As one of the key points of improving AML/TF system, Directive 2015/849 sets out to enhance cooperation (and transparency) between various Member States by laying down obligation to form a central database which collects beneficial ownership information, a business register or another central register. Information from such a registry should be available to competent

authorities and financial-intelligence units, to obliged entities when taking customer due diligence measures as well as to other persons who are able to demonstrate a legitimate interest with respect to ML/TF and the associated predicate offences (corruption, tax crimes and fraud) are granted access to beneficial ownership information, in accordance with data protection rules.

According to Croatian AML/TF law, the register of real users are consisted of beneficial owners data of legal entities established in Croatia, as well as trusts that are obliged to register in Croatia and obtained PIN (OIB). However, it should be borne in mind that public access to information about beneficial ownership of particular legal entity may have consequences on the type, ways and forms of asset investment and impact on investor confidence towards the State institutions. Regardless of the possible negative connotations, the establishment of beneficial owners register will facilitate treatment in tax matters in terms of establishing the existence of links between companies in cross-border transactions, as a precondition for a transfer pricing audits.

4. CONCLUSION

The concept of the beneficial owner in the DTC, as well as in the EU Directives will remain subject to review economic reality of transactions to which it relates, as taxation within the EU (also between the signatory countries of Conventions), should not be an obstacle to free trade. Accordingly, review of the beneficial owner is limited to reviewing the legal person of the observed transaction user (not a beneficial owner as a natural person). Personal data about natural person - the owner of a company that is behind a offshore company or trust, for tax administration can pose significant information to improve the quality of risk analysis and to facilitate finding the conduit companies in analysing the use of tax benefits in cross-border transactions. The connection may indicate the establishment of several companies' complex arrangements aim to reduce the tax liability in a scope of tax evasion or tax avoidance. In order to achieve the goal, it is not enough for tax administrations simply to have insight into a beneficial ownership register. It is for the tax administration to use the register for establishing operational organizational structures that will facilitate the identification of high-risk transactions and improving the level of tax administration efficiency.

REFERENCES

[1] Directive 2003/49/EC of 3 June 2003 on a common system of taxation applicable to interest and royalty payments made between associated companies of different Member States *(OJ L 157, 26.6.2003, p. 49–54).*

[2] Directive 2003/48/EC of 3 June 2003 on taxation of savings income in the form of interest payments *(OJ L 157, 26.6.2003, p. 38–48).*

[3] OECD (2015), Model Tax Convention on Income and on Capital 2014 *(Full Version), Commentary on Article 1: Concerning the Person covered by the Convention*, OECD Publishing, p. C(1)-19.

[4] Vella, J. (2015), *Corporate tax practices and aggressive tax planning in the EU*, Directorate General for Internal Policies, Policy Department, A: Economic And Scientific Policy, European Parliament, pp. 6. Retrieved on http://www.europarl.europa.eu/RegData/etudes/IDAN/2015/563446/IPOL_IDA(2015)563446_EN.pdf (02/03/2018)

[5] Thuronyi, V. ed., (1996), *Law Design and Drafting*, Vol. 1, Vanistendael, F. *Tax Legal Framework for Taxation* International Monetary Fund, pp. 44. Retrieved on http://www.imf.org/external/pubs/nft/1998/tlaw/eng/ (08/3/2018)

[6] Alldridge, P. (2017), *Criminal Justice and Taxation*, Oxford University Press, Oxford, pp. 29.
[7] OECD (2015), Model Tax Convention on Income and on Capital 2014 (Full Version), Commentary on Article 1: Concerning the Person covered by the Convention, OECD Publishing, p. C(1)-19.
[8] Jinyan, L. (2012), *Beneficial Ownership in Tax Treaties: Judicial Interpretation and the Case for Clarity*, Comparative Research in Law & Political Economy, Research Paper No. 4, pp. 191. Retrieved at http://digitalcommons.osgoode.yorku.ca/cgi/viewcontent.cgi?article=1004&context=clpe (12/3/2018)
[9] Weeghel, S. (1998), *The Improper Use of Tax Treaties*, Kluwer Law International, London, pp. 117.
[10] Reimer, E., Alexander Rust, A., (1991), Klaus Vogel On Double Tax Conventions, Wolters Kluwer, Boston, pp. 50.
[11] OECD (2017), *Model Tax Convention on Income and on Capital: Condensed Version 2017*, OECD Publishing, pp. 35, 36, 37.
[12] Ibidem, Commentary on Article 10, 11 and 12, pp. 233, 259, 271.
[13] Ibidem, Commentary on Article 10, 11 and 12, pp. 234, 260, 271, 272.
[14] Council Directive 2011/96/EU of 30 November 2011 on the common system of taxation applicable in the case of parent companies and subsidiaries of different Member States (OJ L 345, 29.12.2011, p. 8–16)
[15] Court of Justice of the European Union, Case C-116/16, Skatteministeriet v T Danmark (2016/C 270/29), Case C-117/16 Skatteministeriet v Y Denmark Aps, (2016/C 270/30);
[16] Madinger, J. (2012), *Money Laundering: A Guide for Criminal Investigators,* CRC Press, Taylor & Francis Group, Boca Raton, pp. 5.
[17] Turner, J. E. (2011*), Money Laundering prevention: Deterring, Detecting, and Resolving Financial Fraud*, John Wiley and Sons, New Jersey, pp. 3.
[18] Cindori, S. (2007), *Sustav sprječavanja pranja novca*, Financijska teorija i praksa 31 (1), pp. 56.
[19] FATF, *FATF Guidance: Transparency and Beneficial Ownership*, Financial Action Task Force, France. Retrieved at: http://www.fatf-gafi.org/media/fatf/documents/reports/Guidance-transparency-beneficial-ownership.pdf (9/4/2018)

STRATEGIC COHERENCE AS AN ORGANIZATIONAL ADJUSTMENT PROCESS - CONCEPT AND MEASUREMENT OF THE PHENOMENON[177]

Paweł Mielcarek[178]

DOI: https://doi.org/10.31410/eraz.2018.316

Abstract: *This article present various views of organizational adjustment and coherence. The main goal is to present author`s concept of strategic coherence that will allow for dynamic balance between vertical and horizontal adjustment. Vertical adjustment is a relation between the strategy and the elements of the business model. It is measured by the cascading of goals, feedback and measurement. Horizontal adjustment refers to matching of business model`s components. It is measured by creating value, capturing value and creating a synergy effect.*

Key words: *strategic cohesion, organizational adjustment, matching, strategic management, strategy*

1. INTRODUCTION

Organization have to take into account the dynamic and non-linear changes in environment that build pressure towards specific development of company. One of strategically important determinants of development in such a conditions is to ensure mutual coherence of individual areas of the organisation in terms of effectiveness of achieving objectives according to the business model assumptions. In the opinion of N. Venkatraman and J. C. Caillus, this issue can be seen in static terms, as a specific state of coherence being a result of configuration of corporate components and as a process manifested by the need to raise adequate resources of the company in response to opportunities and threats arising in its environment [1]. In this context, management should focus on ensuring the proper structure of such elements as market opportunities, skills and resources of the company, values of the organisation's members, and relationships with other entities in the environment.

In many studies, it is a priori assumed that individual components within the same organisation and in relation to the environment are coherent with each other. Thus, the issue of harmonisation of individual components, being one of the main determinants of the success of the organisation, is disregarded [2], [3]. Harmonization can be seen as some sort of desired and model state of organisation and as a result, it takes the form of constant search of a dynamic balance. The balance (equilibrium) according to A. K. Koziminski and K. Obłój covers four areas: material-internal, socio-internal, material-external and socio-external and under given conditions is the relationship between the environment and the organization and within the organization itself [4]. The obtained state of equilibrium is subject to change in time as part of exchanges between the environment entities, the top management and other participants of the organization [4]. Balance can also be seen as a condition for the functioning of the organization. In this approach,

[177] This text is based on the grant financed from the National Science Center, Poland (UMO-2016/21 / D / HS4 / 00696: "Improvement Of Open Innovation Process In Developing Corporate Strategic Renewal". Project manager: PhD Paweł Mielcarek.

[178] Poznań University of Economics and Business, al. Niepodległości 10, 61-875 Poznań, Poland

this will be the minimum level of adjustment in the relations between the organization and the environment, as well as in the scope of intra-organizational relationships. This is a limit value above which it is possible to manage and function the organization's subsystems. At the same time, the balance is a prerequisite for the implementation of the mission and achieving the objectives as well as the effectiveness and efficiency of management [4].

Pursuing the strategic goals (development strategy) while simultaneously ensuring the adjustment of individual elements of the organization to the environment is a prerequisite for achieving the effectiveness of the organization. This is one of key challenges for the managers and at the same time important research area that should get more attention and engagement.

Main goal of this paper is to present an author`s concept of strategic coherence that will allow for establishing dynamic balance between vertical and horizontal adjustment. First type is a vertical adjustment covers relation between the strategy and the elements of the business model, which is measured by the cascading of goals, feedback and the measurement system. Second type of adjustment is horizontal and refers to individual matching of business model`s components, which is measured by creating value, capturing value and creating a synergy effect.

The text is addressed to the researchers and practitioners dealing with strategic management, organization development and change management.

2. STRATEGIC COHERENCE IN PERSPECTIVE OF ORGANIZATION ADJUSTMENT – LITERATURE REVIEW

Individual researchers differently perceive the issue of coherence, depending on the material scope adopted in their considerations. In the literature, the terms match, consistency, compatibility, adjustment, or cohesion are often used interchangeably [5]. Despite the pursue of many researchers to unify terminology, the problem itself is complex and multidimensional, therefore there will be distinction between concept of adjustment and cohesion, that will be explained further in the text.

Coherence links the components together [6] and it is based on the interaction of core components based on relationships and reactions between the components and the results of these interactions [7]. With regard to the organisation, coherence means “sticking” together, self-recognition of one’s limits and activities linking levels of the organisation with each other [8].

Many researchers perceive coherence through the prism of situational shape of the organisation components configuration in relation to the choice environment created by the business environment. In this approach, a coherent organisation is characterised by distinctive internal capabilities fitting its place on the market [9]. In detailed approach, internal fit is understood as a coherent configuration of key activities of the organisation, whereas external fit is assessed on the basis of results of comparing the environmental conditions with a choice of the business model components [10].

The functional approach determines coherence of activities as the effect of mutual reinforcement of success factors based on creating customer value and distinguishing capabilities of the organisation. In order to create coherence, it is important to determine the

level of fit of key elements that define the functioning of the organisation, such as strategy, structure, people, and the environment [11].

An attempt to organize the concept of adjustment is presented in the diagram below (see figure 1).

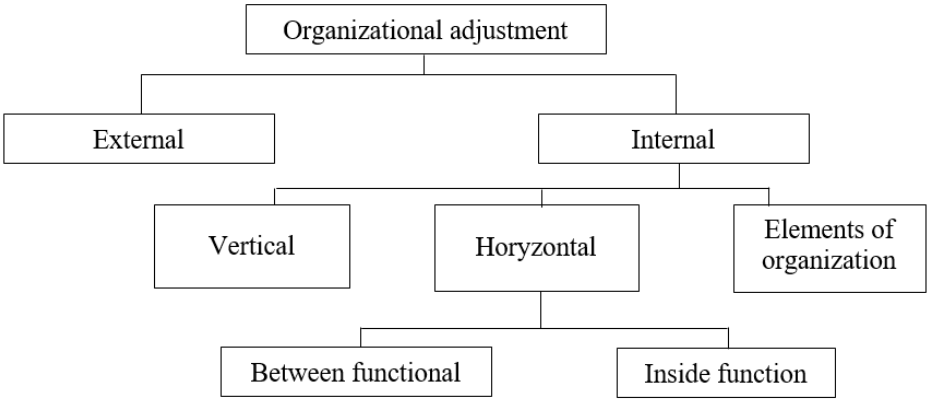


Figure 1: Types of organizational adjustment
Source: [5].

External adjustment refers to the configuration of organization elements in relation to the environment. Increasing the level of external (strategic) adjustment takes place by defining the needs and requirements of the environment, assessing the competencies of the organization and indicating the differences between actual and potential performance in the context of perceived opportunities [12]. Therefore, external adjustment is assessed on the basis of the effects resulting from the compilation of environmental conditions with the selection of the business model components [10].

The second type of adjustment - internal refers to the mutual relations of the elements building the organization and can be considered in three perspectives. The first one is adjustment of the elements of organization. Cohesion binds elements of organization together [6] and its basis is the cooperation of core components based on relations and reactions between those elements and effects of these interactions [7]. Consistency of organizational elements refers to the configuration of key activities based on selection and strengthening between components so that they are adjusted to the economic dimension of the business model [10].

Internal adjustment can also be seen as a vertical adjustment including "cascading" strategies for individual goal of processes, then objectives of teams and workplaces [13]. Therefore, if decisions made at the lower levels of the organization are consistent with decisions taken at higher levels, this means achieving vertical alignment.

The last approach includes a horizontal adjustment, which means the coordination of activities in the organization. In the process of strategy creation, it is particularly important on lower levels of organization and matching of individual functions. Going deeper into this issue, it can be indicated between functional and inside functional adjustment. First one means achieving consistency between performed functions, such as production, marketing or human resources management, in such a way to ensure a mutual complementation and support of individual functions and efficient decision-making. In contrast, inside functional adaptation is achieved through coherence of different decision areas of a particular function [5].

Despite advantages of above presented concept it can`t be treated as an ultimate goal to achieve or model view of organization, because achieving highest possible adjustment can be unfavourable and inefficient. Mainly because organization have to develop and by implementing changes will create some looseness and lack of adjustment. Also some redundancy in resources foster coping with risk and expands possibilities of development, that can provide competitive advantage. Therefore in the next part of the paper there will be presented concept of strategic cohesion of organization that focus on a complementarity of business model and strategy, that is based on pursuing of a dynamic balance between vertical and horizontal complementarity.

3. STRATEGIC COHERENCY – CONCEPT FRAMEWORK

Strategic coherency concept is based on the following assumptions:

- strategic coherence is perceived by two approaches: 1) dynamic as an organization's activity aimed at continuous adaptation to changes caused by environment, as a result of which an optimal level of adjustment of organizational elements is sought that allow execution of strategy. Fulfilling one set of strategic goals, will trigger implantation of another set of goals that will cause a reconfiguration and loosening of organization`s elements. This process consist of alternate repeating phases of achieving high coherency and mismatching of organization`s elements 2) static as a configuration of organizational elements that, by coherence and cause-and-effect relationships, determine certain efficiency level of organization in given configuration. Hypothetically if organization would function in complete stable environment there would be possible to achieve certain level of organizational adjustment that will ensure maximum efficiency of its action. However, due to constant changes it is impossible to achieve this state and always exist mismatch efficiency gap.
- therefore optimal level of coherence of organization elements (including business model elements), allows for simultaneous maximization of the effectiveness of the organization's objectives and effectiveness in given operating conditions,
- elements of the business model that are subject of complementarity are: key resources, operational activities, value propositions, distribution channels, customer segments, key partnerships, customer relationships, revenue streams and cost structure,
- developing of the strategic coherence is determined by the simultaneous coexistence of two types of adjustment (see Fig. 2):

  a) Vertical, between strategic goals, strategic processes and strategic projects broadly understood as a strategy and its implementation witch each of the components of the business model. Strategy is a bundle of actions that ensure the achievement of the organization`s goals. Vertical adjustment is evaluated by: 1) the ability of cascade strategic goals on the level of business model components, 2) the ability of creating feedback from the ongoing operations to manage them and eliminate dysfunctions 3) the ability of providing comprehensive information based on measurement system about three areas: achieved goals, financial result and business model elements condition to provide information for a strategic management process. Triangulation of information sources ensures comprehensive view about strategy implantation state.

  Vertical adjustment is measured for relation of strategy and business model elements by three (cascading, feedback and measurement system) variables. Level of adjustment is based on the managerial assessment on a scale of 1 to 10. Where 1 means the lowest level of adjustment between business model elements and

strategy, and 10 is a full match. Then, based on arithmetic average of the above three features, the vertical adjustment is determined.

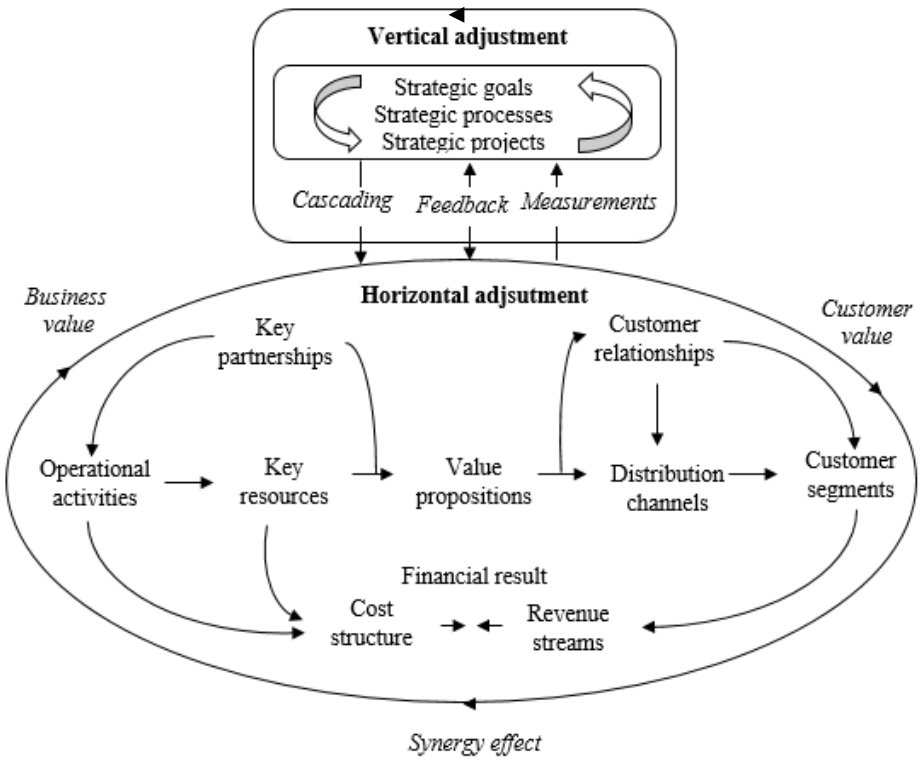


Figure 2: Model of strategic coherence
Source: [own preparation].

b) Horizontal adjustment is a mutual complementarity manifested in relations between elements of the business model. Horizontal adjustment is based on creation and maintenance of: 1) value added for business, 2) value added for the client and 3) the synergy effect. Value added for business is profit achieved form selling company`s product. Managers tend to maximize profits, however at the same time firm must also provide value for its customers. Value for customer can be defined as delivering value proposition that are better than offered by main competitors. To achieve this company must differentiate its products and implement innovations, that by investment, decrease financial result. Finally, synergy effect determine how efficient business and customer value is created within given configuration of business model elements.
Horizontal adjustment is measured separately for each of the three listed characteristics (business value, customer value and synergy effect). Horizontal adjustment values are determined based on the managerial assessment on a scale from 1 to 10, analogical like a vertical adjustment.

- The optimal level of strategic coherence is set by fit of vertical adjustment to horizontal adjustment. Application of the strategic coherence concept is based on procedure: 1) estimate an average value for elements creating vertical adjustment, 2) repeat this process for horizontal adjustment, 3) estimate average for horizontal and vertical adjustment then read the value of the strategic coherence based on the left column of

below table. For example if vertical adjustment value is 6 and horizontal adjustment value is 9, the average strategic coherence is 7,5 that is interpreted as s high level of coherency.

Strategic coherence (average value of vertical and horizontal adjustment)	Levels of strategic coherence
10-9	Total coherence
8-7	High coherence
6-5	Moderate coherence
4-3	Low coherence
2-1	Lack of coherence

Table 1: Levels of strategic coherence
Source: [own preparation].

- Process of creating strategic coherence is started by setting strategic goals, processes and projects. Then those elements define boarder conditions for establishing business model components and relation between them. By operating, business will deliver financial result and information feedback, that allows to verify strategy and redesign it if needed, so the process can be started again.

4. SUMMARY

Main goal of this paper was to present an author`s concept of strategic coherence that will allow for establishing dynamic balance between vertical and horizontal adjustment. Described model can be useful tool to assess and manage strategy implementation in dynamic changing conditions in perspective of achieving optimal efficiency of undertaken actions and engaged resources of organization.

However applying measurement of organization`s strategic coherence can encounter some barriers and limitations. First one is that many of assessed elements are typical for well-developed organization. For instance not every small company possess defined and formalized strategic goals, processes and project or measurement system. Second one is that evaluation horizontal adjustment (between elements of business

PhD Paweł Mielcarek

Research topics:
- *Head of the scientific project financed from the National Science Center "Improvement of the processes of open innovation and strategic renewal of the enterprise" in 2017-2019 with the number 2016/21 / D / HS4 / 00696.*
- *A member of a scientific project financed from the National Science Center entitled "Global and local dimension of business networks" in the years 2013-2016 with the number 51104-48*
- *Innovation management*
- *Process approach*
- *Strategic management*

Participation in projects for the practice:
- *Improving the competences of students in the field of Finance and Business Accounting and UEP Management", Project financed with EU funds, 2017*
- *"Art of Collaboration", Project financed from EU funds, 2011*
- *Restructuring carried out in over thirty organizations, including Volkswagen, Komputronik, F-Secure, Aquanet, City Hall of Poznań, Almi Decor, Pl Europe, eXant*

Membership in organizations and associations: *EIASM, IMP Group, PTE, TNOiK.*

model) requires the involvement of many top and medium level managers and can be time consuming and complicated to implement.

Those limitations can be a base for further development of presented concept. In particular it refers to proposing detailed measures or questionnaire for assessment of individual criteria of horizontal adjustment (business value, customer value, synergy effect) and vertical adjustment (cascading, feedback, measurement system). This will allow to eliminate the errors during interpretation and ensure the objectivity of the measurement. Another interesting area is to propose a strategic coherence maturity concept ensuring insight into activities that allow building and maintaining desired level of organization matching. This concept can include characteristics of individual levels of strategic coherence with proposing best practices, key success factors and main barriers.

REFERENCES

[1] Venkatraman, N., Caillus, J. C., (1984), *Exploring the Concept of "Fit" in Strategic Management*, Academy of Management Review, July, vol. 9, pp. 513-525.
[2] Galbraith, J. R., (1997), *Organisation Design*, Addison-Wesley, Reading.
[3] Obłój, K., (2002), *Tworzywo skutecznych strategii. Na styku starych i nowych reguł konkurencji*, PWE, Warszawa.
[4] Kozimiński, A. K., Obłój, K., (1989), *Zarys teorii równowagi organizacyjnej*, PWN, Warszawa.
[5] Gadomska-Lila, K., 2013, *Dopasowanie Organizacyjne. Aspekty Strategii, Kultury Organizacyjnej i Zarządzania Zasobami Ludzkimi*, Difin, Warszawa.
[6] Kathuria, R. G., (2010), *Coherent Strategy and Execution, An Eye-opening Parable*, SeemaCorp.
[7] Demil, B., Lecocq, X., (2010), *Business Model Evolution: In Search Dynamic Consistency*, Long Range Planning, vol. 43, pp. 227-246.
[8] Lissack, M., Roos, J., (2001), *Be Coherent, Not Visionary*, Long Range Planning, vol. 34, pp. 53-70.
[9] Leinwand, P., Mainardi, C., (2010), *The Coherence Premium*, Harvard Business Review, vol. 6, pp. 1-8.
[10] Morris, M., Schindehutte, S., Allen J., (2005), *The entrepreneur's business model: toward a unified perspective*, Journal of Business Research, vol. 58, pp. 725-736.
[11] Afuah, A., Tucci, Ch. L., (2003), *Biznes internetowy, Strategie i modele*, Oficyna Ekonomiczna, Kraków.
[12] Hatch, M. J., (2002), *Teoria Organizacji*, PWN, Warszawa.
[13] Kathuria, P., Joshi, M .P. Porth, S. J., (2007), O*rganizational Alignment and Performance: Past, Present and Future*, "Management Decision", vol.45, no. 3, pp. 353-369.

INTERDISCIPLINARY UNDERSTANDING OF A CRISIS: TOWARDS AN INTERNATIONAL CRISIS CLASSIFICATION MATRIX

Albena Björck[179]

DOI: https://doi.org/10.31410/eraz.2018.323

Abstract: *This conceptual paper aims to fill a gap in the literature of crisis classifications and to develop a framework that allows for categorization of crisis situations and corresponding management and communication. It incorporates the international and intercultural management literature to derive four dimensions: the trigger event impact, the degree of operational internationalization, the international perception and the cultural difference of the affected stakeholders. These dimensions are to be further specified and validated through qualitative and quantitative research.*

Key words: *International crisis, cultural differences, stakeholder perception, crisis management, strategic crisis communication, classification matrix.*

1. INTRODUCTION

Numerous international crises of a considerable scope have captured the public and professional attention in recent years: ongoing mismanagement crises in multinational corporations, global product recalls, but also terror attacks, catastrophic natural disasters or factory accidents with global consequences. It seems that the societal and organizational vulnerability has risen with growing globalization and the penetration of new technological advancements. Not only do crises occur more often, their complexity and ambiguity pose new and greater challenges to the way we think and organize. Crisis management and communication are getting ever greater attention. 300 board members named in an international study by Deloitte the identification of crisis scenarios and detection of early signals as well as the pre-crisis planning as their top priorities [1].

For effective crisis preparation, a decision maker has to understand the causes and nature of a crisis and how it influences stakeholder perceptions. A pragmatic approach consists of the analysis and classification of experienced and observed crises, and the associated management and communication actions [2]. A critical first step is the proper identification of a crisis situation [3].

There is no universally accepted definition of a crisis [4]. The word crisis has its roots in the Greek “krisis”, meaning breach and discontinuity. Today the term has found inflationary use and defines any change of daily routines without consideration of scope, severity and outcome. Two main directions for crisis definition can be observed (Figure 1). The first direction defines the crisis characteristics in terms of risk, impact, outcomes and control by the organization [5]. A crisis is thus “a major occurrence with a potentially negative outcome affecting an organization, company, or industry, as well as publics, services or good name. It interrupts normal business transactions and can sometimes threaten the existence of the organization” [6].

[179] Zurich University of Applied Sciences School of Management and Law, Stadthausstrasse 14, 8401 Winterthur, Switzerland

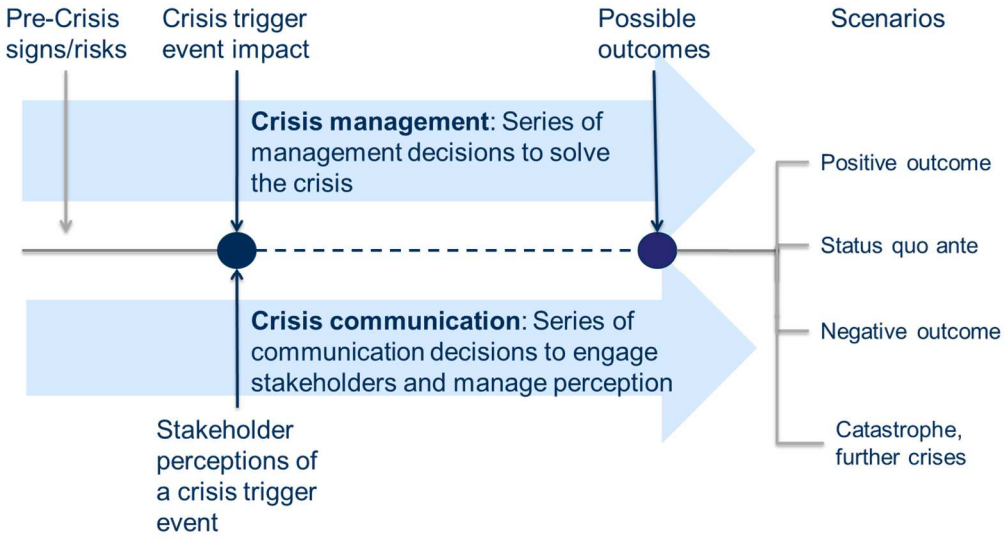


Figure 1: Definitions and dimensions of a crisis. Source: own presentation.

The second direction addresses the ability and willingness of an organization to meet the expectations of key stakeholders in a critical situation. A crisis is "the perception of an event that threatens important stakeholder expectancies and can impact the organization's performance. Crises are largely perceptual." [5]. A crisis definition by [7] similarly highlights the subjective perception: "An organizational crisis is a low-probability, high-impact situation that is perceived by critical stakeholders to threaten the viability of the organization and that is subjectively experienced by these personalities as personally and socially threatening".

A crisis typology is a structured approach to analyze crisis situations and a first step to understand the cause and implications of a crisis [8]. The field of crisis typologies has produced numerous classification attempts, but none is sufficient to capture adequately the complexity of a crisis event, because of its interdisciplinary nature [9]. [2] compared existing classifications from four key disciplines that delivered insights on individual crisis characteristics such as cause, impact, control, and stakeholder perceptions (see Figure 2). But every typology is isolated in the logic of the rooted discipline. The practical implications are either only for the management or for the communication of a crisis.

Albena Björck

Dr. oec. HSG Albena Björck is a senior lecturer in International Business and Strategic Communication at the ZHAW School of Management and Law, Switzerland.
She works also as a coach and consultant in the same area.
Björck studied international relations at the University of National and World Economy in Sofia (Bulgaria) and marketing at the University of St. Gallen. She wrote a PhD in the area of strategic positioning. Her professional experience is in different industries in the area of marketing, strategic communication and media relations. She was directly involved in the management of one of the biggest company crises of international scope in recent Swiss economic history. Albena Björck is a Bulgarian and Swedish citizen, lives in Switzerland and speaks several languages.

Realistic and thus usable crisis scenarios depict not only separate elements but a sum of substantial crisis determinants: cause, impact, stakeholder perceptions as well as suitable crisis

management and communication actions [2]. An interdisciplinary approach allows a decision maker to assess crisis situations from different angles, to apply scenario planning and to formulate strategic alternatives. The typology framework structures possible situations and points to appropriate management and communication measures that can be introduced before, during and after a crisis [2].

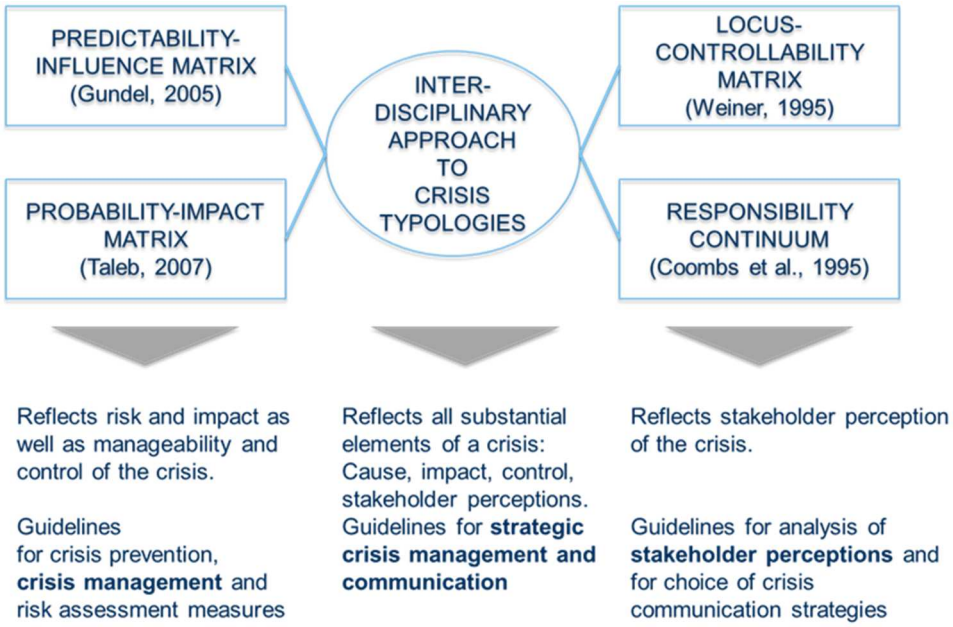


Figure 2: Interdisciplinary framework for crisis classification. Source: [2].

[4] acknowledges that crisis communication becomes increasingly complex as it crosses borders and shares messages with multiple countries and cultures. But important influencing factors such as culture and context adaptability are not reflected in any typology. Crisis communication theory seems to lack cultural contextualization [10] [11]. A comprehensive crisis classification along cultural aspects is still absent in academic research, although the culture is an important factor of stakeholder perceptions [4]. Cultural and context aspects of crises have been indicated as one of the new key areas to be explored [12].

This conceptual paper aims at introducing international dimensions of a crisis within an interdisciplinary framework.

2. INTERNATIONAL DIMENSIONS OF A CRISIS

With growing internationalization and the almost real-time spread of information through new and innovative communication tools, crises are becoming increasingly international and intercultural events [13]. According to [14] the definition of a crisis in international business depends on a number of variables such as nature of an event, impact on other firms, industries and governments, perception and accessibility of affected stakeholders, how much the organization need to assert control and demonstrate crisis capability as well as how quickly the firm needs to respond. Therefore, the large parts of the mentioned directions of crisis definition can be transferred to an international context.

An international adaptation of this research leades to four possible dimensions for the classification of an international crisis:

Global or local trigger event impact

Every crisis starts with a trigger event. Its nature and impact can be defined as physical or business consequences. There are numerous crisis definitions relating to the impact: For example, [15] listed 14 kinds of crisis events that affect businesses or [16] designed a complex taxonomy of crises according to the type of trigger event. But none depicts the international dimension. If a trigger event has an impact on stakeholders in only one country, then impact and ramifications are local. When a trigger event impact crosses the national borders and impacts stakeholders in two and more countries, the crisis context becomes more complex and needs cross-border management.

High or low degree of operational internationalization (DoI)

The ability of the organization to respond quickly, to assert control and to access affected stakeholders is influenced by the experience and presence in foreign markets. The degree of internationalization of firms is often measured by varaibles such as firms' foreign sales to total sales or the number of foreign subsidiaries. One-dimensional measures are criticized because they tend not to capture the complex nature of internationalization, but other approaches are not practicable because of missing data [17]. A low degree of internationalization refers to a pure local business, potentially with limited export experinece [18]. A multinational enterprise "that owns operations in more than one country" [19] would be an example of a high degree of internationalization. The more international or transnational businesses become, the higher the likelihood of an international crisis that is transferred from a single national entity.

Global or local perception of stakeholders

The perception of and reaction to certain crises types varies across stakeholders of different context. While expanding its business abroad, an organization has to deal simultaneously with global stakeholders operating in multiple contexts and local ones operating in one context, for example one country [2]. Comparing 43 European countries, [20] found significant differences in the way communication professionals assess a crisis event, the importance of different crisis types and the communication strategies employed. Crisis situations were differentiated by region where professionals in Southern and Eastern Europe encountered a crisis more often than professionals in Western and Northern Europe. When a stakeholder in only one context (one country) perceives a situation as a crisis, the crisis is local. When the stakeholder perceptions of the crisis spread across two or more countries, the crisis is international.

High or low cultural differences of the affected stakeholders

[21] states that multiculturalism is a challenge for crisis communication and culture, national and organizational, influences stakeholder perceptions and interpretations. Central concepts in international research are the psychic distance and the cultural differences. Psychic distance is defined as "factors preventing or disturbing the flow of information between firm and market" such as language and culture but also context variables like political systems or levels of industrial development [18]. High psychic distance hinders collaboration and communication with foreigners.

Cultural differences are based on dissimilarities in values, behaviors and communication styles that are embedded in cultural beliefs [19]. They are captured by the GLOBE Study and operationalized in ten clusters [20]. The further away a cluster is, the bigger the difference in culture. For example, high cultural differences exist between the Germanic culture and the Confucian one. [22] state that "as cultural differences between a multinational enterprise's home country and host market increase, the underlying ability of the multinational enterprise to operate effectively in the host market decreases". A higher cultural difference leads to higher

levels of complexity and ambiguity of stakeholder perceptions with consequences for crisis management and coimmunication.

These four distinguishing characteristics provide a basis for classification of an international crisis:

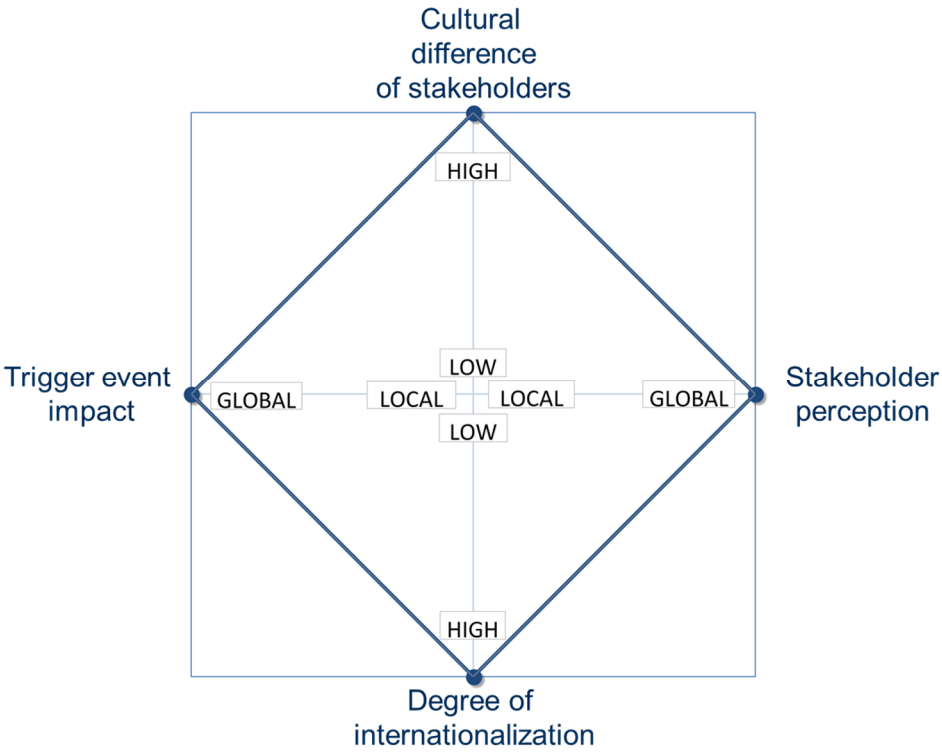


Figure 3: International Crisis Classification Matrix. Source: own presentation.

3. IMPLICATIONS FOR INTERNATIONAL STRATEGIC CRISIS COMMUNICATION AND FUTURE RESEARCH

An international crisis classification can simplify "complex structures, provides diagnostic insights, and has the potential to facilitate improvements in strategic planning" [3]. When an organization is involved in an international crisis it has to manage it not only in the home country where rules, behaviors and procedures are well known, but also in other countries where crisis managers are less familiar with how to manage a crisis and consequently out of their comfort zone. The process of classifying a crisis according to international dimensions provides numerous benefits. First, an assessment of the organizational preparedness for managing an international crisis. The higher the matrix score, the more difficult will be for crisis managers to "resist ethnocentric tendencies as they cope with stakeholders in different cultures, unfamiliar media systems and different legal concerns" [23].

Second, a classification supports decision makers in the strategy formulation and implementation. A major strategic issue is the global standardization or local adaptation and the deployment of managerial and financial resources [19]. A centralized approach with no local flexibility would result in a risk-delayed response, while an approach with local flexibility at the expense of local authority would risk conflict with the broader strategy [24].

Future research should focus on further exploring the challenges for the practical application of the international crisis classification matrix and its further development. First, the proposed dimensions of an international crisis classification are to be further specified and validated. Through qualitative research, for example case studies and expert interviews, they can be refined and operationalized. The current dimensions are defined from a company perspective. The application on political and other non-corporate events is to be investigated.

Second, decision-makers navigate between the need to adapt its message to intercultural stakeholders or to follow a standardized approach. Using the international crisis classification matrix, past international crisis cases can be analyzed and the success and failure of the management and communication effort evaluated.

Third, changing nature of crises over time is a major problem. For instance, a crisis type can change during the crisis influenced by changing stakeholder perception from local to global. Furthermore, the velocity and scope of a crisis can rapidly change with the help of new communication technologies and social media.

This manuscript seeks to fill a gap in the literature on crisis typologies concerning the international dimensions of a crisis. The aim is to develop a framework that allows for the analysis of crises situations and the introduction of appropriate management and communication measures.

REFERENCES

[1] Barton, L. (2001). Crisis in organizations. Cincinnati, OH, South-Western.

[2] Björck, A. (2016). Crisis typologies revisited: An interdisciplinary approach. Central European Business Review. 5, 3. pp. 25-37.

[3] Burnett, J. J. (1998). A Strategic Approach To Managing Crisis. Public Relations Review. 24 (4), pp. 475-488.

[23] Coombs, W. T. (2008). The future of crisis communication from an international perspective. Wiesbaden: VS Verlag.

[12] Coombs T., Holladay S. (2010). Examining the Effects of Mutability and Framing on Perceptions of Human Error and Technical Error Crises: Implications for Situational Crisis Communication Theory. Handbook of Crisis Communications. pp. 181.

[14] Darling, J. R. (1994). Crisis Management in International Business: Keys to Effective Decision Making. Leadership & Organization Development Journal , 15 (8).

[6] Fearn-Banks, K. (2009). Crisis communications: A casebook approach, New York, NY: Routledge.

[11] Frandsen, F. and Johansen, W. (2010). Corporate crisis communication across cultures, Trosborg, A. (Ed.), Pragmatics Across Languages and Cultures, Mouton De Gruyter, Berlin, pp. 543-569.

[1] Forbes Insights in cooperation with Deloitte Touche Tohmatsu (2016). A Crisis of Confidence – Global study of 300 board members, from: http://www.deloitte.com/acrisisofconfidence.

[9] Giplin D., Murphy, P., (2006). Reframing crisis management through complexity, Botan C.H., Hazelton V. (Ed.), Public relations theory II, pp. 375-392.

[17] Glaum M., Oesterle M.-J. (2007). 40 years of Research on Internationalization and Firm Performance: More Questions than Answers?. in: Management International Review. 47, 2007/3. pp.307-317.

[19] Gronwald, K.-D. (2017). Global Communication and Collaboration. Heidelberg, Springer-Verlag.
[7] Gundel S., (2005). Towards a New Typology of Crises, Journal of Contingencies and Crisis Management, Vol. 13, Number 3, September 2005.
[5] Heath R. L., (2012), Introduction Crisis Communication: defining the Beast and Demarginalizing Key Publics, in: Coombs T., Holladay S. (Eds.), The Handbook of Crisis Communications, pp. 1-13.
[19] Hill R. (2014). International Business – Competing in the Global Market Place. Mcgraw-Hill.
[18] Johanson, J. & Vahlne, J.-E. (1977). The Internationalization Process of the Firm – A Model of Knowledge Development and Increasing Foreign Market Commitments. Journal of International Business Studies, 8(1). pp. 25-34.
[10] Lee B. K. (2005). Crisis, culture, community, Kalbfleisch, P.J. (Ed.), Communication Yearbook, Vol. 29, Erlbaum, Mahwah, NJ, pp. 275-309.
[16] Mitroff, I. I. (2004). Crisis leadership: Planning for the unthinkable. Hoboken, NJ: Wiley.
[20] Northouse P. G. (2016). Leadership: Theory and Practice. Los Angeles, California, SAGE.
[7] Pearson, C. M., & Clair, J. A. (1998). Reframing crisis management. Academy of Management Review, 23(1), pp. 59–76.
[21] Ravazzani S. (2016). Exploring internal crisis communication in multicultural environments: A study among Danish managers“. Corporate Communications: An International Journal, Vol. 21, pp.73-88.
[24] Swerling J., Thorson K. (2013), The Role and Status of communication practice in the USA and Europe. Journal of Communication Management. 18, 1 pp. 2-15.
[22] Tihanyi, L., Griffith, D., & Russell, C. (2005). The effect of cultural distance on entry mode choice, international diversification, and MNE performance: a meta- analysis. Journal of International Business Studies. 36 (3). pp. 270-83.
[20] Verhoeven P., Tench R., Zerfass A., Moreno A., Vercic D. (2014). Crisis? What crisis? How European professionals handle crises and crisis communication. Public Relations Review, 40, pp. 107-109.

AN EMPIRICAL INVESTIGATION OF SCHOOL TO WORK TRANSITION USING THE GOMPERTZ MODEL

Ana Gorenca[180]

DOI: https://doi.org/10.31410/eraz.2018.330

Abstract: *This paper investigates the impact of socio-economic factors on the unemployment spell of fresh graduates. The data sample is drawn from the Living Standards Measurement Survey of Albania in 2012. We restrict the sample to only those aged from 19 to 35 years old to reduce the heterogeneity among unemployed graduates. In addition, we drop all observations with unemployment spell greater than 19 years given that the minimum working age in Albania is 16. The job-search theory constitutes the theoretical framework of this work. The socio-economic factors we examine in this paper are age, gender, education attainment, residence and occupation. The empirical part employs the Gompertz hazard proportional model. to determine the effect of socio-economic factors on the first unemployment period of fresh graduates. Our findings indicate that the Gompertz model provides a better fit to the data based on the AIC value compared to other models including the log-logistic and Cox models. Further, the estimates in the Gompertz specification are in line with the theoretical findings of the job-search theory. Education, age, gender and occupation are significant determinants of the first unemployment spell. In all models, the indicator of urban residence results insignificant. Moreover, unemployment duration increases with age. Lastly, those with high levels of education and high occupation profiles have higher odds of exiting from unemployment.*

Key words*: unemployment spell, hazard rate, proportional hazard, Gompertz*

1. INTRODUCTION

An increasing number of publications in transition analysis have paid special attention to school to work transition. Most of the studies suggest that graduates with less favorable socio-economic background are expected to have longer unemployment spells. Furthermore, schooling and the characteristics of the region where the unemployed graduate comes from play an important role in the probability of finding a job. For instance, Lassibille et al (2001) examine the impact of human capital on unemployment duration using a data set drawn from the *Encuesta Socio-Demográfica* in Spain in 1991. They employ multinomial logistic models and find that males and those with high education profiles have shorter unemployment spells compared to females and those with low school attainment. In addition, their results indicate insignificance of family background on the probability of exiting from unemployment. Jaunky and Khadaroo (2007) study the unemployment duration of graduates from universities in Mauritania from 1995 to 2000 using several proportional hazard and accelerated failure time models. The main findings suggest that age affects negatively the first duration of unemployment. Further, the father's education is positively correlated with the graduate's unemployment spell. Canals and Diebolt (2002) employs a survival model to determine the effect of education background on the unemployment duration of French graduates in 1996. The authors find that the average spell of tertiary education graduates is roughly 4 months. In addition, the mean duration of graduates from Business schools is

[180] Aleksandër Moisiu University of Durrës, 14, 2001, Rruga Currila, Durrës, Albania

approximately 2 months, and those graduated in Law, Economics and Social Sciences are more likely to experience longer spells. In Albania, Alikaj and Shehaj (2015) use Living Standards Measurement Survey (LSMS, 2012) to investigate the determinants of school to work transition. The authors estimate a Weibull model and conclude that the unemployment duration of those employed in high profile jobs (e.g., professionals and technicians) have higher probabilities of exiting from unemployment.

This paper builds on Gorenca[181] (2018) which provides the theoretical framework of the job-search theory. In this study, we omit the theoretical model, which explicitly derives the determinants of unemployment duration (Mortensen, 1986). However, section (2) provides a summary of the expected effect of the main determinants on unemployment spells. Furthermore, we borrow from parametric estimations to examine the effect of factors including age, gender, education attainment, residence and occupation on unemployment duration. The data sample is drawn from the LSMS (2012). The main data limitation is the absence of the reservation wage, a measure of unemployment insurance and social assistance from the dataset.

This paper is organized as follows. Section (2) provides an overview of the labor market situation in Albania. Section (3) presents the building blocks of duration analysis and the Gompertz model, and section (4) presents the data and estimation results. Lastly, section (5) concludes.

2. DETERMINANTS OF UNEMPLOYMENT DURATION

This section identifies the main factors that determine the employment probability of jobseekers. In essence, employment determinants are derived from the job search theory (Gorenca, 2018). Mortensen (1977) argues that the probability of exiting unemployment is the probability of receiving a new job offer times the probability of accepting it. Collier (2003) claims that individual characteristics do also play a critical role in unemployment duration as they determine the reservation wage and individual labor preferences. In this work, we concentrate on individual characteristics including age and gender. Regarding human capital attributes, the literature survey highlights the impact of labor market experience, education attainment, and training qualifications (Borjas, 2010; Cahuc & Zylberberg, 2004; Berndt, 1991). However, in this paper we neglect the effect of experience owing to the heterogeneity of jobseekers, i.e., not all of the jobseekers were previously employed. Other determinants examined by Gorenca (2018) are unemployment benefits and social insurance.

The job search theory anticipates that under certain circumstances, the high tenure of receiving unemployment payments will lead to longer unemployment spells (Bover, Arellano & Bentolila, 2001; Mortensen, 1977; Pellizari, 2006). Borjas (2010) claims that there must be a positive relationship between the economic replacement rate[182] and unemployment duration. For instance, Moffit and Nicholson (1982 in Foley, 1997) found that an increase of 10 points of percentage in the replacement rate caused an effect of a one-week increase in the length of duration. Nevertheless, the probability of exiting unemployment might increase if unemployment payments are no longer distributed. On the contrary, it is not considered an effective decision to implement policies that reduce the number of beneficiaries or even stop distributing unemployment payments (Pellizari, 2006; Kyyrä, Parrotta and Rosholm, 2009; Degen, 2014). Cahuc and Zylberberg (2004) conclude that the optimal level of unemployment

[181] The paper is submitted to the International Institute for Private, Commercial and Competition Law in May, 2018.

[182] the weekly income percentage that is paid out by unemployment insurance

benefits must be set in such way that creates incentives for job seekers and provides the need to insure unemployed jobseekers against income fluctuations.

According to Erbenova, Sorm and Terell (1998), the social assistance programs support people who are either under social or financial needs. Several early publications concluded that high unemployment rates increase the number of individuals who receive chronical social assistance (Brännström and Stenberg, 2007). For evidence, Flister (2015) analyzed the data from the Labor Survey and Income Dynamics in Canada (Saskatchewan) from 1993 to 1994 using an OLS approach and found that an increase of 10 percent in the total social assistance benefits increases duration by 1.4 weeks. Hence, we expect a negative effect of social assistance on exiting unemployment.

Most of the recent publications conclude that there is a double effect of training on unemployment duration. One one hand, training programs are considered as layers of control by potential employers (Richardson and Van den Berg, 2002). On the other hand, training might increase the job seeker's reservation wage, and this leads to longer spells (Fougère, Crépon & Ferraci, 2007). Nevertheless, other authors argue that the effect of training on duration might depend on timing. For instance, it is likely that in the short run, e.g., several weeks after the end of the training program, training incentivizes jobseekers to exit unemployment (Fougère, Crépon & Ferraci, 2007; Richardson and Van den Berg, 2002). In addition, McGuinness, O'Connell and Kelly (2014) argue that in the long run, e.g., several months after training, the impact might disappear. Aside from timing, the effect of training on unemployment duration depends also on the nature of training. For instance, Smet (2012) argues that on-job-training raises the probability of employment or reemployment compared to job-search-training.

Levensteijn and Koning (2000) claim that highly skilled job seekers are more preferred by employers. Given that, unemployed jobseekers with high level of education attainment have higher employment chances than individuals with low level of education (Farber, 2005; Nickell ,1997). For instance, Riddell and Song (2011) determined that an increase in education (up to 12 years) will reduce the expected duration by 4 percent. Conversely, it is expected that duration increases for more qualified individuals as long as the employment costs for them are higher (Arendt, Rosholm & Jensen, 2005; Kettuten, 1997). While over-qualification affects duration positively (Lin and Hsu, 2013), Kettuten (1997) finds that education is an insignificant factor. The ambiguousness of the effect is explained in Borjas (2013) highlighting that it is substantial to examine the quality of education rather than its attainment.

There is a lack of specific literature of the effect of gender on unemployment duration (Millard, Dale & Taylor, 1998; Lynch, 1989). Nevertheless, there are empirical studies in which gender is used as an explanatory variable. For instance, Foley (1997) found that the duration for married females is expected to be 10 months longer compared to married males. Additionally, Tansel and Tasçi (2010) in their paper related to the gender effect on unemployment showed that females have a lower probability to find a job compared to males. Regarding age, a lot of authors claim that the closer to the retirement age a jobseeker is, the less attracted becomes the job search process and the higher his chances to re-enter the labor market are (Leuvensteijn & Koning, 2000). While Foley (1997) found that the duration of those in their fifties is anticipated to be longer than the duration of those in their thirties. Nevertheless, there is a low variation of unemployment duration by age and education (Foley, 1997).

3. THE GOMPERTZ MODEL

In essence, duration models in unemployment explain the time an individual spent in unemployment. In this paper we mostly follow Cameron and Trivedi (2005). Furthermore, we consider only parametric estimators (see Gorenxa, 2018 for non-parametric estimators). The base function in any duration analysis is the hazard function which defines the concept of duration dependence.

$$\varphi(t)dt = \frac{\Pr[t \leq T \leq t+dt]}{\Pr[T \geq t]} = \frac{dt\, f(t)}{1-F(t)} \ , \quad \textbf{(1)}$$

where T is the failure time and *f(t)* and *F(t)* are the *pdf* and *cdf* of the unemployment spell. Intuitively, Eq. (1) reads as the conditional probability that the unemployment duration lies in the [t, t+dt] interval. In addition, the denominator represents the *survival function*, S(t) = 1-F(t). Hence, $\varphi(t)$ = f(t)/S(t).

From the class of parametric estimations in transition analysis, we focus on the proportional hazard (PH) models. The general form of PH models can be written as:

$$\varphi(t|\boldsymbol{x},\boldsymbol{\beta}) = \varphi_0(t)\, \theta(\boldsymbol{x},\boldsymbol{\beta}) \ , \quad \textbf{(2)}$$

where $\varphi_0(t)$ denotes the baseline hazard, a function of time only. $\theta(\boldsymbol{x},\boldsymbol{\beta})$ is a function of the covariates in $\boldsymbol{x}$. Cameron and Trivedi (2005) argue that the most common specification of $\theta(\boldsymbol{x},\boldsymbol{\beta})$ is the exponential specification. The baseline hazard can follow several distributions including gamma, Gompertz, Weibull, log-normal, log-logistic and exponential. In this paper we consider the Gompertz distribution ($\varphi_0 \sim Gompertz(\gamma,\alpha)$). The hazard *pdf* can be written as:

$$f(t) = \gamma e^{\alpha t} e^{-\frac{\gamma}{\alpha}(e^{\alpha t}-1)} \quad \textbf{(3)}$$

The survival function, $S(t) = e^{-\frac{\gamma}{\alpha}(e^{\alpha t}-1)}$, and the hazard function, $\varphi(t) = \gamma exp(\alpha t)$. To derive the cumulative hazard function, we merely integrate the hazard function, or use the shortcut formula: $\Phi(t) = -\ln S(t)$.

Hence, the hazard under the Gompertz distribution of $\varphi_0(t)$ takes the form $\gamma exp(\alpha t)\ exp(x'\beta)$. To parameterize the model, we apply the logarithmic transformation and write the the parametric Gompertz model as in Eq (3):

$$\log \varphi(t|\boldsymbol{x},\boldsymbol{\beta}) = \log\gamma + \alpha t + \boldsymbol{x}'\boldsymbol{\beta} + \boldsymbol{\epsilon} \ , \quad \textbf{(4)}$$

Note that the intercept in the Gompertz model is $\log\gamma + \alpha t + \beta_0$. The following section presents the data and estimations.

4. DATA AND ESTIMATIONS

The data sample is drawn from the Living Standards Measurement Survey (LSMS) of Albania for the year 2012. LSMS is a multi-purpose households survey. It is considered as one of the main data sources to measure living standards and poverty indicators based on household

consumption. Moreover, the survey provides sufficient and relevant tools to help policy makers in monitoring and developing social programs.

We restrict the sample to only those aged from 19 to 35 years old. In addition, we exclude all individuals with student status in 2012. The survey does not provide a measure of unemployment duration. However, we construct the unemployment spell measure given the information on first employment year and the respondent's age at last year of her studies. We adjust the unemployment spell by subtracting half year to all observations given that on average, the academic year in Albania ends in June. Further, we drop all cases with unemployment spells longer than 19 years given that the minimum working age is 16. The determinants of unemployment duration we consider in this analysis are a set of demographics including age, gender and residence, human capital attributes including education attainment, and occupation dummies. Table (A1) and (A2) (in Appendices) present the sample characteristics.

The following analysis present the parametric estimations of hazard rates. In this work we consider the distributions of the baseline hazard. The Gompertz regression is a proportional hazard model under the Gompertz specification of the baseline hazard. Table (3) presents the estimated model. In addition, the results are not sensitive to unobserved heterogeneity under gamma distribution. Hence, Table (3) reports the estimates of the Gompertz model without accounting for unobserved heterogeneity. The failure time column shows the effect of covariates on the time when record ends. A positive coefficient means lower unemployment duration and vice versa. The hazard rates are interpreted as follows: a hazard rate higher than 1 means a "high failure rate", which in the context of the school to work transition means a shorter duration of first unemployment.

We observe that the unemployment duration of males is shorter than that of females. Moreover, males have 11.5 percent higher hazard rates, i.e., males are more likely to find a job compared to females. Age has a negative effect on unemployment duration. That is, the odds of exiting unemployment decrease with age. In specific, a marginal increase in age, decreases the failure time by 20 percent. In the exponential specification, the failure time does also decelerate by a marginal increase in age. The indicator of urban residence has no significant affect on the failure time. Regarding education, those who have earned a vocational education degree have shorter spells than those who have competed gymnasium or those with lower education attainment. Vocational education graduates have approximately 63 percent higher hazard rates.

PARAMETRIC ESTIMATIONS (GOMPERTZ DISTRIBUTION)

Covariates (***X***)	Hazard rate	failure time	S.E
Gender *(female)*			
Male	1.153	0.143***	0.060
Age	0.800	-0.223***	0.008
Residence *(other)*			
Urban	1.058	0.057	0.067
Schooling *(general secondary or less)*			
Vocational education	1.628	0.487***	0.144
Higher education	5.001	1.610***	0.111
Occupations (*elementary occupations)*			
Professionals	1.896	0.640***	0.148

Armed forces	2.465	0.902***	0.252
Managerial	1.460	0.377	0.268
Craft & related trades	1.266	0.236***	0.114
Technicians	1.731	0.549***	0.163
Services	1.398	0.336***	0.115
Clerical	1.540	0.430***	0.192
Skilled agriculture	1.752	0.561***	0.106
Operatives	1.173	0.160	0.138
Constant	7.484	2.013***	0.229
Observations		1,472	
AIC		2412	

Reference category in parentheses
*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Moreover, the unemployment duration of university graduates is shorter than the duration of general high-school graduates or those with lower education attainment. Regarding occupation dummies, professionals have shorter spells than those employed in elementary occupations. While professionals have 90 percent higher hazard rates than the reference category, those who work as armed forces have 147 percent higher hazard rates than those employed in elementary occupations. In contrast, the estimate reveals insignificance of the armed forces indicator in the exponential specification.

The indicators of managerial and operative positions are insignificant. In addition, technicians and service workers have 73 and 40 percent higher hazard rates compared to elementary occupations employees, respectively. The hazard rates of those employed in clerical jobs are 36.8 percent higher compared to those of elementary occupations. Lastly, the indicators of skilled agriculture and craft and related trades occupations are highly significant determinants of the first period of unemployment. The hazard rates of those employed in skilled agriculture and craft occupations are 75 and 46 percent higher than the hazard rates of elementary occupation workers'.

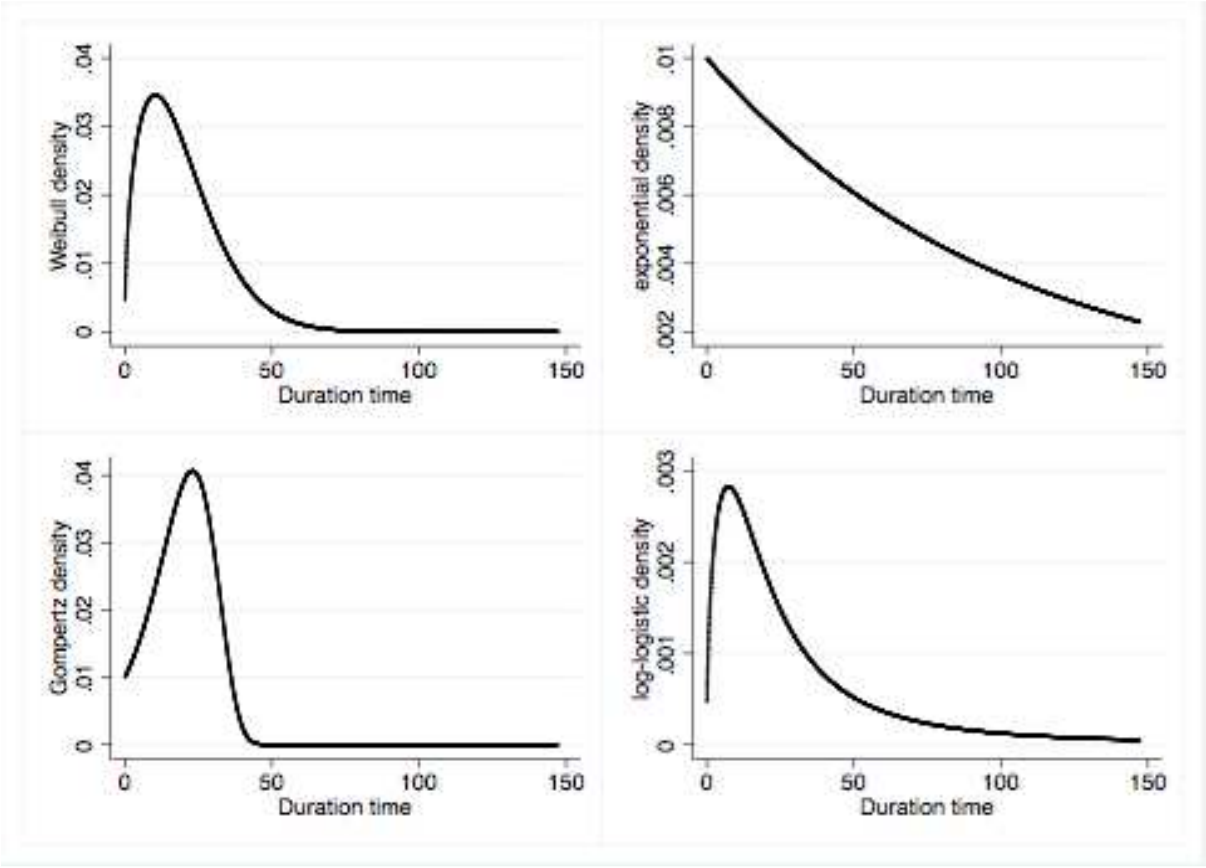
Intuitively, the results of the Gompertz model fit the reality. Technically, the model choice is in general based on the Akaike's Information Criteria (AIC). The best model would be the one with the lower AIC value. Hence, we prefer the Gompertz specification over the exponential and weibull ones[183]. However, the Akaike's Information Criteria does not indicate which model provides the best fit to the data. To this extent, further diagnosis emerges. Hence, we can answer what does each model imply regarding the duration dependence (shape of the hazard function) of a spell of unemployment. Figure (1) presents the hazard probability distribution functions[184] *(pdf)* under the exponential, weibull, and log-logistic and Gompertz distributions.

In the case of the exponential distribution the hazard pdf is decreasing. However, we cannot observe the exact spikes and dips in duration dependence. In contrast, the weibull and log-logistic distributions provide a better fit to the data. This is owing to the baseline hazard specification of the weibull model which involves the analysis time. Conversely, the exponential specification does not involve time in the baseline hazard. With respect to the Gompertz distribution, we observe that the hazard pdf does also capture the fluctuations in the

[183] see Gorenca (2018) for the estimates under the exponential and weibull distributions, with their respective AIC values.
[184] the chosen parameters' values for the exponential, weibull and log-logistic densities are γ=0.01 and α=1.5 base on McCall (1970)

probability of exiting unemployment. However, after the maximum spell observed, the density becomes instantaneously zero. Cameron and Trivedi (2005) argue that the Gompertz model provides a better fit to mortality data. Moreover, the smoothness of the hazard pdf under Gompertz distribution is highly sensitive to the choice of function parameters (γ, α). In the figure below, γ=0.01 and α=0.25.

Hazard pdfs under various distributions



CONCLUSION

In this paper we aim to determine the effect of socio-economic factors on unemployment duration. Among the estimated parametric models, we conclude that the Gompertz model has the lowest AIC value. However, the weibull and log-logistic models provide a better fit to the data as the duration dependence (hazard pdf shape) is closer to what we observe in reality. The estimates suggest an important role of factors such as age, education, gender and occupation on unemployment duration. Moreover, males are more likely to find a job than females. The older an individual becomes, the lower the chances to exit from unemployment are. We report insignificance of the urban residence indicator. Professionals, technicians, armed forces, service, craft and related trades, clerical and skilled agriculture workers have higher odds of exiting from unemployment compared to those employed in elementary occupations. The estimated model indicates insignificance of occupations such as managers and operators.

It is worth noting that the socio-economic factors examined in this study do not provide sufficient source of motivation for policymaking. In specific, there is lack of labor market policy indicators such as unemployment benefits and social assistance. Instead, our estimates offer a comparative overview of the job-finding probability among individuals with different socio-economic characteristics. Further examination concerns future research.

REFERENCES

[1] Alikaj, E., & Shehaj, E. (2015, November). Determinants of transition from school to work in Albania. In *Proceedings of 4th UBT Annual International Conference on Business, Technology and Innovation* (p. 65).

[2] Arellano, M., Bentolila, S., & Bover, O. (2001). *The distribution of earnings in Spain during the 1980s: the effects of skill, unemployment and union power* (No. 2770). CEPR Discussion Papers.

[3] Arendt, J. N., Rosholm, M., & Jensen, T. P. (2005). *The importance of literacy for employment and unemployment duration*. Syddansk Universitet.

[4] Borjas, G. J. (2010). *Labor Economics* (Vol. 3). Boston, MA: McGraw-Hill.

[5] Brännström, L., & Stenberg, S. Å. (2007). Does social assistance recipiency influence unemployment? Macro-level findings from Sweden in a period of turbulence. *Acta Sociologica*, *50*(4), 347-362.

[6] Cahuc, P., & Zylberberg, A. (2004). *Labor economics*. MIT press.

[7] Caliendo, M., & Kopeinig, S. (2005) Some Practical Guidance for the implementation of Propensity Score Matching. IZA Discussion Paper No. 1588. The Institute for the Study of Labor. Bonn.

[8] Cameron, A. C., & Trivedi, P. K. (2005). *Microeconometrics: methods and applications*. Cambridge university press.

[9] Canals, V., & Diebolt, C. (2002). France. *The Transition from Higher Education to the Labour Market. International Perspectives and Challenges*, 13-54.

[10] Collier, W. (2003). *The impact of demographic and individual heterogeneity on unemployment Duration: A regional study* (No. 03, 02). Department of Economics Discussion Paper, University of Kent.

[11] Degen, K. (2014). Winning versus Losing: How Important are Reservation Wages for Unemployment Duration?

[12] Du, F., Yang, J. C., & Dong, X. Y. (2007). *Why Do Women Have Longer Unemployment Durations than Men in Post-Restructuring Urban China?*. PEP-PMMA.

[13] Erbenova, M., Sorm, V., & Terrell, K. (1998). Work incentive and other effects of social assistance and unemployment benefit policy in the Czech Republic. *Empirical Economics*, *23*(1-2), 87-120.

[14] Farber, H. S. (2005). What do we know about job loss in the United States? Evidence from the Displaced Workers Survey, 1984-2004. *Economic Perspectives*, *29*(2), 13-29.

[15] Flister, L. D. The Effects of Social Assistance Programs on the Duration of Unemployment Spells: Evidence from Saskatchewan. *Journal of Prices & Markets*, 70.

[16] Foley, M. C. (1997). *Determinants of unemployment duration in Russia* (No. 779). Center Discussion Paper.

[17] Fougère, D., Crépon, B., & Ferracci, M. (2007). Training the Unemployed in France: How Does It Affect Unemployment Duration and Recurrence?. *Institute for the Study of Labor, France*.

[18] Gorenca, A. (2018). *Determinants of the school to work transition*. Manuscript submitted for publication.

[19] Gorenca, A. (2018). *An application of Weibull and Exponential distributions in school to work transition models.* Manuscript submitted for publication.

[20] Hildreth, A. K., Millard, S. P., Mortensen, D. T., & Taylor, M. P. (1998). Wages, work, and unemployment. *Applied Economics*, *30*(11), 1531-1547.

[21] Jaunky, V. C., & Khadaroo, A. J. (2007, June). The School-to-Work Transition for University Graduates in Mauritius: A Duration Model Approach. In *Second Baltic-Nordic Conference on Survey Sampling, University of Finland, Kuusamo, Finland* (pp. 2-7).
[22] Kettunen, J. (1997). Education and unemployment duration. *Economics of Education Review*, *16*(2), 163-170.
[23] Kyyrä, T., Parrotta, P., & Rosholm, M. (2009). *The Effect of Receiving Supplementary UI Benefits on Unemployment Duration* (No. 3920). Institute for the Study of Labor (IZA).
[24] Landmesser, J. (2010). Assessing the impact of training on unemployment duration using hazard models with instrumental variables. *Metody Ilościowe w Badaniach Ekonomicznych*, *1*(11), 100-109.
[25] Lassibille, G., Gómez, L. N., Ramos, I. A., & de la O Sánchez, C. (2001). Youth transition from school to work in Spain. *Economics of Education Review*, *20*(2), 139-149.
[26] Lin, Y. and Hsu, C. 2013.The effects of over-education on unemployment duration: Evidence from Taiwan. *Journal of Emerging Issues in Economics* 5 (2013): 430-443.
[27] Lynch, L. M. (1989). The youth labor market in the eighties: determinants of re-employment probabilities for young men and women. *The Review of Economics and Statistics*, 37-45.
[28] McCall, J. J. (1970). Economics of Information and Job Search. *The Quarterly Journal of Economics*, *84*(1), 113-126.
[29] McGuinness, S., O'Connell, P. J., & Kelly, E. (2014). The impact of training programme type and duration on the employment chances of the unemployed in Ireland. *The Economic and Social Review*, *45*(3, Autumn), 425-450.
[30] Mortensen, D. T. (1970). Job search, the duration of unemployment, and the Phillips curve. *The American Economic Review*, *60*(5), 847-862.
[31] Mortensen, D. T. (1977). Unemployment insurance and job search decisions. *ILR Review*, *30*(4), 505-517.
[32] Mortensen, D. T. (1986). Job search and labor market analysis. *Handbook of labor economics*, *2*, 849-919.
[33] Mortensen, D. T., & Pissarides, C. A. (1994). Job creation and job destruction in the theory of unemployment. *The review of economic studies*, *61*(3), 397-415.
[34] Nickell, S. (1997). Unemployment and labor market rigidities: Europe versus North America. *Journal of Economic perspectives*, *11*(3), 55-74.
[35] O'Higgins, N. (2015). *Youth unemployment* (No. 103). IZA Policy Paper.
[36] Pellizzari, M. (2006). Unemployment duration and the interactions between unemployment insurance and social assistance. *Labour Economics*, *13*(6), 773-798.
[37] Richardson, K., & van den Berg, G. J. (2002). The effect of vocational employment training on the individual transition rate from unemployment to work. *Swedish Economic Policy Review*, (Review 8), 175-213.
[38] Riddell, W. C., & Song, X. (2011). The impact of education on unemployment incidence and re-employment success: Evidence from the US labour market. *Labour Economics*, *18*(4), 453-463.
[39] Smet, M. (2012, January). The impact of vocational training programs on the duration of unemployment spells of school leavers from technical and vocational secondary education in Flanders. In *7th Annual International Symposium on Economic Theory, Policy and Applications 23-26 July 2012: economic abstracts* (p. 67). The Athens Institute For Education And Research.
[40] Stigler, G. J. (1961). The economics of information. *Journal of political economy*, *69*(3), 213-225.
[41] Stigler, G. J. (1962). Information in the labor market. *Journal of political economy*, *70*(5, Part 2), 94-105.

[42] Tansel, A., & Taşçı, H. M. (2010). Hazard analysis of unemployment duration by gender in a developing country: The case of Turkey. *Labour*, *24*(4), 501-530.
[43] Van Leuvensteijn, M., & Koning, P. (2000). *Duration dependence in unemployment insurance and social assistance: Consequences of profiling for the unemployed* (Vol. 163). CPB Netherlands Bureau for Economic Policy Analysis.

APPENDICES: A1 & A2

TABLE I. SAMPLE CHARACTERISTICS (CATEGORICAL VARIABLES)

Variable	Frequency	Percentage
Gender		
Males	994	32.47
Females	478	67.53
Education Attainment		
Primary or less	559	37.98
General secondary	455	30.91
Vocational	53	3.60
Higher education	405	27.51
Residence		
Other	747	50.75
Urban	725	49.25
Occupation		
Professionals	244	16.58
Managers & Admin.	17	1.15
Service workers	224	15.22
Clerical	39	2.65
Operative workers	94	6.39
Technicians	71	4.82
Skilled agriculture	430	29.21
Elementary occupations	103	7.00
Craft and related trades	210	14.27
Armed forces	19	1.29

SAMPLE CHARACTERISTICS (CONTINOUS VARIABLES)

Variable	Obs	Mean	Std. Dev.	Min	Max
Age	1,472	28.19	4.32	19	35
Spell	1,472	6.99	4.53	0.08	18.83

DEVELOPING A PROJECT MANAGEMENT CULTURE IN INSTITUTIONS OF HIGHER LEARNING

Daniel Seelhofer[185]
Christian Olivier Graf[186]
Selina Guhl[187]

DOI: https://doi.org/10.31410/eraz.2018.340

Abstract: *This paper explains the importance of projects in higher education and presents a conceptual framework for developing a mature project management culture in institutions of higher learning, followed by implementation recommendations based on a survey and a series of semistructured interviews with higher education project managers.*

Key words: *project management, organizational culture, higher education.*

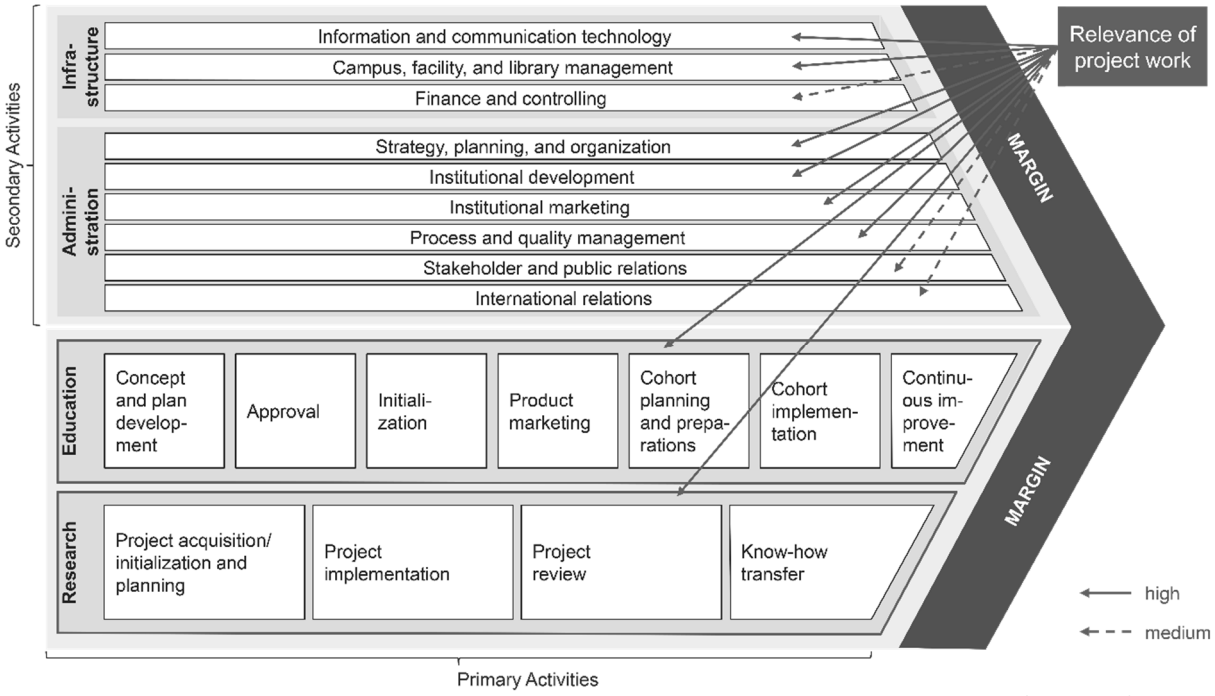
1. INTRODUCTION

Institutions of higher learning had to deal with substantial uncertainty in recent years due to market changes, technical developments, and persistent criticism about issues like wastefulness of taxpayers' money [1] or the mass-production of template knowledge [2][3]. Increasing competition at both the national and international level, decreasing public funding, fluctuating corporate training budgets, and the rise of the online learning challenge, together with increasing regulation and the growing importance of institutional accreditation are posing considerable challenges to higher education [4].

Universities exist in a perpetual state of friction between the various demands of major stakeholders, such as faculty and staff, graduate and undergraduate students, future employers of students, and the general public. Changing government regulations, new developments in educational technology, or the inflation of new programs and titles are just a few examples of this multi-dimensional field of tension that constantly wears and tears on them [5].

Like any other organization, universities deal with both project and non-project work. And also like any other organization, universities may be able to profit substantially from competent project management. In fact, projects are a key element within a university's value chain [4], as depicted in Figure 1, and project management competencies may thus be crucial for its long-term success.

[185] Zurich University of Applied Sciences, International Management Institute, Stadthausstrasse 14, CH-8401 Winterthur, Switzerland
[186] Zurich University of Applied Sciences, International Management Institute, Stadthausstrasse 14, CH-8401 Winterthur, Switzerland
[187] Zurich University of Applied Sciences, International Management Institute, Stadthausstrasse 14, CH-8401 Winterthur, Switzerland



Source: adapted from Seelhofer (2016).

Figure 1: Higher Education Value Chain

Whether strategic planning, marketing, or international relations: each strategy revision, new brochure, or additional international partner school acquisition technically constitutes a project. Particularly important, however, are project management skills at the level of a school's primary value chain activities. These consist of running programs and courses on the one hand and research and services, including consulting, on the other. These four core activities of a university, which in Switzerland are defined by law, all involve extensive project work. Consequently, it is in the university's clear interest to systematically foster a mature project management culture that increases project success and thus overall organizational performance.

*Prof. **Daniel Seelhofer**, PhD*

Daniel Seelhofer is a professor of international business at the Zurich University of Applied Sciences in Switzerland. He is head of the Department of International Business and also serves as associate dean of the business school and director of its Master of Business Administration program. His research interests revolve around questions of strategy and leadership. He received his doctorate from the University of St. Gallen (HSG), Switzerland

At the same time, institutions of higher learning have come under increasing financial pressure in many countries over the past decade, with cuts in public funding meaning that they need to generate more and more of their operating funds themselves. In addition to classic teaching and research, many universities have thus started to branch out into new fields, such as customized executive training, online programs, consulting activities, and so on [6][7]. For this, mature project management competencies are highly beneficial [8]. An important factor in fostering this maturity is a stringent project management culture [9]. Specifically, a mature project management culture enables the organization to regularly complete its projects successfully, i.e. on target, on time, and on budget. Universities, however, differ from private companies in

a number of ways, and it is at present unclear what the key aspects of such a project management culture in higher education should be and how these could be developed and embedded in a school's DNA. This paper aims to start a corresponding discussion. Specifically, it attempts to, one, develop an application-focused model of higher education project management culture; two, derive and validate an appropriate measurement instrument; and three, test the practical usefulness of this instrument and thereby the underlying model.

2. THEORETICAL BACKGROUND And Conceptual Framework

A project is a temporary undertaking with a clearly defined beginning and ending [10]. It is designed to meet novel goals and objectives and intended to produce unique results [11]. Organizational project management maturity refers to an organization's level of achievement with consistent methods and repeatable delivery of project goals [12]. In his definition used in the Project Management Maturity Model (ProMMM), Hillson [9] identifies an organization's project management culture—i.e. the way it uses projects to overcome challenges and initiate change—as an important breeding ground for the maturity of its project management competencies. In turn, mature project management has been shown to have clear organizational benefits [8][12][13]. However, although there are sizable bodies of literature on organizational culture and on project management (PM), little has been written on organizational project management cultures (PMC).

The existing literature is neither uniform in its use of the term nor its view of the concept. Specifically, there are three strands of literature that have quite different rationales for examining the subject, although they conceptually overlap and use similar terminology. One strand takes an organization theory perspective and conceptually describes 'project management culture' as an ideal form of organization [14] by contrasting it to some other, less ideal form, such as 'hierarchical culture' [15] or 'bureaucratic culture'[16]. A second strand take a professional culture view, seeing project management as a profession like law or medicine and aiming to identify the elements of that profession's unique culture [17]. Finally, a third strand takes an organizational culture approach to identifying and classifying the dimensions of project management culture and their sub-aspects in order to allow comparisons across organizations or industries [18][19], or to systematically analyze an organization's project management culture in order to identify improvement potentials [13] [17] [20] [21].

Firth & Krut [15] attempt to describe what a project management organization might look like by contrasting 'hierarchical management' with 'project management'. In their view, a project management organization is network or matrix shaped, suited to instability, and challenges or even redefines existing definitions; change happens step-wise rather than in evolutionary fashion; work is often non-routine and organized by task rather than function, with project managers relying on networking and negotiation rather than authority, having multiple responsibilities, and managing to all levels; meetings have a task force rather than

Christian Olivier Graf *is a lecturer of international project management at the Zurich University of Applied Sciences in Switzerland. His current research interests revolve around project management and the effect of supporting policies. He holds a Master of Science in Project Management from Cranfield University, United Kingdom, and is currently pursuing a doctorate in the same field.*

committee character; information flows are governed by individual needs; and controls are forward looking and predictive.

Similarly, Graham [16] sees ‘project management culture’ as the opposite of ‘bureaucratic culture’, with the former being defined by having fewer, mostly new procedures, processes, and products; more heterogeneous teams with a limited life span; lower staff levels and fewer structures but more teamwork and team building with people that are not interchangeable; authority that is based more on influence than position; and matrix rather than departmental structures.

In contrast, Wang [17] is interested in identifying elements that could be used to describe and foster the professional culture of project managers. Based on an extensive literature review and a survey among 790 members of the Australian Institute of Project Management, he uses factor analysis to identify four dimensions of project management culture, with two or three subdimensions each: professional commitment (project management career pursuit, project management reference group, contributing leisure time for project management); project team integration (consciousness of team identity, knowledge-based influence, informal process); work flexibility (job decodification, work autonomy); and work performance (performance orientation, view of personal relationships).

Attempting to identify aspects of project management culture abstract enough to allow comparisons across industries, Cooke-Davies & Arzymanow [18] identify ten so-called ‘domains’: the pervasiveness of the organization’s project culture; the commitment of upper management to this; the business—rather than technical—focus project teams apply to all decisions; the prioritization of projects according to their strategic importance to the organization; the extent that project management systems, methods, and processes are used; the authority project teams have to carry out their missions; the centralization of relevant information in each project; the way teams are matched to projects; the competence of project team members; and the ability of a project’s head—rather than functional management—to manage people and money.

Based on a meta-review of prior studies on organizational culture, Morrisson, Brown, and Smit [19] list 17 generic dimensions of organizational culture and 12 dimensions specifically addressing the organizational concerns of project management. The latter are: a flexible and innovative organization; integration across departments; performance-driven project management; standardized processes and systems; a supportive leadership orientation; an external or market focus; clear strategic direction; people-orientation; rational decision-making; feeling comfortable with decentralized decision-making; openness of communication and information; and emphasis on personal competency development.

Du Plessis & Hoole’s [20, p. 36] stated intent is “to develop an operational ‘project management culture’ framework, which can be used by project managers and organisations to support project work”. Based on a survey among 50 practicing South African project managers, they list four dimensions that define an organization’s project management culture: the project process or approach, including continuous improvement and learning; the project team and stakeholders, described by aspects such as their mindset, commitment, and competence; the project management methodology used; and the project environment, characterized by aspects such as upper management support, strategic emphasis, or organizational support.

Finally, Zeng et al. [21] take a somewhat different approach by using the well-known Denison model of organizational culture [22] as the basis to define project management culture. Denison and Mishra's model consists of four dimensions (mission, consistency, involvement, and adaptability), which are further described by three factors each. Following this approach, Zeng et al.'s [21] project management culture model also consists of four dimensions with three factors each: participation (project authorization, project teamwork, and project human resources); consistency (project culture construction, project internal control, and project risk management); adaptability (project reform and innovation, project customer orientation, and project governance); and mission (project objectives vision, project core values, and project responsibility).

When summarized, these frameworks contain a total of 107 dimensions and criteria derived from the seven models. By carefully analyzing the specific meaning behind the various authors' formulations and merging identical or nearly identical concepts, this number was reduced to 39. In a final iteration, remaining conceptual overlaps were resolved and closely related concepts aggregated, bringing the final number to 23 specific criteria. As evident from Table 1, 17 of these appear in at least two models, 11 in at least three, six in at least four, three in at least five, and one in six. No criterion appears in all seven models.

	Project management culture criteria	**Contributions**						
		Firth & Krut (1991)	Graham (2001)	Wang (2001)	Cooke-Davies & Arzymanow (2003)	Morrisson, Brown & Smit (2006)	Du Plessis & Hoole (2006)	Zeng et al. (2015)
1	Empowerment		X	X	X			X
2	Environmental adaptation	X						
3	Knowledge management				X	X	X	
4	Networking/negotiating	X		X			X	
5	Organizational flexibility	X						
6	Organizational change	X				X	X	X
7	Organizational learning						X	
8	Organizational structure	X	X					
9	Organizational support				X	X		
10	Project goals and objectives							X
11	Project mindset	X		X	X	X	X	X
12	Project oversight						X	X
13	Project ownership	X						X
14	Project process					X		
15	Project process and methodology	X	X				X	
16	Risk management						X	X
17	Skills development				X	X	X	
18	Skills selection		X		X			X
19	Standardization		X	X	X	X	X	
20	Strategic direction and focus				X	X	X	X
21	Task focus				X			
22	Task nature	X	X					
23	Teamwork		X	X		X	X	X

Table 1: Project Management Culture (PMC) Criteria

In light of higher education's unique circumstances, a dedicated project management culture model should be easy to use but account for the specific context of the corresponding institutions. Following Zeng et al. [21], the well-established Denison model of corporate culture [22] was used as the basis for a Higher Education Project Management Culture Model (HE-PMCM). Using the Denison model's basic setup of four dimensions with three factors each, a initial HE-PMCM was derived by comparing and integrating Denison and Mishra's [22] and Zeng et al.'s [21] models. The PMC criteria listed in Table 1 were then used as the starting point for a third model level, specific measures that describe each factor. This draft model, which also integrated aspects of Cooke-Davies & Arzymanow [18], Morrisson, Brown, and Smit [19], and Du Plessis & Hoole [20], was then discussed with three university project management experts to see where it fit the higher education context and where it needed to be fine-tuned further. The result is seen in Table 2.

Dimension	**Factor**	**Measure**		**Definition**
Focus	Strategic justification	1	Strategic link	Every project contributes to the university's overall mission in some way.
		2	Clear purpose	Every project has a clear and accessible purpose and outcome/benefit.
	Goals and objectives	3	Project charter	Every project has a written project charter that defines the project's goals and structure.
		4	Project plan	Every project has a written, sufficiently detailed project plan that is used to gauge progress against milestones.
	Project oversight	5	Project committee	Every project has a defined supervisory committee tasked with ensuring the project stays on course and compliant.
		6	Oversight activity	Project supervisory committees meet sufficiently regularly to gauge project success and influence project progress.
Consistency	Project philosophy	7	Value awareness	The university's leadership has a clear and communicated view of the value and uses of projects.
		8	Standard methodology	There is a defined standard project management methodology that all project managers are required to follow.
	Agreement	9	Intra-project agreement	Project teams generally agree on what needs to be done.
		10	Cross-project agreement	There is generally little conflict between different projects due to conflicting goals or competition.
	Integration	11	Organizational obstacles	There are generally little or no organizational obstacles (e.g. organizational unit boundaries, non-project-related reporting structures, etc.) that stand in the way of effective and efficient project work.
		12	Disciplinary obstacles	Differences in expertise and educational background do not generally negatively impact projects.
Involvement	Empowerment	13	TAR congruence	Tasks, authority, and responsibilities of project managers are generally aligned in all projects.
		14	Ownership	Project managers and projects teams feel jointly responsible for the success of projects.
	Teamwork	15	Project leadership	Project managers generally rely on a leadership style that emphasizes participation and is conducive to good teamwork.
		16	Project teamwork	Project teams generally work together efficiently and effectively.
	Capability development	17	Skills selection	Project managers and project team members are selected based on their skills.
		18	Skills development	The institution systematically develops project-related skills.
Adaptability	Change support	19	Change driving	Projects are used to drive change and bring the university forward.

		20	Risk management	Risk management is an inherent part of project management at this institution.
	Environ-mental fit	21	Environmental adaptation	Projects support the organization's adaption to environmental changes.
		22	Stakeholder consideration	Projects take the needs of the university's stakeholders into account.
	Organizatio-nal learning	23	Knowledge management	The university systematically collects, analyzes, and disseminates the lessons learned from projects.
		24	Continuous improvement	Lessons learned from previous projects are systematically integrated into subsequent projects.

Table 2: Higher Education Project Management Culture Model (HE-PMCM)

Finally, in order to provide a compact overview that can be used to easily summarize the analysis results of a university's project management culture, the radial visual representation in Figure 2 was created. This onion-style depiction of the HE-PMCM can easily be color-coded in order to provide a 'traffic light' style indication of where an institution stands with regard to the corresponding aspect.

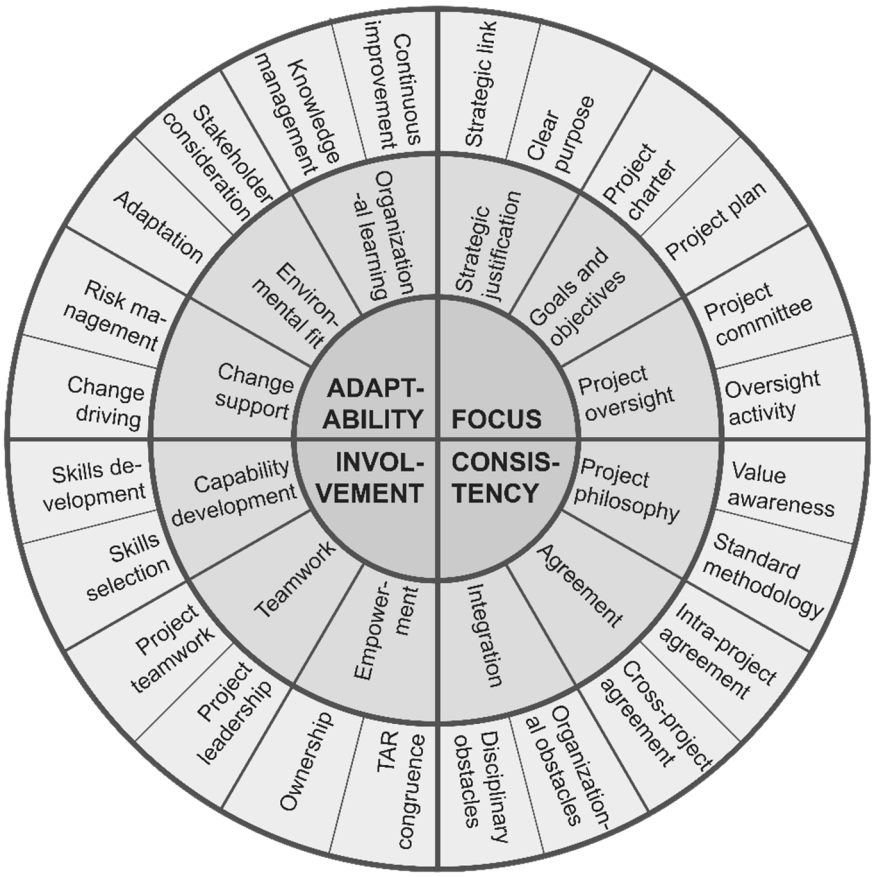


Figure 2: Higher Education Project Management Culture Model (HE-PMCM)

3. METHODOLOGY

A validation study was conducted in order to test the HE-PMCM's practical usefulness. The test case selected was one of Switzerland's largest university-level public business schools, with about 6,500 students and around 540 faculty and staff in 2017. It was chosen due to data availability and the large number of projects being conducted at any time on all levels of

operation. Due to this high importance of project work, a certain maturity of the institution's project management culture as well as a comparatively large number of experienced project managers could be expected, which made it an ideal test candidate.

A 24-item questionnaire, the Higher Education Project Management Culture Inventory (HE-PMCI) was designed to measure each construct (or variable) in the model on a six-point Likert scale, from 'strongly agree' (5) to 'strongly disagree'(0). In order to avoid—or at least reduce—self-completion bias, be able to answer remaining questions, and recognize the need for adjustments in the wording of certain items, all questionnaires were administered by the same two interviewers. Before rolling out the survey, these tested the instrument on each other in order to reach a common understanding of all items and agree on a common approach to the interviews. To further reduce interviewer-introduced bias, a supplementary codebook was developed that included all variables and their operational definitions and provided further clarification and instructions.

The maturity of a particular item was measured linearly as the average response to each item, in line with the Likert scale's scoring: nascent (0.00 and 1.24), developing (1.25 to 2.49), adolescent (2.50 to 3.74), and mature (3.75 to 5.00).

In order to profit from expert know-how and discuss the HE-PMCI's usefulness and limitations, participants in the validation study needed to be experienced project managers who adequately represented the institution's overall project portfolio. Consequently, interviewees were selected based on an iterative process. First, a list of all active projects was obtained from the institution's ERP system. In a next step, all entries that did not conform to the definition of a project as stipulated in the previous section or whose project managers had less than two years project management experience were eliminated. This led to a list of 155 active projects with experienced project managers. Of those projects, two were very large (CHF 1 million and above), 22 large (between CHF 200,000 and 999,999), 48 medium (between CHF 50,000 and 199,999) and 83 small (below CHF 50,000). This was the initial pool from which a working list was drawn in a stratified random sampling approach. For this, a quota control matrix was developed that, due to their particular importance, included both of the very large projects, while the other three project categories were considered according to their relative weight. This led to the inclusion of 14% (3) of the large projects, 31% (15) of the medium, and 54% (45) of the small projects in the quota control matrix. Next, the corresponding number of projects were randomly selected from each category, for an initial target sample of 65 projects. The project managers responsible for these were then contacted and asked to sit for an interview of about 15-20 min duration. In light of the specific period in the academic year during which this took place (semester wrap-up), a comparatively solid acceptance rate of 57% was attained, for a final working sample of 37 higher education project managers from the same institution. Together, they adequately represented the school's project portfolio.

Three control variables were collected. *Gender* was defined as a binary categorical variable (male or female). *Project management training* was defined as a categorical variable with three possible values: formal training with certification, formal training without certification, or no formal training. *Project experience* was defined as a categorical variable that indicated the maximum size of projects with which a respondent had experience: very large, large, medium, or small, according to the above definition. To guarantee anonymity, age was not collected, as the combination of age, gender, and project size would have allowed the identification of some respondents.

4. RESULTS AND DISCUSSION

Over two thirds of all project managers in the sample had received some kind of project management training, although all but one had not attained formal certification. Almost a third (30%), however, had so far received no project management training whatsoever. The vast majority (84%) had experience with medium-sized projects and almost half (49%) with large projects, but only a few (8%) with very large projects. A bit more than one third of the project managers in the sample were female. Table 3 lists the sample's characteristics.

Sample Characteristics			
Gender	Male	23	(62.2%)
	Female	14	(37.8%)
Project management training	Formal training with certification	1	(2.7%)
	Formal training without certification	25	(67.6%)
	No formal training	11	(29.7%)
Project experience	Includes very large projects (CHF 1 million and above)	3	(8.1%)
	Includes large projects (CHF 200k to 999k)	18	(48.6%)
	Includes medium projects (CHF 50k to 199k)	31	(83.8%)
	Includes small projects (< CHF 50k)	37	(100.0%)

Table 3: Sample characteristics

Aggregate results for the test case are listed in Table 4. Evidently, this particular institution possesses an overall fairly uniformly adolescent project management culture. None of the dimensions, only two of the factors, and a mere six of the measures diverge from this image.

Of the two factors rated as 'developing', an aggregate score of 2.47 for 'capability development' indicates that the institution should more systematically develop its project management potential. Likewise, a score of 2.18 for 'organizational learning' is a clear sign that the institution needs to improve both its project-related knowledge management and continuous improvement processes. Table 4 provides an overview of results at the dimension and factor level.

Aggregate results			
Dimension	**Results**	**Factor**	**Results**
Focus	3.08	Strategic justification	3.54
		Goals and objectives	3.12
		Project oversight	2.58
Consistency	2.92	Project philosophy	2.65
		Agreement	3.30
		Integration	2.81
Involvement	3.16	Empowerment	3.41
		Teamwork	3.61
		Capability development	2.47
Adaptability	2.93	Change support	3.20
		Environmental fit	3.41
		Organizational learning	2.18

Color code
Mature (3.75-5.00)
Adolescent (2.50-3.74)
Developing (1.25-2.49)
Nascent (0.00-1.24)

Table 4: Aggregate Results of HE-PMCI Validation Study

Further detail is provided when the third level, measures, is included in the analysis. Of those measures that did not rate as 'adolescent', only one was 'mature', while the remaining five were 'developing'.

Regarding the one item rated as 'mature', 'project leadership', a score of 3.78 indicates that, generally, project managers in the institution rely on a leadership style that emphasizes participation and is conducive to good teamwork. While the fact that only project managers (but not their team members) were interviewed may have introduced some bias, many of these project managers are themselves also project team members in other projects, which reduces the issue somewhat, considering they were asked to convey a general impression instead of just reporting on their own leadership approach.

For the developing items, a score of 2.30 for the item 'standard methodology' indicates that there are some formal guidelines and standards, but that there is no defined standard project management methodology that all project managers are required to follow. For 'organizational obstacles', a score of 2.19 denotes that project managers and their teams generally have to overcome substantial organizational obstacles that stand in the way of effective and efficient project work. Likewise, a score of 1.92 for 'skills development' signifies that there is particular action required regarding how systematically the institution develops project-related skills. For 'knowledge management', the score of 2.11 is a sign that the institution needs to improve regarding how systematically it collects, analyzes, and disseminates the lessons learned from projects. And the score of 2.24 for 'continuous improvement' suggests that the organization needs to more systematically integrate lessons learned from previous projects into subsequent endeavors. Figure 3 provides an overview of the validation study's results at all three levels.

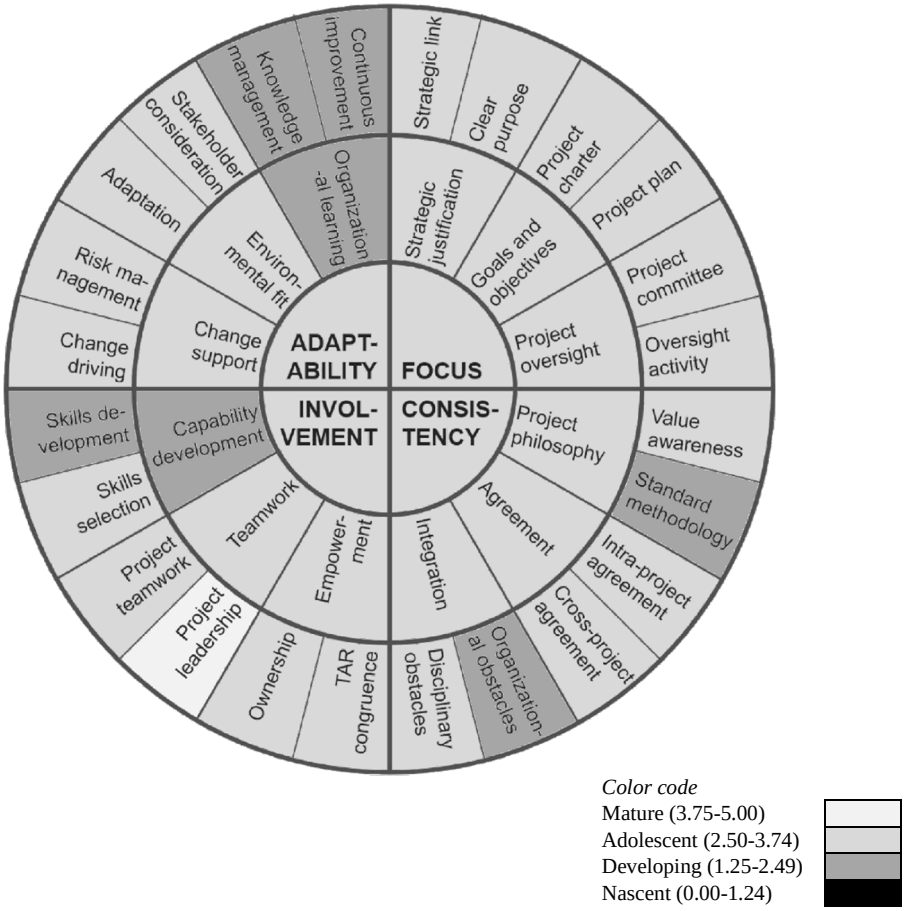


Figure 3: Results of the HE-PMCI validation study

Finally, additional comments made by the interviewees were analyzed. Interviewees were not required to comment. It seems reasonable, therefore, that those that did comment would do so about areas of particular concern to them. Consequently, the comments were first transcribed verbatim. Then, key words or short key statements were identified, analysed and coded regarding their tendency (positive, neutral, or negative), and attributed to one of the instrument's 24 measures. In total, 47 comments were made. Of those, six concerned the HE-PMCI itself, which led to the slight rewording of three of the Likert-scale scored statements in the instrument. The other 41 concerned the test institution's project management culture. Of those, 9 were neutral statements, 2 concerned strengths that should be maintained, and 30 concerned improvement needs. Table 5 shows the number of improvement comments made per measure and aggregates them by factor and dimension.

Dimension	Number of comments
Focus	4 (13.3%)
Consistency	7 (23.3%)
Involvement	11 (36.7%)
Adaptability	8 (26.7%)

Factor	Number of comments
Strategic justification	1 (3.3%)
Goals and objectives	1 (3.3%)
Project oversight	2 (6.7%)
Project philosophy	3 (10.0%)
Agreement	0 (0.0%)
Integration	4 (13.3%)
Empowerment	3 (10.0%)
Teamwork	0 (0.0%)
Capability development	8 (26.7%)
Change support	2 (6.7%)
Environmen-tal fit	1 (3.3%)
Organizatio-nal learning	5 (16.7%)

Measure		Number of comments
1	Strategic link	0 (0.0%)
2	Clear purpose	1 (3.3%)
3	Project charter	1 (3.3%)
4	Project plan	0 (0.0%)
5	Project committee	1 (3.3%)
6	Oversight activity	1 (3.3%)
7	Value awareness	0 (0.0%)
8	Standard methodology	3 (10.0%)
9	Intra-project agreement	0 (0.0%)
10	Cross-project agreement	0 (0.0%)
11	Organizational obstacles	4 (13.3%)
12	Disciplinary obstacles	0 (0.0%)
13	TAR congruence	0 (0.0%)
14	Ownership	3 (10.0%)
15	Project leadership	0 (0.0%)
16	Project teamwork	0 (0.0%)
17	Skills selection	1 (3.3%)
18	Skills development	7 (23.3%)
19	Change driving	0 (0.0%)
20	Risk management	2 (6.7%)
21	Environmental adaptation	0 (0.0%)
22	Stakeholder consideration	1 (3.3%)
23	Knowledge management	3 (10.0%)
24	Continuous improvement	2 (6.7%)

Color code
Unimportant (<10%)
Moderately important (10-20%)
Important (21-30%)
Majorly important (>30%)

Color code
Unimportant (<5%)
Moderately important (5-10%)
Important (11-15%)
Majorly important (>15%) > 6

Table 5: Focus of interviewee additional improvement comments

This result is largely in line with the analysis of the institution's project management culture. Interviewee comments were particularly concerned with the lack of systematic project management skills development and the existence of organizational obstacles that are seen as standing in the way of efficient and effective project management, followed by organizational learning aspects and the need for formal project management standards.

5. SUMMARY AND CONCLUSIONS

Overall, the application of the HE-PMCI to the test case revealed that the model is easily understood and seen as comprehensive. The instrument is well-suited to the analysis of a particular higher education institution's project management culture, although its explanatory power is necessarily restricted due to the limited number of items. The systematic application to a sample of experienced project managers that collectively adequately represented the test institution's project portfolio allowed for slight finetuning of the HE-PMCI and incidentally yielded valuable information about the institution's project management culture and corresponding improvement potentials.

There are two particular uses for the HE-PMCI, monitoring an institution's project management culture health or initiating and implementing project management culture improvements. Specifically, the instrument enables a higher education institution to, one, characterize its project management culture; two, assess corresponding strengths and weaknesses; and three, track the progress made when implementing associated improvement actions.

Selina Guhl *is a research associate at the Zurich University of Applied Sciences. Her research interests revolve around questions of education management and organization. She holds a Master of Arts from the University of Zurich, Switzerland.*

In order to make maximum use of the HE-PMCI, therefore, it should be administered in regular intervals.

6. LIMITATIONS

Applied models necessitate a trade-off between academic rigor and ease-of-use that may conceivably reduce their explanatory power, reliability, or validity. Additionally, results may be context-specific, meaning certain constructs may carry particular meanings in a given organizational culture that differ from the way they are regarded in others. Future research should further explore this context-specificity, including the model's cross-cultural comparability and usefulness.

Regarding the sampling approach, the fact that strata were constructed by project size and considered according to their relative weight within the overall project portfolio may have introduced bias, as a different kind of weight attributed to each category could conceivably have led to different outcomes. Additionally, the final sample of 37 interviewees is rather small. Further testing with larger samples will provide additional insights into the instrument's reliability and validity.

Finally, a clear limitation is that the HE-PMCI's test-retest stability was not determined for this study, which future research should aim to do.

REFERENCES

[1] Natale, S.M. and Doran, C. (2012). Marketization of education: an ethical dilemma, Journal of Business Ethics, Vol. 105 No. 2, pp. 197-196

[2] Mintzberg, H. (2004). Managers not MBAs: a hard look at the soft practice of managing and management development, Pearson Education, Harlow, UK

[3] Starkey, K., Hatchuel, A. and Tempest, S. (2004). Rethinking the business schools. Journal of Management Studies, Vol. 41, No. 1, pp. 1521-1530.

[4] Seelhofer, D. (2016). Developing business school strategies: a practitioner-oriented conceptualization, Central European Business Review, Vol.5, No. 1, pp. 5-28.

[5] Alajoutsijärvi, K., Juusola, K. and Siltaoja, M. (2015). The legitimacy paradox of business schools: losing by gaining?, Academy of Management Learning & Education, Vol. 14, No. 2, pp. 277-291.

[6] Jurse, M. (2010). Evolution of traditional university business school into market-oriented knowledge provider, Trizste, Vol. 22, No. 2, pp. 167-188.

[7] Xie, C. and Steiner, S.D. (2013). Enhancing management education relevance: Joint creation of knowledge between Institutions of higher learning and business. Business Education & Accreditation, Vol. 5, No. 2, pp. 1-15.

[8] Torres, L. C. (2014). A contingency view on the effect of project management maturity on perceived performance. Doctoral dissertation, Skema Business School, Lille.

[9] Hillson, D. (2001). Benchmarking organizational project management capability. Proceedings of the 32nd Annual Project Management Institute 2001 Seminars & Symposium.

[10] Seelhofer, D. (2017). Interpersonal leadership: an applied guide, OGMA, Zurich.

[11] Nokes, S., & Kelly, S. (2007). The definitive guide to project management: the fast track to getting the job done on time and on budget, Pearson Education, London.

[12] Foti, Ross. (2002). maturity (me-tur-e-te) noun, 21st century. Synonym: survival. PM Network, Vol. 16, No. 9, pp. 39-43.

[13] Ibbs, W. C. and Kwak Y.-H. (1997). The benefits of project management: Financial and organizational rewards to corporations. Philadelphia: PMI Educational Foundation.

[14] Brown, C. J. (1999). Towards a strategy for project management implementation, South African Journal of Business Management, Vol. 30, No. 2, pp. 33-38.

[15] Firth, G., & Krut, R. (1991). Introducing a project management culture, European Management Journal, Vol. 9, No. 4, pp. 437-443.

[16] Graham, R. J. (2011). A Process of Organizational Change: From Bureaucracy to Project Management Orientation, in: Dinsmore, P. C., and Cabanis-Brewin, J. (eds.). The AMA Handbook of Project Management, New York: Amacom Books.

[17] Wang, X. (2001). Dimensions and current status of project management culture. Project Management Journal, Vol. 32, No. 4, pp. 4–17.

[18] Cooke-Davies, T. J., & Arzymanow, A. (2003). The maturity of project management in different industries: An investigation into variations between project management models. International Journal of Project Management, Vol. 21, No. 6, pp. 471-478

[19] Morrison, J. M., Brown, C. J., & Smit, E. V. D. M. (2006). A supportive organisational culture for project management in matrix organizations: a theoretical perspective, South African Journal of Business Management, Vol. 37, No. 4, pp. 39-54

[20] Du Plessis, Y., & Hoole, C. (2006). An operational' project management culture' framework (part 1). SA Journal of Human Resource Management, Vol. 4, No. 1, pp. 36-43.

[21] Zeng, Y., Jin, M., Guo, C., & Zhang, Z. (2015). Research on evaluation of enterprise project culture based on Denison model. Journal of Industrial Engineering and Management, Vol. 8, No. 3, pp. 909-927.
[22] Denison, D. R., & Mishra, A. K. (1995). Toward a theory of organizational culture and effectiveness. Organization Science, Vol. 6, No. 2, pp. 204-223.

EDUCATION FOR SUSTAINABLE DEVELOPMENT IN SERBIA AT THE ONSET OF THE FOURTH INDUSTRIAL REVOLUTION

Biljana Jovanović Gavrilović[188]
Biljana Radivojević[189]

DOI: https://doi.org/10.31410/eraz.2018.354

Abstract: *Considering a relatively low level of economic development of Serbia, compared to elsewhere in Europe, a dynamic and sustainable economic growth is imperative to this country. The concept of sustainable development has nowadays been accepted as a universal development paradigm applicable to the countries worldwide. This is a new approach to development, which assumes increased production based on solid economic grounds, environmental responsibility and meeting the criteria of social justice. Investing in human capital, especially education and training, is an important factor of sustainable economic development of Serbia at the onset of the fourth industrial revolution. Although educational outcomes in today's Serbia are generally discouraging, there are hidden potentials which need to be activated in the years to come. Changes in Serbian education system are necessary and they should comply with current global trends and particularly match the requirements of the fourth industrial revolution, which will have a significant impact on jobs and future skills needs. A system is needed which will help young people develop 'liquid skills' and enable them to adapt to future challenges which cannot be anticipated. The trump card of Serbia's development should not be cheap labor but knowledge and innovation as the key resources of the modern world.*

Key words: *Education, sustainable development, fourth industrial revolution, Serbia, EU*

1. INTRODUCTION

Serbia ranks at the bottom of the European list in terms of its economic development level and its *per capita GDP* is only slightly above half of the world's average [1]. In addition, this country is lagging behind not only Europe and the world, but behind itself as well, its level of economic development in 1989. In 2014, after a triple-dip recession (preceded by the economic downturn of the 1990s), Serbia's real GDP sunk to less than 70% of its 1989 level [2]. The following years saw the beginning of Serbian economic recovery, with relatively modest economic growth rates.

Considering the economic and social situation in the country, dynamic and sustainable economic development is imperative to Serbia. In the paper we point out the importance of investing in education, as a powerful source of economic growth and development for a small country such as Serbia, at the onset of the fourth industrial revolution. The research also deals with the necessary changes in education ushered in by the digital age, as well as the impact of education on economic, social and ecological contexts.

[188] Faculty of Economics, University of Belgrade, Kamenička 6, Serbia
[189] Faculty of Economics, University of Belgrade, Kamenička 6, Serbia

The aim of the analysis is to point out the key role of quality education in the achievement of dynamic and sustainable economic development in Serbia, as well as to outline, on the basis of the existing situation, the desirable directions of changes to meet the requirements of the modern age.

2. THE ROLE OF EDUCATION IN ACHIEVING SUSTAINABLE DEVELOPMENT OF SERBIAN ECONOMY

The concept of sustainable development has a long history in scientific thought. As early as in 1713, Hans Carl von Carlowitz used the term 'sustainable yield' in the context of sustainable forestry management [3]. Interest in sustainable development has grown since the late 1960s, which is related to increasing environmental concerns. The concept has over time expanded to include, in addition to ecological, the other two important dimensions – economic and social. Progress in the economic, social and ecological spheres lies in the essence of contemporary approach to sustainable development [4].

Education plays a major role in achieving sustainable development. The impact of education on sustainable development is manifested across all three of its dimensions, economic (fosters economic growth, increases labor productivity, promotes entrepreneurship), social (promotes employment and higher income opportunities; reduces poverty and inequality, ensures healthy lives) and ecological (promotes people's environmental awareness; improves their ability to rationally use natural resources) [5].

Biljana Jovanović Gavrilović

Full professor at Faculty of Economics, University of Belgrade where she lectures national economy and economic development. The main areas of her scientific interest are: quality of economic growth, sustainable development, economic inequality, poverty and social exclusion, unemployment and labor market policy, human capital, green economy and green growth. She has published more than 150 papers: monographs, textbooks, articles, etc. Participated in several scientific projects for the needs of the governments of Yugoslavia and Serbia, as well as three international projects (TEMPUS and GLAMUR), funded by the European Union. Visiting fellow at London School of Economics and Political Science, Cracow University of Economics, University of Information Technology and Management, Rzeszow and University of Udine – Department of Economics. She was head of the Department for Economic Policy and Development, and a member of the Presidency of the Scientific Society of Economists. Since 2006 she is a member of Professional Board for Law and Economic Science at University of Belgrade.

The idea of sustainable development has been present in Serbia ever since the late 1980s. Shortly before the onset of the global financial crisis, the *National Sustainable Development Strategy of the Republic of Serbia* was adopted, but it was soon abandoned due to essentially changed economic circumstances in the country [6]. No new comprehensive national strategy was formally adopted, but the idea of sustainable development has been incorporated in many sectoral strategies which were adopted in the meantime. The concept is also supported by the fact that sustainable development has been accepted as a key EU goal, which is very important for Serbia in light of its orientation towards the EU accession. The current EU education strategy also serves as an important indicator for Serbia in its effort to accelerate economic growth and improve population well-being. Education have an important place in the EU strategy *Europe 2020*, which highlights three core priorities: smart growth (developing an

economy based on knowledge and innovation); sustainable growth (promoting a more resource efficient, greener and more competitive economy); and inclusive growth (fostering a high-employment economy delivering social and territorial cohesion). Consequently, in late 2010 the Government of Serbia drafted the *Serbia 2020* strategy, relying on the corresponding EU strategy, which respects national specificities. Among the five key goals, modeled after a similar European document, is improving the quality of human capital. It is stated that 'knowledge and education do not rank high in the list of social values. Education in Serbia does not have a social status that it deserves' [7]. At the beginning of the current decade, Serbia adopted a strategy for education development until 2020, which recognizes the importance of this sector for the achievement of sustainable development. 'The education system of the Republic of Serbia has a duty to timely, properly and efficiently educate the population of the Republic of Serbia in accordance with the expressed or identified developmental orientations toward sustainability and to meet the educational needs of all citizens of the Republic of Serbia throughout their lives' [8]. Let us also mention that Serbia, much like the EU, has demonstrated commitment to achieving the global Sustainable Development Goals (including the Goal 4 which concern education), pointing out the need to define national-specific goals and progress-monitoring indicators [9].

3. EDUCATION IN SERBIA FACING THE CHALLENGE OF THE FOURTH INDUSTRIAL REVOLUTION

The world is at the onset of the fourth industrial revolution whose scale, scope and complexity is unlike anything humankind has experienced before. The new industrial revolution is marked by technological breakthroughs in genetics, artificial intelligence, robotics, 3D printing and other segments of modern science and technology which until recently were unrelated, and now they are all building on and amplifying one another [10].

The modern industrial revolution is fundamental and global in nature – it creates huge opportunities for economic growth and social progress, but also unprecedented threats for geopolitical security, labor market, income equality, as well as for the value system and ethical standards.

The changes brought about by the fourth industrial revolution are manifested through newly emerging jobs and professions, which will partially or entirely replace the existing ones. The demand for knowledge and skills in job categories gaining but also losing in importance will also change rapidly. Consequently, the core curriculum content in many academic fields needs to continuously adapt to the current technological trends and fast knowledge outdating. The fourth industrial revolution, in combination with other global trends (including population ageing), has an encouraging effect on lifelong learning as well. The concept of one-off education, providing people with lifelong knowledge and skills, is a matter of past.

The quality of education systems in countries worldwide and their preparedness to meet the challenges of the digital age may be judged by the The Programme for International Student Assessment (PISA) results. This is the most important survey in the field of education, which tests 15-year-olds' knowledge and skills globally. The survey has been carried out on a three-year cycle since 2000 under the auspices of the OECD. The last cycle for which results are available was realized in 2015 and encompassed 72 countries of the world. PISA focuses on competencies which students will need in the future and assesses the application of their knowledge and skills acquired both in and outside of school [11]. The assessment is undertaken in three core subjects – science, reading and mathematics, with the focus on a different subject

in every three-year cycle. Since 2012, PISA has included two new domains – problem-solving and financial literacy, in which not all countries participated.

Biljana Radivojević

Full professor at Faculty of Economics, University of Belgrade, where she lectures demography. Main fields of interest and research: natural movement of population, especially mortality, demographic structures, population aging, education, labour force and labour market. She is engaged in various scientific projects of the Ministry of Science and Education of Serbia. She is member of Committee for the Study of Population of Serbian Academy of Sciences and Arts; Serbian Demographic Society (president); Scientific Society of Economists of Serbia; Statistical Society of Serbia.

Since Serbia did not take part in the PISA cycle of 2015, our focus will be on the 2012 assessment, in which 66 countries participated. Student performance level was determined according to a six-level proficiency scale. Top-ranking students in all three core domains (mathematics, reading and science) were from Shanghai, Singapore and Hong Kong, performing better than the OECD average. Among the European countries, Liechtenstein, Switzerland and the Netherlands ranked best. Serbia ranked 43, lagging behind the OECD average in all domains. Percentage of students performing at mathematics literacy highest proficiency levels (levels 5 and 6) in Serbia was 4.6%, compared to 12.6% in the OECD countries. The corresponding figures for reading literacy were 2.2% (Serbia) and 8.4% (OECD), whereas the figures for science literacy were 1.7% (Serbia) and 8.4% (OECD).[190] Especially worrying is the percentage of functionally illiterate students in Serbia (performing below level 2), which was 38.9% in the domain of mathematics, 33.1% in the domain of reading, and 35.0% in the domain of science. The corresponding figures for the OECD countries were 23.0%, 18.0% and 17.8%, respectively. Serbia achieved somewhat better results in problem-solving assessment, which tested student capacity for logical reasoning and communicating conclusions, as important competencies in the new digital age. Out of 44 countries which participated in this domain assessment, Serbia ranked 31st, above the EU members – Croatia, Hungary and Bulgaria. A percentage of students from Serbia performing at levels 5 and 6 was 4.75%, compared to 11.4% in the OECD countries, whereas the figures for students performing below level 2 were 28.5% and 21.4% respectively. The best performing students in problem solving were from Singapore, Korea and Japan [12]. The Serbian results point out the characteristics of education system in our country, which is to a large extent based on the ability to reproduce knowledge and, therefore, it is not geared to meet the requirements of the future.

Advocating the approach based on the principle that all people deserve an equal opportunity to develop their talents and that leaders worldwide are capable of navigating the transition to the fourth industrial revolution, the World Economic Forum has recently constructed the Global Human Capital Index (GHCI), which measures in a holistic way human resources of a country (current and expected), taking into account individual's ability to acquire, develop and deploy knowledge and skills throughout their working life [13]. 'Human capital' is here understood in a narrow sense and encompasses the knowledge and skills which can be used to create value in a given economic system. The aim is to foster a revolution in education to meet the needs of the future.

[190] PISA introduced a new concept of 'literacy', which refers to capacity of students to apply knowledge and skills in key subject areas (functional literacy).

The GHCI ranks 130 countries on a scale from 0 (worst) to 100 (best) across four thematic dimensions, i.e. sub-indexes (*Capacity*, *Deployment*, *Development* and *Know-how*) and five age groups (0–14 years; 15–24 years; 25–54 years; 55–64 years; and 65 years and over) in order to capture the full national potential of a country's human capital. The *Capacity* subindex measures human capital resulting from earlier education investment. Better educated people are better prepared to adopt new technologies, to innovate and to compete on the global level. The *Deployment* subindex covers knowledge and skills application, as well as accumulation of skills through work. The *Development* subindex covers formal education of the next generation work-force, continuous upskilling and upgrading of the skills of the current work-force through lifelong learning. The *Know-how* subindex captures the breadth and depth of specialized knowledge and skills used at work.

The composite GHCI index covers 21 unique indicators, covering distinct age groups. The final results (the GHCI value) for each observed country is roughly interpreted as a percentage of effective human capital use in relation to 'the ideal'. As measured by this index, on average, the world has developed only 62% of its human capital, i.e. nations are neglecting or wasting the remaining 38%. Top-ranking countries in 2017 index are Norway, Finland and Switzerland. All three countries are unique in having passed the threshold of developing more than 75% of their human capital against the ideal of 100%, which indicates their long-standing commitment to education and great importance they place on building future human capital. The EU collectively achieve a group average score of 70%, with 13 member states individually passing this threshold and the remaining member states being within the range of 60% to 70%.

Serbia, with the GHCI index of 62.50, slightly exceeds the world average, ranking 60th out of the total of 130 countries observed. Across individual thematic dimensions, Serbia is best-ranked on the *Development* subindex (36th) and worst-ranked on the *Deployment* subindex (112th). According to some indicators within the *Development* subindex, which are very important from the perspective of the fourth industrial revolution, this country ranks near the bottom (e.g. education quality, 95th), whereas some other indicators, such as skill and knowledge diversity among the university graduates, rank Serbia much better (16th).

It is worth mentioning that Serbia is selected as one of the TACTICS (acronym for Thailand, Argentina, Chile, Turkey, Iran, Colombia and Serbia) countries, which are thought to have the potential to be the higher education global leaders among emerging economies. following research conducted in Great Britain [13]. In addition, Serbia qualifies as a specific European country which, albeit relatively undeveloped, has a significant potential in higher education, which opens perspectives for a stronger growth in a new knowledge-based and technology-driven economy.

4. CONCLUSION

The knowledge and skills of the population, i.e. narrowly defined human capital, is the most valuable resources of the modern age, which can rightly be referred to as the age of education. It is also key to sustainable development of modern economy from economic, social and ecological perspectives.

Education offers a development opportunity for Serbia at the onset of the fourth industrial revolution. As a small and underdeveloped country, Serbia should not remain a passive observer of events. On the contrary, through adjusting its education system to the requirements of the day and improving its human capital, this country needs to find its place in a changing labor

market and create preconditions for a dynamic sustainable economic development it urgently needs. Education in Serbia should be re-shaped so as to offer new knowledge and skills for the new economy. Modernizing the curriculum will not be enough. An education system is needed which offers 'liquid skills' and enables the youth to adapt to future unanticipated challenges. The main prerequisite for this is a changed attitude to education, which should not be treated as a cost that the government could save on, but as a major factor enjoying wide social support. Technological changes brought about by the fourth industrial revolution do not foster economic development based on cheap labor, but the one based on knowledge and innovation as the key resources in the new economy.

REFERENCES

[1] World Bank, Database, Table: GDP per capita (current US$), [Online] at https://data.worldbank.org/indicator/NY.GDP.PCAP.CD, accessed January 26th, 2018.

[2] Weresa, M. A. (ed.) (2015) *Poland: Competitiveness Report 2015 – Innovation and Poland's performance in 2007-2014*, Warsaw: Warshaw School of Economics Press, p. 19.

[3] UNDES (2014), *Prototype Global Sustainable Development Report*, UNDES, New York 2014, p. 1.

[4] Jovanović Gavrilović, B. (2013), *Privredni razvoj sa ljudskim likom* (*Economic Development with Human Face*), Ekonomski fakultet, Beograd, p. 65.

[5] Jovanović Gavrilović, B. and Radivojević, B. (2017), Education of Population for the Future and the Future of Education, *Stanovništvo*, 55(1), p. 68.

[6] Vlada Republike Srbije (2008), *Nacionalna strategija održivog razvoja Republike Srbije* (*National Strategy for Sustainable Development of the Republic of Serbia*), Vlada Republike Srbije, Beograd.

[7] Vlada Republike Srbije (2010), *Srbija 2020* (*Serbia 2020*), Vlada Republike Srbije, Beograd, p. 10.

[8] Vlada Republike Srbije (2012), *Strategija razvoja obrazovanja u Srbiji do 2020. godine* (*Strategy for the Development of Education in Serbia until 2020*), Vlada Republike Srbije, Beograd, p. 5.

[9] UN (2015), *Transforming Our World: the Agenda for Sustainable Development*, United Nations, Geneva, [Online] at http://sustainabledevelopment.un.org/post2015/transformingourworld accessed April 19th, 2018, p. 14.

[10] Schwab, K., *Fourth Industrial Revolution*, Geneva: World Economic Forum, 2016.

[11] OECD (2017), *PISA 2015 Assessment and Analytical Framework: Science, Reading, Mathematic, Financial Literacy and Collaborative Problem Solving*, OECD Publishing, Paris, [Online] at http://dx.doi.org/10.1787/9789264281820-en, accessed April 26th, 2018, p. 12.

[12] OECD (2014), *PISA 2012 Results in Focus: What 15-year-olds know and what they can do with what they know*, OECD Publishing, Paris, [Online] at https://www.oecd.org/pisa/keyfindings/pisa-2012-results-overview.pdf, accessed April 28th, 2018.

[13] World Economic Forum (2017), *The Global Human Capital Report – Preparing people for the Future of Work*, World Economic Forum, Geneva, [Online] at http://www3.weforum.org/docs/WEF_Global_Human_Capital_Report_2017.pdf, accessed May 14th, 2018.

[14] Bothwell, E. (2016), *TACTICS: the new smart set of rising HE power*, The Times Higher Education and University College London – Centre for Global Higher Education,

London, [Online] at https://www.timeshighereducation.com/features/tactics-the-new-smart-set-ofrising-higher-education-powers, accessed May 24th, 2018.

COMPARATIVE PECULIARITIES OF THE LABOUR MARKET OF YOUNG SPECIALISTS IN RUSSIAN AND CHINA IN THE LAST DECADE

Evgeniya Yazovskikh[191]
Zhao Qiogyu[192]

DOI: https://doi.org/10.31410/eraz.2018.361

Abstract: *In modern society there are people who want to work and there are people who want to employ them. Both these categories are the labor market. As an economic category the labor market has long been considered as a phenomenon related to capitalist countries and unemployment was a consequence of labor market relations resulting from the numerous contradictions between labor and capital.*

The peculiarities of functioning the labor market are influenced by the following factors: salary dynamics; state of the national economy (the labor market is one of the most influenced by other markets); dynamics of incomes that are not formed under the influence of the labor market (an increase in the amount of child benefits leads to changes in the state of the labor market); dynamics of population's leisure preferences; changes in psychological perception of some professions and specialties (reducing the prestige of particular professions results in transforming the labor market);dynamics of the demographic situation, etc. Thus, the labor market is a fundamental element of the national economy.

Nowadays the development of the labor market is closely connected with training young specialists in Universities. The interaction of higher educational establishments with employers and the successful employment of graduates is one of the most important criteria for assessing the quality of the establishments' activities and the level of competitiveness in both the labor market and the market of educational services.

Moreover, one of the main tasks of any higher educational establishment is to train specialists possessing professional competencies, able to adapt to the manufacturing process, showing flexibility and initiative. It's possible to solve this problem on the basis of functioning an effective system of higher education that considers tendencies of the world development.

Another task is to make complex cooperation between Universities providing students with theoretical knowledge and enterprises that are places for developing their practical skills. The relationships between the higher educational establishments and employers contribute to modernizing educational programs and curricular; implementing design and technological master programs with corporate orientation; establishing basic departments, education facilities and laboratories; building targeted training for students.

And the third task is to help graduates become more competitive in the national and international labor markets. It's one of the most global problems today and it can be solved by establishing various relationships between countries and universities.

The Ural Federal University named after the first President of Russia B.N.Yeltsin is a good example of the higher educational establishment that actively promotes graduates to take their places in the labor market. It is a good training center that helps young professionals to find work in enterprises, assists in setting up new companies, motivates for teaching activities in various educational institutions of the region and the country.

[191] Ural federal University named after the first President of Russia B.N.Yeltsin, Russia
[192] Ural federal University named after the first President of Russia B.N.Yeltsin, Russia

Similar educational and economic policies are conducted in China. They take into account supply and demand of the labor market, its national peculiarities and prospects for further development of the country and labor force.

INTRODUCTION

The problems of youth are always under scrutiny by the government officials, humanitarian scientists and international organizations. The most unsettling and topical problems in the contemporary field of work is related to significant changes in economic structures, forms of employment and work organization, work content; raising diversity, flexibility and dynamic. Young people all over the world face with more and more challenges.

Our investigations show that young people in Russia and China are actively involved into the economic life of the country. In 2015-2017 they were more likely to start working earlier, to combine work with study, to engage in entrepreneurship than in 2006-2008. Generally, the population notes the increase in the jobs' opportunities, and especially for young people. At the same time, a series of specific features and contradictions in the youth labor market of Russia and China was revealed: increasing demand for quality jobs against decent jobs deficit and precarization; bigger number of the youth employed in the economy and smaller number of youth, registered in social insurance funds; increasing share of young people with higher education along with delay in modernization of the economic structure and jobs; growing differentiation of regional labor markets despite of globalization and intensified migration.

METHODOLOGY

The problems of employment and labor market were interesting for many scholars from different countries of the world. Professor A. Bulatov determines the labor market as labor supply and demand ratio. So, his definition is very brief and distinct [1].

Meir Kohn defines the labor market as the quantity of labor employed in the economy that is determines as the interaction of two groups – firms and workers. The willingness of firms to hire labor constitutes the demand for labor; the willingness of worker to ne hired constitutes the supply of labor [2]. His definition shows the connection between employers and employees.

B. Raizberg confirms that the labor market is the sphere of supply and demand for labor. This market is possible only on condition that the employer is the owner of his ability to work. From his viewpoint through the labor market, labor is sold for a certain period of time [3].

A lot information on the labor market and employment is introduced in analytical and statistic materials as this problem is very topical nowadays.

DISCUSSION AND RESULTS

In the last decade, the country's social and economic development is impossible without introducing innovations, improving technologies, increasing competitiveness, realizing human potential, investing money in education, training specialists, improving living standards of the population and etc. Thus, one of the most important components of the economic development of the country is the labor market that is the place where employers and employees interact with

each other. In the labor market employers compete to hire the best and the employees compete for the best satisfying job.

Unfortunately, the society still faces many problems, one of which is labor employment. Nowadays, there are several ways of employing the population: appealing to friends and acquaintances, applying to state employment agencies and commercial employment services, applying to the employer and other ways that are presented in table 1 [4].

The table shows that there is a great number of people who try to find a job and use different opportunities for it. In order to solve this problem, on the one hand, the state should provide some assistance to the population in employment, and on the other hand, educational institutions should train professionals who can easily adapt to the production process and have professional competencies and help them find a job as well.

Table 1 - Distributing the number of unemployed by means of job searching (as a percentage of the total)

	Unemployed total	People used the following methods of job searching						
		applying to state institutions of employment services	contacting the commercial employment service	submitting advertisements to the press, the response to them	appealing to friends, relatives, friends	direct appealing to the administration, the employer	searching for land, buildings, machinery and equipment, etc. to open their own business	other ways
Total 2000	100	27,9	2,4	21,9	59,0	31,2	1,0	11,6
2005	100	34,6	3,7	17,5	54,7	26,0	1,6	9,8
2010	100	38,3	2,7	21,9	53,9	23,7	0,7	8,6
2011	100	34,7	3,0	23,9	57,5	25,5	0,9	7,8
2012	100	30,1	3,0	29,2	60,8	28,5	1,2	7,1
2013	100	29,5	3,4	33,1	59,4	28,0	0,9	6,4
2014	100	28,0	4,2	39,1	62,9	29,1	0,9	8,0

To some extent, the level of education got is one of the main criteria for the population's employment. So, according to statistical data in Russia for the period from 2000 to 2014, the largest number of unemployed has a secondary education, followed by specialists who got higher education, and their number increases every year (table 2) [5].

In order to reduce the percentage of unemployed with higher education, Universities need to establish and develop partnerships within the "University-employer", and also to orient educational programs on the labor market. Today, the employment of graduates is one of the key indicators of the effectiveness and competitiveness of the university.

Table 2 - Distribution of the number of unemployed by level education (as a percentage of the total)

	Unemp-loyed, total	Including those who have education					
		higher education	By program		secondary education	basic general education	Don't have basic general education
			training mid-level specialists	training skilled workers (employees)			
Total 2000	100	13,3	26,3	12,2	31,5	14,1	2,6
2005	100	13,1	19,5	18.6	33,4	14,2	1,2
2010	100	15,0	20,8	20.8	32,4	9,9	1,0
2011	100	15,9	20,5	19.8	32,0	10,6	1,2
2012	100	16,4	19,3	20,3	32,8	10,1	1,1
2013	100	17,4	19,7	19,4	33,3	9,5	0,9
2014	100	18,2	19,7	20,2	31,5	9,6	0,9

Previously, there was a system of graduates' distribution in Universities, which, unfortunately, is not popular in recent years. This system was a certain guarantor for young professionals in employment, and also allowed graduates with theoretical knowledge to receive and improve practical skills at industrial enterprises. The data in table 3 show that in Russia for the period from 2000 to 2014, the highest percentage of the unemployed is the age group from 20 to 24 years, i.e. just those who graduated from higher educational establishments.

The emergence of a multi-level education system considerably complicated the process of employment. In the opinion of the majority of employers, graduates with bachelor's degree do not have sufficient knowledge. Thus, when applying for a job, preference is given to those who graduated from the master's program.

In recent years, the number of students who got the bachelor's degree and continued their studies at the Ural Federal University named after the first President of Russia Boris N. Yeltsin increased by one third. According to statistics, this opportunity is actively used by representatives of mathematical and natural scientific areas of training (55%), as well as future engineers (47.2%) [6].

Graduates of the master's program in economic fields with basic training in mathematics, physics and other natural sciences are always in demand by employers. In particular, according to the rating "Best Employers – 2016" prepared by the Russian company" Future Today", and according to the observations of the leading Russian employers, the Graduate School of Economics and Management of the Ural federal University entered the top 30 most required by employers among the largest Universities in Russia [7].

Table 3 shows the employment of graduates of the Ural Federal University in 2016 according to the fields of science [6].

Table 3 - Employment of graduates in 2016 according to the fields of science

Direction of training	busy total, %	continued education, %	got employed, %
Mathematical and natural sciences	89,9	55,0	34,5
Engineering, Technology and technical sciences	91,4	47,2	43,1
Social sciences	88,3	26,0	61,9
Humanitarian sciences	87,1	33,0	52,9
Art and culture	98,9	28,9	70,0

It can be seen from the table that artists and cultural specialists, representatives of public sciences, as well as humanities (philosophers, historians, designers, art historians, journalists and psychologists) start working immediately after receiving the diploma of bachelor's degree.

The geography of employment of University graduates is also interesting. Most of them remained working in the Urals Federal District. So, almost one hundred percent of mathematicians and specialists in the field of natural sciences are employed in the Urals Federal District. The greatest proportion of those working outside the district are art historians and culturologists (12,7%).

Most often graduates of the Ural federal University chose the following places for work: Moscow and Moscow region (60%), St. Petersburg (13%), Perm Territory (10%), Bashkortostan (3%), Krasnodar Territory (2%), Udmurtia, Nizhny Novgorod and Novosibirsk (1% each), other regions (9%) [6].

Good indicators of the graduates' employment are largely due to the fact that the University has a Center for Cooperation with Employers, which constantly updates and replenishes the database of enterprises and organizations interested in interacting with the University in order to attract young qualified specialists on the one hand, and on the other hand - helps graduates find a job in their specialty.

The main activities of the Center are:

- participating in the formation of the University's educational policy, taking into account the modern needs of the labor market, as well as the preparation of various analytical and statistical materials in relation to labor issues, the demand and career development of young specialists;
- conducting seminars and conferences with the participation of representatives of the administration of municipal entities and heads of enterprises on targeted training of specialists, employment and the successful adaptation of graduates to the labor market;
- organizing career events (career night, career days, presentations of specialized Russian and international companies, excursions to business, job fairs, open lectures, workshops, practical seminars and trainings, engineering competitions), during which students will learn about specific companies and receive from employers the most complete information on working conditions and requirements for training young professionals;
- providing information on vacancies, internships, scholarship programs and competitive selection, familiarization with the review of salaries and conducting specialized sociological research;
- conducting consulting activities on the issues of training, professional self-determination and employment of graduates; provision of "resume editing" service; the testing of "professional career", helping the student to determine the professional choice and further career growth and much more.

The main partners of the Center for Cooperation with Employers are the largest enterprises of the city, region and county. Among them the main partners are:

- "Elektrokhimpribor company" is the leading enterprise of the nuclear weapons complex of the state corporation "Rosatom" and the city-forming enterprise of the town of Lesnoy in Sverdlovsk Region. Performing a defense order, the enterprise produces products of oil and gas, electric power complexes, produces medical equipment, etc. The combine invites graduates of Universities to work and promotes professional career development of employees.
- "Izhevsk Electromechanical Plant"" Kupol" is the leading enterprise of the radio-electronic area and the defense industry of the country. The management of the enterprise is doing much to attract young people to learn and apply the experience of the older generation in practice, for the development and prosperity of the enterprise.
- "Delta Svar LLC" is the largest supplier of high-quality professional welding equipment in the Urals Federal District. The company is engaged in equipping industrial enterprises with automatic welding equipment, robotic complexes, air cleaning systems for welding workshops, etc. It also employs specialists interested in professional growth.

In addition to these partners, the Centre actively cooperates with the “MDM Bank”, “Unilever”, “Azot”, “Uralkim”, “Ural Worker”, “Peleng” and many others.

The Center also has information partners such as:

- “AGAT Youth Entrepreneurship Support Fund”, which helps start-up entrepreneurs to open and develop their business, using various support tools (support of a business coach, preparation of a business plan, an opportunity to receive seed capital);
- Training and staff center “Professional growth”, which has offices in Moscow and St. Petersburg, providing interaction and information exchange between employers and university graduates of the country's largest cities;
- “Head Hunter”, which operates on the territory of Russia, Ukraine, Belarus, Kazakhstan, Azerbaijan, Georgia, Kyrgyzstan and Uzbekistan and is the leader among online resources for job search and recruitment of personnel [8].

According to the results of research on the data of employment of the Ural Federal University graduates in 2016, out of 8,110 graduates of the University only 10% remained unoccupied, almost 40% continued their education, and 50% went to work [6].

All of the above enumerated allows us to assert that the Ural Federal University actively promotes graduates to take their place in the labor market, being a training center; helping young professionals to find work in enterprises; assisting in establishing new companies; motivating for teaching activities in various educational institutions of the region and countries.

As for China, the government also devotes a lot of attention to the employment Universities graduates. Thus, according to the data offered by the Chinese Ministry of Education, the number of college and universities graduates in 2017 was about 7,95 million, that was a record. On the one hand, there was great competition among graduates to be employed, but on the other hand, due to the economic development of the country the companies offered a lot of working places to young specialists.

Recently China’s largest life service platform “58.COM” issued a “2017 College Graduates Recruitment Report” that compares the needs of the companies that employ graduates, the companies’ locations, the working conditions and many other factors. The report provides a comprehensive analysis of the employment status of current graduates from the supply and demand of graduate jobs and salary levels. It is aimed at more precise matching graduates and companies’ employment. The report shows that today’s graduates are more interested in such industries as food, education and other life services.

At the level of corporate needs, talent shortages have become a major area in recent years. For example, with the e-commerce outbreak and the rising demand for logistics personnel is very high. This year's graduates are no longer getting together in first-tier cities, and new first-tier cities such as

Zhaj Qiongyu

Main activities: Translation and interpretation (Russian, English and Chinese), Country studies, Information technologies, Economics.

Education
2016 up to now – Ural federal University named after the first President of Russia B.N.Yeltsin (a master)
2012-2016 - Hulunbuir University, specialty - Russian.

Zhaj is participant in national and international conferences (China, Russia). Zhaj is engaged in some projects and campaigns as a part of a project team.

Chengdu, Chongqing and Hangzhou became hot spots for job hunting in the 2017 graduation season.

According to the recruitment data of 58.COM, among the top 10 industries with the highest graduates' resume delivery volume, the lifestyle service category is the only one of the top 3, namely catering, education/training, and hospital/medical care. These three accounts for over 30% of the total. Of the top 10 industries with the fastest growth in the volume of resumes, market/media, housekeeping, catering, department stores, education/training, beauty salons, and sports and fitness industries accounted for 7 of the top 10 seats. The volume of resumes delivered by the market/media increased by 332,1% year-on-year in 2016. In the life-service-related industries, the volume of resumes in housekeeping, catering, and retail sales increased by 68,9%, 38,3%, and 23,4% year-on-year respectively. In addition, in terms of specific positions, the growth in the volume of resumes for both finance and cashier positions was fiercer, with year-on-year increases of 297,7% and 284%; and the number of resumes for clerk/salespersons and sales/purchasing positions increased by approximately 140% year-on-year (figure 1) [9].

(Here are: catering, education/training, hospital/medical care, HR& administration, retail sales in the service-related industries, sales, finance / audit, art / design, universal work, architecture.)

Figure 1. The number of the employed in different industries

Undoubtedly, high enthusiasm for employment in the service industry is closely related to its rapid development. According to official statistics, from 2012 to 2016, China's employment in the tertiary industry by 60,67 million, and the share of employment rose from 36,1% to 43,5%, making it the most employed industry.

Another manifestation of close connection with the economic situation is that nearly 80% of the graduates seeking jobs through 58.COM invested in small and micro enterprises with a company scale of less than 100, and less than 10% of large companies with over 500 employees. 58.COM's recruiting experts believe that in recent years, with the advancement of "mass entrepreneurship and innovation," small businesses in a large number of segments have sprung up and created a large number of job opportunities. In addition, for post-90 graduates who emphasize freedom and personality more, the choice of small and micro enterprises is mainly focused on their simpler company structure and interpersonal environment, which makes it easier for them to quickly integrate and grow.

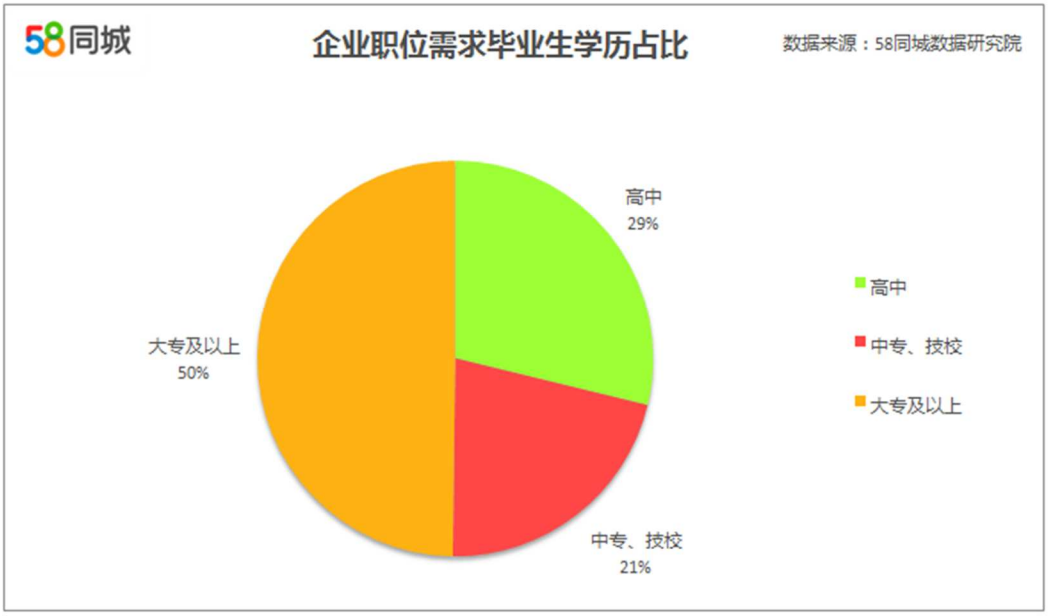
However, from the perspective of business needs, the top 10 industries with the highest demand are in sharp contrast with the industries preferred by job seekers, resulting in a large number of talent gaps in many industries. The more obvious is the logistics industry: not only ranked second in the industry with the highest demand, but also ranked in the top ten in the rank of job demand, such as logistics commissioner/assistant, courier, and other sub-posts.

58.COM's recruitment expert analysis, the degree of job demand heat reflects the current status of the industry to some extent. In recent years, e-commerce, on-site O2O（online to offline), and regional logistics industries continue to be hot, and therefore the related logistics and other talent demand is also very strong. From the report, it can also be seen that the computer/Internet industry closely related to e-commerce is also in the top 10 with the highest demand for talent.

According to another research, China's logistics workers are growing at an average annual rate of 6,2%, and an additional 1.8 million new logistics jobs are required each year. However, there are less than 30% of logistics talents supplied by institutions and training institutions. Supply exceeds supply, logistics professionals have become one of the "most valuable" industries, belonging to the highest salary of graduate companies in the top ten jobs. Also listed are financial/banking/security/investment, market/media, etc.

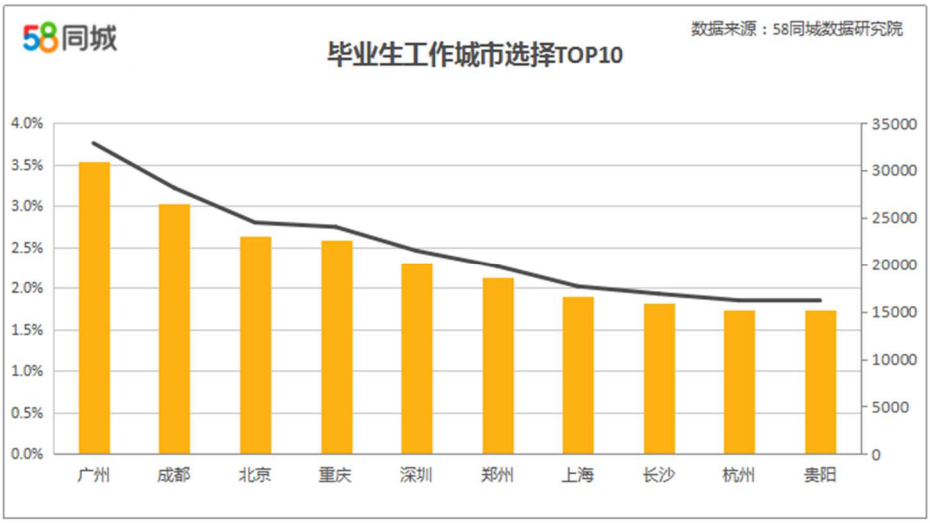
At the same time, the salary level statistics present another “job indicator” for employment. The health massage, sports and fitness industry ranks very high. As mentioned earlier, it coincides with the current hot industry. With the improvement of people’s living standards, people facing greater work pressure shifted their energy and time to health care and sports. They are also more willing to invest in them.

The comparison between salary expectations and salary reached an optimistic trend. The recruitment data of 58.COM shows that in 2017, the graduates expect salary of 3162 yuan/month, and the average salary the company can give reaches 5,628 yuan/month. The expectation of salary for graduates is generally higher than their expectation, and they have reduced the pressure of life for “fresh people” in the workplace. The report also shows that among the job requirements for graduates, secondary specialized schools and technical schools account for 21%, and college graduates and above account for 50% (figure 2) [9].



(The proportion of the business's expectations for graduates' academic qualifications: College or above: 50%; High school: 29%; Secondary specialized schools and technical schools: 21%)
Figure 2. The proportion of the business's expectations for graduates' academic qualifications

In the past, first-tier cities such as Beijing, Shanghai, Guangzhou, and Shenzhen have always been the first choice for graduates because of their high income and opportunities. Today, 58.COM reports indicate that this phenomenon is changing. According to the graduation data released by 58.COM, the top ten cities with graduate resumes in 2017 were Guangzhou, Chengdu, Beijing, Chongqing, Shenzhen, Zhengzhou, Shanghai, Changsha, Hangzhou, and Guiyang (figure 3) [9].



(The top ten cities with graduate resumes: Guangzhou, Chengdu, Beijing, Chongqing, Shenzhen, Zhengzhou, Shanghai, Changsha, Hangzhou, and Guiyang)
Figure 3. The top ten cities with graduate resumes

Among them, Chengdu, Chongqing, Zhengzhou, Changsha, and Hangzhou are among the new first-tier cities recently announced by the "New Tier City Research Institute". Moreover, Chengdu is ranked No. 1. This coincides with the city where the graduates' resumes come together. Chengdu is an important gateway to the large-scale development of the western region. In recent years, the economy has a strong momentum and great potential. This is reflected in the fact that only 300 Fortune 500 companies have settled in Chengdu. Chengdu and Chongqing have built an important economic force in southwest China. There are numerous job opportunities. Moreover, the urban construction of Chengdu and Chongqing is very mature, especially in the world with high quality of life. Therefore, it has naturally become the preferred choice for many graduates [9].

Today enterprises in China have already undergone an entrepreneurial period and are in a period of rapid expansion. Such companies need a lot of talent because of the expansion of their businesses. There are some recommendations for young specialists in China how to find a working place:

1. Selecting large or medium-sized enterprise groups that require candidates to accept assignments and transfer posts.
2. Such large or medium-sized enterprise groups are generally set up for a period of ten years. Enterprises have already undergone an entrepreneurial period and are in a period of rapid expansion. Such companies need a lot of talent because of the expansion of their businesses. If they all recruit experienced personnel who are familiar with the

business, the recruitment cost of the company is very high, so most companies will choose a large number of graduates in order to meet both the talent demand and the labor cost savings, and these enterprises often have expatriate positions or transfer requirements. As long as the graduates first accept such a request, then the employment of such companies will have great success. When they formally enter such companies, graduates cannot only learn a lot of very useful work experience, they can also ask for changes at the right time in order to find a job that meets their professional direction.

3. After selecting recruiting companies and jobs online, graduates go directly to the talent market for targeted interviews.
4. Graduates first need to search the job market for recruitment information from the job market, choose their fancy companies and positions, and then prepare and visit the talent market to find the company on time, and then submit resumes in person and conduct brief interviews. Do not underestimate this method. This is a very practical and effective way. If the graduates only submit their resumes on the Internet, it is very likely that there will be no chance for them to interview. Therefore, once you have a fancy business, you need to find ways to talk face to face with the recruiter. This is definitely better than just posting your resume on the Internet.
5. Finding a job through a well-known forum in your location.
6. This is also an important method. Graduates should know that if there is a well-known forum or local website in the area, both companies and job seekers will often visit. Because companies can post recruitment information for free, but they can recruit talented people. And many job seekers also find jobs through such forums. Job seekers must use them to increase job opportunities.
7. By searching for a group of recruits or exchange groups made up of local business groups, enter directly into the enterprise HR.
8. In general, the human resource department in an industrial area or a concentrated area of an enterprise may exchange talents or recommend each other by forming network groups. If graduates can enter such a group, they can directly consult with many companies' HR. Which one needs to recruit fresh graduates, usually they all reply to graduates if they need them, or recommend them to other companies. In this way, job opportunities for graduates will greatly increase.
9. Going to the industrial area or where the company concentrates to visit the job site.
10. Graduates cannot be lazy and afraid of hard work. Many companies usually do not post recruitment information on the Internet when they are recruiting grass-roots workers. Instead, they only post recruitment information in the information column of their corporate lobby. In this way, graduates can not only directly enter the interview process but also develop sensory enterprises.
11. Utilizing formal human resources intermediary agencies.

The formal human resources intermediary agencies generally cooperate with local government agencies and are very reliable. What graduates need to do is provide their resumes to HR intermediary agencies so that they can recommend suitable companies. They can also provide free services to job-seeking graduates. Such institutions are generally the local talent market organizers. They have a large number of recruitment information and the business is very familiar with them. It is very necessary for recent graduates to make good use of this resource [10].

CONCLUSION

The studies show that one of the best ways for solving the problems of employment of graduates of higher education institutions is to establish partnerships between the employment service and employers. At the request of employers, the employment service recruits young specialists, arranges guaranteed interviews, and within the job fairs - the presentation of young professionals (as a rule, almost all are employed, and many receive several offers from different employers).

The effectiveness of the employment centers contribute to: agreement on joint activities with educational institutions for the employment of graduates, the formation of training programs in accordance with the needs of the region's economy, activity of regional interdepartmental commissions on assistance to development of personnel, the joint modernization of educational programs; implementation of design and technological master programs with corporate orientation; the creation of basic departments; training facilities and laboratories; building targeted training for students; -graduates to be competitive in the national and international labor market.

REFERENCES

1. Bulatov A. (2012). Economics. Moscow: Magister INFRA-M. P. 878.
2. M. Kohn (1996). Macroeconomics. Cincinnati, Ohio: South-Western College Publishing. P. 212.
3. Raizberg B. (2002). Modern economic dictionary. Moscow: INFRA-M. P. 878.
4. Russian Statistical Yearbook. 2015: Stat.sb. / Rosstat. - P76 M., 2015. P. 119
5. Russian Statistical Yearbook. 2015: Stat.sb. / Rosstat. - P76 M., 2015. P. 120.
6. The Urals Federal University, The publication of the Ural Federal University No. 10 of February 27, 2017.
7. The Urals Federal, Edition of the Ural Federal University No. 6 of January 30, 2017.
8. https: // urfu.ru/
9. 58.COM's “2017 College Graduate Recruitment Report”
10. http://yuqing.people.com.cn/n1/2017/0621/c209043-29353156.html

THE SUCCESS OF PEER REVIEW EVALUATION IN UNIVERSITY RESEARCH FUNDING – THE CASE STUDY FROM SLOVAKIA

Alexandra Lešková[193]

DOI: https://doi.org/10.31410/eraz.2018.372

Abstract: *Public funding mechanism for excellence is widely used mostly due its aim to raise the performance of higher education institutions to an excellent level since the reallocation is based on competitiveness of institutions or researchers. The approaches which are currently used for research evaluation are either peer review or bibliometric techniques. Peer review is based on deep expertise of committees and experts. However, its application is questioned to some extent, especially due to its ineffectiveness and inefficiency. In Slovakia, peer review process is applied to selection of projects by the Scientific Grant Agency. This paper identifies whether there is a relationship between peer review score of project proposals and research productivity. Case study is applied to the Scientific Grant Agency and its grant selection in year 2009 when the results of peer review process are for the first time available to the public. Our results show that peer review in most fields failed to predict the success of projects. Moreover, we observed potential gender bias in peer review and grant selection mechanism.*

Key words: *peer review, funding for excellence, university research*

1. INTRODUCTION

Public funding mechanism for excellence aims to raise the performance of higher education institutions to an excellent level. However, there are differences seen in its application. On one hand, we talk about initiatives directed straight to universities on competitive basis, which though do not have a nature of project funding. Rather they are aimed at development of institutional strategies and such cases are observed in Germany or France [6]. On the other hand, we talk about typical reallocation of funds based on project proposals including set of activities. The most common objective of excellence funding is to improve competitiveness of the system´s research landscape. It enhances the international visibility of research system and improves system with some quality objectives as well as position of higher education institutions in international ranking. Moreover, excellence funding also increases funding efficiency [6]. For such a mechanism, it is very important to properly set the rules, which should be known in advance and remain unchanged during the process. Transparent selection of proposals with all criteria known by all parties should be implemented [6]. The approaches which are currently used for research evaluation are either peer review or bibliometric techniques [2]. Bibliometric techniques include indicators such as quantity of research outputs measured by scientific articles but there is also an aspect of quality captured by the number of citations received and impact factor of journal. Some argue that metrics should not be seen as a substitute for peer review bur rather support it [19]. Peer review is based on deep expertise of committees and experts. Usually it is applied to assessing of applications for funding but also to review journal manuscripts or career promotions. In case of grant applications, judgement is made in accordance with certain parameters like relevance of topic, originality, quality or socio-economic impact that research could potentially bring [2]. For

[193] University of Economics in Bratislava, Dolnozemská cesta 1, 852 35 Bratislava, Slovakia

project funding, the peer review approach is currently the more widespread [2]. Its application is questioned to some extent, though, especially due to its ineffectiveness and inefficiency [10]. First of all, there is a general concern of what defines best science and whether good research can be simply predicted by the evaluation of proposal [15] [13]. Moreover, applying same criteria to evaluation may biased some fields such as technology or applied science [15] [13]. In this sense, peer review may favour researchers, whose outcomes are guaranteed rather than give a room to those, whose ideas cannot promise success [15] [3]. Additionally, when researchers approach a topic differently, their proposal may not be accepted. Alternatively, if the field is small, the few researchers will probably tend to accept project proposal just because they believe it is worthy of realization. If the field is new and needs to grow up, it may be for the best to provide a room for improvement. However, if there is no interest in it from outside or the field has shrunk, then the peer-review fails. The second concern is connected with subjectivity. Peer review evaluation depends on opinion and qualitative judgements of the reviewers and thus risks biases [9] [10]. Firstly, a selection of the reviewers themselves predicts a success of the proposal [15]. Naturally, it brings the question of qualification, expertise and capacities that reviewer should have and who then determines who is qualified to perform an evaluation [20]. Moreover, this system brings into the evaluation a pattern of behaviour leading to dishonesty. There is possible conflict of interests, thus unhealthy competition rises. Reviewers are potentially stimulated to purposefully provide negative review if their own proposal is in jeopardize [15] [10]. On the other side, if the submitting leader is considered to be an incumbent, a submission may be probably accepted regardless of its contribution. Some studies found variation among scores and disagreement in review criteria [8] [1]. Others also found gender bias [18] and nepotism [16] in peer review process. In order to find out whether peer review can predict applications which are most likely to be productive, existing research in this area has focused on understanding whether there is a correlation between good peer-review scores and successful research outcomes and yields mixed results. [4] found no correlation between obtained score and publication productivity of grants or citation productivity [5]. On the other side, [7] found that better peer review score is positively correlated with greater productivity. This paper thus tries to identify whether there is a relationship between peer review score of project proposals and research productivity in grants in Slovakia. Moreover, we are wondering, if there is potential institutional or gender bias in peer review process. Case study is applied to the Scientific Grant Agency and its grant selection in year 2009.

2. PEER REVIEW BY THE SCIENTIFIC GRANT AGENCY

Scientific Grant Agency (SGA) is the supreme body of the Minister of Education and the auxiliary body of the Slovak Academy of Science's presidency. Its role is to assist in scientific grant selection in order to reallocate funds within institutional funding of universities based in this case on excellence funding. SGA is composed of four main bodies: Presidency of SGA, Chairman and Vice Chairman of SGA, Enlarged Presidency and Committees of SGA. Specifically, 13 committees are established in line with the science and technology fields and divided as follows: 1. mathematical sciences, computer and informatics science and physical science; 2. science of Earth and space, environmental science (including earth resources); 3. chemical science, chemical engineering and biotechnology; 4. biological science; 5. electrical, automation and control systems and related fields of communication technologies; 6. civil engineering (construction, transport and geodesy) and environmental engineering including mining, metallurgy and water management; 7. engineering and related fields of information and communication technology and material engineering; 8. agricultural, veterinary and timber sciences; 9. medical science and pharmaceutical science; 10. historical science and social

science (philosophy, sociology, political science, theology); 11. human science (psychology, pedagogy, sports science); 12. science of art, aesthetics and linguistics; 13. economic and legal sciences. Committees have usually 14 – 20 members and are responsible for evaluation of the project proposals that research teams submit after the call is announced on yearly basis [11]. Initial evaluation of the proposals is carried out within two rounds. In the first round, evaluation focuses on formal requirements of the proposal as well as identifying whether proposal has a nature of basic research. Committee also assesses a quality of publications of the project leader and adequacy and relevance of the finances required. When proposal meets all these criteria, it is proceeded to the second round of evaluation. Committee then selects three reviewers who are not members of the committee in which a proposal is evaluated, when at least one must be from abroad. Reviewer is in this sense anonymous to the research team as well as to the submitter. At least two peer reviews are needed in order to take final decision by the committee. Members of the committee take into consideration mainly these criteria: originality, ethical aspects, complexity and cross-sectional solutions of the issue, potential contribution to the scientific area, potential contribution to economic and social area, quality of the scientific part of the proposal, professional competence of the project leader and research team, feasibility, time schedule, adequacy of the required budget, conclusions of the reviewers. Every member of committee then anonymously assigns points to each proposal in a range from 0 to 100, when more is better. Member of committee does not vote in case he belongs to research team of the proposal or is in close relationship with anyone from research team. Before the points are cumulated, the votes with the highest and the lowest points are cut off and the average value is then calculated from n-2 members. A ranking of proposals is then made in accordance with average points that each proposal obtained. Committee then determines the line under which the projects should not be funded and proceeds the ranking list to the Presidency of VEGA, which is then responsible for approving it [14]. When project finishes in particular year, research team must submit Final report for the entire project lifetime and enclose supplement with 5 most significant research outputs from the project. Members of committee then evaluate achieved results of the project and focus mostly on: meeting the scientific objectives of the project, assessment of the results, scientific contribution based on quality of accepted and published articles in indexed journals, contributions to economic and social area and effectiveness and efficiency of funding used in project. Committee includes into evaluation only publications with acknowledgement and evidence code of the project. Similarly, publications must be related to the focus of the project [14].

3. METHODOLOGY

For these purposes, we focus on grant allocation of the Scientific Grant Agency. This agency provides research funding to researchers in Slovakia on competitive basis and focuses on support of public universities and Slovak Academy of Science (SAS). Agency reallocates every year over 9 million euro and supports significant number of projects from all universities [12]. In this paper, we include into the analysis only projects proposed by the public universities. Thus we excluded proposals of SAS which operates under different conditions than public universities. We analysed only applications proposed in 2009 by all public universities. It is actually a first year when the data about peer review score and approval or rejection of proposal are available on the website of the agency. We thus have data about peer review score of each proposal, institution, project leader, duration of project, approval/rejection of the proposal and committee. Data about research staff within each proposal were provided by the Ministry of Education upon request. To measure success of a project, we identify research productivity within each funded grant. These data were also provided by the Ministry of Education upon request. They were gathered from final reports of each project and following peer review of at

least one person from the agency in accordance with the rules of SGA in a year when project finished. Some of grants were peer-reviewed at the end by more than one person from the agency and their final evaluation in not consistent, thus we excluded 26 grants when dealing with research productivity. In the rest of grants, we were able to distinguish the categories of publication and identified three groups of research outputs: 1. total number of research outputs from grant (including monographies, chapters, articles, patents etc.), 2. total number of articles that acknowledged grant support (including publications in Scopus or Web of Science databases but also those published in regular/not-indexed journals) and 3. patents that cite grant. We look at the group of articles separately and it is due to the fact that articles in journals (of better quality) are highly valuable even for final evaluation of project but they are also important for institution within performance-based funding. Thus, there could be some incentives to publish more in this group. Similarly, group of patents is typical just for some universities and particular fields. Our first research question is as follows: *Does better score of research proposal yield in greater research productivity?* For measuring the relationship between peer review score and research productivity, we imply correlation like [4] [5] [7] did and we support it also be regression analysis. Second research question focuses on selection of projects and peer review of universities: *Did any universities obtain significantly higher score in peer review process?* We answer this question by looking at distribution of peer review score and funded projects. The last research question concerns selection of proposals based on gender: *Did women as project leaders obtain significantly lower score comparing to men?* We explore this by looking at the distribution of funds by gender.

4. RESULTS

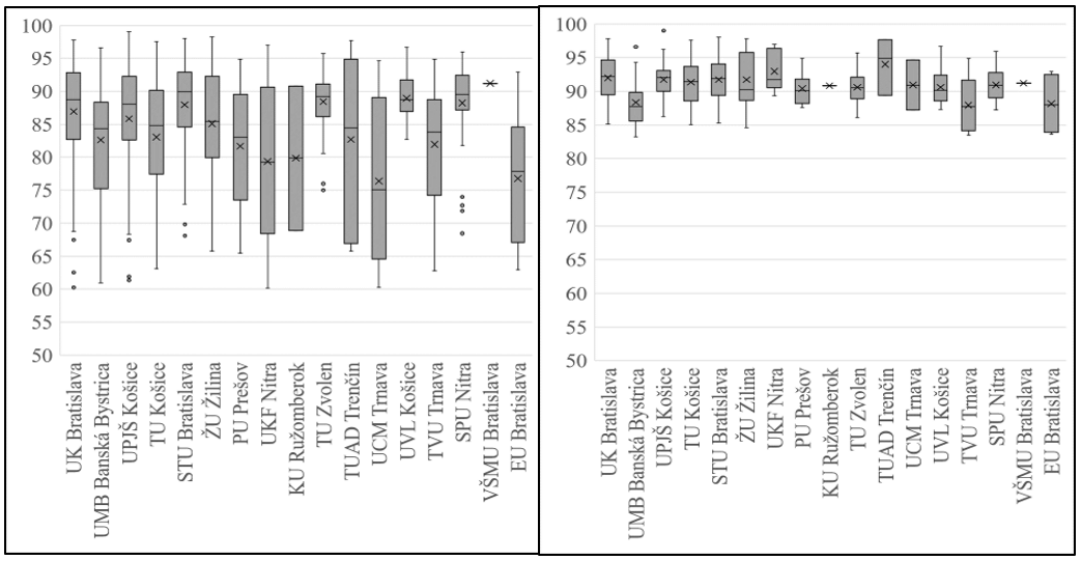
In 2009, SGA received 1 103 research proposals [17]. Almost 77 % of them was proceeded to the second round of assessment. Most of proposals in second round was submitted by public universities. From 632 proposals of public universities, 44 % was rejected, thus the number of new funded projects starting in 2010 is 357. Out of 357 projects, 87 % was carried out for 2 years, 2 % for 1 year and 11 % for 3 years. Among the universities with the highest amount of proposals proceeded to the second round belong the biggest public higher education institutions in Slovakia – UK Bratislava and then STU Bratislava. UK Bratislava submitted 148 proposals representing 23 % of all research proposals. Checking for correlation coefficient between the number of all proposals of each institution and a rate of rejection of each institution, $r = -0,05$. Thus it indicates very modest decrease of rate of refused proposals per institution as the amount of proposals per institution increases. However, the coefficient is still very low and there is almost no relationship between variables. The most proposals were approved for UK Bratislava and STU Bratislava in a sense of quantity. Some universities like KU Ružomberok, TUAD Trenčín, UCM Trnava or VŠMU Bratislava carried out only small number of projects. It was 50 % or less of all applications they submitted.

Regarding the number of researchers in grants per institution, there is strong positive relationship with the number of funded projects on institution. Moreover, research productivity per institution are also strongly correlated with the research staff working on grants within institution. In case of total number of articles and total number of outputs from grants per institution, $r = 0,98$ in both cases and indicates that publication outputs of grants in institution increase as the research staff working on projects increases. When we focus on total number of patents, $r = 0,51$ and also confirm positive linear correlation with research staff on grants. Strong correlation is observed also when we explore the number of funded proposals and the number of outputs with coefficient $r = 0,92$.

University	Average score of funded proposals	Total No. of funded proposals	Total No. of researchers	Total No. of articles	Total No. of patents	Total No. of outputs from grants
EU Bratislava	88,15	6 (35%)	62	27	0	102
KU Ružomberok	90,81	1 (50%)	5	10,5	0	17,5
PU Prešov	90,41	14 (41%)	97	55,6	0	230,3
SPU Nitra	90,92	32 (80%)	486	273,9	1	664,1
STU Bratislava	91,72	62 (68%)	973	704,6	9	2237,8
TU Košice	91,34	27 (41%)	377	293,2	15	766,6
TU Zvolen	90,59	26 (74%)	349	192,1	0	584,7
TUAD Trenčín	93,99	3 (43%)	59	33,5	0	75,3
TVU Trnava	87,92	9 (56%)	88	27,5	0	193,8
UCM Trnava	90,92	2 (33%)	15	21	0	48
UK Bratislava	91,99	87 (59%)	749	650,2	1	1608
UKF Nitra	92,97	7 (32%)	57	40	0	150
UMB Banská Bystrica	88,35	13 (57%)	98	36,1	0	148,6
UPJŠ Košice	91,73	29 (54%)	270	241,5	0	608,9
UVL Košice	90,58	17 (77%)	241	128	2	361
VŠMU Bratislava	91,2	1 (100%)	1	4	0	7
ŽU Žilina	91,73	21 (44%)	267	177,3	0	453,5
Total/Average	91,26	357 (56%)	4194	2916	28	8257,1

Table 1: Overview of project selection of SGA in 2009 for public universities

As we see on Figure 1, proposals of universities were given quite high scores by peer review. It ranges from 59,58 to 99 points in case of all proposals and from 83,23 to 99 in case of only funded proposals. Almost half of all funded proposals by universities obtained score in interval 85 – 95.



a) b)

Figure 1: Box plots of scores obtained for research proposals to SGA in 2009 for public universities a) peer review scores for all proposals, b) peer review scores for only funded proposals

The average score of all proposals was 86,42 taking into account all proposals and 91,26 when dealing only with funded proposals. Looking at Figure 1 a), we see that there were some universities which were given quite high scores for 75 % of all proposals. Particularly, these are UK Bratislava and STU Bratislava which also submitted 40 % of all proposals. Then there is also UPJŠ Košice, TU Zvolen, UVK Košice and SPU Nitra. However, looking at the medians, STU Bratislava seems to have 50 % of proposals awarded by 90 points and more. Comparing to Figure 1 b), TUAD Trenčín has the top position. At the same time, this university submitted only 7 applications. Looking at the correlation between average score of proposal per institution in Table 1 and total number of outputs from grants per institution, r = 0,24 in case of all publications, and r = 0,28 in case of only articles. When dealing with patents, r = 0,13. These coefficients indicate modest increase of publication outputs from grants as score given to proposals increases.

Looking at funded proposals from the point of view of committees, we see in Table 2 that the highest number of grants was carried out in Agriculture and Veterinary, where 81 % of projects was approved. Correlation coefficient between the number of proposals and the rate of rejected proposals is r = 0,15, thus modestly predicts that the more the project proposals within the field, the more likely they were rejected.

Committee	**Average score of Funded Proposals**	**Total No. Of Funded Proposals**	**Total No. of Researchers**	**Total No. of Articles**	**Total No. of Patents**	**Total No. of outputs from grants**
Math, IT, Physics	92,89	25 (56%)	273	305,6	0	663,5
Earth and Space	91,77	22 (67%)	182	271,4	0	494,1
Chemistry	92,34	26 (84%)	308	274,2	4	769,1
Biology	91,64	24 (77%)	234	160,3	2	390,3
Electrical, automation and control Systems	90,06	36 (78%)	630	473,4	2	1354
Civil and environmental engineering	92,37	23 (46%)	305	190,7	3	720,6
Engineering and ICT, material engineering	92,86	37 (49%)	578	342,3	16	963,4
Agriculture and veterinary	90,63	74 (81%)	1052	592,6	1	1609,3
Medical Science and Pharmacy	93,42	24 (56%)	142	84	0	172
History and Social Sciences	88,77	12 (24%)	85	33	0	161
Human Sciences	89,24	10 (24%)	70	40,5	0	253,8
Art and Linguistics	92,86	21 (72%)	112	45	0	322
Economics and Law	87,35	23 (35%)	223	103	0	384
Total/Average	91,31	357(56%)	4194	2916	28	8257,1

Table 2: Overview of project selection of SGA in 2009 for public universities by committees (field of science)

Strong positive relationship is again observed between the number of funded proposals and the number of researchers as well as between the number of researchers and research productivity within the field. Very low but positive correlation coefficient is also between average score of each field and research productivity within the field, r = 0,05.

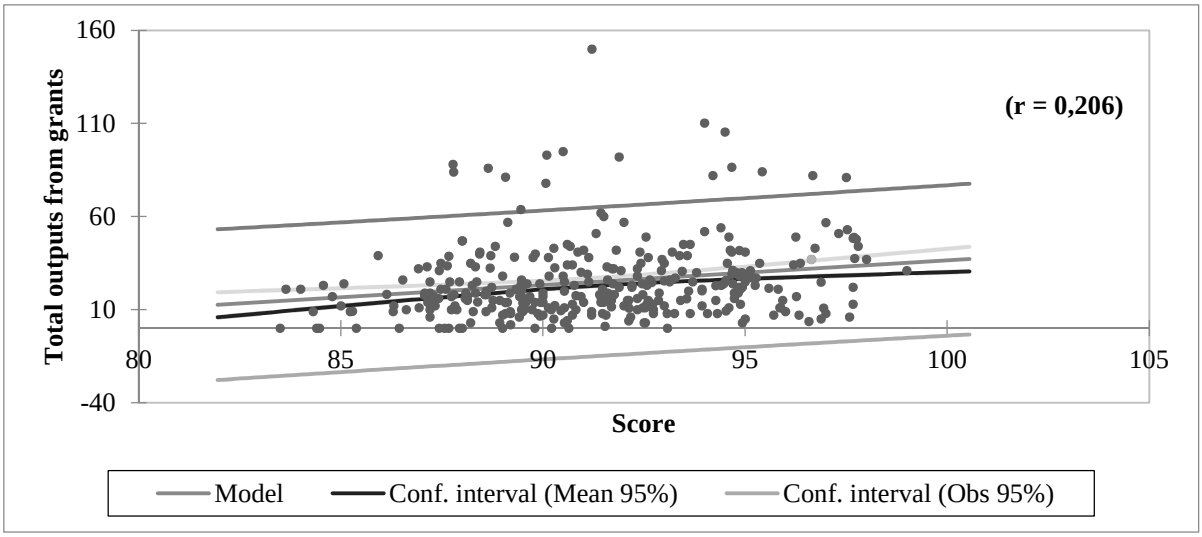


Figure 2: Research productivity as a function of peer review score for 357 projects

Correlation coefficient for all 357 projects and research productivity regardless of the institution or field is r = 0,206 as shown in Figure 2. Considering research productivity as a function of the score given to application, results show that there is a positive relationship between score and research productivity. However, the scatter may be influenced by many factors including different conditions for publishing in different research fields.

Committee	**Correlation coefficient Total No. of outputs from grants**	**Correlation coefficient Total No. of Articles**	**Correlation coefficient Total No. of Patents**
Math, IT, Physics	0,13	0,34	-
Earth and Space	0,14	0,14	-
Chemistry	0,59	0,46	-0,10
Biology	0,07	0,31	-0,33
Electrical, Automation and Control Systems	0,17	-0,01	0,29
Civil and environmental engineering	0,05	0,24	0,10
Engineering and ICT, Material engineering	0,24	0,28	0,23
Agriculture and Veterinary	0,19	0,22	0,09
Medical Science and Pharmacy	0,65	0,51	-
History and Social Sciences	0,73	0,70	-
Human Sciences	0,25	0,56	-
Art and Linguistics	0,44	0,41	-
Economics and Law	0,48	0,53	-

Table 3: Correlation coefficients of research productivity and proposal scores individually for each committees of SGA

Because particular fields of science may differ in a sense of publication conditions, we are looking at relationship of variables separately for each field. Looking at correlation coefficients in Table 3, we can observe that almost all coefficients obtained positive value. Thus, it indicates that there is usually at least a modest increase in the productivity metric as the score increases. Some exceptions may be seen in projects belonging to the field of electrical, automation and

control systems, when the linear relationship between score and articles is negative, but still very close to zero.

Quite higher negative values can be also observed in patent activity and particularly in the field of biology and chemistry. Positive linear relationship between variables with value higher than r = 0,5 is seen in particular committees such as chemistry, medical science and pharmacy, history and social sciences when we measure total number of outputs coming from the projects so total research productivity. Focusing only on articles, positive correlation coefficient is observed in medical science and pharmacy, history and social sciences, human sciences and economics and law.

Answering the question whether there was a gender bias in peer review mechanism, we are looking at the score of all proposals and distribution of funded proposals among men and women as the project leaders. In 2009, women as project leaders submitted only 177 proposals which is 28 % of all applications proceeded to the second round of evaluation. Out of 177 proposals, 53 % was rejected. Looking at the rate of rejection in case of men as project leaders, they were more successful and 60 % of all proposals was approved. Looking at particular fields, women and men carried out the most projects in a field of agriculture and veterinary but then we see some differences. Women focused mostly on economics and law while men carried out most projects in more technical fields.

	Female			**Male**		
Committee	**Average score of all Proposals**	**No. Of Funded Proposals**	**% of Denied Proposals**	**Average score of all Proposals**	**No. Of Funded Proposals**	**% of Denied Proposals**
Math, IT, Physics	84,08	2	60%	86,50	23	43%
Earth and Space	84,38	2	50%	88,18	20	31%
Chemistry	93,02	4	0%	90,58	22	19%
Biology	87,02	4	56%	90,97	20	9%
Electrical, Automation and Control Systems	92,02	4	0%	87,61	32	24%
Civil and environmental engineering	83,36	4	71%	86,49	19	47%
Engineering and ICT, Material engineering	82,98	4	60%	86,41	33	50%
Agriculture and Veterinary	89,68	24	14%	89,11	50	21%
Medical Science and Pharmacy	89,01	8	50%	90,50	16	41%
History and Social Sciences	78,01	3	79%	77,14	9	75%
Human Sciences	77,16	3	86%	78,72	7	67%
Art and Linguistics	88,07	7	50%	91,58	14	7%
Economics and Law	77,04	14	59%	76,86	9	71%
Total/average	83,49	83	53%	86,16	274	40%

Table 4: Overview of funded proposals of SGA in 2009 distinguishing gender

Considering average score of only funded projects, men obtained on average 91,44 points and women 90,66. In case of average score of all proposals, women were given on average lower score by almost 3 points as shown in Table 4. Women obtained better scores than men in a field of chemistry, electrical, automation and control systems, slightly in agriculture and veterinary, history and social sciences and economics and law. Comparing correlation coefficients of number of applications and the rate of rejection, r = -0,45 in case of women and r = -0,02 in case of men. This indicates that the more proposals in field, the more likely they were rejected, especially when a project leader was woman.

5. DISCUSSION

To answer first research question: *Does better score of research proposal yield in greater research productivity?* we found that overall peer review ranking can weakly predict greater research productivity. Moreover, peer review score explained only very little of variability of total research productivity in grants. These observations suggest that despite the overall ability of reviewers to distinguish between stronger and weaker grant applications, they are quite limited to predict research productivity of grants in the future. However, looking separately on each field of science, we found that some committees were able to select proposals which produced greater research productivity. This was mostly the case of history and social sciences, medical science and pharmacy and chemistry. The strongest relationship between variables was observed in history and social sciences. There were only 12 projects carried out and together with the field of human sciences, the selection process was the strictness and approved only 24 % of all submitted applications for funding. Still, these proposals were given one of the lowest peer review scores among all disciplines. This may indicate that committee identified even among less strong applications those with some potential. On contrary, all proposals in the field of chemistry and medical science and pharmacy were awarded by quite high score, thus the applications were probably strong. In these cases, committees were to some extent able to select proposals with the greater future research productivity. Moreover, committees identified some potential also in case of focus only on number of articles. On the other hand, observations in patent activity within grants do not confirm ability of committees to predict future research productivity in this area. However, patent activity in Slovakia is still very under-developed. Our results thus to some extent confirm that some committees and peer review mechanism were able to identify applications with potential. This in in line with study of [7] which also found positive correlation of peer review and greater productivity. Still, there were more fields where committees failed to predict success of grants and these results are in line with studies of [4] [5]. However, almost all correlation coefficients were positive and in some cases also predicted weak relationship between variables. Concerning another research question *Did any universities obtain significantly higher score in peer review process?*, it seems that universities were awarded by quite high score in all cases. There were some universities which proposals were more likely approved but they are the biggest and most productive universities in Slovakia, thus their applications were probably very competitive. To answer our last research question

Alexandra Lešková *is a Phd. candidate at the Department of Public Administration and Regional Development, Faculty of National Economy at the University of Economics in Bratislava. She obtained her master´s degree at the same department. Alexandra is currently in her 2nd year of studies and in her thesis pays attention to university research funding and evaluating the support of universities. She is also interested in studies handling the role of universities in regional development.*

Did women as project leaders obtain significantly lower score comparing to men?, we found that this could be confirmed. Although women did submit much less applications, they were more likely rejected than grants submitted by man as a project leader. They were also given lower peer review score; thus we can potentially talk about gender bias which was found also by [18]. We even confirmed moderate negative correlation which means that the more projects women submitted, the higher the rate of their rejection was across the fields. However, their applications could be also less competitive comparing to others. This is a challenge for next research.

6. CONCLUSION

We analyzed the bibliometric outcomes of 357 grants of different fields that were approved for funding in year 2009 from Scientific Grant Agency according to peer review ranking. We found that peer review mechanism was to some extent in particular fields able to predict the success of the applications. In this sense, the higher the score of application, the greater the research productivity in grant. This was confirmed only in few committees though. In most fields, reviewers were not able to accurately predict future productivity of applications and peer review by its meaning failed to some extent. Looking at distribution of funds among public universities, we found that most grants was carried out by the biggest and most productive universities in Slovakia. Thus competitive funding of excellence fulfilled its goal. However, all universities were awarded by quite high score in committees. We also found that there was a potential gender bias in peer review and grant selection mechanism. However, we do not know the nature of all these projects, thus we cannot estimate their competitiveness among others. This is a challenge for next research which can be extended by interviews with reviewers. Next research should also include more years of grant selection from SGA into analysis.

ACKNOWLEDGEMENT

This work was supported by an internal project of EUBA No. I-18-101-00- Effective knowledge production and its use in public administration in OECD countries and the Slovak Research and Development Agency under the contract No. APVV-14-0512.

REFERENCES

[1] Abdoul, H. – Perrey, C. – Amiel, P. – Tubach, F. – Gottot, S. - Durand-Zaleski, I. – Alberti, C. – Gagnier, J. J. (2012). Peer review of grant applications: criteria used and qualitative study of reviewer practices. In: *PLoS ONE*, Vol. 7, Issue 9. doi: 10.1371/journal.pone.0046054.

[2] Abramo, G. - D'Angelo, C. A. - Di Costa, F. (2008). Assessment of sectoral aggregation distortion in research productivity measurements. In : *Research Evaluation*, Vol. 17, Issue 2, pp. 111–121.

[3] Alberts, B. - Kirschner, M. W. - Tilghman, S. - Varmus, H. (2014). Rescuing US biomedical research from its systematic flaws. In : *Proceedings of the National Academy of Science of the USA*, Vol. 111, Issue 16, pp. 5773–5777.

[4] Berg, J. (2013). On deck chairs and lifeboats. ASBMB Today:–. [online], [cited 23. 04. 2018]. Available at: <http://www.asbmb.org/asbmbtoday/asbmbtoday_article.aspx?id=32362>.

[5] Danthi, N. – Wu, C. O. – Shi, P. – Lauer, M. (2014). Percentile ranking and citation impact of a large cohort of national heart, lung, and blood institute-funded cardiovascular R01

grants. In: *Circulation Research*, Vol. 114, pp. 600–606. doi: 10.1161/CIRCRESAHA.114.302656.
[6] EUA. (2015). Designing Strategies for Efficient Funding of Universities in Europe. EUA : Brusel, ISBN: 9789078997603.
[7] Li, D. – Agha, L. (2015). Big names or big ideas: Do peer-review panels select the best science proposals? In: *Science*, Vol. 348, Issue 6233, pp. 434 – 439. doi: 10.1126/science.aaa0185.
[8] Mayo, N. E. – Brophy, J. – Goldberg, M. S. – Klein, M. B. – Miller, S. – Platt, R. W. – Ritchie, J. (2006). Peering at peer review revealed high degree of chance associated with funding of grant applications. In: *Journal of Clinical Epidemiology*, Vol. 59, pp. 842–848. doi: 10.1016/j.jclinepi. 2005.12.007.
[9] Méndez, E. (2012). *What´s in Good?* [online], [cited 17. 04. 2018], Available at: <https://www.idrc.ca/sites/default/files/sp/Documents%20EN/Lit-review-Final-English.pdf>.
[10] Méndez, E. (2012). *Evaluating Research Excellence1: Main Debates.* [online], [cited 17. 04. 2018], Available at: <https://www.idrc.ca/sites/default/files/sp/Documents%20EN/Brief-Final-English.pdf>
[11] Ministry of Education. (2007). Statute of SGA. [online], [cited 23. 04. 2018], Available at: <https://www.minedu.sk/data/att/11171.pdf>.
[12] Ministry of Education. (2015). A methodology of state budget reallocation to public higher institutions for the year 2015. [online], [cited 23. 04. 2018]. Available at: <https://www.minedu.sk/rozpis-dotacii-zo-statneho-rozpoctu-verejnym-vysokym-skolam-na-rok-2015/>.
[13] Porter, A. L. – Rossini, F. A. (1985). Peer Review of Interdisciplinary Research Proposals. In: Science, Technology, Human Values, Vol. 10, Issue 3, pp. 33 – 38.
[14] Presidency of Scientific Grant Agency. (2007). Rules of the Scientific Grant Agency. [online], [cited 23. 04. 2018], Available at: <https://www.minedu.sk/data/att/11378.pdf>.
[15] Roy, R. (1985). Funding Science: The Real Defects of Peer Review and an Alternative to It. In: Science, Technology, Human Values, Vol. 10, Issue 3, pp. 73 – 81.
[16] Sandstrom, U. – Hällsten, M. (2008). Persistent nepotism in peer review. In: Scientometrics, Vol. 74, pp. 175–189.
[17] Scientific Grant Agency. (2010). Annual Report for year 2009. [online], [cited 23. 04. 2018]. Available at: <https://www.minedu.sk/data/att/1685.pdf>.
[18] Wenneras, Ch. – Wold, A. (1997). Nepotism and sexism in science. In : Nature, Vol. 387, pp. 341–343. doi:10.1038/387341a0.
[19] Wilsdon, J. et al. (2015). The Metric Tide: Report of the Independent Review of the Role of Metrics in Research Assessment and Management. doi 10.13140/RG.2.1.4929.1363.
[20] Yates, L. (2005). Is Impact a measure of Quality? Some Reflections on the Research Quality and Impact Assessment Agendas. In : *European Educational Research Journal*, Vol. 4 , Issue 4, pp. 391-403.

THE LEVEL AND POSITION OF STRATEGIC BUSINESS MANAGEMENT IN THE CZECH REPUBLIC, RUSSIA AND CHINA AND THEIR MUTUAL COMPARISON

Jarmila Straková[194]

DOI: https://doi.org/10.31410/eraz.2018.383

Abstract: *At general level across the global scientific community there is an opinion consensus about the importance of strategic management and decision-making for the development of an entrepreneurial subject. A research survey on this issue was conducted on this issue in the conditions of the Czech Republic, to a lesser extent in the conditions of Russia and China. The subject of the research was focused on the existence of the company's vision and mission, strategic goals and corporate strategies. From the statistical methods, Pearson's chi-square test was used to determine the dependence / independence of selected categorical variables. These results need to be considered diagnostic (for Russian and Chinese enterprises), but some of the particularities of the national economies are already reflected in them. In spite of the already mentioned indicative character of the results, the assumption of significant differentiation in terms of objectives, tools and forms of strategic management of enterprises among the tested countries was not confirmed.*

Key words: *Strategic management, vision, mission, strategy, Czech Republic, Russia, China.*

1. INTRODUCTION

Strategic management as a separate scientific discipline which focuses particularly on systematic corporate governance has been continually developing [12]. So far, there has been no uniform theory that could be used for corporate practice. Mintzberg [10] identified ten fundamental schools of strategic management from the viewpoint of approach to strategy (Design School, Planning School, Positioning School, Entrepreneurial School, Learning School, Power School, Cognitive School, Cultural School, Environmental School and Configuration School). Other authors continued his efforts trying to "simplify" and to reduce the number of the defined approaches [7], [9], [13]. On a general level, three fundamental theories of strategic management can be defined: a classical strategy theory (applying principles of a military strategy according to Machiavelli, Clausewitz), a competitive strategy theory – the so-called positioning approach (M. Porter) and a theory based on internal corporate resources (J. B. Barney).

New theories, approaches, management methods and tools have been continually explored and developed (Balanced Scorecard, EFQM excellence model, Six Sigma, Management by Objectives etc.). The obsolete, predictable and hierarchic business approach is slowly disappearing. Under the new conditions strategic management shall be understood as a continuing and never-ending process, as a sequence of consecutive logically connected steps, starting with definition of a vision and mission for an enterprise, its strategic objectives, formulation and implementation of an appropriate corporate strategy and including monitoring

[194] Department of Management, Faculty of Corporate Strategy, Institute of Technology and Business in České Budějovice, Okružní 10, 370 11 České Budějovice, Czech Republic

and checking stages. Also Delmar et al. [4] have defined strategic management as a continual process or as a process which evaluates and checks activities of an enterprise and of the industry in which the given enterprise operates, which evaluates competitors, sets objectives and strategies and evaluates how successful they are. According to Kurucz [8], strategic management means planning of both predictable and unpredictable events. It is applicable both for small and big enterprises because even the smallest entities struggle with competitors and by formulating and implementing an appropriate strategy they can achieve a sustainable competitive advantage. The method is used by strategists or top managers to set their objectives and to achieve them. Strategic management deals with development and implementation of decisions about where the enterprise should go in the future. It helps to identify the direction to be followed by an organization. Similarly, Gogol and Hnedina [6] define strategic management as a way for companies to win a competitive advantage, to achieve high functional efficiency of their economic, social and environmental aspects and to create preconditions for their sustainable development. They believe that specification of strategic objectives and strategic plans focusing on achievement of the objectives, continual monitoring of performance, adoption of adjustments and evaluation of results are the key to efficient activities of enterprises. Shvindina [11] defines strategic management as identification and description of strategies that can be performed by managers of enterprises to achieve better performance and a competitive advantage.

Strategic management also means high demands on top managers, particularly when it comes to their ability to be good strategists and visionaries [1], [3]. They must monitor not only functioning of business entities themselves but also of their proximity in order to recognize changes and to respond to them.

Since the birth of strategic management enterprises have learned to analyze their competitive environment, define their positions, develop a competitive advantage and understand opportunities [2]. Methods of strategic management applied in the current turbulent times need to take into account lessons learned in the past, but not to condemn them, and to identify and to understand new opportunities arising under the new conditions [5].

2. MATERIAL AND METHODS

Our research surveyed primarily enterprises in the Czech Republic and, on a smaller scale, and a group of Chinese and Russian enterprises. The tested group consisted of 456 Czech, 54 Chinese and 50 Russian businesses. Data were collected in an extensive questionnaire investigation aimed at issues of strategic management and corporate environment. With regard to the limited scope of this paper and the level of solution, we will provide only some of its outputs. Czech enterprises were classified by sectors, specifically the manufacturing and industry sector (187) and services sector (255), and by size as small (249), medium (124) and big enterprises (83).

The Pearson´s chi-squared test was used as a statistical method to determine dependence /independence of selected categorical variables. The basic testing included determination whether the strategy depends on the sector and size category of the enterprise and whether profitability of the enterprise, its defined vision, mission and strategic objectives depend on the corporate strategy. The tests were conducted at the standard level of significance 0.05, i.e. with the reliability of 95 %.

3. RESULTS AND DISCUSSION

Before presenting the results it is necessary to describe different business environments of the tested countries in order to ensure an objective view of the outputs. Czech enterprises conduct their activities in a highly open market economy with limited mineral resources, with a high and long-term growth rate of the national economy and with exhausted supply of human resources (which represent a limitation and risk for further development of enterprises in the Czech Republic). The main factors supporting growth include modernization of production, innovation process and transformation of scientific knowledge into the business environment. The Chinese business sector is characterized by fast and dynamic development, growing competitiveness with a high growth rate of national economy and gradual opening of the business sector to the globalizing world´s economy. The main factors supporting growth of the corporate sector include innovation process, improvement of labor quality, expansion to foreign markets, including investment acquisitions. The Russian corporate sector has plentiful mineral resources, sufficient technical equipment and human resources. It has also sufficient energy supplies that can be seen as a strategic tool for development of the corporate environment. The Russian national economy does not demonstrate the same degree of openness as the Czech economy and connections with international business markets have certain limitations and barriers. The innovation process has been gradually accelerating, particularly thanks to application of new up-to-date methods of production and organization of work.

The first research question was the very existence of corporate strategies in the tested countries. As indicated in diagram 1, the highest percentage of incidence of corporate strategy has been found in Chinese enterprises (over 70 %), followed by Russian enterprises (60 %) and, quite surprisingly, the lowest number of enterprises with strategies has been found in the Czech Republic. The author is aware of the fact that the group of tested enterprises in the Czech Republic was about 8 times bigger than those of the Chinese and Russian enterprises and the fact to a certain extent has affected the obtained results. Despite the mentioned limitation, a general and long-term trend has been found among the Chinese enterprises, specifically the trend to apply strategic management, including transfer of knowledge from foreign enterprises operating in China to local ones. The results also suggest that managers of Czech enterprises do not yet sufficiently appreciate importance of strategic management, particularly in the categories of small and medium enterprises; the potential reason might be the current growth of the national economy and also lack of managerial literacy. It is an objective fact that scientific and research entities fail to provide the managers with practical and realizable metrics, instructions and procedures for strategic management. In this respect the situation in strategic management in the Russian corporate sector has been improving. Especially opinions of managers have been fundamentally changing and they have come to appreciate strategic tools as measures supporting growth. It can be attributed also to outputs of research activities of Russian research workplaces.

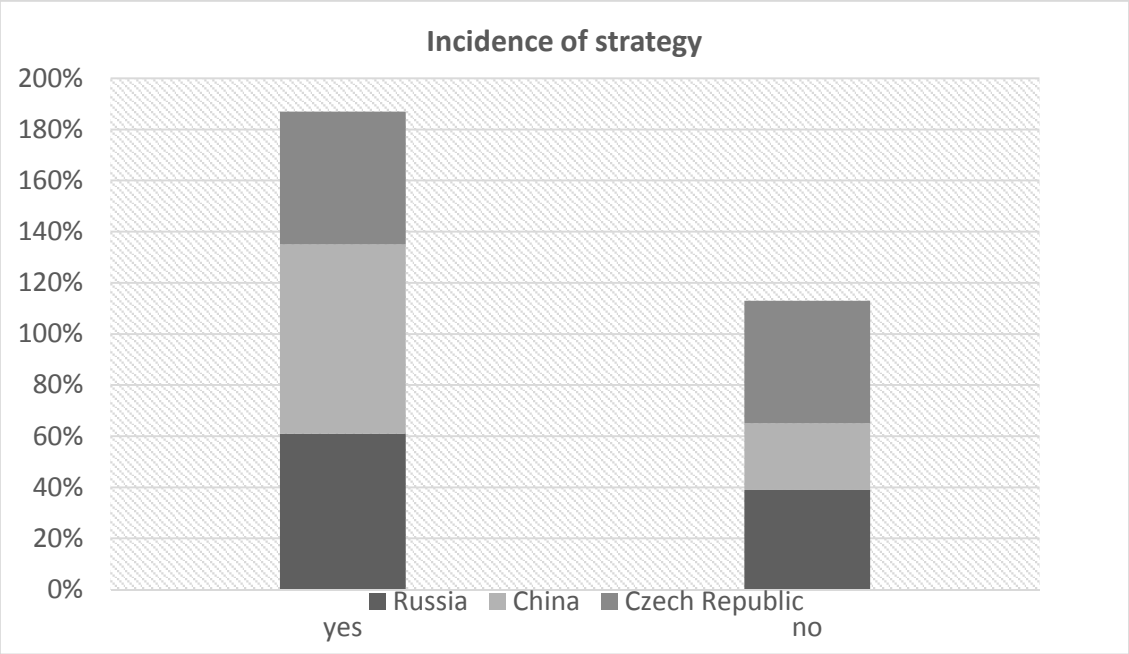


Figure 1: Incidence of corporate strategy

Jarmila Straková *serves as Assistant Professor and Deputy Head at the Department of Management at the Institute of Technology and Business in České Budějovice. The research work of the author focuses on the issues of strategic management of enterprises, especially on the analysis of the business environment and the value of the enterprise potential.*

Further investigations have been conducted in connection with the results provided in diagram 1 to find out who was involved in development and formulation of the corporate strategies (diagram 2). A significant similarity was found between the Czech and Chinese enterprises where corporate strategies were most frequently developed by owners of the enterprises (ca 40 %), top managements were involved in about the same percentage of cases and the senior managements accounted for the remaining ca 20 %. The Russian enterprises have shown significantly different results - in 80 % of the enterprises the strategies were formulated by their owners and in ca 20 % by the entire top managements while the share of senior managements was negligible. This disparity between the Czech and Chinese enterprises on one side and the Russian enterprises on the other side can be attributed particularly to the size categorization of the enterprises, to the previously mentioned difference in openness and growth rate of national economies and also to the degree of international integration of the enterprises.

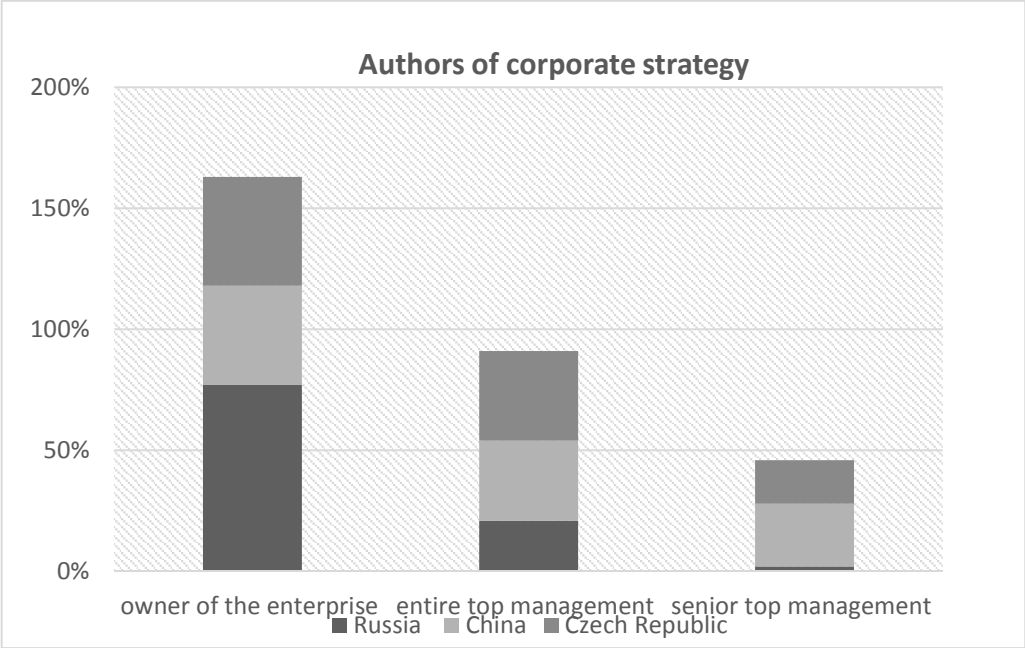


Figure 2: Authors of corporate strategy

A precondition for development of a corporate strategy should be projection of its vision and mission (diagram 3). In agreement with the results in diagram 1, these fundamental attributes of the corporate strategy were most frequently processed in strategies of the Chinese enterprises, followed by the Czech enterprises (which is in conflict with results in diagram 1) and the lowest level of the projection of vision, mission and strategic objectives was found for the Russian enterprises. It is possible to make similar conclusions as for the diagrams 1 and 2. It can be also affected by a partly different definition of strategic management while the concepts of vision and mission are not always seen as preconditions of strategic management. In some cases the concepts of vision and mission are seen as strategic objectives of the enterprise.

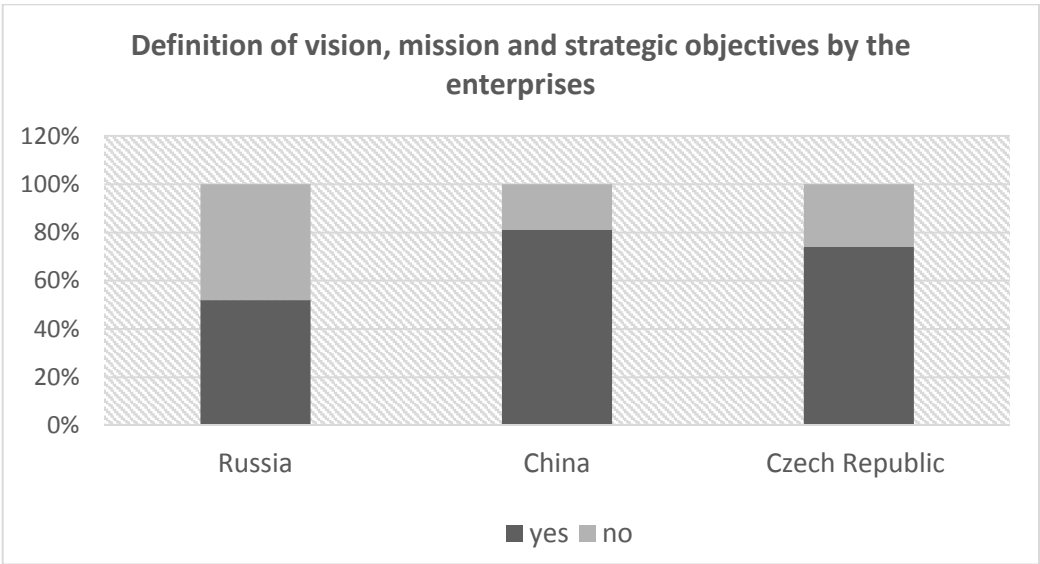


Figure 3: Definition of vision, mission and strategic objectives

The next research question was about the focus or orientation of the corporate strategy (diagram 4). In both the Chinese and Czech enterprises the corporate strategies focused more on a sector strategy in over 60 % of all cases, the remaining strategies focused on internal growth of the

enterprises and on internal corporate environment and its factors. The Russian enterprises focused more on internal growth strategies than on the sector strategies, however, the difference was not significant. We can conclude that the differences are caused by different trends in strategic management, different degrees of connection with the state economic administration, different degree of openness of the economies and, last but not least, different degree of involvement in the international economic system and division of labor.

Figure 4: Focus of the strategy

Diagram 5 shows significant factors with a decisive impact on prosperity and stability of the tested enterprises. For most of the analyzed factors we can see a nearly identical representation (purchasers/customers, quality human resources, technology, capital, manufacturing and suppliers). A certain degree of differentiation was found for investments, innovation, remunerations and social area while those facts are associated with specific features of the national economies. Naturally, this statement also reflects the growth stage of the economy and with the changing stage of the economic cycle importance of the individual analyzed factors may change as well.

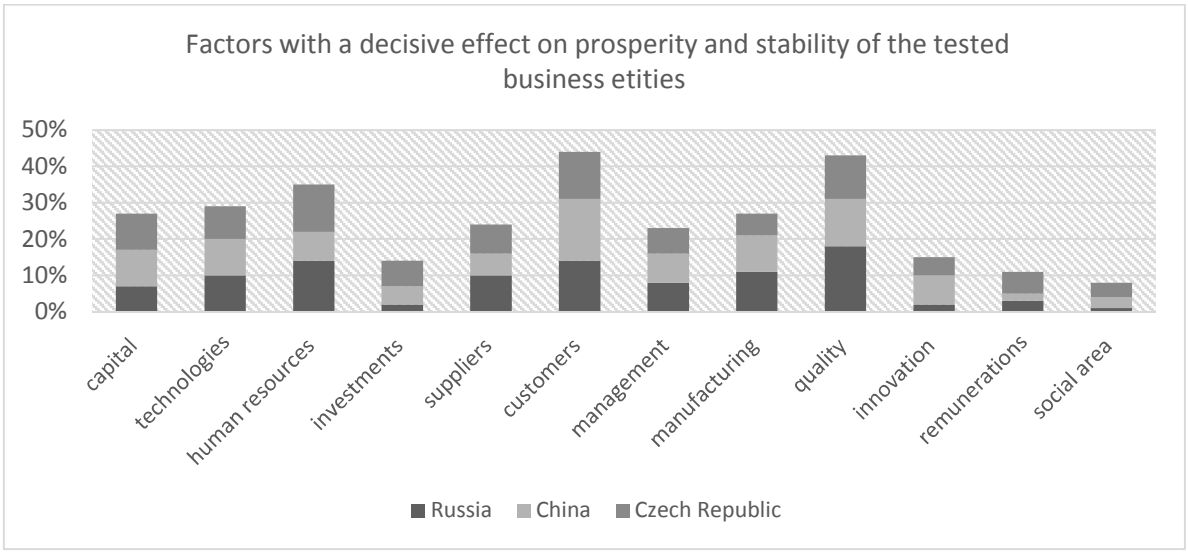


Figure 5: Factors with a decisive impact on prosperity and stability of the tested business entities

Further, statistical methods have been used to test dependence / independence between selected categorical variables and profitability of enterprises (see table 1).

Country	Tested relation	P-value	Dependence / Independence
Russia	Dependence between the strategy and profitability of enterprises	0.00834	dependent
China		0.8022	independent
Czech Rep.		0.01253	dependent
Russia	Dependence between the vision, mission and objectives and profitability of enterprises	0.1077	independent
China		0.6121	independent
Czech Rep.		0.1211	independent
Russia	Dependence between the strategy and size of enterprises	4.30E-11	dependent
China		0.1324	independent
Czech Rep.		1.34E-14	dependent
Russia	Dependence between the strategy and focus of enterprises	1.824E-09	dependent
China		0.9255	independent
Czech o		0,109	independent

Table 1: Dependence between strategic management tools and profitability of enterprises

The following conclusions can be made from table 1:

- For the Czech and Russian enterprises the dependence between corporate strategy and profitability has been proved. It can be attributed to the degree of openness of the economy, opinions of the managements and links to the state economic administrations.
- The dependence between vision, mission and strategic objectives and profitability of the enterprises has not been found for any of the tested groups. We suppose that the result has been affected by diversity in definition of those categories and by the level of managerial literacy, which can be, particularly for the extensive tested group of enterprises, seen as a negative finding. In case of the Czech and Russian enterprises the situation can be attributed to a high share of small and medium enterprises because these two size categories usually do not generate vision and mission in their strategic management.
- The effect of size of the enterprises on whether they develop a corporate strategy has been statistically proved for Czech and Chinese companies. It has been affected by the representation of size categories in the tested groups of Czech and Chinese enterprises (while in the latter group the effect was much less significant). Corporate strategy is viewed as a tool supporting growth predominantly by big enterprises.
- Dependence between development of the strategy and the sector has been proved only for the Russian enterprises. The result is in conflict with theoretical fundamentals of strategic management. The generally recognized principle is that corporate competitiveness is generated on a sector basis. In the Czech enterprises, particularly big ones, the principle is respected and the result has been negatively influenced by the high share of small and medium enterprises in the tested group. An explanation for the Chinese enterprises can be

different management ties, strongly dominated by regional and international connections, rather than by connections to the respective Chinese sector.

4. CONCLUSIONS

In the introduction of this paper were have emphasized that the tested group of enterprises was representative only in case of the Czech Republic. For the Russian and Chinese enterprises we made only a research attempt with results suggesting only a certain status and development in strategic management and decision-making. Despite this limitation, identical trends have been found in strategic management and decision-making in the corporate sphere of the tested countries and also expected discrepancies caused, in the author´s opinion, by a different degree of and intensity of the market environment in the corporate sector.

The following main conclusions can be drawn from the performed research:

- The Chinese enterprises demonstrated the highest percentage of development of corporate strategy, they were followed by the Russian enterprises and, surprisingly, the lowest percentage of enterprises with developed strategies has been found in the Czech Republic.
- From the viewpoint of authors of corporate strategies, a significant agreement has been found for the Czech and Chinese enterprises where the corporate strategies were developed by the owners and the top managements involved in nearly equal shares. Different results have been found for the Russian enterprises where corporate strategies were mostly developed by the owners, followed by top managements.
- For the projection of a vision, mission and strategic objectives of an enterprise it has been found that these fundamental attributes of the corporate strategy were in most cases developed by the Chinese enterprises, followed by the Czech enterprises and the lowest incidence of the projection was found in the Russian enterprises.
- From the viewpoint of strategy focus, in the Czech and Chinese enterprises the corporate strategies focused primarily on the sector and the remaining part on internal growth of the enterprises. The Russian enterprises focused more on internal growth in comparison with the sector focus but the difference was not significant.
- The analysis of factors with decisive impacts on prosperity and stability of the tested business entities in the three countries has shown a common trend and development, regardless of the degree of openness of the national economies. A nearly identical representation has been proved for the factors like buyers /customers, quality, human resources, technology, capital, manufacturing and suppliers.
- Results of the statistical analysis of dependence/independence between selected categorical variables and profitability of the tested enterprises have been affected by the degree of openness of the economies, opinions of the managements and links to the state economic administrations. A negative finding is that the importance of strategic management has not been sufficiently appreciated, particularly by Czech managers of small and medium enterprises.

The results provided above undoubtedly reflect a degree of openness and growth rate of the national economies, a degree of international integration of the enterprises, character of management of the enterprises and ties to the national economic authorities. The quality of input information is naturally affected also by managerial literacy of managers of the tested enterprises and differences in the theories of strategic management in the individual countries.

In the era of ongoing internationalization and globalization of the world´s economy one can expect a continually increasing importance of strategic management and decision-making as an

important tool for elimination of negative impacts of those processes. The author is aware of those facts and she will conduct a similar research with a higher emphasis on quality of the tested groups, particularly of foreign companies. Despite the occasionally conflicting results, it is possible to draw a general conclusion that in all the three countries strategic management is seen as a growth supporting factor and its importance in management of business entities has been increasing.

REFERENCES

[1] Andreeva, T. and Kianto, A. (2016). Empirically Testing the Role of Strategic Management of Knowledge in Firm Performance. In: Moffett, S. *Proceedings of the 17th European Conference on Knowledge Management*. Academic Conferences, Coleraine, UK, pp. 1-8. ISBN 978-1-911218-02-9. ISSN 2048-8963.

[2] Bucki, R. and Suchanek, P. (2012). The method of logistic optimization in e-commerce, *Journal of universal computer science*, Vol. 18, Issue 10, pp. 1238-1258. ISSN 0948-695X.

[3] Clegg, S. et al. (2011). *Strategy. Theory and Practice*. SAGE Publicationst Ltd, London. ISBN 978-1-84920-452-0.

[4] Delmar, F., Davidsson, P. and Gartner, W. B. (2003). Arriving at the high-growth firm, *Journal of Business Venturing* [online], Vol. 18, Issue 2, pp. 189-216. ISSN 08839026 [Retrieved 24. 1. 2018]. Available: http://linkinghub.elsevier.com/retrieve/pii/S0883902602000800

[5] Faltejsková, O. and Dvořáková, L. (2013). Controlling and Strategic Management in the Early 21st Century, In: ICMLG2013 *Proceedings of the International Conference on Management, Leadership and Governance*, ICMLG, pp. 117-125. ISBN 978-1-909507-01-2.

[6] Gogol, T. A. and Hnedina, K. V. (2016). Strategic Management Of Enterprise Activity In The Context Of Sustainable Development Concept, *Scientific bulletin of Polissia*, Vol. 3, Issue 7, pp. 181-189. ISSN 2412-2394.

[7] Kourdi, J. (2009). *Business Strategy: A Guide to Taking Your Business Forward*, Profile Books, London. ISBN 978-1-84668-124-0.

[8] Kurucz, A. (2016). Interdisciplinary field of strategic and change management in the rowing Hungarian Smes SECTOR, *Strategica*, pp. 417-428. ISSN 2392-702X.

[9] Mallya, T. (2007). *Základy strategického řízení a rozhodování*, Grada Publishing, Praha. ISBN 978-80-247-1911-5.

[10] Mintzberg, H. (2007). *Tracking strategies*, Oxford University Press, New York. ISBN 978-0-19-922850-8.

[11] Shvindina, H. O. (2017). Innovations of strategic management development: from competition to coopetition, *Marketing and Management of Innovations* [online], (1), pp. 180-192. ISSN 22184511 [Retrieved 12. 2. 2018]. Available: http://mmi.fem.sumdu.edu.ua/en/journals/2017/1/180-192

[12] Tan, L. and Ding, J. (2015). The frontier and evolution of the strategic management theory: A scientometric analysis of Strategic Management Journal, 2001-2012, *Nankai Business Review International* [online], Vol. 6, Issue 1, pp. 20-41. [Retrieved 12. 2. 2018]. Available: https://doi.org/10.1108/NBRI-09-2014-0036

[13] Whittington, R. (2001). *What is strategy - and does it matter?* Thomson Learning, London. ISBN 1-86152-377-7.

PREDICTION OF THE DEVELOPMENT OF THE CORPORATE ENVIRONMENT IN THE CZECH REPUBLIC FROM THE PERSPECTIVE OF TOP MANAGERS

Jan Váchal[195]

DOI: https://doi.org/10.31410/eraz.2018.392

Abstract: *The paper presents results of the prediction of top managers in the context of the internal environment, the mezzo-environment and the general macro-environment. The test set included about 460 Czech companies in the field of industrial production and service sector. From the results for all subcomponents of the corporate environment, it is possible to declare a relatively high degree of significance, especially in the mezzo-environment, a smaller degree for internal corporate sources and macro-environment factors. It can be said that this finding corresponds to theoretical assumptions, since the mezzo-environment factors appear to be dominant and decisive for the prosperity of enterprises in today's hyper-competitive global environment.*

Key words: *Prediction, corporate environment, internal environment, mezzo-environment, macro environment.*

1. INTRODUCTION

The scientific community has reached a general consensus about the importance of corporate environment for development and stability of businesses and about the necessity to analyze it in the process of strategic management and decision-making. However, there have been substantial differences in the opinions of how corporate environment and its components should be analyzed and how outputs of the analysis should be used in corporate practice. One group of authors, which dominates in terms of their number, uses strategic analysis as a part of a situation analysis of the corporate environment. Mathematical and statistical methods were introduced into analyses of corporate environment at the beginning of the twentieth century, mostly abroad, particularly as a result of accelerating changes in the corporate environment. The present paper belongs to the latter group and the author has used dimensionality reduction for the analysis. According to our search, the method has never been used in the Czech Republic on such a large scale and for such a high number of enterprises.

2. LITERATURE REVIEW

Changes that have occurred in the corporate environment since the beginning of this century are ever more intense, fundamental and revolutionary. The changes are happening worldwide, as well as in the Czech Republic. In this connection scientific literature speaks about corporate environment that is highly fluctuating and instable, often described as discontinuous, turbulent or even chaotic [5], [14], [18], [24], [27]. For each business entity it is possible to define its three fundamental aspects, specifically the micro-environment, mezzo-environment and macro-environment. Authors have used different approaches to categorization of corporate

[195] Department of Management, Faculty of Corporate Strategy, Institute of Technology and Business in České Budějovice, Okružní 10, 370 11 České Budějovice, Czech Republic

environment. Csikosova and Čulková [3], equally as most of the other authors, both foreign [7] – [10], [19] and Czech [4], [11], [13], [16], [26] differentiate between the internal and external business environments. They further classify the external environment as the specific or sector environment and the general macro-environment. Šulák and Vacík [23] are among the few authors who mention the so-called mezzo-environment, i.e. the nearest corporate environment. The internal environment has a direct impact on business activities; it is made up of the internal corporate resources (physical, human, financial and intangible), i.e. resources that can be controlled by the business entity [17]. The mezzo-environment includes customers, suppliers, competitors, distributors etc., i.e. the nearest business environment [22]. The general macro-environment consists of external factors in the fields of economy, technology, law, society and culture, environment, ethics, international situation etc. The external environment has an indirect impact on business activities.

*Professor **Jan Váchal** is head of the Department of Management at the Institute of Technology and Business in České Budějovice. His research focuses on the issues of management and corporate strategy, environment of enterprises and production potential, in different sectors of national economy. Outputs from the research are implemented into economic analyses, economic-energy balances and financial sector support.*

In order to analyze individual components of the corporate environment, particularly the mezzo-environment, it is necessary to know various tools and techniques of strategic analysis. The knowledge is essential not only for analytical purposes but also for development of strategies to win and to maintain a competitive advantage [2]. Also the character of managerial work has been changing with the ongoing changes of the corporate environment. According to Keřkovský and Vykypěl [12], one of the preconditions of successful strategic decisions by managers is a strategic situation analysis or evaluation of factors of the corporate environment, i.e. requirements and changes in the behavior of customers, competitors, suppliers, as well as development of macro-economic factors, including characterization of internal corporate resources. A similar opinion about definition of the situation analysis, with only minor differences in description and content of micro-environment, mezzo-environment and micro-environment, is shared by other authors, e.g. Jakubíková [11]; Dedouchová [4]; Mallya [16]; Šulák and Vacík [23]; Frynas and Mellahia [7]; Kislingerová and Nový [13]; Veber [25]; Gomes [10]; Nigel and Campbell [19]; Ginter, Duncan and Swayne [9]. According to Jakubíková [11], strategic situation analysis is a comprehensive approach allowing to identify significant factors affecting activities of a company in mutual relations, the results of which serve as inputs for development of proposals and potential strategies for the future, reflecting whether the environment is stable or dynamic, simple or complex, and it is a precondition of quality of the entire strategic process.

A slightly different view of the issue is represented by an opinion line that respects scientific works of Porter [19], [20]. The different approach uses the assumption that the strategy of an enterprise is not dependent on the ability to predict changes; it is important to have a general idea about which groups of customers and which needs will dominate in the next three to five years. Similar views are shared by Abraham [1] and Duggan [6] who have specified differences between the analytical approach and development of a strategy respecting the actually occurring changes. This assumption has given an impulse to the authors to look for other methods to analyze the corporate environment and its individual components and one of the possible approaches is presented in the submitted paper.

3. MATERIAL AND METHODS

We have conducted an extensive questionnaire survey focused on strategic management issues and decision-making. Testing also included opinions of managers in the group of 456 enterprises from all over the Czech Republic. The enterprises were classified based on the size - we have approached 109 micro enterprises, 140 small enterprises (up to 50 employees), 124 medium enterprises (up to 250 employees) and 83 big enterprises (over 250 employees) – and based on the sectors – 187 manufacturing and industrial enterprises and 255 enterprises from the services sector. A prevailing representation of small and medium enterprises in the tested group reflects the structure of economic entities in the Czech Republic with its high share of small and medium enterprises; small and medium business account for 99,83 % of all active business entities in the country.

A general linear model was used to process the results. A total deviation was determined for each manager from the optimum model of internal corporate resources, mezzo-environment and macro-environment using a quadratic loss function. This has made it possible to arrange the managers based on their ability to influence results of the enterprise in terms of improvement of its profitability. 60 best top managers have been selected – 30 from the services sector and 30 from the sector of manufacturing enterprises. Those managers are seen as credible when it comes to prediction of future development of the corporate environment and the subgroup has been used to analyze the predictions, along with variables describing assessment of a future state of the corporate environment. Average values of the individual variables in the subgroup have been calculated and used for prediction of the optimum condition of the corporate environment in the future.

4. RESULTS AND DISCUSSION

Prediction of internal corporate resources from the viewpoint of sector differentiation (manufacturing and industry sector and services sector) of the tested enterprises

Internal resources	Average variables for the manufacturing and industry sector	Average variables for the services sector
Management level	2.566667	2.633333
Employees level	2.433333	2.533333
Organizational structure of the enterprise	2.466667	2.1
Strategy of the enterprise	2.5	2.4
Technical equipment	2.433333	2.4
Manufacturing technology, procedures	2.3	2.2
Portfolio of products /services	2.466667	2.433333
Financial resources of the enterprise	2.5	2.533333
Wage level	2.366667	2.233333
Marketing level	2.5	2.5
Brand and name of the enterprise	2.566667	2.433333

Level of research and development	1.833333	2
Social environment of the enterprise	2.266667	2.133333
Training of workers	2.333333	2.266667
Information and communication systems	1.966667	2.166667
Internal company regulations, standards	2.1	2.1
Corporate culture	2.333333	2.133333
Occupational safety	2.433333	2.133333

Table 1: Prediction of the optimum condition of internal corporate resources as seen by managers, classified from the viewpoint of sector differentiation of the tested enterprises

The prediction of the optimum condition of internal resources has been made by the selected group of managers of the tested enterprises. Table 1 implies that managers from the selected group mostly believe that internal resources have a medium degree of importance for prediction of the future and their rating is nearly identical in both the monitored sectors.

A comparison of all components of corporate environment has shown that the highest importance was assigned to mezzo-environment, while micro-environment and macro-environment were found less important. Perhaps we can conclude that in the period of economic growth this finding corresponds to theoretical assumptions, as the Porter´s model of five forces, or its parameters, is dominating in that period and is decisive for competitiveness and profitability of the enterprises.

Manufacturing and industry sector

In the sector of manufacturing and industry components of the internal environment important for the future are particularly the management level, brand and name of the enterprise, corporate strategy, marketing level and financial resources. In comparison with the present structure of the internal environment (see results of the dimensionality reduction and optimum model) it prefers some new components of the internal environment that have been pushed back in the current evaluation, e.g. employees level, organizational structure, portfolio, technical equipment, occupational safety.

Services sector

From the viewpoint of prediction of future condition the sector of services has demonstrated the following results. Components of the internal environment important for the future include the management level, financial resources, employees level and marketing level. Also in this sector, when we compare the current structure of the internal environment with its future development, we can see some new components of the internal environment (management level, brand and name of the enterprise, marketing level).

Prediction of mezzo-environment from the viewpoint of sector differentiation (manufacturing and industry sector and services sector) of the enterprises

Mezzo-environmental factors	Average variables for the manufacturing and industry sector	Average variables for the services sector
Competitors	2.633333	2.566667
Suppliers	2.733333	2.866667
Customers	2.7	2.966667
Distributors	2.633333	2.866667
Business partners	2.7	2.966667
Financial institutions	2.5	2.866667
Universities	2.5	2.666667
Research institutes, Academy of Science	2.5	2.633333
Local administration and self-government	2.3	2.6
Political parties	2.1	2.4
Government	2.2	2.4
Media	2.233333	2.666667
Ecological associations	2.133333	2.433333

Table 2: Prediction of the optimum condition of mezzo-environment as seen by managers from the viewpoint of sector differentiation of the tested enterprises

Manufacturing and industry sector

When it comes to prediction of mezzo-environmental factors, managers in the manufacturing and industry sector believe that the following factors are particularly important: competitors, customers, suppliers, distributors and business partners, i.e. especially the competitive forces of the Porter´s model that determine the structure of individual industries. In the future, a stronger effect on profitability is expected from financial resources, universities and research institutes and Academy of Science which suggests a growing need the managers feel to increase transfer of knowledge and skills from research organizations to the corporate sphere.

Services sector

The services sector has demonstrated a similar trend as the manufacturing and industry sector, only the intensity was been higher.

Prediction of macro-environment from the viewpoint of sector differentiation (manufacturing and industry sector and services sector) of the tested enterprises

Macro-environmental factors	Average variables for the manufacturing and industry sector	Average variables for the services sector
Demographic development	2.566667	2.666667
Distribution of income	2.666667	2.766667
Lifestyle	2.666667	2.6
Level of education	2.533333	2.7
Mobility of the population	2.666667	2.566667
Approach to free time	2.666667	2.533333

Governmental expenses on research and development	2.633333	2.666667
New patents	2.733333	2.666667
Transfer of technology	2.733333	2.766667
Rate of obsolescence of means of production	2.433333	2.666667
GDP development	2.633333	2.633333
Interest rates	2.733333	2.666667
Inflation	2.633333	2.466667
Lifecycle of the enterprise	2.666667	2.9
Unemployment	2.466667	2.5
Government stability	2.566667	2.6
Foreign trade regulation	2.5	2.633333
Tax policy	2.5	2.433333
Legislation	2.466667	2.4

Table 3: Prediction of the optimum condition of macro-environment as seen by managers from the viewpoint of sector differentiation of the tested enterprises

Manufacturing and industry sector

The prediction of important future macro-environmental factors in the manufacturing and industry sector includes increasing effects of technological factors in particular (transfer of technology, new patents) but also macroeconomic indicators (interest rates, inflation, GDP development).

Services sector

On the contrary, in the services sector the selected managers expect a very significant effect of particularly social demographic factors (distribution of income, level of education, demographic development, lifestyle), as well as transfer of technology and, primarily, lifecycle of the enterprise. A detailed analysis of macro-environmental factors has shown that managers are worried about a change of the economic cycle and arrival of economic recession which has been reflected by the emphasis on macroeconomic indicators and factors operating against crisis and supporting growth, i.e. transfer of technology, patents, lifecycle of the enterprise, rate of obsolescence of means of production etc. With some minor exceptions, these factors were not preferred in the period of the current economic growth, rather to the contrary.

5. CONCLUSIONS

The importance of corporate environment for development and stability of enterprises has been generally recognized both by the scientific community and by managers of enterprises. Different levels of importance have been found for individual components of the corporate environment, particularly when it comes to prediction of future development. Results of the present research represent the first approximation of answers to questions formulated hereunder.

The following conclusions may be drawn from the obtained results:

- All components of the corporate environment have been ranked as medium important, while the most important factors were those of mezzo-environment which also corresponds to theoretical assumption and real needs of the enterprises.
- A certain negative finding is the underestimation of internal corporate resources, i.e. the pillar of the corporate potential which, at the time of economic recession, will be the decisive eliminator of negative effects of external factors, particularly macroeconomic indicators.
- Also behind the expected result was the importance of macro-environment, i.e. the external environment of enterprises that is ever more intensely influenced by ongoing internationalization, with concurrent geographic differentiation and formation of new centers of the world trade. One can expect that with a change of the economic cycle the importance of external environment will increase and it will be more recognized by managers.
- Components of the internal environment identified as the most important for future development included management level, brand and name of the enterprise, corporate strategy, marketing level and financial resources. In the services sector the most important components included management level, financial resources, employees level and marketing level. Results found in both the sectors were different from those found for the current situation.
- Components of the mezzo-environment have been found the most important of all; in the manufacturing and industry sector the growing importance of competitors, customers, suppliers, distributors and business partners has been predicted. These are therefore the most important competitive forces of the corporate environment. A similar trend has been found in the services sector.
- A positive finding for the mezzo-environment is the expected recognition of importance of financial resources, universities and research institutes and Academy of Science, suggesting the growing need felt by the managers to increase transfer of knowledge and skills from research organizations to the corporate sphere and, at the same time, the awareness of a potential change of the economic cycle.
- In the future the most significant changes will occur in the external corporate environment (macro-environment), however, this phenomenon has not been fully analyzed in the performed research. In the manufacturing and industry sector we can expect higher effects of technology factors in particular (transfer of technology, new patents) but also of macroeconomic indicators (interest rates, inflation, GDP development). In the services sector managers expect growing effects of social demographic factors (distribution of income, level of education, demographic development, lifestyle), technology factors and lifecycle of the enterprise.

For the sake of objectivity it should be noted that the entire research was conducted in a period of strong economic growth, so after the cycle changes one can also expect changes in opinions of the managers. The presented results have particularly a signaling and information value.

REFERENCES

[1] Abraham, S. C. (2012). *Strategic planning: and practical guide for competitive success*, 2nd ed, Emerald Group Pub, Bingley. ISBN 978-1-78052-520-4.

[2] Afonina, A. and Chalupský, V. (2012). The current strategic management tools and techniques: the evidence from Czech Republic, *Economics and management* [online],

Vol. 17, Issue 4. ISSN 1822-6515 [Retrieved 10. 2. 2018]. Available: http://www.ecoman.ktu.lt/index.php/Ekv/article/view/3026

[3] Csikosova, A. and Čulková, K. (2012). Influence of Macro and Micro Economical Environment of Mining Business in the Slovakia, *Conference ICEEM 2012*, pp. 183-188. ISBN 978-988-19750-3-4.

[4] Dedouchová, M. (2001). *Strategy enterprise*, C. H. Beck, Praha. ISBN 80-7179-603-4.

[5] Drucker, P. F. (1994). *Věk discontinuity*, Management Press, Praha.

[6] Duggan, W. R. (2007). *Strategic intuition: the creative spark in human achievement*, Columbia Business School Pub, New York. ISBN 0231512325.

[7] Frynas, J. G. and Mellahi, K. (2011). *Global strategic management*, Oxford University Press Inc, New York. ISBN 978-0-19-954393-9.

[8] Glodowska, A., Pera B. and Wach, K. (2016). The International Environment and Its Influence on the Entrepreneurial Internationalization of Firms: The Case of Polish Businesses, *Problemy Zarządzania*, Vol. **14**, Issue 3, pp. 107-130. ISSN 1644-9584.

[9] Ginter, P. M., Duncan W. J. and Swayne, L. E. (2013). *Strategic management of health care organizations*, 7th ed, Jossey-Bass, San Francisco, CA. ISBN 978-11-184-6673-5.

[10] Gomes, E. (2011). *Mergers, acquisitions, and strategic alliances: understanding the process*. Palgrave Macmillan, New York. ISBN 978-02-302-8536-1.

[11] Jakubíková, D. (2008). *Strategický marketing*, Grada Publishing, Praha. ISBN 978-80-247-2690-8.

[12] Keřkovský, M. and Vykypěl, O. (2006). *Strategické řízení. Teorie pro praxi*, C. H. Beck, Praha. ISBN 80-7179-453-8.

[13] Kislingerová, E., Nový, I., et al. (2005). *Chování podniku v globalizujícím se prostředí*, C. H. Beck, Praha. ISBN 80-7179-847-9.

[14] Kotler, P. and Caslione, J. A. (2009). *Chaotika: Řízení a marketing firmy v éře turbulencí*, Computer Press, Brno. ISBN 978-80-251-2599-1.

[15] Malach, A. (2004). *Jak podnikat po vstupu do EU*, Grada Publishing, Praha. ISBN 80-247-0906-6.

[16] Mallya, T. (2007). *Základy strategického řízení a rozhodování*, Grada Publishing, Praha. ISBN 978-80-247-1911-5.

[17] Min, Z. (2009). Enterprise development and environment strategies: The analysis of the relationship between business and environment, *Proceedings of 2009 International Conference of Management Science and Information System*, pp. 397-401. ISBN 978-0-982-24410-4.

[18] Mintzberg, H. (2007). *Tracking strategies*, Oxford University Press Inc, New York. ISBN 978-0-19-922850-8.

[19] Nigel, E. and Campbell, D. (2002). *Strategic management for travel and tourism*, Routledge, Abingdon-on-Thames. ISBN 978-0750648547.

[20] Porter, M. E. (2012). Recent Developments in Competitiveness and Strategy, *Porter Prize Conference*, Hitotsubashi University. Graduate School of International Corporate Strategy, Tokyo, Japan, December 5, 2012.

[21] Porter, M. E. (2015). Shared Value and Strategy. *Paper presented at the Shared Value Leadership Summit*, FSG, New York, NY, May 12, 2015.

[22] Saragih, R., Rahayu, A. and Wibowo, L. A. (2017). External environment impact on business performance in digital creative industry: Dynamic capability as mediating variable, *International Journal of Advanced And Applied Sciences* [online], Vol. 4, Issue 9, pp. 61-69. ISSN 2313626x [Retrieved 12. 2. 2018]. Available at: http://www.science-gate.com/IJAAS/V4I9/Saragih.html

[23] Šulák, M. and Vacík, E. (2005). *Strategické řízení v podnicích a projektech*, VŠFS, Praha. ISBN 80-86754-35-9.

[24] Tichá, I. and Hron, J. (2009). *Strategické řízení*. ČZU, PEF, Praha. ISBN 978-80-213-0922-7.

[25] Veber, J. et al. (2004). *Management: základy, prosperita, globalizace*, Management Press, Praha. ISBN 80-7261-029-5.

[26] Veber, J. et al. (1998). *Management II*, VŠE, PHF, Praha. ISBN 80-7079-406-2.

[27] Zuzák, R. (2011). *Strategické řízení podniku*. Grada Publishing, Praha. ISBN 978-80-247-4008-9.

THE ROLE OF MANAGEMENT IN MANAGEMENT OF COMPANIES

Nevenka Nićin[196]
Anka Bulatović[197]
Vojislava Grbić[198]

DOI: https://doi.org/10.31410/eraz.2018.401

Abstract: *Management is a key function of the company. The effectiveness of the management depends on the success of the company or other organizational system. Therefore, it is rightly considered that the main cause of the underdevelopment of many countries is the lack of a system of modern management, and not resources. The goal is to use limited resources (human work, production elements, money) in order to achieve the set goals with a higher degree of efficiency and effectiveness. It is very important to note that today's large companies require the application of a professional management system.*

Professional managers of the company are hired experts, who have appropriate knowledge, skills and experience in the field of management. It is believed that management is by its very nature universal and hence it's wide application in various forms of social organizational systems. The key elements of management are universal and with appropriate adaptation, applicable in different environments, which the previous scientific researches and experiences in practice have shown. However, this does not mean that management is applied everywhere in the same way.

In today's conditions, the ability by which individuals and organizations produce and master new knowledge becomes a key comparative advantage. The ability of an organization or individuals to recognize the source of new creative ideas, to change their environment, represents learning to create. In a competitive global economy, the only source of sustained competitive advantage will be people in the organization, because other factors of production (technology, capital, information) can be copied. The effectiveness of organizations in such circumstances is primarily dependent on people, since, by their quality, knowledge and behavior, people are the main factor in the organization's success.

Leadership, or human resource management, is becoming the most important function of modern management as well as the basic factor of success of the global organization. It is generally accepted, and there is a belief that in the modern world economy there is a need for people with "managerial and leadership abilities". Such people are determined as specific assets in the enterprise.

Key words: *management, human resources, efficiency, effectiveness, comparative advantage, leadership*

[196] Univerzitet Union, Fakultet za poslovno industrijski menadzment i pravo, Beograd, Ekonomski fakultet, Evropski univerzitet Brčko, Brčko distrikt, BIH
[197] Evropski univerzitet Brčko distrikt, Brčko, BIH
[198] Visoka škola strukovnih studija za menadžment i poslovne komunikacije, Sremski Karlovci, Ekonomski fakultet, Evropski univerzitet Brčko, Brčko distrikt, BIH

INTRODUCTION

Management can be applied to all types of organizations, regardless of their size, type of activity or place of formation. The applicability of management is necessary, both in manufacturing and transport companies, as well as in service and non-governmental organizations. Management for all, and especially for the global organization, is the source of their strengths that coordinate all of its activities and subsystems and which is associated with the environment. Without an efficient management function, it is impossible to achieve stable growth and development of the organization.

Nevenka Nicin

The teaching activity started in 2003 at the University of Commerce, Faculty of Management, Novi Sad as an assistant. Since 2008 she has been employed full time at the Belgrade Business School - high school of vocational studies in Belgrade as a professor in Economics, Banking, Corporate finance at specialist studies. In 2011, she was elected as an associate professor for a major scientific field of Economics at Union University, Faculty of Business Industrial Management, Belgrade. Since 2011 she has been engaged at the European University in Brčko, where she was elected as a full professor, for a narrow scientific field "Accounting" and a narrower field of study "Finance" and at the European University Brčko District in Brčko. She was the Dean of the Faculty of Economics at EUBD.

THE TERM MANAGER

Manage people who have the skills, skills and knowledge to do business with the help and through other people. Manager is nowadays an increasingly popular term and is often used in the media, especially in specialized journals. The word manager in the literature has more meanings, and the four appear as the main one: the manager, the manager, the entrepreneur and the director. Sometimes it was easy to define a manager. Managers were members of organizations who told others what to do and how to work. It was easy to distinguish managers from employees who were not managers, i.e. of those members of the organization who were directly involved in the work and did not have their subordinates. The manager is someone who works with people and with their help coordinates their work in order to achieve organizational goals. As managers, people perform managerial functions of planning, organizing, staffing, managing and controlling. The goal of all managers is the same: to create a surplus. Manager is a person whose primary tasks derive from the management process, plans and makes decisions, organizes work and business, employs and manages people and controls resources. He is also a person who achieves goals by engaging others to perform tasks. A tiny manager is an expression that is used to designate managers in all organizations (profit or non-profit type). Since this is a specific American expression that does not have an adequate synonym (in our country, it translates with expressions of manager or manager), this term is most often used in its original form. Basically, the term manager means a person who performs a managerial function in a particular organization. This, in practice, the very definition of managers, is related:

- To specialists that the owners of the capital, that is, the companies hire with the task to perform managerial functions in accordance with the defined powers and responsibilities;
- To the owners of the company when they, captains or members of the managerial team, perform (in accordance with the relevant authorities and responsibilities) managerial functions (ie jobs and tasks) and to perform the task (functions) receive the appropriate remuneration.

According to the foregoing, for conceptual determination, as well as for the practical identification of managers, it is completely irrelevant whether one is the owner of the company (or its part) or not.

However, what specifically points out, or what is essential, is that the managers of a person:

- Who possess managerial knowledge and skills (which verifies them, ie qualifies them as - potential or actual - managers of management).
- Who are in charge and authorized to perform managerial tasks (functions or tasks) in given organizations (profit and non-profit character) and who are responsible for the work and results of the organization's operations (in whole or in part) in which (or in which) they perform managerial functions.

Managers, in the professional structure of society, are quite certain at the top of professional stratification. Managers take precedence over other professions because they have an enviable level of education, high income, have a reputation and a status position in the society as a significant professional social group dealing with irregularities.

Managers are people who manage organizations and who direct other people towards achieving their goals. These are people within organizations that are responsible for organizational results. Hence they define goals, ways to achieve them, and influence subordinates to achieve them. Managerial work is a specific job that is different from others, such as, for example, the job of economists, engineers, doctors, lawyers, bookkeepers, and so on. A job is about working with people. Most of the other things dealt with are also working with people. However, the essence of the job manager is to eat things "done through other people", ie to achieve the goals of their organizations through appropriate interactions and interrelations between people. In the modern world, managers as a social group occupy a significant social position in the structure of society. Their activities are very complex and complex to represent, according to Peter Draker, one of the most important resources of modern organizations. Managers manage organizations and jobs through other people that direct their business goals. They are responsible for organizational results within the organization, because they define goals, determine the ways for them achieving and affecting those who take a subordinate position in the organizational structure of the enterprise, so that

Anka Bulatovic

From 1988-1992, Anka Bulatović worked in OOUR "Nova Trgovina" in Orasje as head of accounting, and from 1992 to 1994, in the Social Accountancy Department of the Brčko Branch as a senior inspector. In the period from 1994 to 1997, in the Social Accountancy Department of Brčko Branch as Head of Inspection and Control, and in the period from 1997 to 2001, in Razvojna Banka AD Banja Luka, Brčko Branch as Head of the Division of Funds and Placements. In the period from 2001 to 2013, she performed the duties of the director of Nova Banka AD, Brčko Branch, and from 2013 - 2014 she worked as the head of the Nova Banka AD Banja Luka Branch, Branch Office Brčko and in the period 2014 - 2015 she performed jobs of the Director of Bobar Bank AD Bijeljina, Brcko Branch. In 2013, she was elected Assistant Professor in the field of Accounting and Auditing at the European University in Brčko. She is currently Dean of the Faculty of Economics at EUBD. She is the President of the Assembly of the Association of Accountants and Auditors of the Brčko District, she is a member of the Accounting and Auditing Commission of BiH. She holds the Certificate of the authorized accountant since 1998, then the Certificate for the economic expert estimator and possesses the license of the expert of the expert profession.

managers plan, organize, manage and control the activities of all members of the organization. In that sense, the success or failure of an organization depends largely on them and their work, the survival or development of the enterprise depends. The complexity of managerial activity requires an interdisciplinary approach to research. In this sense, according to some authors, managerial activities include at least four dimensions. These are: activities, or stages of process management, which include planning, organization, management and control; development of management thought, which includes knowledge of basic achievements of the most important directions and access to management; ester influences from the environment, such as social pressures, strategies in response to the needs of competitors and consumer demands, political influences, economic situation, financial factors, and the like, and internal factors from the organization, such as organizational or corporate behavior, culture, system information, interpersonal relations, personal values, ethical values and norms of the organization, etc. All of these factors significantly influence and determine the managerial work so that the answer to the question of "what are, in fact, managers", can be asked in the stages of the management process.

HIERARCHICAL LEVELS OF MANAGEMENT

The number of manager levels depends on the numerous organizational specificities of each company, such as: "depth" and "height" of the organization, the type of organizational structure and its complexity, the degree of centralization, etc. Regardless of the above mentioned specifics in each company, we can distinguish three levels of management: top management, middle management and lower management.

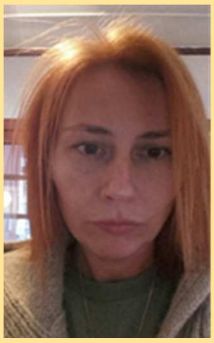
The multi-level organizational structure of each company essentially defines the levels of management structure. In each enterprise, all employees are divided into two basic groups:

- Managers of different levels, and
- Executors - employees in production and other sectors and services.

This simplified division was made on the basis of who is under the authority of the subordinate and who is not, so that the managers of the employed persons who have their subordinates in the organizational scheme, while the perpetrators remain an employee who does not have subordinates in the company.

Top management or top management is also called strategic management and is at the

Vojislava Grbic *born Nicin, was born on 10.02.1975. in Novi Sad. He graduated from the Higher Business School Megatrend in Belgrade in 2000 as an Economist in Financial, Banking and Stock Exchange Management (average grade 7.26), while the Faculty of Management in Novi Sad finished in 2006 with an average grade of 8.12 and Graduated Manager.*



In 2009, she graduated from the Faculty of Management of Sport at the Faculty of Management of Sport, with a topic "Management of a sports event on the example of the Novi Sad Marathon". In 2012 she defended master's thesis on the topic "Internet marketing in the function of electronic business", at the Faculty of Business Industrial Management in Belgrade, University "Union", and obtained the title "Master of Science in Industrial Management". In 2013 she defended her doctoral dissertation on the topic: "Informatized environment in the function of development of small and medium-sized enterprises", at the Faculty of Economics at the European University Brčko District in Brčko. In 2013, she was elected the Assistant Professor in the field of Marketing and Trade at EUBD, Brčko.

highest hierarchical level of the organizational structure of the company. In the companies they are: Charment of the Board, President of the Company, Vice President, Chief Executive Officer, and in our companies: General Manager, Assistant Directors General and Executive Director.

Top management manages the company and is more responsible for its business success. The main tasks are formulating company policies, adopting a strategy, and defining the goals of the company. They decide on the most numerous issues in the domain of planning, coding, distribution and control. Taking account of the mission and vision of the company and taking care of its image. The top managers' decisions are few and long-term and result from a clear strategic vision of growth and development of the company. The task of a top manager is to shape his business environment by observing the requirements and needs of that environment and by finding appropriate ways to fulfill these requirements. It also takes care of creating your own organization, developing middle and lower level managers, allocating resources, and so on.

The Middle Management is also called operational, as it formulates tactics and operations through elaboration of the implementation of a part of the strategy of a particular area. As the strategic decisions of the top management are global and principled, it is necessary to develop them and turn them into operational tasks. In this way, operational management defines the specific tasks and objectives of business functions and business units. As the middle management is mainly focused on solving internal problems of the company and daily activities, this is also called by some authors as organizational management.

Middle management in subsidiaries: Division Managers, Plant Managers and Department Managers. The need for a middle manager is especially reflected in companies with an expressive organizational structure. In our companies, these are: Sector Directors (Technical Director, Production Director, Financial Director, HR Director) and managers of lower organizational units. In larger enterprises, there is mainly a multi-level structure of middle management, where the directors of the sector in the hierarchy are under the leadership of the department, and these department managers.

The basic tasks of the middle management are to elaborate the top management's decisions and to implement the adopted policy and the adopted plans. They are directly responsible for the organization and implementation of the production program. Given that the management structure is between the top and the lower management, their role is very specific, since they are both subordinate and rewarded. They are at the same time strategists and perpetrators, similar to those in sports, they are coaches and players "and they overcome all the problems of the organization. The development and application of information technologies has the greatest impact on the reduction of the middle management layer, because some of their jobs are moving to a higher and lower level. Top management takes over analytics tasks, and lower management is a part of current account management, which was previously the sole task of middle management.

Lower management consists of managers at the lowest level of organizational structure. These are managers of the first line, who are directly subordinate to the perpetrators themselves. Below them there is no longer any level to which they have transferred tasks, but directly work with executors in the realization of tasks obtained from a higher level. The direct contact with the perpetrators allows them to first and foremost identify the newly emerging problems and respond in a timely manner to them. Given that the immediate creation of the product and the operationalization of the tasks received, the lower management is comprised of department

managers, brigadiers and managers. Unlike middle management who knows both management and expertise (technical knowledge), lower managers must first of all have expertise, because they are those who implement operational tasks.

In practice, management of any organization by any management will be accomplished in a similar way. This is conditioned by the stated functions and principles of managing the management. Regardless of the specificity of the specific organization, all managers of any level perform all functions, starting from planning, organizing, managing and controlling, with different time engagement and different application of knowledge. Top management takes a lot more time in the long-term planning and development of strategic plans of the entire organization, while lower management engages more time for making short-term plans for parts of the organization. In principle, the more new management, the more time it devotes to planning and organizing, rather than to management and control, and vice versa.

Bearing in mind that it is difficult to determine precisely when a managerial action is created and when it ceases, this stated multifaceted division of management should be conditionally understood. What is very important for the activity of top management is to ensure the coherence and harmonious functioning of all levels of management.

Management as a science, in its historical development, formed its laws in an interdisciplinary approach using the knowledge of a number of other sciences that dealt with the phenomenon of organizational management and came to its own principles. Different authors, apart from the angle of analysis of management issues, cite different principles, and we will only include some of them:

- The principles of economics - relate to the fact that every managerial decision must be based on the economy. The basic economic principle of reproduction is to achieve the highest possible results of business, with less investment. By managing this principle, we can show three partial economic principles by putting in the relation between results and investments: productivity, economy and about profitability. Each of these principles expresses the relationship of two opposite tendencies and two opposite demands. On the one hand, it is the maximization of business results, while on the other hand it is a minimalization of basic investments. The fact is that these economic principles are always present, whether they are or are not taking care of them. Every organization (whether non-economic) always aims to efficiently accomplish the set tasks, i.e. meeting these economic principles. These principles have a crucial importance for choosing the right organizational solution. So, these are the principles that the organization is delinquent to.
- Teamwork principles - which include the interests of individuals in achieving the interests of the organization. The principles of team work include: the principle of division of team work, the principle of unity of objectives and principles of common interests.
- Principles of coordination - are based on harmoniously established relationships in the organization. The main goal of the principle of coordination is the establishment and maintenance of functional parts and the whole of the organization. The principles of coordination consist of the following principles: the principle of discipline, responsibility and cooperation.
- Principles of timeliness - implies doing business right in time, no sooner or later. Japanese management is known for its sintagma just in time as an exemplary principle of professionalism in accuracy.

- Principle of subordination - implying the obligation of gentle hierarchical structures to implement decisions of higher structures, i.e. the obligation of the lower management bodies to enforce decisions made by the authority above them. Subordination to the foundation represents the right of one to make decisions and the obligation of others within the organization to implement them. Subordination is based on the power of a superior authority or individual to force the subordinates to implement its decisions. For this purpose, in the event of non-enforcement, the sanctions used the instrument of coercion.
- Principality of permanency - implies the continuity of the managerial equilibrium, i.e. that there is always an authorized person in the organization. Acts are determined who in the case of absence replaces who at managerial levels.
- The principle of delegation of powers - implies giving its own authority to someone else to decide on its behalf within delegated powers. Delegating a part of their own rights and powers is a very important managerial management skill of the organization. This is basically the skill of accomplishing work tasks through others. The basic benefit to the manager of a good delegation is to relieve them of doing less important jobs and the opportunity to use that time to solve serious problems.

CONCLUSIONS

Management is essential for the relative duration of the competitive advantage. Research has shown that management represents an irreplaceable controller of processes in evolutionary organizational changes, while leadership represents the power that triggers radical changes in the organization. In this respect, the need for creating global leaders and managers, as well as the development of their skills, is emphasized. Creative leaders and managers, who manage knowledge and information, that provide an entrepreneurial atmosphere and create an organization based on teamwork, represent a global environment. The organization must permanently strive to create an environment in which staying in a foreign country, as well as returning to its own country, will represent a pleasant and positive experience for the leaders and managers. Namely, this implies that the organization must be based on careful career planning, as well as supportive support for its global staff during the stay in another country, and upon his return to the country, he must rationally use his experience and skills. In this respect, we emphasize that the key factor for the global competitiveness of globalization is its ability to maximize its global human resources over a longer period of time. An effective global and managerial team is a prerequisite for global competitiveness of the organization, in order to maximize the benefits of different workforces in different locations around the world.

Management must play a major role in the successful initiation and implementation of changes, must be able to quickly notice and respond to changes, and if it succeeds in stimulating and implementing changes in its business, as an adequate response to environmental changes, it will manage to successfully manage the company as a whole, and achieves favorable business results. Managers should possess certain leadership qualities, skills and competences (expertise, ability and communication, in order to achieve positive cooperation with all employees in the implementation of changes, to properly explain the changes and effects of changes and, together with the leaders for change, to mute they have a positive approach to the introduction of changes), which will enable them to successfully cope with the changes, because only a manager with leadership qualities can convince employees that the changes are necessary, as it is necessary to accept the introduction of change. However, when it comes to changes in the company, and especially the implementation of changes, then we talk more about leadership rather than management, that is, about a leader than a manager.

LITERATURE

1. Nićin N., "Product Management", FPIM, Belgrade, 2015
2. Vlahović S., "Leadership in Contemporary Organizations", CID, Podgorica, 2008.
3. Galbraith J.K., New Industrial Societies, Stvarnost, Zagreb, 1978.
4. Djordjevic B., "Fundamentals of Management", Prosveta, Nis, 1995.
5. Đuričin D., Janošević S., "Management and Strategy", Center for Publishing Activity, Faculty of Economics, Belgrade, 2005.
6. Milosavljevic M., "Contemporary Strategic Management", VI edited edition, Megatrend University, Belgrade, 2007.
7. Milosavljević M., "Leadership in Enterprises", Čigoja štampa, Belgrade, 1999.
8. Petković M., Janićijević N., Bogićević B., "Organizational theories, design, behavior, change", Faculty of Economics, Belgrade, 2002. Petković M., and others, "Organization", Faculty of Economics, Belgrade, 2006.

MANAGEMENT PROFESSIONALIZATION AS CONDITION FOR MODERNIZATION OF COMPANIES' MANAGEMENT DUE TO APPLICATION OF A PARTICIPATIVE DEMOCRATIC DECISION MAKING MODEL

Valentina Vukosavljevic Pavlovic[199]

DOI: https://doi.org/10.31410/eraz.2018.409

Abstract: *The role of management professionalization process in companies as a factor of modernization and development is an inseparable part of the creative generative approach to human management. This implies problems related to the personal characteristics of managers, given the wider social factors of successful management. Although there is no consensus, neither in practice nor in theory, on a key management job, "managing human beings" is considered crucial. In social reality and in the scientific study of the specific content of the management role and management style, the study of professional activity category as a particular phenomenon is inevitable. Professional work reflects on constant criticism and the introduction of innovations, and with one's own work it accomplishes its role by applying a participative democratic decision-making model, adapting it to real development strategies.*

Key words: *modern society, management professionalization, participative management, development strategy, innovation.*

1. INTRODUCTION

Modern societies do not only aim at efficient companies in order to increase their economic power, but also to the well-being of their members, creating an organization tailored to the needs of people and the interests of those who work in them. Specific social events in companies of modern societies are marked by the tendency for their efficiency, humanity, but also in the way of overcoming the social problems of various social actors in the process of work and their difficulties in the management process.

As an expression of these needs, the process of institutionalization of various forms of participative democracy arose. The functions of these labor democracy are different and extend to various issues from information and consultation in decision preparation, control over the implementation and results of business decisions to decision-making and long-term planning, in the production organization, working conditions and workplace safety, profit and development.

Labor sciences (including the sociology of work) have long and intensively deal with the problems of managing labor organizations. In addition to problems related to the personal characteristics of those who are in charge and the broader social factors of successful leadership are taken into account (especially from a socio-political perspective).

[199] High Business School of Vocational Studies Leskovac, Serbia

In studying the specific content of the leadership role and management style, it is inevitable to study the professional activity category, which assumes a professional, cognitive, ethical and innovative approach to management, which is accomplished in one part, by the application of participatory democratic management.

By choosing a participatory democratic management model, start is made from the assumption that it will be possible to create long-term stability on the social plane, to launch more questions circle from the domain of social needs and labor and industrial relations.

2. MANAGEMENT PROFESSIONALIZATION

Different views on the functions of managers reflect different practical experiences and different theoretical approaches about management in organizations. The role of managers is often seen primarily from the perspective of the organization as a "closed system," so the work of managers is analyzed from the perspective of internal organizational processes and factors. There are other views on the functions of managers, bearing in mind also the attitude of the organization and its environment, because the working organization is understood as an "open system".

To consider the function of managers, consideration should be given to both approaches, because changes in the labor organization level are often the key dimension of social changes, due to which many of its dimensions change, from its global social impacts, development strategy, ways of involving individuals or group in the management process.

Neither underestimating nor overestimating the importance of managers for the performances of labor organizations, some theoreticians of the organization advise a change in

Valentina Vukosavljevic Pavlovic *is lecturer at Business College of Vocational Studies in Leskovac, Serbia.*

Education:

- *1987 - Undergraduate Studies, at University of Nis (Serbia), Faculty of Philosophy, Sociology Department.*
- *2008 - Master's degree in sociological sciences at University of Nis (Serbia), Faculty of Philosophy, Sociology Department, Field: Sociology of Development.*
- *At the moment: PhD Student at University of Pristina (Serbia), Faculty of Philosophy, with temporary headquarters in Kosovska Mitrovica.*

The most important scientific papers are in the field of sociology of development, sociology of work and sociology of organization:

- *Aggregation degree of Republic of Serbia citizens' needs, size of the local public resource for their meeting and the size of the local community which should produce (2014),*
- *Gender division of labor and its importance for the development of the local community (2014),*
- *Civil society and local self-government (2014),*
- *Credit support to women's entrepreneurship as a potential important factor for socio-economic development (2015),*
- *The possibility of making the future flows of economic development by enlargement and introduction of new local service services in Serbia (2016),*

Certificates*: Trainer Certificate – UND; Project Cycle Management Trainer Certificate – UNDP; Gender Equality Trainer - Ministry of Labor and Social Policy of the Government of the Republic of Serbia; "EU Integrated Innovation Support Program" - Ministry of Finance and Economy of the Government of the Republic of Serbia.*

the style of organizational work (and not just management style), as Peters[200] says: "Every businessman is trying to enable each employee to have the necessary authorities and information for the creative pursuit of his job. The importance of adopting specific knowledge-based management skills for the quality of corporate governance systems is also the result of recent researches in the field of management professionalization phenomenon[201], emphasizing the permanent adoption and application of new knowledge as the most important features.

Labor sciences (including the sociology of work) have been long working extensively on the problems of managing work organizations and the concepts of professions and professionalism. The definitions that we find in sociology today mostly follow Parson's[202] basic understanding of profession as a normative universal and functionally specific activity. The most commonly mentioned and most frequently criticized is Greenwood's definition of profession[203]. In his opinion, professional activity is an extremely complex phenomenon in society, which contains the following elements: systemic rounded theory, expert authority, social sanctions, code of ethics and specific subculture. Within profession "innovation" is a non-routine approach in applying knowledge to diverse situations in solving a professional problem, in developing new professional insights, that is at the root of "profession" itself and "professional expertise" even when it looks like routine performance of a given work.[204]

One should also mention author Barber[205], who also studied professional activity and his definition differs from Greenwood's in that it is somewhat more selective, and in that it less emphasizes the autonomy or authority of professional activity. Definition of professional activity given by E. A. Krause[206] is quite similar to Greenwood's definition. It differs from it in that they are less and less emphasized by professional autonomy and monopoly on expertise.

The professionalization of management and the chosen management model and its implications for the modernization of the management system should be researched through the distribution of power, economy efficiency degree and the humanization of production relations in the conditions of the applied different development strategies.

3. PARTICIPATIVE DEMOCRACY AND ITS SIGNIFICANCE IN A MODERN SOCIETY

Different participation forms live in the vast majority of countries around the world irrespective of their socio-economic development level. The participation of representatives of executive work in the management of enterprises is realized through various types of representative bodies: workers' council, working commissions, cooperation committee, labor control and similar institutional and non-institutional forms, then through various political organizations, among which prominent place have trade unions.

[200] Peters, Tom (1999), *Luda vremena zahtevaju lude organizacije*, Fineks, Beograd, str.63
[201] Nicolescu O. Verbancu (2014), *Professionalization of the business management in Romania*, Proceedings of the 8th international management conference, November 6th – 7th , 2014, Bucharest, Romania
[202] T. Parsons (1939), The Professions and Social Structure, Social process 17, May, pp. 457-467.
[203] Ernest Greenwood (1962), *Attributes of Profession*, pp. 207 – 218; in book: Nosow & Rorm: Man, Work and Society, New York, Basic Books, p. 212
[204] H.L. Wilensky: (1964), "The Professionalization of Everyone?", American Journal of Sociology 70, September pp. 137-158.. according too Bolčić, 2003.
[205] B. Barber (1963), Some Problems in the Sociology of the Professions, Daedalus, 92, 4.
[206] Elliot Krause (1971), The Sociology of Occupations, Little Brown, Boston, pp. 75-79.

When discussing modern forms of participatory democracy in partnership with trade unions, one can speak about[207]: trade union global participation in the global standards creation within the International Labor Organization, at the national level, trade unions are involved in the creation and management of economic social policy (the Irish model) at the institutional level, trade unions manage insurance funds in the event of unemployment (Denmark, Finland, Sweden), then in the work of directors' collegiums (Germany, France, Italy) and cooperatives of producers, owners / managers, supported by the trade unions (Italy, France, Spain-Mondragon) and at the legal normative level, trade unions participate in the creation of a tripartite national collective salary agreement (Greece, Chile).

Institutional changes in the decision-making system in enterprises are necessary in order to introduce participatory democracy. The reasons are economic, social and political[208]. Economic: because the participative decision-making method enables the strengthening of work motivation of workers in the work and rational business of organizations. Social: because participatory democracy allows the worker to not be treated as an object and labor force, but as a subject, a partner in the decision-making process and a management process. Political: because such a system democratizes the way in which management manages the development of both enterprise and society, creates a more equitable distribution of social power and strengthens the role of representatives of executive work.

Between the three most important functions of trade unions, collective negotiating is still the most significant in the developed countries of the West.[209]

Collective negotiating is a mechanism by which organized groups of workers and their employers address issues related to conflicts arising out of different interests and seek to reach an agreement on the placement of proprietary interests. The process of collective negotiating usually leads to the conclusion of a collective agreement that, in a written form, and for a certain period of time, regulates the results of negotiations between the workers and the management.

Working conditions are the most important problems that can be solved by collective negotiating. Collective contracts typically address issues such as wages and benefits together with regular income, personal income way of payment, employment security, physical conditions at work, and some problems of the work of the HR and production practices in facilities, rights and responsibilities of trade unions in the management. The scope and content of the contract varies considerably from country to country and depend on the relative power of parties in the negotiations and their commitments.

One of the news in the practice of negotiating between workers and the management is interesting collective negotiating. The advantage of a new form of negotiation is that it seeks to remove traditional positioning in the negotiation process in order to increase the possibilities of easier problem solving.

A major barrier to trade unions around the world is the increasingly intensified international trade and the growing expansion of multinational corporations that are expanding the product and labor market internationally. The question arises whether any of the existing syndicate roles in companies in the world is a possible solution for strengthening trade unions as a

[207]http://library.psa.org.nz/collection/other, cit. prema: Slobodan Miladinović, (2013), *Osnovi sociologije organizacije*, FON, Beograd, str. 362
[208] Ljubiša Mitrović, (1999), „Društvene promene i akteri“, Centar za publikacije pravnog fakulteta, Niš, str. 251
[209] Adam Kuper i Džesika Kuper, (2009) *Enciklopedija društvenih nauka*, Službeni glasnik, Beograd, str. 622

participatory institutional form in the process of managing companies or seeking new forms of trade union organization. Based on past practice and theoretical considerations of trade union organization, the future may be in the role of trade unions as participants at the global level in the creation of global standards within the International Labor Organization, on a national level in the inclusion of unions in the creation and management of economic and social policy and at the legal normative level trade unions should participate in the creation of a tripartite national collective contract.

Efforts to introduce some form of participatory governance in developed and successful companies around the world have not gone smoothly, and more successful models are still being sought in line with changes in social and economic circumstances, causing, as a consequence, changes in parent company strategies. Some of the participatory models that have already been introduced suffer from changes and modifications.[210] The Davignon group project provided for 1/5 workers in supervisory or management bodies (or at least 2 members), but such a solution was too small for Germany, while for other countries it was too much.

4. CONCLUSION

It is difficult to say what the perspectives of participation are. Some authors advocate the thesis (H. A. Clegg) about the historical defeat of the idea of direct involvement of workers in the management process. They believe that in most countries existing participatory mechanisms cannot serve as a way to realize full involvement of workers in the management process. According to them, they are also significantly contributed by the fact that these mechanisms are subordinate to the interest of maintaining a global social system. Since many issues related to the status of hired workers and working conditions have been solved, whose solution so far was solely required through the involvement of workers in management, is now constrained by the social frameworks for setting such requirements. This, however, points to only one side of the problem, and it does not need to look for the main source and basis of the movement to involve workers in management.

Kenneth Walker [211] believes that the labor participation will be expand into three forms: collective negotiating, integrated participatory instruments (workers' councils, workers' representatives in management boards) and participation at lower levels of decision-making and governance through increasingly significant business planning and customized work organization. This author attaches great importance to collective negotiating, which he states is growing more and more. Walker believes that the pressure to change the organizational structure of a modern industrial enterprise continues to increase in order to meet social responsibility and human problems associated with the functions of the company. Here, the main problem is that the company should be so transformed that it binds representatives of different interests who have a backbone in the company's functions (activities).

Modeling the concept of a development strategy on the concept of professionalization of management as a form of the management system modernization, is the basis for exploring a different approach to changes and development in terms of overlapping the structure of relations in the sphere of managerial and executive work, based on critical examination of

[210] Tatjana Jevremović Petrović, (2007) , – Evropska kompanija u pravu EU, Institut za međunarodnu politiku i privredu, Beograd, Vol. LIX, br. 2-3, p. 400-432, Izvorni naučni rad, Avgust 2007.
[211] Kenneth F. Walker: *Workers' Participation in Management: an International Perspective,* Monthly Juornal of the Bureau of Public Enterprise, Ministry of Finance, New Delhi, Lok Udyog, Vol V, No 12, March 1972. p.1185.

quality and dominant forms of management by workers, discover opportunities and needs for new potential, functional, institutional and non-institutional solutions.

LITERATURE

[1] Adam Kuper i Džesika Kuper, (2009) *Enciklopedija društvenih nauka*, Službeni glasnik, Beograd.
[2] Bolčić, Silvano, (1990), Parsonsov doprinos ekonomskoj sociologiji, u: A. Milić i saradnici, Sociologija društvene akcije Talkota Parsonsa, Institut za sociološka istraživanja, Beograd.
[3] B. Barber: (1963), Some Problems in the Sociology of the Professions, Daedalus, 92, 4.
[4] Veljko Rus, Vladimir Arzenšek (1984), *Rad kao sudbina i kao sloboda*, SNL, Zagreb.
[5] Ernest Greenwood; (1962), Attributes of Profession, pp. 207 – 218; u knjizi: Nosow & Rorm: Man, Work and Society, New York, Basic Books,
[6] Elliot Krause, (1971), *The Sociology of Occupations,* Little Brown, Boston.
[7] Kenneth F. Walker (1972) Workers' Participation in Management: an International Perspective, Monthly Juornal of the Bureau of Public Enterprise, Ministry of Finance, New Delhi, Lok Udyog, Vol V, No 12, March .
[8] Nicolescu O. Verbancu (2014), *Professionalisation of the business management in Romania,* Proceedings of the 8th international management conference, November 6th – 7th, Bucharest, Romania
[9] Peters, Tom (1999), *Luda vremena zahtevaju lude organizacije,* Fineks, Beograd.
[10] Slobodan Miladinović, (2013), „*Osnovi sociologije organizacije*", FON, Beograd.
[11] Tatjana Jevremović Petrović, (2007), – *Evropska kompanija u pravu EU,* Institutu za međunarodnu politiku i privredu, Beograd, Vol. LIX, br. 2-3.
[12] T.Parsons: (1939), „The Professions and Social Structure", Social process 17, May
[13] H. L. Wilensky: (1964), "The Professionalization of Everyone? ", American Journal of Sociology 70, September.

Electronic sources:
http://library.psa.org.nz/collection/other,

TALENT MANAGEMENT IMPLEMENTATION IN ACTIVITIES OF HUMAN RESOURCE MANAGEMENT

Julija Avakumovic[212]

DOI: https://doi.org/10.31410/eraz.2018.415

Abstract: *Todays, terms "talent", „talent management“ and "talent development", many authors are consider like research in the field of human resource development, which undeniably gives emphasis to their inseparability.*
Talent are the mix of innate and developed skills. Because that, the role of human resource managers in the development of human resources, have task to help individuals to identify their innate talents. Human resource managers should have to develop knowledge and skills based on identified needs and interests through the activities of human resource management. The talent of the individual has an impact on the development of their career. This paper work should show influence on the development of an academic career. We cannot ignore the role and responsibility of human resource managers, even in development and retention in higher education institution like as organization.

Key words: *talent, talent management, talent development, develop of academic career, human resource management, human resource development*

INTRODUCTION

Practically, the organization is becoming increasingly popular topic on the development of the talent, more than the development of human resources. The more important fact has given to understand of the growing impact on the development of talents than on the activities of human resource management.

The last ten years, brought growing number of the studies and publications on theme development of talents. That helps to understand the impact and importance of human resources development. We can identify 4 (four) main sections in this publications: a) effect on the development of (academic) career, b) the influence of the contextual factors, c) the relationship between the development of talents, recruitment and retention of talents, and d) differences in the context of matters of the development talents. [17]

Very often, with the term “talent development” in use is the term “talent management”, too. In 1997th, McKinsey author of the book “War for the Talent” concept of *talent* popularized among leaders and managers.

Diversity of socio-economic communities, globalization, demographic changes, changes in the labor force, have brought innovative changes in the strategy of talent management. [5]

It could be possible to sort over 10 (ten) reasons, because talent management is important for the success of the organization, as like as:

- Organizations could not be successful without talents,

[212] Faculty of Economy, Segedinski put 9-11, Subotica, Serbia

- Talents added market value,
- Talents realized ideas,
- Talents are the latest source of competitive advantage,
- Always, good place to work is attract and could retain talent,
- The most successful companies and those in which is the most of people admire have great talents,
- Price of the talent is very high,
- The competitive environment cause talent crisis, and
- Retaining of talent is possible to control. [2]

Talent management has been considered like one of the most important trends, which could shape the future of the organization and ensure the creation of organizational excellence by developing and promoting it's the best human resources. [2]

The talent is developing systematically, through the development of innate abilities of the individual, which are arranged in specific activities that someone likes, considered important and in which wants to invest energy.

Talent allows to an individual to perform a specific task excellent, much better than other people with the same qualification and experience. Talent allows to an individual consistently to achieve better results in relation to their own personal record. [18]

On the May 6th 2014, talent development has become popular term when American Society for Training and Development, like as the largest association in the world in the field of human resource development, changed its name in Association for the Development of the Talent. (www.td.org)

It is indisputable that every employee, who knows how to access and acquire with the new situation is „more profitable" for the organization, because time and other resources which will spent on the training should be reduced, and employees could contribute to the employer in meeting strategic goals and competitive challenges. [17]

The development and use of modern technology, especially in terms of the digital transformation, should contribute achieving better performance of activities of human resource management [22] in organization, and implicatively of talent management may contribute to the better efficiency of the activities of HRM (employee performance) and to better performance of whole organization.

TALENT MANAGEMENT THROUGH HUMAN RESOURCE MANAGEMENT

Generally, talent management encompasses a range of activities and tasks of HRM, which are connected to each other and to continuously improve, analyzed and measured in order to determine its performance.

For effective management of talents is necessary to have a good strategy, as show on the Figure 1. [3]

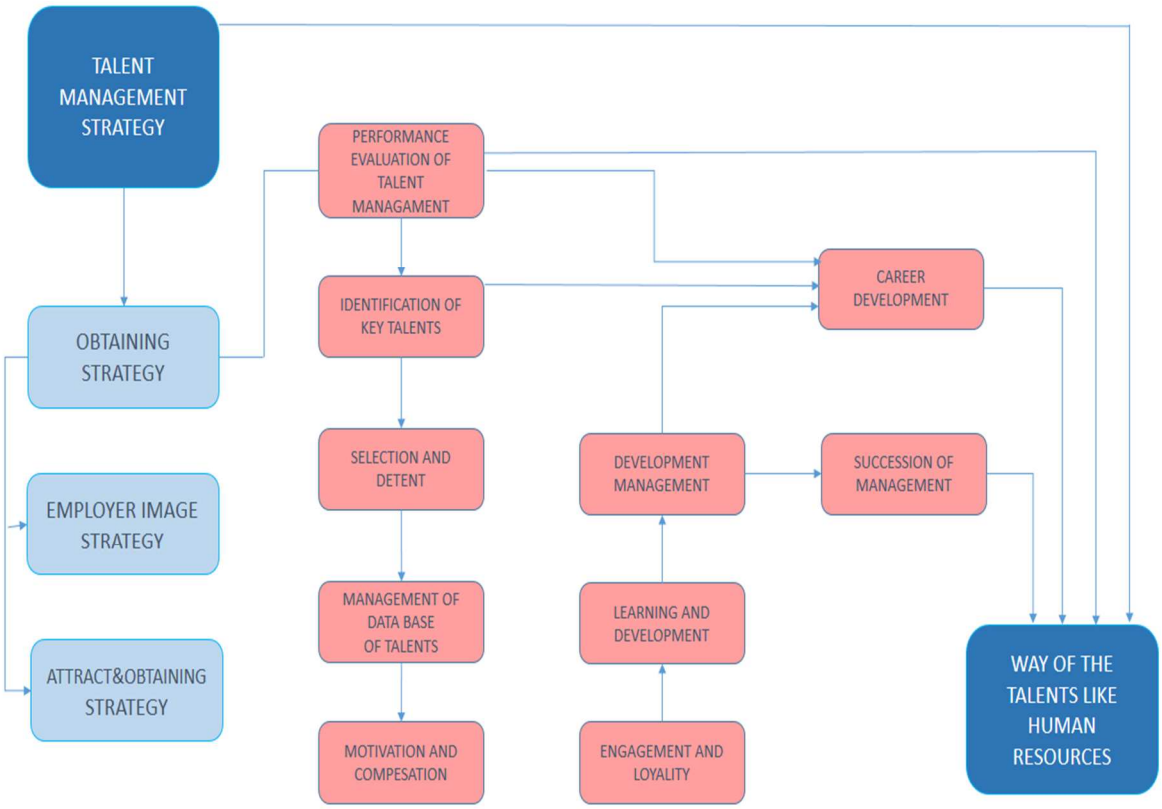


Figure 1: The Strategy of Talent Management and its connection with tasks and activities of Human Resource Management *(adapted to the: Baron, A., Armstrong, M., Human Capital Management, Kogan page, London, 2007.)*

At institution of higher education, in the talent management we can identify three key issues: a) transparency in relation to autonomy, b) the power of human potential in relation to the strength of the teaching staff, and c) equality in relation to homogeneity. [24]

At higher education institutions, specific employment practice can lead to the distance between the instruments of human resources management, which are generally known and applied in the other organization. Because that, talent management and performance management has implementation in the strategic plan for human resources management at many higher education institutions, particularly where increased trend of transition from peer to the managerial model of management. [7]

Most educational institutions are working in global, complex, dynamic and highly competitive environment. Trends such as globalization and the increased mobility of teaching staff, have led to a lack of talent in various fields of science.

Displacement from a management model of control, caused changes in the strategy management of human resources, such as the performance measurement system of an individual, [9] where collegiality of faculty staff has been replaced with a transparent approach to the evaluation of effects. This allows the recruitment of “talent” and the use of performance indicators that provide teachers and managers of educational institutions ability to choose staff with higher performance. System of performance is link with indicators, such as productivity, number of citations, number of publications, international references and so on.

Recruitment and selection of teaching staff in higher education institutions, can be different within the same educational institution, depending on the respective scientific fields for which recruitment has got done. Scientific fields are different in the field of composition of the students and the staff, design of the work place and career development opportunities. [24]

The labor market, especially in the international environment is very competitive in more areas. The structure and composition of the educational system, may be regarded as the pyramid position. On the top of „the pyramid" are PhDs. Number of other lower positions is very large. Number of senior academic positions have been reduced with each raising to a higher rank in the pyramid. Factors such as the compensation system and absence of career perspective, could reduce the number of interested students on PhD studies, in some cases. Usually, it happened because fact - after finishing of the study they have to work like assistant of professor for a longer time. [25]

In the field of social sciences and humanities, there is really the largest number of educated professionals, on average, younger age than in other scientific fields. Increased competition, saturated labor market and impossibility for career progression, could lead to „vacuum in time" and loss of talents. The task of human resource management is to find specific models through its activities (staffing, career development) for identify and detent talents.

Unfortunately, problem with financial resources could be the main cause of the inability to retain talents. After getting a doctorate, young talents have got limitations in employment opportunities. More of them are committed to and academic career, but the process of recruitment is most often through „internal recommend".

According to one research in the Netherlands [24] the average number of candidates who apply for a professor position are between 13 and 20 interested, if the position has been published in the mass media advertising. In practice, professors carry about selection and training of "successor" whose career have been following from the beginning, permanently monitoring and respond on its development. This could be threat of human resources managers, because they have no power to influence the selection and recruitment of teaching staff. Very often, in educational institution human resource managers are advisors to the director or dean or president of Board, regarding the profile of the job, directing internal career, creating criteria for evaluation (self-evaluation model) etc.

Expectations are higher, especially in educational institutions in which new technologies could be more used in the process of talent management, the process of identifying talents and finding information on them. [26]

First of all, to managing talent is necessary to identify the skills and personal characteristics that will lead human resource managers in their finding, which is crucial for organization, especially in achieving higher performance. [14]

New technologies are offering the possibility of progress of human resources management functions, through the ability of freely exchange of data in new data systems and new database of talents. [6] This could be a good indicator of the key features of the organization and what is required of human resources managers in the future, in order to improve strategic contribution in identifying talents.

In the field of education, human resource management and talent management need to overcome certain constraints and difficulties. First, have to explore the possibility of using a wide range of academic tradition, including international human resource management, strategic human resource management and career development, [10], organizational behavior [11], and theoretical approaches [18] to prevent criticism that the talent management is one more „maggot of manipulating". Second, usually critics are occur due the lack of empirical evidence and conceptual models. [8] Third, the existing literature exudes of a based view on talent and talent management. [23]

Some barriers at organizational level, referring to the lack of internal consistency of the practice of human resource management, the lack of adequate and consistent processes and infrastructure to support the implementation [27] of HRM, accidentally or not, sends signals to the employees by means of establishing the desire behavior by rewarding adequately, based on which the employee may react in different ways. Referring to the perception and reaction employed, enter into the field of psychological contract [12], where are the ratio of employed according to their behavior, attitudes and the reactions will be employees in the case of impact on the area of talents and talent management.

Talents like employees are require special treatment. On their recruitment and retention should have affect the specific contract, those violation by the organization may in particular cases lead to reduce organizational commitment, organizational behavior, reduced job satisfaction and commitment to the job.

ATRACTING AND RETAINING ACADEMIC TALENTS AND IMPACT ON DEVELOPMENT OF ACADEMIC CARER

Modern times of technological revolution and digital transformation in economy of 21st century - knowledge economy, are reducing global limits and leads to branding of higher education. Branding in institution of higher education comes from private business practice transfer to the field of private education.

This has contributed creation image of higher education institution, as a competitive organization on the market. That organization offers education service to users and ensuring that users are increasingly demanding, more educated and more informed. [21]

Management of higher education institution has got task to identify vision, mission and strategy for existence reason at the operating level and the most efficiency way. [1]

The organizational culture is an important characteristic of management. It is form of separate organizational ethics, methods, assumptions, appearance and tradition. *University culture* is a specific type of organizational culture, which is usually presented as a cooperative and has mutual influence of moral values, procedures, presupposition, reviews and traditional regulating the behavior of individuals or groups at the university level. [19]

Organizational identity represents all qualities and attributes of an organization, and make it like principles, goals and objectives of all its parts. [13]

The higher education institution as a brand, could attract talented academic staff. Branding of higher education institution and attracting of talents, could have effects on: reputation and

image; organizational culture and organizational identity; strategic vision; corporate and social responsibility; and the influence of environment.

Reputation and image are often mention phenomenon that indicates the prestige and effective management of higher education institution. [20] Reputation helps to increase the confidence of the academic staff in the organization, which contributes to reliability and good management strategy of the institution in the future.

Organizational culture and identity as factors, could not ignore in the process of creating a new brand of the institution. The teaching staff has opinion that organizational culture and identity are something that can equate, which may contribute to the decision about staying and career development in the specific organizational academic environment.

Under the influence of environment in higher education institution, the emphasis is primarily on the level of competitive operating environment which lead to loyalty academic talents, through continued eligibility for career development. [4]

In time of global financial crisis, talent management, managers of higher education institutions increasingly realize that they are engaged, skillful and motivated staff is the key to creating and maintain brand position in the market and achieve competitive advantage. Every crisis, more or less forced the organization to be more creative and efficient in accessing to the talent. [10]

***Julija Avakumović**, graduated on Faculty of Economy, Subotica, University of Novi Sad, Vojvodina, Serbia. Master 2nd level finished in English language, on International program organized by University of Belgrade, Serbia, University of Sarajevo and University La Sapienza, Roma, Italy. PhD thesis defended at University Union, Belgrade, in 2007. Worked and study in Serbia, Italy and Canada (which citizenship have got, too). In Serbia, worked in National Bank of Serbia, Ministry of Energy and Minning, University of Megatrend (John Nezbit) and cupple State Colleges.*
Primary research area economics, management, HRM, management. She is author of dozens scientific papers including several published in leading national and international journal. Now, primary ocupation is PhD study at Faculty of Economy, Subotica, University of Novi Sad, Vojvodina.

Next picture (Figure 2), shows the factors that have the greatest impact on talent retention, as well as the characteristics of the employer, interpersonal relationships, workplace design, compensation and opportunities for career advancement.

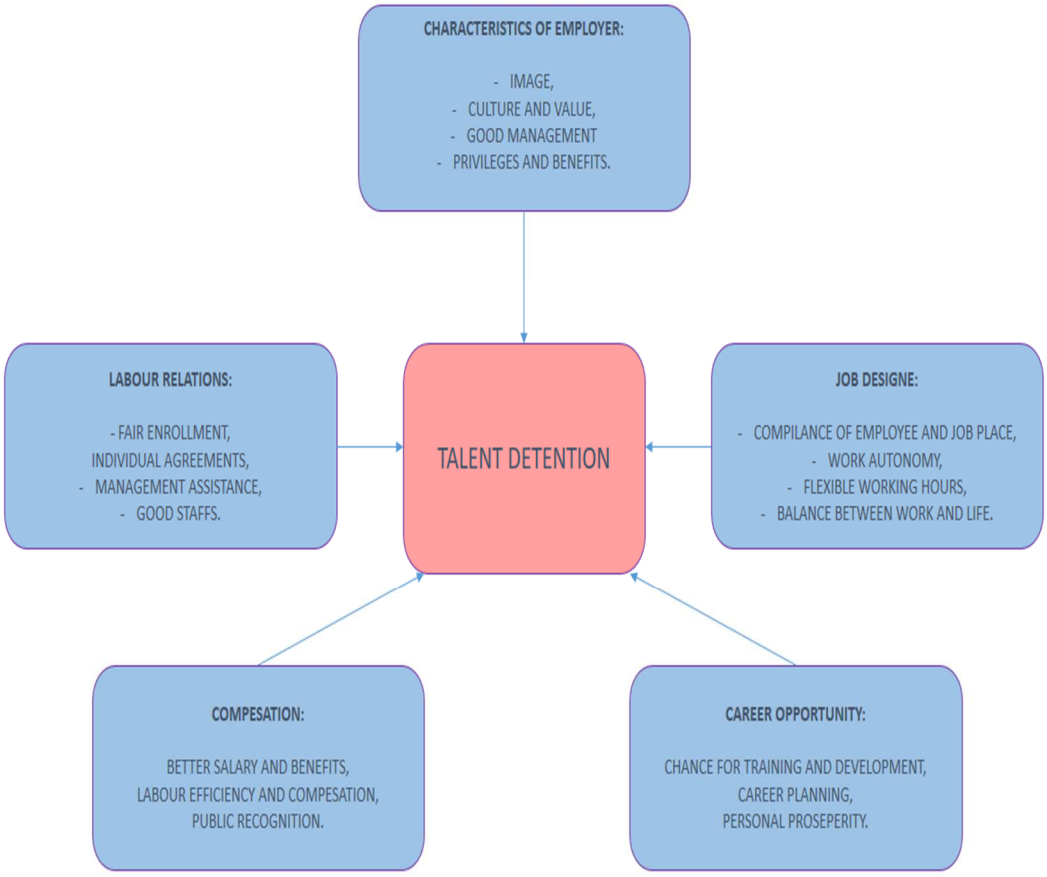


Figure 2: Factors that have the greatest impact on talent retention *(adapted according to the Mathis, R.L., Jackson, J.H., Human Resource Management, 12th edition, Mason, Ohio, USA, 2008)*

Strategic talent management as an activity and the process, includes the systematic identifications of key positions that contribute differently to the sustainability of the competitive position of the organization. Development of academic talent are high potential of education institution and it has got influence on organizational performance.

Performance of academic staff is mostly stand with number of references, number of publications, number of citations and participation in various research projects. Management of human resources has got duty through its activities to constitute a model for measuring the performance of the academic staff. The model has to find the optimal allocation of talented staff, which could be seen just achieved through the performance of individuals.

Recruitment, selection, development and retention of the best employees is not only the strategic role of management and human resource management that is the special role of talent management on the global level.

Growth of the model for the managing and monitoring career development, requires good perception of managers to interesting talents and keep them in organization.

CONCLUSION

Many studies in the field of talent management [10] have contributed to the development of the research of International human resource management, rise and expansion of perspectives (opportunities, capabilities and willingness) of staff career development, which could result in improved performance of individuals with unreserved commitment and contribution to the development of the entire organization.

In the higher education institution as an organization, the emphasis is on exclusivity of academic staff and academic talents. Exclusive orientation means that talent management aims to solve the specific problems of the needs and benefits of talents in a special approach to human resources management, where factors like as globalization and mobility of academic staff should contribute to improved competitiveness of the staff on the one side, and on the other side it could become threat.

Use of the new technology and its development have been presented by the most educated staff, because their greater opportunities and possibility for permanent learning, career development and mobility.

Investment in highly educated staff, particularly in their career like a possibility where are chance to select talents is requiring large financial resources. But, leave of that kind of staff are bigger loss for the high education institution like organization.

REFERENCES

[1] Balmer, J.M.T. (2012) *Corporate brand management imperatives*, Custodianship, credibility, and calibration. California Management Review, 54, 6–33.

[2] Bahtijarević-Šiber F. (2014) *Strateški menadžment ljudskih potencijala*, Školska knjiga, Zagreb

[3] Baron, A., Armstrong, M. (2015) *Human Capital Management*, Kogan page, London

[4] Biraghi, S., & Gambetti, R.C. (2015). *Corporate branding: Where are we? A systematic communication-based inquiry*, Journal of Marketing Communications, 21(4), 260–283.

[5] Cheese, P., Gartside, D., & Smith, D. (2009). *Managing talent in uncertain times: Talent Management actions that help companies navigate a difficult economy*.

[6] Davenport T, J Harris and J Shapiro (2010) *Competing on talent analytics*. Harvard Business Review 88(10), 53–58.

[7] Deem, R. (2001) *Globalization, new managerialism, academic capitalism and entrepreneurialism in universities: is the local dimension still important?* Comparative Education, 37: 1, 7–20.

[8] Dries, N. (2013) "*The psychology of talent management: a review and research agenda*", Human Resource Management Review, Vol. 23 No. 4, pp. 272-281.

[9] Egginton, B.E. (2010). '*Introduction of formal performance appraisal of academic staff*'. Educational Management Administration & Leadership, 38: 1, 119–133.

[10] Eva Gallardo-Gallardo, Marian Thunnissen, (2016) "*Standing on the shoulders of giants? A critical review of empirical talent management research*", Employee Relations, Vol. 38 Issue: 1, pp.31-56

[11] Gallardo-Gallardo, E., Nijs, S., Dries, N. and Gallo, P. (2015), "*Towards an understanding of talent management as a phenomenon-driven field using bibliometric and content analysis*", Human Resource Management Review, Vol. 25 No. 3, pp. 264-279.

[12] Höglund, M. (2012), "*Quid pro quo? Examining talent management through the lens of psychological contracts*", Personnel Review, Vol. 41 No. 2, pp. 126-142.
[13] Jansen, P.G.W., & Roodt, G. (Eds.). (2014). *Conceptualising and measuring work identity: South-African perspectives and findings*. Dordrecht: Springer.
[14] Laumer S, A Eckhardt and T Weitzel (2010) *Electronic human resources management in an e-business enviornment*. Journal of Electronic Commerce Research 11(4), 240–250.
[15] Marian Thunnissen, (2016) "*Talent management: For what, how and how well? An empirical exploration of talent management in practice*", Employee Relations, Vol. 38 Issue: 1, pp.57-72
[16] Mathis, R.L., Jackson, J.H. (2008) *Human Resource Management*, 12th edition, Mason, Ohio, USA
[17] Mehdiadabi, A.H., Li, J. (2016) *Understanding Talent Development and Implications for Human Resource Development: An Integrative Literature Review*, Human Resource Development Review, Vol. 15(3) 263–294
[18] Nijs, S., Gallardo-Gallardo, E., Dries, N. and Sels, L. (2013) "*A multidisciplinary review into the definition, operationalization, and measurement of talent*", Journal of World Business, Vol. 49 No. 2, pp. 180-191.
[19] Pauzuoliene, J., & Mauriciene, I. (2012) *Organisational culture development in Klaipeda Municipality*. Socialiniai Tyrimai, 3(28), 121–132.
[20] Raithel, S., & Schwaiger, M. (2015). *The effects of corporate reputation perceptions of the general public on shareholder value*. Strategic Management Journal, 36, 945–956.
[21] Saurombe, M., Barkhuizen, E.N., & Schutte, N.E. (2017). *Management perceptions of a higher educational brand for the attraction of talented academic staff*. SA Journal of Human Resource Management
[22] Slavić, A., Avakumović, J. (2018) *Evaluacija i merenje uspešnosti aktivnosti menadžmenta ljudskih resursa u eri digitalne transformacije*, 23.Internacionalni skup, Strategijski menadžment, Subotica, pp. 54-62.
[23] Thunnissen, M., Boselie, P., & Fruytier, B. (2013). *A review of talent management: Infancy or adolescence?* The International Journal of Human Resource Management, 24, 1744-1761.
[24] van den Brink, M., Fruytier, B., Thunnissen, M. (2013) *Talent management in academia: performance systems and HRM policies*, Human Resource Management Journal, Vol 23, no 2, pages 180–195
[25] van Balen, B. and van den Besselaar, P. (2007) Universitaire Onderzoeksloopbanen. Een Verkenning Van Problemen En Oplossingen [*Academic Careers. An Exploration of Problems and Solutions*], Rathenau Instituut SciSa rapport 0702. Den Haag: Rathenau Instituut.
[26] Wiblen, S., Dery, K., Grant, D., (2012) *Do you see what I see? The role of technology in talent identification*, Asia Pacific Journal of Human Resources 50, 421–438
[27] Wright, P. and Nishii, L. (2013) "*Strategic HRM and organizational behaviour: integrating multiple levels of Analysis*", in Paauwe, J., Guest and Wright, P. (Eds), HRM and Performance. Achievements and Challenges, Wiley, Chichester, pp. 97-110.

HUMAN RESOURCES AND THEIR PREPARATION IN THE SPHERE OF ENVIRONMENTALLY ORIENTED CRISIS MANAGEMENT IN THE CONTEXT OF A CIRCULAR ECONOMY

Jaroslav Bednárik[213]

DOI: https://doi.org/10.31410/eraz.2018.424

Abstract: *The aim of this paper is to highlight the importance of Human Resources Preparation in the Sphere of Environmentally Oriented Crisis Management in the context of circular economy. Systems of administrative work adjust to the requirements of the times and new, modern forms of administrative work are introduced into practice. The classic model of personal management has developed into human resources management, which uses modernized methods and procedures resembling those in marketing. It is all related to a change of strategy – product oriented companies have transformed into marketing or customer oriented ones, often multinational enterprises. Certainly, the level and degree of a company's development varies in Slovakia. There are companies which have inherited a culture of effective business-making from their foreign investors. However, there are also such companies that have only recently received such an impulse and have just started this process of transformation.*

Human resource management requires flexible and qualified professionals who are able to efficiently react to an emerging crisis situation, as well as to understand the reasons of their possible development. The lasting effects of crisis situations, that occur due to environmental risks, can inflict huge damages upon a company. These crises represent a huge burden, and can threaten the long-term objectives of a company or even its sole existence. Rules for an environmentally oriented crisis management (their specific aims, activities and education) can be constructed so a crisis situation can be successfully managed, and thus can minimize the impact of a crisis.

Environmental education in the broadest sense of the word represents an institutionalized way of passing knowledge about an environment. It forms a complete mosaic of relationships among people, society and nature. An individual participates in a formal or non-formal way. Some representatives of formal institutions are pre-school institutions, schools of each type and universities. However, concepts such as sustainable development are not made practical only through specialized trainings and formal education. Behavioral changes in all components of a society are necessary (i.e., citizens, communities, institutions, media, advertising agencies, industry, public administration, etc.). An educator, once a participant in a social environment and a circular economy, is not just a teacher or a transmitter of ideas; he is mainly a manager of change, who leads target groups to a permanently sustainable development.

Various studies show that environmental education in the context of a circular economy may increase the scale of knowledge about an environment. Nevertheless, it is also necessary to know that notions about an environment are not related to awareness regarding the environment or behaviour of individuals in it.

Key words: *personal strategy, human resources management, risk, crisis, crisis management, environmentally oriented crisis management, circular economy*

[213] University of Ss. Cyril and Methodius in Trnava, Faculty of Mass Media Communication, Slovak republic

1. INTRODUCTION

Environmental education in the broadest sense is an institutionalized way of transmitting knowledge about an environment. It forms the overall mosaic of relationships between people, society and nature. Individuals acquire it in formal or informal way. The representatives of formal education are pre-school facilities, schools of each grade and third-age universities. However, training and formal education are not enough in order to make the concept of sustainable development perceptible. It is necessary to change the behavior of all the components of a society (citizens, communities, institutions, media advertising agencies, industry, public administration, etc.). The educator in, an environmental sense, is not only a teacher who is spreading the knowledge about nature or society, but he is primarily the facilitator of change, who leads the target groups to sustainable development.

Non-formal environmental education in the context of a circular economy represents all forms of extracurricular education conducted by non-governmental organizations, workplaces, business entities, social and cultural institutions, religious institutions, and-- in particular-- the family. Environmental education may increase the scope of knowledge about the environment, but it is essential to know that environmental knowledge does not have any fundamental relation to awareness of the environment or the behavior of individuals within it.

2. PERSONAL ORIENTATION IN THE CRISIS MANAGEMENT

The aim of personal orientation for the implementation of the crisis management within an industrial enterprise is to plan, organize, and direct the personnel of the enterprise-- to decide, communicate, and control the implementation of preventive measures to prevent crisis situations. It is an integrated process where the primary focus is put on important inputs related to human resources. This process involves the allocation of material and financial resources, and further on the consequences of internal and external changes and related strategies, objectives, plans and processes. The notion of competence is at the forefront. Personnel management focuses on skills and behaviors that enhance performance. It relates directly to those factors that contribute to high levels of individual capability and also to the collective employee contribution, and thus to the efficacy of the enterprise.

Today's management of personnel, regardless of which particular enterprise management model is applied, includes a set of mutually interconnected methods and functions, including [1]:

- identification of personal needs according to business goals,
- selection of qualified staff and their placement,
- increases in qualification, pre-training and continuous staff growth,
- awards of staff performance,
- identifying or conferring leadership/choosing the appropriate style of management,
- stimulation and motivation of environmentally relevant staff management,

3. NECESSITY FOR TEAMWORK IN CRISIS MANAGEMENT

To ensure that a crisis management is appropriately managed, teamwork and team responsibility of top, middle and executive management must be at the forefront.
The organization of a team and it’s application can be summarized as follows [2]:

- a team should provide a flexible response to changes in internal and external environments,
- a team must become an evolving and self-learning organization,

- on the one hand, team organization requires high levels of formalization, but on the other hand, extensive informal cooperation among team members in the process of functioning is desired
- team organization places higher demands on qualifications but also on employee behavior in the context of interpersonal relationships,
- team organization requires changes in employees' job descriptions,
- team organization requires that leadership is provided by managers and that they are capable of enacting human resource policies, but this ability to lead people and enact policy is expected from every member of the team,
- managers are also designers of the team's organizational structure.

4. CIRCULAR ECONOMY

A company's main priority within a circular economy is saving resources and using them efficiently. This efficiency is achieved via a high level of production while maintaining low resource consumption and low (or ideally zero) emissions production. This includes prevention and reduction of waste-- consequently, pollutant sources are recycled when resources are returned back to the economic cycle, which is still increasingly a matter of urgent and practical importance. [3]

The circular economy is characterized as a type of shared economy that emphasizes the reuse of products, as opposed to taking them out of the economic cycle of consumption and production. At the same time reuse has a beneficial effect on ecology, and a better use of materials and energy embodied in products [4].

The goal of a circular economy is to use fewer resources by more efficient practices, waste prevention, re-use, repairs, reprocessing and recycling. [5], [6]

5. PREPARATION OF HUMAN RESOURCES IN THE FIELD OF ENVIROMENTAL ORIENTED CRISIS MANAGEMENT IN THE CONTEXT OF A CIRCULAR ECONOMY

The preparation of human resources within the company's education system is a very important and demanding activity of human resources management and must show the following main characteristics:

- must have the character of systematic education,
- must be based on the company's strategic plan,
- must be carefully planned and implemented effectively.

This strategy means a new division of management and executive work within the company. Therefore the creation of a new organization and its occupation by competent staff is considered to be one of the main implementation activities. The organization is complemented by the selection, training, retraining and placement of personnel in several key positions. The most important task of environmental education is to raise awareness of problems about nature, the environment and as well as the whole planet. It is necessary to achieve ecological thinking and its application in everyday life.

The table presents a methodical process proposal for the preparation of human resources with individual steps described in more detail.

Stages of the methodological process of human resource allocation		
Stages	**Tasks by securing each stage**	**Responsibility**
1	Concentration of requirements in all fields (EMS, QMS, OHAS, FP,…) including the preparation of human resources for the field of circular economy	Personnel manager, who collaborates with a head of sections and a crisis manager (or managers)
2	The planning of educational activities, processing of educational needs, the content and the scope of educational activities, determination of the quantity and structure of the participants, time schedule, accepting education programs for companies	Personnel manager and crisis manager
3	Activation of participants in education, determination of the place and time of education, selection of form and method of education and the control of the process of education	Personnel manager and crisis manager
4	The control of educational processes, keeping the top management of the company regarding the education processes informed	Personnel manager in co-operation with the head of the department and crisis manager
5	The evaluation of the education program	Personnel manager and crisis manager

Table 1. Proposal of a methodical procedure for the preparation of human resources in the field of environmental crisis management in the context of the circular economy

Ad. 1) Identification of the need for education

The company in this operational block needs to concentrate educational needs in all areas (EMS, QMS, BOZP, PO, courses, retraining, ...), where the individual areas will be focused on by environmentally-focused crisis management in the context of a circular economy.

The next step will be to analyze the development goals of the company, the evaluation of human resources (and their activities analyzed), and the motivation of activities and processes of decisive sections of the company (material/technical provision, financial provision, provision of lecturers, etc.).

Ad. 2) Planning of educational activities

In this operational block the training needs will be elaborated, the content and scope of educational activities, the number and structure of the participants, the decision on the budget of the training, the timetables and the adoption of the company's training programs will be determined. The output will be a training program that will also include activities in the field of environmental crisis management in the context of the circular economy.

Ad.3) Implementation of educational activities

In this operational block, specific learning steps will be developed. This involves the activation of the participants in the educational process, determining the place and time of education, choosing forms and methods of education, selecting lecturers and monitoring the course of education.

The selection of the participants in the educational process will be carried out by the human resources manager in cooperation with the relevant heads of organizational units of the company.

This course in the field of crisis management will be provided not only by internal lecturers, but also by external lectures from universities and companies with experience in crisis management problematics (SR and from abroad). Educational goals will be promoted in periodicals, at conferences, and on websites. The process will be monitored and conducted by human resources managers based on information and evidence regarding the process of educational activities.

Jaroslav Bednárik *was born in Trnava in 1961. He graduated from the Slovak University of Technology, Faculty of Materials Science and Technology in Trnava. At the same university, he graduated in 2009 from post-graduate studies and received a PhD degree. Since 1997, he has worked as a university pedagogue at University of Ss. Cyril and Methodius in Trnava, Faculty of Mass Media Communication, and in 2012 on this faculty he received the title of Associate Professor. He deals with issues of personal management, sustainable development and Corporate Social Responsibility. He has an understanding of teamwork, good communication and presentation skills acquired in long pedagogical activity.*

Ad.4) The educational activity process control

This will be carried out by the head of organizational sections, personnel managers and individual lecturers.

The top management will be regularly informed by personnel managers regarding the educational activities process.

Ad.5) The evaluation of the educational program

In this block it is necessary to set evaluation criteria (eg. the fulfillment of tasks by EOKM in the context of the circular economy, and/or the quantity of tasks, deadlines for the completion of tasks, evaluations for individual capabilities and characteristics), and to determine evaluation methods (eg. analytical scoring methods, or non-analytical summary methods).

The evaluation of the educational activities will be carried out in the form of tests and questionnaires, while the results of each activity must be recorded and archived in a demonstrable manner.

Conclusion

Proper and effective crisis management depends not only on the appropriate composition of the crisis team, but also on their ability to make the right decisions and to make the best use of all available options. It is necessary to be aware that the emergence of a crisis is a reality, and that

they must be followed by planned and prepared procedures, methods, and techniques in order to be resolved. Crisis management must be an integral part of all management activities and processes. A circular economy is a sustainable development strategy that creates functional and healthy relationships between nature and human society. The perfect closing of material flows in long cycles opposes our current linear system, where raw materials are transformed into products, are sold and, after their use, are incinerated or landfilled.

In this context, it should be noted that the transition to an environmentally-friendly economy will not be easy and requires that substantial attention will be paid to address problems of waste, recycling, reducing dependence on classical energy sources, and prioritizing other alternatives and measures to protect the environment. It will be necessary to invest in the research and promotion of green innovation. Innovations cannot focus primarily on production processes, but change must also take place in the creation of new business models. Nonetheless, the most important part of the whole process is education, through which companies must reflect their ecological thinking into corporate production.

REFERENCES

[1] Zuzák, R., Königová, M.(2009). Krizové řízení podniku. Praha, Grada Publishing, 2009. ISBN 978-80-247-3156-8

[2] Hajnik, B., Sakál, P.(2004). Príprava ľudských zdrojov pre oblasť environmentálneho krízového manažmentu. Zborník z konferencie Zvolen, TU, s. 313 – 316. ISBN 80-228-1330

[3] Vidová, J. (2014) Európa efektívne využívajúca zdroje. In For fin : odborný mesačník pre financie a investovanie [elektronický zdroj]. -Bratislava : Fin Star, 2014. ISSN 1339-5416, 2014, č. Júl-august, s. 1-5 online. Available on: http://193.87.31.84/0190799/FF-2014_Jul_August_Vidova Europa efektivne vyuzivajuca zdroje.pdf

[4] Národná stratégia trvalo udržateľného rozvoja [online]. Available on: http://www.tur.vlada.gov.sk/data/files/950.pdf.

[5] www.basf.com/sk/sk/we-creata-chemistry/creating-chemistry-magazine/

[6] Guarda, D.: Circular Economy And A Blockchain Driven Sharing Economy? Blockchain 07/08/2016, Available on: https://ipv6.net/news/circular-economy-and-ablockchain-driven-sharing-economy/?shared=email&msg=fai

[7] Mihok, J., Borovský, A.(2003). *Krízový manažment v podmienkach upadajúcej firmy*. Herľany, s.87-90. ISBN 80-7099-720-6

[8] Mihok, J., Vidová, J.(2006). *Riadenie podniku v kríze*. Košice: Multiprint, . 69 s. ISBN80-8073-533-6

[9] Sakál, P. a kolektív autorov. (2007) *Strategický manažment v praxi manažéra*. Trnava: SP SYNERGIA. 703 s. ISBN 978-80-89291-04-5

[10] Papula, J. (2012) Stratégia a s*trategický manažment – Výzva pre manažérov*. Wolters Kluwer (Iura Edition) Bratislava. ISBN 9788080785338

CHALLENGES IN FORMULATING AND IMPLEMENTING OF STRATEGIC HUMAN RESOURCE MANAGEMENT

Denada Olli[214]

DOI: https://doi.org/10.31410/eraz.2018.430

Abstract: *This is research explores the challenges faced by hotels in Pogradec, in formulating and implementing strategic human resource management (SHRM). The study addresses the lack of empirical research into SHRM in Pogradec hotels at a time of rapid growth in the tourism industry. Building on current debates regarding strategic HRM, this research explores the relationship between human resource management and business strategies, and the challenges of HRM strategy realization. The study has a particular focus on Recruitment and Selection, and Training and Development, as these two functions lie at the heart of how businesses access and develop the critical skills required to implement SHRM initiatives. This research reveals challenges in formulating and implementing strategic HRM exist within Hotels of Pogradec. The challenges include the readiness of HR as a strategic partner, the absence of clearly-defined HR-related key performance indicators, labour scarcity, and government policies relating to labour and education. Discussion of the practical implications of the study's results highlight the actions recommended as necessary for the three target audiences and the Government, to improve professional practice pertaining to strategic human resource management in hotels.*

Key words: *Strategic human resource management (SHRM), strategy, human resource management (HRM), challenge, industry of hotels.*

Introdaction

SHRM[215] is regarded as a complex process which is constantly changing and evolving and developments in and around the field of SHRM are now well documented in the management literature. SHRM is concerned with the integration of HRM strategies with business strategies (Guest, 1987; Schuler, 1992). In recent decades, highlights the increased potential and contribution of SHRM and the need for integration between HRM and business strategy (Budhwar and Aryee, 2008).The focus of SHRM is therefore to create an alignment (fit) between the organization's HR initiatives, through its policies and practices, with the corporate and strategic business unit plans. Baird & Meshoulam (1998, p.122) propose that human resource management must not only achieve external fit, 'but also the components of human resource management must fit with and support each other'. The idea is to create a synergy between the HR policies and practices, for example recruitment and selection, and training and development, ensuring that one policy or practice supports and reinforces the performance of the other.

The review of SHRM literature in this current study is presented in three levels of analysis, namely, organizational, industry and societal. According to Boxall and Purcell (2011), organizations need to comply with the labour laws of the countries they operate in, adapt to

[214] University "Fan S. Noli", Faculty of Economic, Korce, Lagjia nr.1, pall tek kisha e re, Pogradec, Albania
[215] Strategic human resourse management

national economic conditions, including the relative difficulty of recruiting suitable labour in local markets, and address the issue of differences across countries in cultural norms. Industry analysis encapsulates the 'relationship between organisation and the economic, technological and socio-political factors that are specific to their particular industry'[216] .The hotel industry is often seen as one with poor employee practices and it experiences high employee turnover rates due to poor HR practices .The characteristics of this industry, which is labour intensive, and the vulnerability of the industry to environmental impacts such as market fluctuations further justifies the significance of SHRM in the hotel industry. Societal analysis is about how organizations adapt to the characteristics of the societies in which they are located. With the focus on the tourism sector as one of the enablers of region of Pogradec economic development, the country needs to enable its hoteliers to generate sufficient returns to encourage re-investment into the sector as well as attract higher quality staff.

This research interest mirrors the SHRM formulation and implementation challenges from the above three analytical perspectives. With over 20 years, the issue on barriers to effective implementation of SHRM remains unresolved. More attention should be paid to implementation issues in SHRM, (Becker & Huselid, 2006). Also, as much of the SHRM literature is primarily focused on developed and rich countries, there is scope to focus research on the phenomenon of SHRM in countries with emerging economies, such as Albania. Development of SHRM within an emerging economy country, such as region of Pogradec, there is still scope to explore the subject and the challenges hotel managers face in creating the strategic impact of HR.

This research has a particular focus on two HRM functions, Recruitment and Selection and Training and Development, as these two functions lie at the heart of how businesses attract and develop the critical skills in human resources required to achieve business goals (Kelliher and Johnson, 1987, 1997; Aaker, 1989). These functions are frequently described as essential functions (Snell, 1992; Mc Gunnigle and Jameson, 2005) within the hospitality HRM literature, with huge budgets being spent annually on employee recruitment and training.

This research focuses on Pogradec hotels and it is not only one of its first kind to explore the challenges of SHRM, it is one of the first to examine the formulation and implementation challenges of SHRM faced by General Managers, in Pogradec hotels. The tourism industry is rapidly growing in region of Pogradec, because as most hotels operating in work towards ensuring that they are able to attract tourists, efforts are in place to ensure that effective business strategic plans are formulated and implemented to achieve this endeavour.

The focus of study is: This research is about how managers of hotels can be better prepared in embracing strategic HRM, and how the Pogradec Association of Hotels, and the government can be supportive of strategic HRM initiatives, by being aware of the challenges that they are likely to face. This thesis presents an exploration of strategic human resource management (SHRM) challenges and has twin, equally important, purposes: to make original contributions both to knowledge and professional practice in this area. Within the research area, the theme is that of challenges in formulating and implementing SHRM within region of Pogradec hotels, with a focus on recruitment and selection, and training and development.

This research also takes an approach to exploring formulation and implementation of SHRM with a focus on three analytical levels – organization, industry and society[217]. Organizational

[216] Boxall and Purcell, 2011, p.76
[217] Boxall and Purcell's (2011)

fit revolves around how managers can or should, mould their HR strategies to fit in with the business strategies. Industry fit encapsulates the relationship between organizations and the specific nature of their particular industry, while societal fit is about how organisations adapt to the characteristics of the societies in which they are located.

The formulation and implementation challenges of SHRM were influenced by both industry and societal characteristics. This research aims to explore challenges from all three set of influences or analytical levels.

Analytical Levels	**Specific themes**	**Sources of the factor affecting the hotel's practices**
Organizational	• Intended versus realized strategies • Strategy Integration • Absence of clearly defined HR • Perceptions of SHRM between top management, • line managers and HR managers • Recruiting effective HR managers • HR's position and acceptance of HR as a strategic, corporate level partner • Leadership and support from top management	Internal
Industry and Societal	• Partnership between HR and line managers • HR's involvement in operations: being seen as a profit oriented department • Challenges in strategic recruitment and selection • Staff turnover • Labour scarcity • English language challenge • Education Policy • Policies on labour • Changing attitudes towards work • Challenges in strategic training and development	External

Table 1. Three analytical levels and relevant corresponding themes from the findings of this study

Strategic HRM challenges seen from the organizational level

The research has found that top management looked at strategic human resource planning differently, depending on the nature of business ownership and branding. Hotels in Pogradec, however, do put in writing where they are, where they want to go, and how they plan to get there. This is done in both formal and informal ways, as strategic planning, to hotels in Pogradec, can be both a 'planned' or an 'emergent' outcome (McGee, Thomas and Wilson, 2005). Pogradec hotels have vision and mission statements outlined for employees and the management team is responsible for communicating these to employees. The research found

that the process of environmental scanning and strategic planning does not involve all managers and, in some instances, not even the HR Manager. If strategy is also considered as "the process by which the basic mission and objectives of the organisation are set" (Tichy, Fombrun, & Devanna, 1982, p.47), the involvement of managers from various departments in the process of environmental scanning and planning seems crucial. Top management and owners of hotels decide on the future direction of the business and it is then cascaded down to all employees. There was no clear evidence of sharing of experiences that might have provided instances for hotels to link business and human resources. Moving further, the study found that most hotels maintain sufficient control over HR policies and practices and allow minimum or no interference from property owners. Regardless of the nature of business and branding, strategy still existed in hotels, which concurs with the literature. Strategy was not only restricted in competing with one another, hotels demonstrated a spirit of working together for a win-win strategy. The research found that hotels generally work together in a particular destination to attract visitors or tourists to their location. This business strategy of collectively attracting visitors, which is seemingly logical, has a potential to be further linked, as discussed by one human resource professional, to other human resource strategies like shared training initiatives and mobilizing human capital between selected hotels. This research found that hotels are careful in formulating strategies for business growth and demand for rooms, and not being falsely led by mere statistics as it was stated by one respondent. It was highlighted that government's involvement should be enhanced by providing adequate statistics for use in guiding business planning and expansion.

Perceptions of SHRM from management

Another SHRM challenge found in this study was the differences in perceptions of SHRM between general managers, HR professionals and line managers. It was found that there were differences in perceptions of SHRM among the three groups within the context of this research.

This could affect the implementation of SHRM by top management if all groups are not 'singing the same song'[218]. General managers agree in principle that SHRM has to be positioned in a more strategic perspective compared to the myopic view of traditional HRM, while recognizing that there is a lot of room for improvement before hotels can claim that they practice SHRM. However, one concern that is associated with the perception on SHRM is the ability and motivation of general employees in hotels in comprehending strategy and its related outcome, SHRM. The research also found that HR managers in hotels believe that SHRM is about 'making more money for the company'. Such a simplistic view could lead to a narrow perception and interpretation of SHRM and ultimately affect the creativity in formulating and implementing SHRM initiatives. An example of the limited view is when HR managers highlighted employer and employee relations as the main objective of SHRM. The research also found that line managers were not concerned about the differences between HRM and SHRM. They were either not sure about or did not pay attention to such terminologies.

Recruiting effective HR managers

Another important factor that enables the linking of HR strategy to the business strategy is the ability of HR leaders. This research found that HR managers could play a more effective role in strategy integration, which is supported by the literature in this respect. To effectively perform the role of a business partner, the HR manager needs to understand the organisation's

[218] Bartram *et al.,* 2007, p.37

competitive position in the industry, as well as its business direction (Lawler III and Mohrman, 2003). The quality and capability of HR managers was deemed to be a crucial factor in enabling the integration of business strategy and HR strategy. The term 'quality', as the research found, connotes competency in effective recruitment, labour relations and organisational politics, familiarity with the service industry, hand-on experience, and tertiary education.

The research found that HR managers in Pogradec lack the required competency to function as a strategic partner. The research found that HR managers in Pogradec hotels have technical skills, which include recruiting, selection, performance measurement, training, and the administration of compensation and benefits. However, they lack strategic skills, which require them to design and implement a set of internally consistent HR practices that will lead to the achievement of the organization's business objectives.

***Denada Olli**, Master of Science in Marketing and Tourism Department. Denada Olli holds the Master of Science (MSc) and is currently in PhD in Marketing with the topic: "The Role and Importance of Promotional Strategies in Tourism Development in Pogradec District" . For about 7 years Denada is a lecturer of "Tourism Types" and "Hotel Business Management" lectures at the Faculty of Economics. Denada is co-author of three articles published internally and internationally. Denada has also presented her scientific works at three national and international conferences.*

Strategic HRM challenges seen from the industry and societal levels

Partnership between managers

The findings suggested that the partnership between HR and line managers can be further improved. While the relationship was described as good in general, the spirit was more to 'comply' than to 'understand' and 'participate'. Hotels in Pogradec must explore further the partnership concept, by enhancing the involvement of line managers in HRM, as in doing so there is an organizational value (Watson, Maxwell and Farquharson, 2007). The research found that there were some tensions and confusion about the expectations of line managers towards HR managers. General Managers encourage and, in some cases, require HR managers to visit and observe various departments to have a better understanding of daily operations. Line managers' ability is limited in supporting the HR role given their workloads and job pressure (McGovern *et al*., 1997; Watson, Maxwell and Farquharson, 2007). In some cases the over-involvement of HR in operations is seen as '*encroaching*' by line managers.

This confusion is regarded as one of the sources of differences between intended and realised strategy. As much as line managers are willing to carry out HR tasks, they in return question the involvement of HR in operations. Hotels should be aware that without willing cooperation of managers to work together, implementation can become impossible. The study found that HR managers generally lack appreciation and understanding of operational processes. There is a growing concern among General Managers to recruit HR managers who have a basic appreciation of hotel operations. The study also highlighted the initiatives taken by General Managers in ensuring a stronger partnership between HR and line managers. Besides, General Managers encourage and, in some cases, require HR managers to visit and observe various departments to have a better understanding of daily operations. While effective communication was cited as an enabler in the partnership between HR and line managers, the nature of

communication was often to 'inform' rather than 'consult'. HR managers felt that their duty is to communicate the decisions of top management to the line managers.

Staff turnover

SHRM formulation and implementation requires hotels to have the necessary set of employees. The inability to forecast, acquire and retain a stable workforce can halt strategic progress. This study found that staff turnover was one of the major challenges faced by Pogradec hotels, making it difficult for hotels to attract and retain the required talent. Hotels not only faced difficulties in making competitive job offers but also in retaining its labour (Boxall & Purcell, 2011). Hotels, like other organisations, have limited control over labour and employees are free to resign and seek alternative employment. The issue of staff turnover beleaguers General Managers, HR managers and line managers alike. This study revealed that hotels come up with strategies to retain employees they regard as strategically important. Internal recruitment and promotion serves as an effective motivational tool to some hotels. Another challenge identified in this study is the turnover of HR managers. The hotels in region of Pogradec, experience a rather high turnover of HR managers and the frequent change in HR leadership makes the strategic formulation and implementation process difficult. As highlighted in the findings of this research, HR operations in the hospitality industry, by virtue of being labour intensive and service- focused, are viewed as challenging. According to the findings, the inability to pay attractive remuneration is one of the reasons why hotels fail to attract and retain employees.

Employees too want to move from one hotel to another, to show in their resumes that they have worked in different hotel settings. The findings noted that two to three years is the average length of service hotels can expect from a managerial position.

Labour scarcity

Staff turnover and labour scarcity is a twofold challenge. Experiencing turnover and not being able to fill vacancies effectively due to labour scarcity adds to the SHRM challeng Pogradec hotels. Hotels normally control recruitment by not filling vacant positions if the occupancy rate is low. Managers who lose employees due to attrition have difficulties in replacing them due to labour cost controls. Some operation departments have never had full staffing or the number of employees they are budgeted to recruit. Line managers complained that they often end up doing the work themselves. Cost-cutting measures including labour cost control are needed for business survival. However, if staffing levels are insufficient, the findings indicated that line managers are worried about the impact on the quality of service and guests' satisfaction.

Housekeeping and Food and Beverages departments seem to be the most affected by the labour shortage dilemma. Though to some extent the jobs in these two departments can be regarded as low or unskilled, hotels still find it difficult to attract applicants. This research confirms Boxall and Purcell's (2011, p. 27) view that, '*we should not imagine that employees are passive or lack power resources, even in low-wage, low skill conditions*'. The hotels, as the research indicated, work together under the umbrella body Association of Hotels, to address this issue and various solutions are proposed, which include outsourcing, working closely with colleges and improving the '*image of a hotel job*'. Despite working together in addressing the issue of labour scarcity, the study revealed there is competition between these hotels in attracting staff. The research found that international brands are more successful in attracting and retaining employees compared to independent hotels, having better HR policies and career paths for employees through effective succession planning.

Conclusions and recommendations

1. The hotels at region of Pogradec should consider the HR department and its strategy to be part of the business strategy and other functional strategies, while identifying some if not all the HR best practices that should be adopted. These hotels could further improve in their strategic outlook by holding HR more accountable, by introducing clearly defined key performance indicators for the HR department.
2. It is important that managers at all levels are in 'harmony' with SHRM to ensure successful formulation and implementation of SHRM initiatives. Top management, HR managers and line managers had varying opinions and expectations on SHRM in hotels of Pogradec. Internal systems within the hotels too led to different perceptions of SHRM between the different levels of managers, measuring the outcome of HR polices and the partnership between HR and other managers.
3. There is considerable scope for HR managers to play a more effective role in strategy integration within hotels in this region.. They need to better understand the company's business direction and its competitive position in the market place, as the research found that HR managers in Pogradec lack the required competency to function as a strategic partner. Some of the strategic skills that HR managers should possess to contribute effectively in strategic integration are strategic visioning, critical thinking and problem solving skills, deep HR knowledge, and change management skills. Qualified and experienced HR managers have better credibility and secure representation, which testifies their strategic importance and allows them to contribute towards strategic integration.
4. Top management leadership is another crucial factor that enables successful formulation and implementation of strategic HRM initiatives. In integrating strategies, HR Managers rely on top leadership to direct and guide them accordingly, and this ultimately shapes HR and its strategic reforms.
5. Staff turnover was regarded as one of the major challenges. The hotels in region of Pogradec faced difficulties in attracting and retaining talent. The labour market is unpredictable and outside the control of hotels as potential employees have many other options for unskilled jobs outside the hotel industry. Changing jobs frequently, in some cases, is seen as an effort in making the curriculum vitae look more attractive, resulting in two to three years as the average length of service most hotels can expect from a managerial position.
6. The hotels are worried about investing in training and developing, for fear of becoming a 'training ground' for their rivals, where employees leave after acquiring new knowledge and skills. Although training needs analysis is well documented, in some cases, it is not effectively executed due to shortage of training funds. However, when implemented, training and development programmes are not evaluated from the basis of return on investment.
7. The political environment which includes the government policies on recruitment and training is another challenge. The hotels in region of Pogradec, depend on political support for strategy execution. Lack of clarity and inconsistency in enforcement of policies related to recruitment and training were major concerns affecting the hotels.

References

Ahmad, R., Solnet, D., & Scott, N. (2010). Human Resource Practices System Differentiation: A Hotel Industry Study. *Journal of Hospitality and Tourism Management, 17, 72-82.*

Anastassova, L. and Purcell, K. (1995), "Human resource management in the Bulgarian hotel industry: from command to empowerment?", *International Journal of Hospitality Management*, Vol. 14 No. 2, pp. 171-85.

Boxall, P.F. (1995) Building the Theory of Comparative HRM. *Human Resource Management Journal*, 5(5): 5–17.

Boxall, P. and Purcell, J. (2003) *Strategy and Human Resource Management.* Basingstoke: Plagrave.

Evans, P. (1986). The strategic outcomes of human resource management. *Human Resource Management*, 25(1), 149−167.

Hoque, K. (2000). *Human resource management in the hotel industry: Strategy, innovation and performance*. London: Routledge.

Maxwell, G. A., & Watson, S. (2006). Line manager challenges in human resource development: A study of Hilton International's UK hotels. *International Journal of Hospitality and Tourism Administration*, *27*, 83-99.

A STUDY TOWARDS THE VERIFICATION OF FACTOR ANALYSIS WITH MULTIDIMENSIONAL SCALING: MEYER AND ALLEN'S ORGANIZATIONAL COMMITMENT SCALE

Aslı Beyhan Acar[219]
Nil Selenay Erden[220]

DOI: https://doi.org/10.31410/eraz.2018.438

Abstract: *Aim of this paper is to compare the results of factor analysis conducted on Allen and Meyer's organizational commitment scale with the results of multidimensional scaling analysis conducted with the same scale. Results reveal that both analyses lead to similar outcomes. Therefore, it is highlighted that multidimensional scaling could be used as an alternative method for factor analysis, as also it gives the chance to see the scale items on a two-dimensional space. Recommendations for future research in line with study findings are discussed.*

Key words: *Factor analysis, multidimensional scaling, organizational commitment*

1. THEORETICAL BACKGROUND

First of all, paper gives general information about multidimensional scaling analysis in comparison to factor analysis. Second Allen and Meyer's organizational commitment scale is explained. Third, importance of the study is explained. Data collection method and analyses' results are presented so as to compare the results of factor analysis with MDS. Finally, the similarities among analyses' results and why researchers should consider using MDS as an alternative to factor analysis is discussed.

Multidimensional scaling (MDS) is an exploratory data analysis technique that can model nonlinear relationships among variables, can handle nominal or ordinal data, and does not require multivariate normality. As such, MDS provides an alternative to methods such as factor analysis and smallest space analysis [1].

"The goal of an MDS analysis is to find a spatial configuration of objects when all that is known is some measure of their general (dis)similarity. The spatial configuration should provide some insight into how the subject(s) evaluate the stimuli in terms of a (small) number of potentially unknown dimensions" [2].

MDS reveals the psychological dimensions hidden in the data that can meaningfully describe the data. The multidimensional representations resulting from MDS are also often useful as the representational basis for various mathematical models of categorization, identification, and/or recognition memory [3].

Factor analysis is likely the most frequently employed method for examining the structure of cognitive ability interrelations. However, MDS methods can provide alternative representations

[219] Istanbul University, School of Business, Avcilar Campus, Istanbul, Turkey
[220] Istanbul University, School of Business, Avcilar Campus, Istanbul, Turkey

of ability interrelations that are visual in nature and intuitively appealing [4]. MDS, descriptive in nature, albeit can present similarities between objects on a two-dimensional basis; whereas factor analysis, correlation matrices are used to define the dimensions of a construct.

MDS has been an important tool in psychology, mathematical anthropology, and social network analysis for understanding the structure of choices, cognitions, and social proximity. Cognitive psychology has used multidimensional scaling (and related procedures) in a wide variety of ways. In contrast, in political science (and more mainstream sociology) MDS has been very little used, while for decades factor analysis has been the standard analytic tool for modeling the dimensional structure of political or social attitudes [5].

To sum up, MDS is not used very often due to its descriptive nature. However, no normality is required in MDS. It gives distance models of which are intuitively appealing that can work with all data types. Factor analysis, on the other hand, has been the standard analytic tool for decades. It requires normality and works with at least interval scale types. No distance model can be drawn in factor analysis, only rotation matrices can be interpreted to find the underlying dimensions in the data set. Aim of this study is to compare factor analysis with mds analysis by using organizational commitment scale, to show that mds can also be used in organizational behavior, human resources management and related fields.

The organizational commitment is a positive attitude towards the organizations employees work in. According to Allen & Meyer's studies on the construct, organizational commitment has three components namely as affective commitment, continuance commitment and normative commitment. Affective commitment refers to an emotional attachment or identification with the organization. Continuance commitment refers to a kind of negative commitment; in which employees would possess due to not having another work place alternative, basically it is a realization of the costs associated with leaving the organization. Finally, normative commitment refers to a feeling of obligation to continue employment [6].

The next section summarizes the importance of the study and data collection method.

2. METHOD

The objective of the study is to compare factor analysis with MDS analysis by using organizational commitment scale of Meyer and Allen. The main aim of this study to show that MDS can be used instead of factor analysis in organizational behavior, human resources management and related fields as it's used in psychology and give more comprehensive results. However, we do not aim to assess the scale of Meyer and Allen. The scale is used as an example in order to prove MDS analysis should be used in researches in organizational behavior more than current.

In the scale of Meyer and Allen (1990) [7] 24 items are used. In this study we used original scale except from 4 items The items are coded such as OC1, OC2…OC20. Depending on the original scale, the number of items which belonged to each dimension are indicated in below:

- Affective commitment scale items: First 6 items belong to this dimension.
- Continuance commitment scale items: Items between 7-16 belong to this dimension.
- Normative commitment scale items: Items between 17-20 belong to this dimension.

160 supervisors of a training academy center of a telecommunication company have participated in the study. 5-point Likert scale is used in Organizational Commitment Questionnaire ranging from 1: absolutely disagree to 5: absolutely agree.

3. RESULTS

The original form of organizational commitment scale has three components as mentioned previously, however the data in this study presents five components. In this study it's mainly aimed to indicate that MDS and factor analysis give us parallel results while we can reach a wider conclusion by using MDS analysis. As such, the essential point is how similar results MDS and factor analysis can provide rather than reaching similar results with the original scale dimensions. In this respect, first, factor analysis results are summarized, second MDS findings are summarized.

Depending on Table 1, the data are suitable for factor analysis due to KMO value; 0,671> 0,50. The items that are used in the scale and their factor loadings can be seen in Table 2. Depending on factor analysis we found five components while there are three components in the original scale. Five factor loads explain 68,3% of variance as cumulative.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	,671
Sig.	,000

Table 1: KMO and Bartlett's Test

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6,068	30,340	30,340	6,068	30,340	30,340	3,594	17,970	17,970
2	2,626	13,129	43,470	2,626	13,129	43,470	3,002	15,008	32,978
3	1,812	9,061	52,531	1,812	9,061	52,531	2,686	13,430	46,407
4	1,620	8,098	60,629	1,620	8,098	60,629	2,352	11,762	58,169
5	1,540	7,700	68,329	1,540	7,700	68,329	2,032	10,159	68,329
6	,941	4,705	73,034						
7	,920	4,601	77,635						
8	,766	3,828	81,462						
9	,625	3,125	84,587						
10	,554	2,772	87,359						
11	,514	2,569	89,928						
12	,425	2,123	92,051						
13	,410	2,048	94,099						
14	,304	1,519	95,619						
15	,247	1,234	96,853						
16	,176	,882	97,735						
17	,156	,780	98,516						
18	,133	,666	99,182						
19	,093	,467	99,649						
20	,070	,351	100,000						

Table 2: Total Variance Explained

	Component				
	1	2	3	4	5
OC3	,770	,430	,001	-,150	-,160
OC2	,766	,341	,173	-,132	-,076
OC1	,703	,365	,229	-,142	-,170
OC6	,641	,405	,174	-,053	-,113
OC11	,544	,146	-,026	,293	,105
OC14	,515	-,239	,506	,073	,018
OC17	,251	,794	,176	,063	-,062
OC18	,250	,789	,211	,099	-,056
OC19	,101	,773	,110	,250	-,023
OC13	,314	,387	,583	,099	-,003
OC15	,020	,373	,556	-,125	-,200
OC16	,103	,120	,820	-,002	-,121
OC20	,035	,133	,864	-,067	-,066
OC7	-,511	,212	-,169	,419	,404
OC8	,182	-,008	,229	,651	,486
OC9	-,195	,136	-,015	,833	-,079
OC10	,092	,139	-,141	,801	-,136
OC4	-,128	,005	-,096	-,142	,874
OC5	-,163	-,228	-,226	,008	,819
OC12	-,563	,134	-,036	-,371	,152

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 14 iterations.

Table 3: Rotated Component Matrix[a]

In Table 3, each component found as a result of factor analysis are indicated. According to the factor analysis, the item coded OC12 has 0,152 (<0,30) factor load. It's appropriate to remove the items which have factor loadings less than 0,30. Due to this, OC12 should be removed from the scale.

Young's S-stress formula 1 is used.

Iteration	S-stress	Improvement
1	,22706	
2	,18836	,03870
3	,18542	,00294
4	,18502	,00040

Iterations stopped because
S-stress improvement is less than ,001000

For matrix
Stress = ,17774 RSQ = ,89079

Table 4: Evaluation of the Data with MDS Analysis

A small stress value indicates a good fitting solution, whereas a high value indicates a bad fit. Kruskal provided some guidelines for the interpretation of the stress value with respect to the goodness of fit of the solution [2].

Stress Goodness of fit
>0,20 poor

0,10 < 0,20 fair
0,05 < 0,10 good
0,025 < 0,05 excellent
0,00 < 0,025 perfect

In this study, the stress value is nearly 0,18 and indicates fair level fit. Stress value is computed as 0,89079. It means that stress value for k=2 dimension explains the data as the proportion of 0,89079.

Stimulus Number	Stimulus Name	1	2
1	OB1	1,5687	-,1460
2	OB2	1,7879	-,1863
3	OB3	1,6936	-,1578
4	OB4	-1,3287	-1,4674
5	OB5	-1,2680	-1,3322
6	OB6	1,5699	-,3933
7	OB7	-2,0354	-,0908
8	OB8	-1,5078	,1082
9	OB9	-1,4118	,6491
10	OB10	-1,6379	,7740
11	OB11	,6781	-,5708
12	OB12	-,2709	-1,6188
13	OB13	,0502	4739
14	OB14	,9459	-,3022
15	OB15	-,1030	,8038
16	OB16	-,5941	,8276
17	OB17	,6786	,2393
18	OB18	,5084	,6236
19	OB19	,3384	,8983
20	OB20	,3379	,8678

Optimally scaled data (disparities) for subject 1

	1	2	3	4	5	6	7	8	9	10	
1	,000										
2	,466	,000									
3	,333	,000	,000								
4	3,061	3,298	3,191	,000							
5	3,030	3,022	3,079	,773	,000						
6	,522	,453	,207	3,105	2,917	,000					
7	3,441	3,769	3,707	1,671	1,503	3,593	,000				
8	2,964	3,124	3,102	1,937	1,615	2,999	1,355	,000			
9	2,990	3,162	3,018	2,425	2,123	2,922	1,268	1,110	,000		
10	3,133	3,419	3,254	2,355	2,132	3,291	,981	1,215	,554	,000	
11	1,227	1,298	1,273	2,456	2,203	1,127	2,717	1,996	2,238	2,390	
12	2,526	2,756	2,517	1,919	2,109	2,226	2,252	2,530	2,353	2,861	
13	1,722	1,883	1,824	2,214	2,324	1,822	2,130	1,743	1,742	1,981	
14	1,209	1,140	1,097	2,609	2,421	,849	3,030	2,180	2,479	2,774	
15	1,870	2,152	2,125	2,289	2,427	2,322	2,165	2,102	2,013	2,074	
16	2,259	2,559	2,506	2,353	2,322	2,387	1,777	1,582	1,661	1,554	
17	1,366	1,551	1,303	2,599	2,523	1,127	2,501	2,337	2,157	2,254	
18	1,718	1,625	1,492	2,682	2,584	1,601	2,449	2,185	2,055	2,132	
19	1,925	2,008	1,690	2,767	2,526	1,786	2,478	2,112	1,958	2,083	
20	1,771	1,898	1,953	2,639	2,601	1,777	2,611	2,040	2,002	2,387	

	11	12	13	14	15	16	17	18	19	20
11	,000									
12	2,029	,000								
13	1,395	2,125	,000							
14	,933	2,093	1,343	,000						
15	1,744	2,017	1,130	1,585	,000					
16	2,113	2,146	1,079	1,631	1,396	,000				
17	1,182	2,072	1,229	1,312	1,583	1,750	,000			
18	1,300	2,247	1,188	1,471	1,651	1,647	,280	,000		
19	1,646	2,352	1,336	1,664	1,852	1,721	,759	,526	,000	
20	1,861	2,211	1,078	1,290	1,297	,832	1,472	1,480	1,810	,000

Table 5: Stimulus Coordinates Dimension

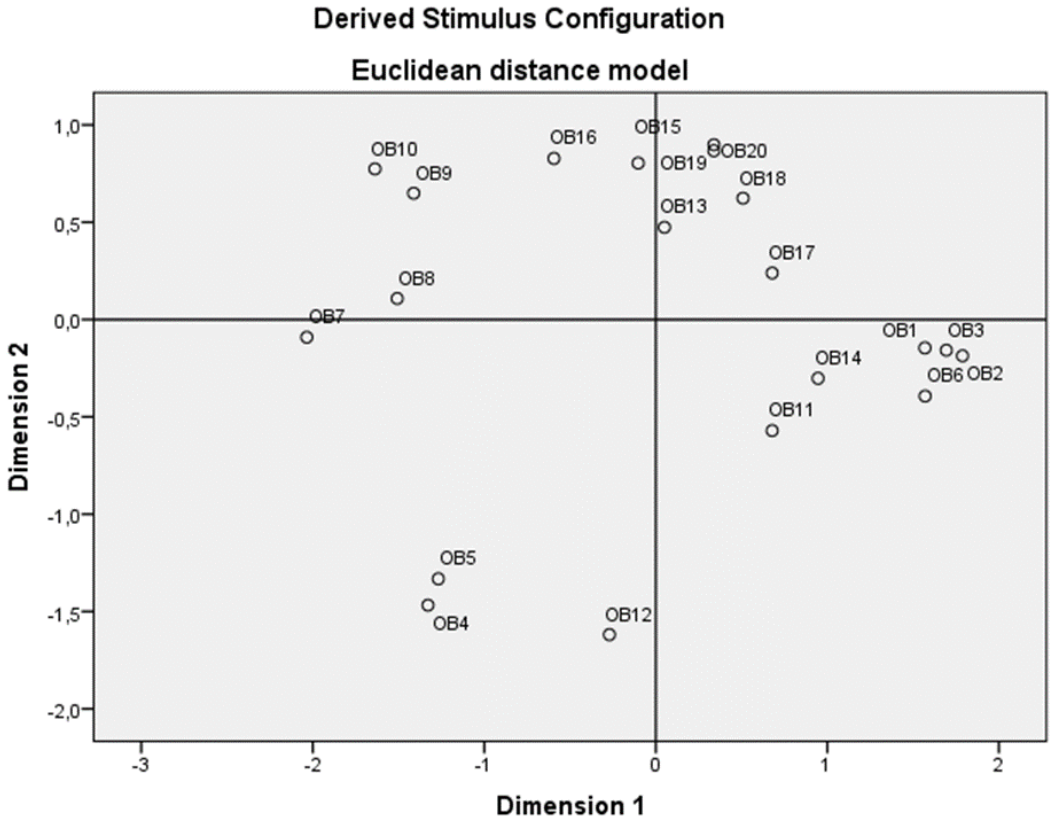


Figure 1: Euclidean Distance Model

The primary outcome of an MDS analysis is a spatial configuration, in which the objects (items) are represented as points. The points in this spatial representation are arranged in such a way, that their distances correspond to the similarities of the objects: similar object are represented by points that are close to each other, dissimilar objects by points that are far apart.

As seen in Stimulates Coordinates table, the items that are coded as OB1, OB2, OB3, OB6 have positive and over 1 degree. Due to this, these are the strongest dissociatives in the first dimension. In Figure 1, those items are very close one another in the area of (+ x, - y). According to the factor analysis these four items have relatively high factor loads as between 641-770. Additionally the items OB11 and OB14 are close points with the four items in Figure 1. According to the factor analysis those six items are in the same component as it's seen in Table3.

Depending on the Stimulates Coordinates table, OB4 and OB5 have negative and under 1 degree in both two dimensions. This shows that they are dissimilar items from the rest of the items in each dimensions. In Figure 1, it can be seen that OB4 and OB5 are very close one another while they are very far from other items. Depending on the findings in Table 3, these two items have more than 800 factor loads and form a component.

4. DISCUSSION

As can be seen from the results, MDS and factor analyses lead to similar outcomes. Besides, MDS has less number of assumptions compared to factor analysis and it is capable of creating fıgures on a two dimensional basis, and/or on a three dimensional basis. MDS is descriptive whereas factor analysis computes factor weights and is more inferential. As such, one can say that this is the main reason factor analysis is used more often. However, MDS can also be preferred if it serves for research aims; especially when distance models need to be drawn. This study recommends that MDS can be considered as an alternative method in behavioral researches.

***Aslı BEYHAN ACAR**, Associate Prof., in School of Business at Istanbul University. She is also responsible for the short-middle term education-training programs for business life in the Institute. She completed her bachelor's degree in the Faculty of Political Science at Istanbul University. After her graduation, she attended Faculty of Education at Kocaeli University for a while. She received her postgraduate (2006) and Ph.D. (2011) at the Department of Human Resources Management in the Faculty of Business Administration at Istanbul University. Her main research interests include training-development function of HRM, international industrial relations, labour economy, EU social policies, microfinance and employment in developing countries. She has been the director of Career Development Center since 2017. She lectures in human resources management and organizational behaviour fields.*

In addition to similarity of results, one can consider that it is essential to discuss the factor structure of Allen and Meyer's organizational commitment scale, revealed both with factor and MDS analyses. In this respect, we explain why the scale yielded to a more different structure rather than its original forms with evidence from the literature.

Scales developed on US samples containing multiple dimensions with positively or negatively worded items lead to consistent factor structures. However, when the same scale is translated into another language and tested on different ethnic groups, the original factor structure might not come up. Instead, it is observed that negatively worded items form artificial factors and item confounding happen among dimensions [8]- [9].

The mentioned phenomenon is observed on Turkish samples, as well. For example organizational commitment scale of Allen and Meyer does not always have three components as expected [10]. Especially reverse items form artificial factors, and items of affective and normative commitment do not appear in different dimensions. Instead, it is seen that they overlap with each other under multiple dimensions.

The reason behind the artificial factors formed by negatively worded or reverse items could be explained as such; negative items create cognitive dissonance in the mind of participants and lead to a kind of difficulty in interpretation of sentences [8]. On the other hand, positively

worded sentences are easier to understand and answer [11]. As such, even though positively and negatively worded sentences are formed in order to represent the same dimension, as their cognitive processing in the mind of participants differ, answers might vary among those items.

Confounding items from affective and normative commitment dimensions could be explained as such that individuals might perceive being emotionally attached to their workplace and sense of obligation in the same context instead of separating them. Besides, organizational commitment is viewed as a two component variable in exchange and psychological approaches. Exchange approach investigates commitment based on an exchange between the individual and the organization, while psychological approach investigates commitment based on an identification between the individual and organization [12]. Normative commitment might be developing in the context of this identification. Briefly, it would not be expected for an individual to have high levels of normative commitment if (s)he is not emotionally attached to his organization. Thus, it seems as if, in Turkish culture affective and normative commitment might be overlapping instead of appearing as different forms of commitment.

Nil Selenay ERDEN, *Ph.D., is an assistant professor of Organizational Behavior at Istanbul University, School of Business, at the department of Organizational Behavior since 2017. She served as a teaching and research assitant between 2010 and 2017, received her Ph.D. in 2015, currently lectures in Statistics, Research Methods, Social Responsibility and Behavioral Sciences. She specializes in research design and dark side of positive behavioral concepts. Her dissertation was "Extra-ordinary Role Behaviors and Job Creep: Relationships among Affect, Withdrawal Intention and Organizational Identification".*

Limitations of this study could be addressed as the usage of convenient sampling method which is highly judgmental and small sample size (160 participants). However, the aim of this study was to show that, MDS, a descriptive tool, is capable of providing the similar results with the popular factor analysis and could be used more often in social studies.

REFERENCES

[1] Jaworska, N. & Chupetlovska-Anastasova, A. (2009). A review of multidimensional scaling (MDS) and its utility in various psychological domains. Tutorials in Quantitative Methods for Psychology, 5 (1), 1-10.

[2] Wickelmaier, F. (2003). An introduction to MDS. *Sound Quality Research Unit, Aalborg University, Denmark*, *46*(5), 1-26.

[3] Steyvers, M. (2002). Multidimensional scaling. *Encyclopedia of cognitive science*, 1-7.

[4] Tucker-Drob, E. M., & Salthouse, T. A. (2009). Methods and measures: Confirmatory factor analysis and multidimensional scaling for construct validation of cognitive abilities. *International Journal of Behavioral Development*, *33*(3), 277-285.

[5] Brazill, T. J., & Grofman, B. (2002). Factor analysis versus multi-dimensional scaling: binary choice roll-call voting and the US Supreme Court. *Social Networks*, *24*(3), 201-229.

[6] Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review*, *1*(1), 61-89.

[7] Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational Psychology*, *63*(1), 1-18.
[8] Wong, N., Rindfleisch, A. and Burroughs, J. (2003). Do reverse-worded items confound measures in cross-cultural consumer research? The case of the material values scale, *Journal of Consumer Research, 30,* 72-91.
[9] Schmitz, M. F. and Baer, J. C. (2001). The vicissitudes of measurement: A confirmatory factor analysis of the Emotional Autonomy Scale, *Child Development, 72*, 207-219.
[10] Uzun Ö. & Yiğit, E. (2011). Örgütsel stres ve örgütsel bağlılık ilişkisi üzerine orta kademe otel yöneticileri üzerinde yapılan bir araştırma. *Eskişehir Osmangazi Üniversitesi İİBF Dergisi, 6*, 181-213.
[11] Weems, G.H, Onwuegbuzie, A.J. & Collins, K.M. (2006). The role of reading comprehension in responses to positively and negatively worded items on rating scales. *Evaluation and Research in Education*, *19*, 3-20.
[12] Mayer, Roger C. And Schoorman, David F. (1992). Predicting participation and production outcomes through a two dimensional model of organizational commitment. *Academy of Management Journal, 35*(3), 671-684.

COMPARISON BETWEEN MNCS AND DOMESTIC COMPANIES ON TRAINING AND DEVELOPING EMPLOYEES IN SERBIAN CONTEXT

Marko Slavkovic[221]
Marijana Simic[222]

DOI: https://doi.org/10.31410/eraz.2018.447

Abstract: *The entry of multinational companies into the domestic market is motivated by various factors which are: better access to the market and logistics, access to physical resources, access to human resources, ie talents and competences, with affordable costs. On the other hand, transfer of technology, knowledge and advanced management approaches are promoted as key benefits for the host country. The process of diffusion of these benefits in a national economy requires time, but also the flexibility and openness of domestic firms to adapt and learn. The aim of this paper is to identify, through a comparison of human resource management activities, a difference in the field of training and employee development between domestic and multinational companies. The purpose of the work is to identify, through the diagnosis of the current situation, the weaknesses in HR activities with domestic companies and, based on that, define the guidelines for improving these activities in order to elicit potential inferiority in relation to multinational companies and world practice.*

Key words: *training, employees' development, multinational companies, Serbian companies*

1. INTRODUCTION

By changing the political environment, privatizing state-owned companies and gradually improving the business environment in Serbia after year 2000 there were attractive conditions for the coming of multinational companies and the beginning of their operations on the domestic market. An important goal for economic policy makers was to increase the competitiveness of domestic companies through the process of privatization and selling them to significant foreign investors, among which multinational companies stand out. Privatization of domestic companies by multinational companies should be accompanied by better use of existing resources and improvement of all weakness of business operations.

The essential advantage of multinational companies lies in their ability to transfer their resources through a network of subsidiaries in other countries [1]. In general, Mello [2] suggests that foreign direct investment (FDI) is a composite set of capital, knowledge and technology, and that their positive impact on the growth of the domestic economy is possible, but that growth depends on the spillover effect on domestic companies. Multinational companies as key bearers of foreign direct investment in Serbia, besides creating added value in their own subsidiaries, should also give their positive contribution to the development of the national economy through spillover effect and better operations of domestic companies. Cantwella and Piscitello [3] found that the choice of multinational companies' sites for the technological and research activities of its subsidiaries is positively related to the size of the local market, local educational and scientific infrastructure, and the potential for spillover effects within the

[221] Faculty of Economics University of Kragujevac, Djure Pucara Starog 3, 34000 Kragujevac, Serbia
[222] Faculty of Economics University of Kragujevac, Djure Pucara Starog 3, 34000 Kragujevac, Serbia

industry itself and other industries. On the other hand, research [4] shows that the competitive advantage of multinational companies depends on their ability to assimilate knowledge from different affiliates and that there are two ways to achieve this: first, through the strengthening of the competitive advantage of each branch, and others, through the transfer of an externally acquired knowledge from affiliates through the entire structure of the corporation.

Significant presence of multinational companies in Serbia opens the possibility of exploring their influence on the operations of domestic companies. The focus of this paper is focused on the practice of human resources management and the identification of the spillover effect in the domain of activities related to employee training and development. The purpose of the work is to determine the difference in these activities between multinational companies and domestic companies and, based on that, determine the guidelines for improving these activities with domestic companies in order to strengthen their competitiveness.

2. LITERATURE REVIEW

The accelerated development of the internationalization of business and the expansion of multinational corporations during the 1990s gave incentives to authors to explore opportunities and ways of gaining competitive advantage in a global environment. Starting from the view that human resources have a significant impact on the creation and maintenance of a competitive advantage [5], the focus of research is on human resources management in different national cultures, which during the 2000s influenced the development of international human resources management. Research within this discipline relies heavily on multinational companies, and key research focuses on HR activities in the international environment. Studies carried out by Dowling, Welch and Schuler [6] have shown that effective international human resource management can make the difference between successful and unsuccessful companies in international business. Similar results came from Edwards, Ferner and Sisson [7] and Scullion [8] who found that international business depends on international human resources management, or the way multinational companies manage their human resources in an international environment.

Marko Slavkovic *is an assistant professor at the Faculty of Economics University of Kragujevac. He received his Ph.D. at the Faculty of Economics in Kragujevac in the field of Strategic Human Resource Management. He holdes the following subjects at graduate, master and doctoral academic studies: Human Resources Management, International Human Resource Management and Strategic Management in Tourism. He participated in the preparation of a number of analyzes, studies and projects for the needs of the subject of economy. As a consultant, he has been engaged permanently or occasionally by domestic and foreign companies. He is currently serving as Vice Dean for Science at the Faculty of Economics in Kragujevac. He is a member of the Executive Committee of the Economist Society of Kragujevac.*

International training and development are identified as key activities of international human resources management [8]. Their impact on business performance depends primarily on the characteristics of individuals, the organizational climate that supports learning, transfer of knowledge and skills, but also from the evaluation of these activities in order to change and improve them through corrective measures [9]. Guerrero and Barraud-Didier [10] found a positive influence of training and development of employees on general organizational performance and financial performance on a sample of 180 French companies. The results of

their research show that greater investment in employee training and development contributes to value creation in the organization. The positive impact of employee training on business performance was determined by Garcia [11], who through the conducted research concluded that higher investments in employee training lead to higher productivity of employees and greater satisfaction of customers, owners and employees. Benefits derived from investment in employee training and development go beyond organizational frameworks, and the range of significant impacts is best defined by Aguinis and Kraiger [12]. These authors have identified the domain of the impact of training and development of employees on four levels: each employee, teamwork, organization and society. Their research is particularly important because the influence of investments in training and development of employees on the general social context has been identified. Salas et al. [13] agrees with this effect and suggest that investment in employee training and development is often seen as the primary mechanism for the development of the national economy.

At the individual level, training and employee development positively influence the improvement of knowledge, skills and abilities of employees. In practical terms this allows each individual to increase his value and mobility on the labor market, as well as the possibility of employment in the event of a job loss. For each organization, training and employee development are a means to preserve competitive advantage and increase productivity. Investing in employee training and development mean at the same time the increase in the value of human capital in a national economy, which can contribute to attracting investment, increasing living standards and strengthening the competitiveness of the national economy. In the digital economy this gets even more important because the possibilities of knowledge transfer and skills increase significantly in the web environment [14].

Marijana Simic *is a Ph.D student at the Department for Management and Business Administration, at the Faculty of Economics, University of Kragujevac. In September 2016 she received her bachelor's degree. Bachelor thesis entitled: "Employee Motivation with the Purpose of Improving Organizational Performance", she defended at Faculty of Economics, University of Kragujevac. The topic of her Master's thesis was related to human capital and entrepreneurship, and in October 2017 she received her master's degree. Main fields of her research interest are human resources, entrepreneurship and organizational behavior. She was awarded by scholarship: Dositej's fund for Young Talents – the Ministry for Youth and Sports. She is engaged as a young researcher at the project of Ministry of Education, Science and Technological Development of the Republic of Serbia. Also, as a young researcher she has participated in several international scientific conferences.*

3. RESEARCH METHODOLOGY

Research into the difference in HR activities between multinational companies and domestic companies was conducted on a sample of 180 respondents. Three questionnaires were eliminated from the sample: two questionnaires were rejected because respondents were employed by a state-owned company and one questionnaire was rejected because the number of employees was less than 10, so the total number of respondents is 177. Respondents are employed in domestic and foreign companies operating in the territory of the Republic of Serbia. It has been determined arbitrarily that the sample is made up of privately owned companies with more than 10 employees.

Based on the obtained data, 44% of the companies covered by the sample have over 250 employees, 36% of the companies have between 50 and 249 employees, and 20% of the companies have from 10 to 49 employees. The majority of companies included in the sample belong to the production sector, as much as 71%, 15% belong to the trade sector, while 14% belong to the service sector. Regarding the ownership structure, 89 companies are owned by domestic private equity, and 88 companies belong to foreign private equity.

Empirical research was carried out using the survey method. As a tool for collecting primary data a questionnaire with 11 statements was used. Employee training activities were observed with 6 items, while employee development activities were observed through 5 items. The respondents showed the degree of agreement with the stated items on the five-point Likert scale.

Analysis of completed questionnaires was done in the SPSS, the Statistical Packages for the Social Sciences. Descriptive statistics, arithmetic mean and standard deviation are calculated. The reliability of the obtained results was measured through the value of the Cronbach's Alpha coefficient. Using the t test, data analyzes were conducted, based on which were found statistically significant differences in estimates of findings between multinational companies and domestic companies.

4. RESULTS AND DISCUSSION

The values of the Cronbach's Alpha coefficient for training activities and employee development activities are 0.895 and 0.903, respectively, which is assessed as the high value of this coefficient, and are able to establish the validity of the used items. The results of the research related to the difference in training activities between multinational companies and domestic companies are presented in Table 1.

MNCs vs. Domestic companies		
item	MD	P
There are formal training programs for new employees in order to acquire the necessary skills.	0.306	0.177
Employees are provided with different training programs.	0.051	0.312
The employees in the organization actively improve their professional skills.	0.930	0.015**
Talented employees have good access to training to develop their potential.	0.489	0.118
The organization emphasizes mentoring and employee training.	0.486	0.117
Training activities are focused on the development of specific skills and knowledge of required firms.	0.370	0.139

Table 1: Training

Based on the research results it can be noted that only one employee training activity has a statistically significant difference between multinational companies and domestic companies. Multinational companies pay more attention to the active improvement of the skills of their employees. In all other employee training activities, there is equality between multinational and domestic companies.

The results of research related to the comparison of employee development activities between multinational and domestic companies are presented in Table 2.

MNCs vs. Domestic companies		
item	MD	p
Employees in the firm have clear career development guidelines.	0.025	0.390
There is a plan for replacing employees in the company in case of leaving the company or retirement.	0.691	0.072*
There are programs of development of employees with high potential in the performance of work.	0.730	0.063*
There are career development programs for talented individuals in the company.	0.738	0.064*
There are developed programs for retention of employees with high potential in the company.	0.786	0.051*

Table 2: Employees development

The results show that a statistically significant difference exists in most employee development activities and that multinational companies are superior to domestic companies. Equity between multinational companies and domestic companies exists only in employees' perception of a clear career development perspective. Summarizing the above mentioned research results, it can be concluded that both multinational companies and domestic companies pay equal attention to short-term goals and increase employee productivity through their training, but that domestic companies lack a long-term perspective that relates to employee development. In practical terms, domestic companies have a focus on achieving better business performance in the current period, but the strategic development of the organization through the development of employees is neglected, which can lead to a weakening of competitiveness in the long run. This type of subordination of strategic priorities leads to maximizing results in the short run and endangering the long-term perspective of companies.

5. CONCLUSION

The results of the research show that in the field of training of employees domestic companies do not lag behind the practice applied by multinational companies, but lag behind in the activities related to the development of employees. In conditions of increased mobility in the global labor market and the growth of demand for talented individuals [15], this can lead to the fluctuation of the best individuals. On the other hand, the obtained results show that domestic companies are not completely inferior to multinational companies and that the human resource management practice implemented by multinational companies is also applied to domestic companies. This also points to the partial existence of the effect of spill-over of human resource management practices in the domestic economy, which simultaneously contributes to the improvement of the national economy and the competitiveness of domestic enterprises. Human resources as a good mediator for knowledge transfer [16] can encourage faster absorption other factors of competitiveness by domestic domestic companies.

The limitation of the conducted research is the absence of a qualitative analysis of the observed human resource management activities. The research is based on the assumption that multinational companies have superior human resource management practices which, as such, are subject to copying by domestic companies. On the other hand, multinational companies often use local knowledge resources that they adopt and spread through the network between other subsidaries [17]. In this context, future research will focus on qualitative comparison of human resource management practices applied by domestic companies and multinational

companies in order to diagnose the knowledge and expertise resources that multinational companies adopt from domestic companies.

REFERENCES

[1] Kogut, B., (1983) Foreign direct investment as a sequential process. *The multinational corporation in the 1980s*, MIT press, Cambridge, Massachusetts, pp. 38-56.

[2] DeMello, L.R. (1997) Foreign Direct Investment in Developing Countries and Growth: A Selective Survey, *Journal of Development Studies*, Vol. 34, No. 1, pp. 1-34.

[3] Cantwella, J., Piscitelloa, L. (2002) The location of technological activities of MNCs in European regions: The role of spillovers and local competencies, *Journal of International Management*, Vol. 8, No. 1, pp. 69–96.

[4] Cantwella, J., Piscitelloa, L. (2002) The location of technological activities of MNCs in European regions: The role of spillovers and local competencies, *Journal of International Management*, Vol. 8, No. 1, pp. 69–96.

[5] Wright, P.M., Dunford, B.B., Snell, S.A. (2001) Human resources and the resource based view of the firm, *Journal of Management*, Vol. 27, No. 6, pp. 701-721.

[6] Dowling, P.J., Welch, D.E., Schuler, R.S. (1999) *International Human Resource Management: Managing People in a Multinational Context*, South-Western College Publishing, Cincinnati, OH.

[7] Edwards, P.K., Ferner, A., Sisson, K. (1996) The conditions for international HRM: two case studies, *International Journal of Human Resource Management*, Vol. 7 No. 1, pp. 20-40.

[8] Scullion, H. (1994) Staffing policies and strategic control in British multinationals, *International Studies of Management and Organization*, Vol. 3 No. 4, pp. 86-104.

[9] Shen, J. (2005) International training and management development: theory and reality, Journal of Management Development, Vol. 24 No. 7, pp. 656-666.

[10] Guerrero, S., Barraud-Didier, V. (2004) High-involvement practices and performance of French firms, International Journal of Human Resource Management, Vol. 15, pp. 1408–1423.

[11] Garcia, M.U. (2005) Training and business performance: The Spanish case, *The International Journal of Human Resource Management*, Vol. 16, No. 9, pp. 1691-1710.

[12] Aguinis, H., & Kraiger, K. (2009) Benefits of training and development for individuals and teams, organizations, and society, *Annual review of psychology*, Vol. 60, pp. 451-474.

[13] Salas, E., Tannenbaum, S., Kraiger, K., Smith-Jentsch, K. (2012) The Science of Training and Development in Organizations: What Matters in Practice, *Psychological Science in the Public Interest*, Vol. 13, No. 2, pp. 74–101.

[14] Kraiger, K. (2008) Transforming our models of learning and development: Web-based instruction as enabler of third-generation instruction. *Industrial and Organizational Psychology: Perspectives on Science and Practice*, Vol. 1, pp. 454–467.

[15] Farndale, E., Scullion, H., Sparrow, P. (2010) The role of the corporate HR function in global talent management, *Journal of World Business*, Vol. 45, No. 2, pp. 161-168.

[16] Minbaeva, D.B. (2005) HRM practices and MNC knowledge transfer, *Personnel review*, Vol. 34, No. 1, pp. 125-144.

[17] Foss, N.J., & Pedersen, T. (2002) Transferring knowledge in MNCs: The role of sources of subsidiary knowledge and organizational context, *Journal of International Management*, Vol. 8, No. 1, pp. 49-67.

MANAGER, MANAGERIAL STRESS AND SPORTS RECREATION

Ivica Nikolić[223]
Jova Miloradić[224]

DOI: https://doi.org/10.31410/eraz.2018.453

Abstract: *The complexity of the manager's tasks creates permanent neuro-muscular tension, which in turn causes fatigue and stress as unavoidable consequences of intellectual work. Sports recreation as a means for dealing with intellectual fatigue and stress becomes the basic remedy in the modern business world, especially for managers.*
This paper analyzes the sources and causes of managerial stress and the ways to overcome it. The importance of sports recreation, which is a very effective means for fighting fatigue and stress, has been emphasized. In this way, each manager's efficiency can be significantly improved.

Key words: *manager, fatigue, stress, sports recreation*

1 INTRODUCTION

Although fatigue is a consequence of all types of human physical and psychological activities, it particularly affects people on managerial positions and positions that bring a lot of responsibility – i.e. managers.

Fatigue as a phenomenon can be examined from several aspects. First and foremost, it is a medical phenomenon, so most texts about fatigue can be found in medical literature. Fatigue has also been studied by many psychologists and psychiatrists, and we will often find texts on that topic by scientists from the domain of sports recreation, who observe fatigue from that aspect [1]

Regardless of the way in which we observe fatigue as a phenomenon, there is no doubt that it causes stress and that not reacting to the feeling of fatigue is actually the first stage of stress.

2 OBJECTIVE AND SUBJECTIVE SYMPTOMS OF FATIGUE

At the end of the 19th century, I. M. Sečenov posited the following central-neural fatigue hypothesis: "The source of the feeling of fatigue is usually looked for in working muscles, but I find it exclusively in the nervous system." [2]

It is known that the nerve cell represents the source of motor impulses and trophic influences. During the process of muscle work, in both the nerve cell and working organs – muscles – the sources of energy are being spent and the conditions of the internal environment of the body are being changed. That is why during the increase of fatigue the state of the nerve cell depends on the processes that are occurring both in the nerve cell and at the periphery, i.e. in the working

[223] Educons University, Faculty of Business Economics, Sremska Kamenica, Vojvode Putnika 87, Republic of Serbia
[224] Educons University, Faculty of Business Economics, Sremska Kamenica, Vojvode Putnika 87, Republic of Serbia

organs. Deteriorated supply of blood to the muscles, the decrease of enzymes' activity, biochemical and biophysical changes in receptors and contractible muscle structures, disorder of hormonal functions of the endocrinal apparatus and the tissues' thirst for oxygen play a significant role in the fatigue increase; in many cases, the decrease of the intensity of activity of vegetative systems while they are working, especially of glands of internal secretion, has preventive character because it prevents the organism from further exhaustion, and it does not occur as the result of complete exhaustion of energy sources.

Prof. ***Ivica Nikolić,*** *born 17.09.1962. in Odzaci, Republic of Serbia. Employed at the Faculty of Business Economics of the Educons University in Sremska Kamenica, Republic of Serbia, on subjects in the field of management, strategic management, leadership and change management. Also, his interest is oriented on the Sports Recreation of Managers, at the study program Management. He is the author of a larger number of scientific papers in the field of management and business, as well as papers about sports recreation of managers. He has the title of Associate professor.*

Thus, fatigue occurs as the consequence of a complex interconnection among peripheral, hormonal and central-nervous factors, where the latter ones have the dominant importance, while the role of individual factors in the development of fatigue during different types of muscle activity can be uneven. Thus, it is important to discover all the weak links in the series of physiological processes which give out first [3]

Earlier	Later
Tension, trembling	Reduced response to sudden sound irritations in the form of jerking, jumping, etc.
Increased reaction to sudden sound irritations in the form of jerking, jumping, etc.	Confusion, depression, afraidness
Increased desire to consume alcohol and tobacco	Lamentation on the comrades and superiors
Increased interest in the opposite sex	Lack of interest, flight, attention and memory
Irritability, searching for someone else's mistakes and excessive criticism	Reduced personal neatness and cleanliness
Concern and irritability	Social retreat, a person becomes an object for jokes to comrades or they consider him a nasty "silly"
Scattering and the emergence of new preoccupations	Tics
Indiscipline such as failure to meet regular obligations (without objective causes), unnecessary risks in work, avoiding conversations with others, etc.	Stutter
	Extrasystoles

Table 1: Objective symptoms of chronic fatigue [4]

Earlier	Later
Vague headaches	Unclear vision and hearing disorders
Loss of appetite	Unclear sensations in the chest: pain in the left chest, breathing difficulty, palpitation of the heart.
Diarrheas	Problems with urinating (high concentration and urine acidity)
Increased urine secretion	Food digestion disorders and constipation
Physical exhaustion: a) which occurs after night rest (acute aging) b) which is maintained despite a good rest during several consecutive nights (chronic form)	Unclear pain and unpleasant feelings in the limbs
	Insomnia and restlessness
	Lack of ability for longer concentration
	Reducing interest in the opposite sex
	Sudden unconsciousness

Table 2: Subjective symptoms of chronic fatigue [4]

3 MANAGERIAL STRESS

The most common definition of stress that psychologists quote is: “stress is a state of prolonged tension which causes physiological and psychosomatic reactions whose consequences are the deterioration of the body’s health conditions, the feeling of frustration, and mental and physical exhaustion.”

Within the domain of their activities, each manager encounters the following situations daily: rapprochement of conflicting interests, balancing poor interpersonal relationships within an organization, continuous communication with everyone and at every level, solving conflicts, organizing and controlling human resources. We are wondering: how do managers usually find solutions for all such problems while remaining “healthy” persons with strong motivation that pushes them towards achieving the set goals of the organization?

“God, grant me the serenity to accept the things I cannot change, courage to change the things I can, and wisdom to know the difference.” (Bishop Nikolaj Velimirović)

This popular Serenity Prayer in many ways reflects the formula for success at performing managerial functions, and the application of that principle gives solid postulates for preventing managerial stress.

However, stress has its positive sides which stimulate managers and give them motivation for overcoming all difficulties and for continuing with their activities. Every managerial challenge is followed by the increase of the secretion of adrenaline into the bloodstream by adrenal glands, which stimulates the improvement of physical abilities, and most of all of psychological abilities, which makes people more efficient and more effective, more powerful and wiser [5]. Great managers often say that they are most successful at their job when they have the most

obligations and when their schedule is completely filled with managerial tasks and obligations [1].

3.1 SOURCES AND CAUSES OF STRESS

The sources and causes of managerial stress can be found everywhere in managerial line of work, and not only at the workplace. Stressors (the causes of stress) can be classified in a few categories [6]:

1. work conditions and work environment in general;
2. interpersonal relationships within an organization and in the surroundings;
3. permanent responsibility and preoccupation with business activities;
4. lack of active rest and hipokinesia;
5. presence of aggression as a managerial characteristic;
6. exaggerated devotion to building managerial career;
7. lack of optimism and positive feelings in managerial personality**.**

Stress occurs when the manager encounters a problem that requires "stepping out" of his behavioral stereotypes and taking actions and measures for which he himself cannot find justifications. In other words, throwing managers off balance made up of his usual reactions to problems causes stress [7].

However, today, nobody is spared when it comes to stressful situations. If you have some goals in life, if you are trying to achieve something, or even if you are trying to fulfill basic needs, you will be exposed to various stressors which will stimulate you to succeed and to achieve the set goals. When stress is observed from that aspect, it gets a positive dimension, and as such it is desirable when it comes to every person, and thus also when it comes to every manager [1]

3.2 WAYS OF OVERCOMING STRESS

The ways of overcoming stress or preventing it from occurring can be defined through forms of subjective influence on one's personal characteristics, one's actions and self-analysis, and on forms of motor activities by applying various contents of sports recreation with the goal of preventing or overcoming stressful situations [8].

We are going to list some of the examples of preventing and eliminating stress:

- *self-analysis –*
  1. know the true nature of your personality,
  2. know your temperament and the prevailing feelings,
  3. identify the strengths of your personality (fear and audacity),
  4. know your reactions to unexpected stressful situations.
- *self-improvement –*
  1. identify stressors (situations and personalities),
  2. recognize problems you can solve,
  3. recognize unsolvable situations,
  4. control your reaction to stressful situations,
  5. accumulate psychological balance of your personality in case there is stress,
  6. maintain the level of your psychological stability in case the stress occurs.
- *managerial aspect–*
  1. make the employees speak openly about the problems within the organization, about their objections and suggestions,

2. conduct sociometric test and identify the structure of the social group within your organization (potential leaders, homogenous or heterogeneous cliques within the organization's staff, different sectors etc.),
3. encourage creativity and innovation of the organization's employees,
4. provide continuous training that enables the employees to react properly to stressful situations within the organization,
5. define achievable and sensible goals of the organization,
6. analyze your decisions continuously, and especially analyze the structure of the management (have we placed the right people on the right positions?),
7. define with precision the criteria for advancement and rewarding within the company,
8. try to identify the extremes within the organization,
9. continuously analyze, check and control the interpersonal relationships within the organization,

- *subjective estimation of the situation and reacting –*

1. ask yourself if the problem is really that important,
2. talk about the problem with a person of confidence,
3. think about the positive aspects of the solution to the problem,
4. relegate minor problems to the lower levels of the management,
5. always solve the gravest problem first,
6. confront the problem immediately, without hesitation,
7. do not pay too much attention to other people's criticism (especially coming from the people whom you do not esteem),
8. teach yourself to disconnect from the problem when you wish to,
9. never blame other people for your failure.

Besides the listed advice for taking action in stressful situations, we must mention "the most important" resource, which undoubtedly, at least from our point of view, has countless positive effects when it comes to preventing and eliminating managerial stress. That resource is SPORTS RECREATION.

4 SPORTS RECREATION FOR FIGHTING STRESS

Sports recreation enables us to maintain the functioning of all functional systems of the body at a high level, to prevent aging, and to influence subjective feelings of the users of sports recreational programs [8].

If we remind ourselves that we have defined health as "the absence of illness" and as a high level of homeostasis of organs and organ systems, and if we know that the cause of stress is precisely the discontinuity in the functioning of organ systems, then it is easy to draw a conclusion that sports recreation is a fundamental resource for preventing fatigue of any man, and especially of managers.

It is widely known that fatigue happens the moment when an organism is not anymore capable of functioning in accordance with its

Prof. ***Jova Miloradić****, born 13.06.1959. in Ruma, Republic of Serbia. Employed at the Faculty of Business Economics of the Educons University in Sremska Kamenica, Republic of Serbia, at the study program Finance and Banking, as an Associate professor. His narrower scientific field is insurance and management.*

usual activities and processes due to the pressure on certain systems (when it comes to managers, most often on central nervous system) and their super functions.

Consequently, managers must possess a defense system against fatigue, which will be supported daily by regular sports recreational activities, which will enable them to prevent the occurrence of fatigue in every moment. That is why the optimal form of physical exercise for managers are programed forms of sports recreation, which will improve their physical state through increased psycho-physiological challenge and decrease the possibility of the occurrence of acute and chronic fatigue, or stress.

Doing programed sports recreational activities daily (regularly) causes the following indications:

- improvement of the functioning of the cardio-vascular system, first and foremost through functioning of the hearth and the bloodstream, increase of the hearth volume, as well as balancing blood pressure and decrease of the arteriosclerosis index;
- improvement of the functioning of the respiratory system within crease of the vital capacity of the lungs and of oxygen consumption;
- improvement of all metabolic processes in the body;
- improvement of the functioning of the central nervous system, which significantly influences the decrease of potential stress;
- improvement of the levels of all motor dimensions of the personality: strength, speed, coordination, elasticity, agility, stamina etc.;
- the increase of muscle mass and muscle tonus, and the increase of work ability;
- decrease of the levels of cholesterol in blood and of all increased parameters that harm a person's health;
- establishing hormonal regulation of the functions of the body and of the organ systems;
- decrease of extra bodyweight by decreasing the fat tissue.

Besides the listed improvements of the functioning of the body and the organ systems of the users of active rest, it has been proved that after six months of doing sports recreationally it is possible to decrease psychological tension and irritability by about 60 %, to decrease headaches by about 40 %, and to decrease dizziness by about 30 %. The data refer to people who are middle-aged or older [9].

5 CONCLUSION

One of the most important changes that are the result of regular physical exercise is the improvement of aerobic endurance, which results in better hearth functioning. It is especially interesting that by regular use of programed sports recreational activities we create better oxidation of the brain cells and a whole series of other beneficial effects inside the brain.

Physical and intellectual exertion are in high correlation, so their effects are the same. In other words, by developing physical abilities we also develop our mental health and emotional reactions.

Regular sports recreation is becoming a "cultural image" in the contemporary society. What is especially evident is the increase of the number of amenities for sports recreation within business premises of companies, where managers have the chance to use programs for sports recreation during breaks (ex: "mini programs with targeted purpose"), to ensure the

accumulation of “new energy” that will enable them to continue their work, and thus overcome fatigue and prevent managerial stress.

REFERENCES

[1] Nikolić, I. (2009) *Sportska rekreacija menadžera*, Beograd.
[2] Sečenov, I.M., Pavlov, I.P., N.J.Vedenski, N.J. (1952) *Fiziologija nervnog sistema*, Izabrana dela, AMN, SSSR.
[3] Volkov, V.M. (1977) *Oporavak u sportu*, Moskva.
[4] Dimitrijević, B.(1975) *Zamor*, Beograd.
[5] Gligorovski, V., Mancheski, G., Angeleski, M. (2018) *Quantification of the Managerial Stress*, TEM Journal, Vol. 7, Iss. 1, pp. 201-210.
[6] Radnović, B., Radnović, V. (2013) *Managerial Stress Management as an Asset in People Management Being a Marketing Strategy Element*, Industrija, Vol. 41, No.2, pp. 123 – 136.
[7] Vrdoljak Raguž, I., Čučuk, I. (2017) *Managerial Stress – Effects and Consequences*, Dubrovnik International Economic Meeting, pp. 519 – 532.
[8] Meško, M., Videmšek, M., Karpljuk,D., Štok, Z. M., Podbregar, I. (2009) *Occupational Stress Among Slovene Managers with Respect to Their Participation in Recreational Sport Activities*, Zdrav Var, Vol. 49, pp. 117-123.
[9] Nikolić, I. (2006) *Sportska rekreacija u turizmu*, Beograd.

THE INTERNSHIP, A CHANCE FOR COMPANIES, BUT ESPECIALLY FOR STUDENTS

Marius Calin BENEA[225]

DOI: https://doi.org/10.31410/eraz.2018.460

Abstract: *In the dictionary, the internship is defined as „an official or formal program to provide practical exception for beginners in a profession".*
As a result, it represents a good insertion on the labor market for young people who start to build a career.
However, there are cases where the trainee does not make the most of such experience, either because of him or the employer.
That is why we recommend that both sides should prepare the internship program. On the one hand, companies have to offer their employees a workspace or at least a common space with the staff so they can be directly involved in the affairs of the organization and they can put into practice the theoretical knowledge studied in college.
On the other hand, the trainee should be as well prepared as possible with regard to the organization where he wants to do the internship. More specifically, to learn the company's history, growth plans, and organizational culture, which makes services or products unique, who forms competition, and what opportunities to grow if there are prospects to continue their career in this context. Then be careful, try to accumulate as much as de facto experience at the workplace and learn as much from the people in the company with whom they work directly.
This way, both camps - intern and employer - will benefit from an internship program.
The purpose of this article is to point out that internship in Romania is a factor of development, relating the relations between universities and companies. But unfortunately it faces great difficulties today in Romania. That is because of both, universities and companies.

Key words: *Internship, Company, Student.*

1. INTRODUCTION

An internship program can mean both a successful career start, an excellent way to gain practical experience, the chance to get to know professionals and interact with people with common passions. If some of the students are looking for a perfect internship from the first months of college, others expect to find the ideal program or acquire the theoretical knowledge they need. Both variants may prove to be winning as long as the candidate shows seriousness, perseverance and determination.

2. DIFFERENCES BETWEEN INTERNSHIP AND TRAINEE PROGRAMS

It is true that internships and trainee programs generally consist of a combination of study and work activity over a clearly defined time period, but there are fundamental differences between them.

[225] „Politehnica" University Timișoara, Faculty of Engineering Hunedoara, str. Revoluției, Nr.5, Hunedoara, Romania

	Internship	Trainee
Who is it addressed to?	For students, masters and graduates.	For students and graduates, as well as for employees. There are no specific requirements in this respect, depending on each program.
Type of organization	NGO / Company	Company
Remuneration	Most of the time internship programs are paid. However, there are also programs with a shorter duration (one month) or some areas where almost all internship programs are not paid (eg Advertising).	All are paid Payroll benefits as a full-time job (medical insurance, paid leave, bonuses, etc.). For some trainee and management training programs, pay may exceed that of a job entry level.
Time schedule	Full-time flexible or part-time	Generally, full time
Duration	Generally between 2 and 6 months, the average being 3 months.	Depends on the company. It usually lasts between one and two years.
Recruitment process	A complex recruitment process that may include one or more interviews and skill tests.	A complex recruitment process that may include an assessment center.
The required experience	It does not require experience in the field, but involvement in extracurricular activities will greatly weigh in the selection process.	Experience in the field or a maximum level of experience you can have to apply.
Academic Recognition	It can take the place of the practical training required for the accumulation of ETCS	It can take the place of the practical training required for the accumulation of ETCS
Location	Local National International	Local National International

Over time, a series of misconceptions about internships, training programs, and internships have been formed. The table above clarifies the picture of this kind of programs.

2. THE SIGNIFICANCE OF INTERNSHIP FOR A STUDENT

An internship program can mean both a successful career start, an excellent way to gain practical experience, the chance to get to know professionals and interact with people with common passions. If some of the students are looking for a perfect internship from the first months of college, others expect to find the ideal program or acquire the theoretical knowledge they need. Both variants may prove to be winning as long as the candidate shows seriousness, perseverance and determination.

Often, the chances of a young graduate to engage in the labor market, especially in the field where he is done, are minimal. More and more employers are looking for experienced people

who do not need much time to accommodate and who can produce from the first days after hiring. Therefore, the recent graduates get to accept jobs that are not in the field for which they have prepared themselves, and hope that one day luck will give them a laugh.

There are advantages on both sides, if both sides want to share their knowledge. An internship program should be based on the win-win principle, so that each party can win. Practices of the kind in which the practitioner is exploited and are not given any new information are not indicated at all, although they are practiced in many places.

Benefits of the employer

The employer, through the program of practice, offers a place where students / graduates can work and gain experience. By doing so, the company receives extra workload and tasks can be divided so that everyone can work efficiently over time. Also, those who come in internship have fresh knowledge, are willing to work and want to say the best. After the practice period, the employer can select one or more practitioners to provide them with a stable job based on the observations during the internship.

The advantages of the practitioner

As a student is the easiest way to enter the labor market in the studied field. They have the opportunity to learn directly from those with experience and can see what their job really means. As a practitioner, you must make the most of this time, because there is the possibility of being hired to finish it.

3. INTERNSHIP PROGRAMS - A STAGE SOLUTION FOR THE INSERTION OF YOUNG PEOPLE INTO THE ROMANIAN LABOR MARKET

Romania is faced with the urgent need to make quick and effective decisions to implement viable programs that reduce these gaps and breaks between employers and potential employees.

Education, study, vocational training and then concrete work on the labor market are significant stages in human life as a social being and at the same time aspects that concern and define any responsible society.

Internship, the way to a permanent job

This year, 2018, eMAG is organizing the fifth edition of the eMAG Talent Internship program. The program has emerged from the desire to attract young talents with growth potential, which can later become part of the team. This year, the company has open positions in six departments: Technology, Platforms, Commercial, Marketing, Finance, and Content, for year-long students, master students and graduates who want to gain experience in one of these areas. eMAG supports what the academic environment builds, and in turn creates the right context to gain experience in the business environment. Young people bring their learning needs to the program, and eMAG with real business projects we involve, mentors to guide them, and an accelerated learning plan through which, in time, they can become experts in their areas of interest. The first edition of the program was organized in 2014, and for the 22 positions in the Online Technology and Marketing Teams opened at that time, there were over 1,400 applicants. As this experience has proven to be very important as a starting point in career for students and graduates, the company has continued to organize the program every year. Thus, since the first

edition, a first step was to identify those business areas where there is a need to bring interns to work on those projects. An analysis of previous editions followed - feedback from participants, mentors, managers; and on the basis of this information the following editions improved. eMAG is committed to a communication strategy tailored to the needs of the program, a recruiting process for the profile it seeks, and a learning experience to increase both the professional and the student's personal skills. [1]

School of Banking for students who are passionate about finance

More than 1,000 young people have participated in the Learn @ BCR internship program over the past 11 years. Many have become employees of the bank.

The Romanian Commercial Bank has created this program years ago, being a promoter of the education and professional development of young people in Romania.

More specifically, the idea of the project appeared 11 years ago when BCR proposed to develop a program for students to give them the opportunity to put into practice the skills and knowledge acquired in college so as to create the premises of a school banking in Romania.

The main step was to find internal resources to develop such a long-term program designed to provide students with the skills they need to develop the way BCR does banking. Once all the details have been devised, the HR team of BCR, which is in charge of the entire internship program, went to the implementation of Learn @ BCR.

So far, around 1,000 young people have gone through the internship program, some of them being the employees of the bank today.

The internship takes two or three months, depending on the business area for which the students are selected. Each young person is assigned a mentor from the department for which he was selected, and during the internship, they receive tasks and are involved in various projects. During these, students receive constant feedback on their evolution. At the end of the internship program, BCR offers the opportunity to hire junior level students who have proven to be banking enthusiasts and showing that they can cope with business challenges. It is also very important for the bank to keep in touch with all those who have gone through programs developed for young people; so they are added to the AlumniLearn @ BCR group on social media (Facebook / LinkedIn).

During the last five years, the bank has developed programs devoted to certain important business areas for BCR and for the

***Marius Calin BENEA**, Assistant professor Ph.D. Politehnica University of Timisoara, Faculty of Engineering Hunedoara, Romania*

Marius Calin BENEA has Doctoral Degree in Economics, obtained at Bucharest University of Economic Studies, faculty of Marketing. He is assistant professor at Politehnica University Timisoara, Faculty of Engineering Hunedoara, Romania. The main interests of his research are Sustainable Marketing, Human Resources Management, Financial Markets, Logistic Management. Participant and coordinator of European programmes (CEEPUS, ERASMUS +, Summer Universities), in countries like Bosnia and Herzegovina, Macedonia, Slovakia, France.

preparation of the labor market in general: IT.Academy@BCR - a program dedicated to IT passionate students who can work with their mentors in the divisions IT of the bank; Risk.Academy@BCR - an intensive learning program for young people wishing to pursue a career in risk management. The program is built with the help of risk area professionals who support youth workshops that combine theoretical and practical aspects necessary to familiarize them with this important area. [2]

From theory to practice, with the help of internship

Between February and May 2018, OTP Bank organized an internship program to help students familiarize themselves with the banking industry. OTP Bank believes that the implementation of the theoretical knowledge acquired in the faculty is essential for young students / graduates, so they decided to put their shoulders on their training as future professionals and, why not, as people. The new generation of professionals has a great need for meaning, needs to understand "why it does" a certain thing, needs pleasant experiences at work. He wants to be involved in defining the mission and vision of the company, as well as translating its values into concrete attitudes to follow. They are the main target of internship programs because as participants in this program, students have the opportunity to discover the working principles of the banking system, to familiarize themselves with the processes specific to this industry and to experiment them in a real environment, in an environment working safely, under the guidance of bank employees.

The project was initiated and managed by the Human Resources team. More specifically, we are talking about a team that has concretized a series of ideas, intentions and plans already existing and will add elements that will lead it to the next level. Indeed, even students / graduates will shape the program further, for their feedback is encouraged. More than 100 entries The first step was the enrollment. Thus, this year, there were over 100 requests from the students of several faculties from Bucharest and the country interested in knowing the banking system and, implicitly, the OTP Bank team. The internship program is open to both undergraduate and master students. Of course, in terms of the field of activity, the bank is the first option for students from the "Finance-Banking" profile, but also students from other economic specializations were received. Being the first edition of this program, in a more complex format, there was openness for almost all students who applied. Out of the over 100 signatories, about 60 were selected. Priority was given to those from the Finance-Banking specialty, but they were also admitted to the program, within the limits of available places, and participants from other faculties.

The duration of the program was one month, during which each student was able to effectively take part, under the guidance of a tutor, to the day-to-day work of various departments in the headquarters as well as in the territorial network. At the end of the program, each student received a recommendation from the bank, with a rating from the tutor who had been joining him throughout the program. [3]

4. CONCLUSIONS

Today's generation of young people (Millenials and the Z generation) is versatile and highly digitized. They can easily adapt to change and do not have problems working in a team, these being their main strengths in a business environment in which change is usually encountered by resistance. A disadvantage for those in the younger generation is that they lack sufficient

patience in certain contexts, in the sense that they want to see results too quickly, as they are actually noticed after a certain period of time.

REFERENCES

[1] http://cariere.emag.ro/programe-studenti.html#emag-talent-internship
[2] https://www.bcr.ro/ro/cariere/programe-pentru-tineri/learn-bcr
[3] https://www.otpbank.ro/en/about-otp/about-us/careers/internship-programme

SALES PROMOTION IN THE FUNCTION OF CREATING CONSUMER SATISFACTION AND INFLUENCING CONSUMER ATTITUDES

Marina Guzovski[226]
Mirko Smoljić[227]
Marina Stanić[228]

DOI: https://doi.org/10.31410/eraz.2018.466

Abstract: *Sales promotion is one of the forms of marketing communication that affects both consumer satisfaction and consumer attitudes with various short-term incentives such as: prize programs, loyalty cards, consumer cards, credit cards, convenience cards, discounts, coupons, free products and similar.*
By linking Customer Relationship Management (CRM) and sales promotion as a marketing communication tool and by observing consumers through the behavioural and emotional component, the individual incentive means are used to identify, reward and retain profitable customers as well as attract new customers.

Key words: *sales promotion, marketing communications, consumers, satisfaction, attitudes*

1. INTRODUCTION

Companies, through different forms, i.e. means of marketing communication, inform, convince or remind consumers of products or brands they sell by using advertising, sales promotion, different events and experiences, public relations and publicity, direct marketing or face-to-face sales to connect the company with different people, places, events, brands, experiences, emotions etc. Individual forms of communication are most commonly combined in order to make the connection between the company and the consumer as successful as possible, i.e. forms of integrated marketing communications are used.

The sales promotion itself involves a pool of incentive means, mostly for the short term and are formed to encourage faster or more numerous purchases of certain products or services by the consumer or other companies and it involves tools for promotion of final consumption (samples, coupons, offering refunds, lower prices, premiums, rewards, rewarding the user, free trials, guarantees...), promotion of the store (lower prices, free goods, advertising and advertisement allowances), promotion of business operation and sales efforts (sales fairs and conventions, competitions for sales representatives...).

By connecting the Customer Relationship Management (CRM) system and sales promotion as a tool of marketing communication, mentioned individual forms of incentive means are used for identifying, rewarding and retaining profitable customers who will make more purchases, pass on their positive experiences and "bring in new consumers". When talking about building customer satisfaction, it is formed in accordance with set expectations, and the satisfaction itself

[226] College of Applied Sciences "Lavoslav Ružička" in Vukovar, Županijska 50, 32 000 Vukovar; Croatia
[227] College of Applied Sciences "Lavoslav Ružička" in Vukovar, Županijska 50, 32 000 Vukovar; Croatia
[228] College of Applied Sciences "Lavoslav Ružička" in Vukovar, Županijska 50, 32 000 Vukovar; Croatia

comes about as a result of comparing the perceived characteristics with expectations. The perceived value describes the difference between the customer's assessment of all gains and expenses of an offer and the perception of possible alternatives [1].

Kumar and Reinartz [2] define the loyalty program as a marketing process which rewards the customer with an aim of encouraging his or her loyalty, i.e. new purchases, and has become an important CRM tool with the purpose of identifying, rewarding and retaining profitable customers.

This paper presents the results of a research conducted on loyalty programs and their influence on consumer loyalty and attitudes, their favorite form of short term incentive means as well as their way of expressing satisfaction or dissatisfaction.

***Marina Guzovski**, Ph. D.*
Employed at the College of Applied Sciences "Lavoslav Ružička" in Vukovar as a lecturer. In 2015 she is graduated on the Faculty of Business Studies, Megatrend University in Belgrade in the field of social sciences, the science field of economics, marketing with the theme: "Impact of social marketing on creating a healthy lifestyle". She is the author of some twenty professional and scientific papers

2. TASKS OF SALES PROMOTION AS AN ELEMENT OF MARKETING COMMUNICATION

Coupons, competitions, rewards, gifts, samples, discounts, sales allowances, tied selling and other are means of sales promotion which have the aim of achieving a faster customer response through communication which draws customer attention and stimulates immediate purchases with different incentives which represent added value.

Some of the tasks to be achieved by sales promotion as an element of marketing communication according to are:

a) increase sales volume,
b) impact the end consumer service,
c) improve company image,
d) satisfy end consumer needs,
e) improve informing of consumers,
f) attract new and retaining existing customers,
g) increase the number of loyal customers,
h) etc. [3].

Sales promotion itself provides incentive for shopping, and the means differ according to specific goals which are to be achieved. Sellers use incentive promotions to attract people and have them try a product, to reward loyal consumers and increase repeated purchases by occasional customers. Sales promotion often attracts people who are switching brands and who are primarily looking for a low price, high value or some sort of a premium [4].

Through sales promotion, consumers are stimulated to buy larger quantities of products, try free samples of new or already existing products, which leads them to make the purchases. For the same price, they get larger quantities of related products while creating loyalty to a certain brand of products.

Introducing a loyalty program creates possibilities of introducing additional discounts, vouchers, lower prices on certain products, refunds and the like.

Loyalty programs can be defined as a marketing strategy based on providing incentives with the aim of ensuring customer loyalty to the retailer [5]. Through a loyalty program, customers are rewarded with additional products, discounts, coupons and others privileges which are available exclusively to members of the loyalty program on the basis of previous purchases and points collected in a certain time period.

By introducing the loyalty program, companies manage customer relations as well. Developing relationships with customers through a Customer Relationship Management (CRM) business system enables gathering and pooling of data on every customer, quicker decision making as well as the development of targeted marketing for the competitive market positioning strategy. By issuing the cards, customer data is gathered and data bases are created, whereas through the use of cards key buyers are identified and customer differentiation is done on the basis of their needs and value for the company. Furthermore, communication with these customers enables the establishment of closer relations and gaining insight into their shopping habits and needs; on the basis of this information, products, services and messages are adapted to each customer. In this way, communication with key customers is established, customized through meaningful and diverse messages which affects product sales and increases consumer loyalty.

***Mirko Smoljić**, Ph. D.*
Dean at the College of Applied Sciences "Lavoslav Ružička" in Vukovar
Advisor to the Minister of Science, Education and Sports of the Republic of Croatia 2005.-2012.
Ph.D. at the Faculty of Law and Economics at the University of Economic Sciences in Novi Sad on "Business Intelligence in the Fight against Crime of Corruption and Organized Crime"
Professor of High School - Scientific Area of Social Sciences, Field of Law, at the College of Applied Sciences "Lavoslav Ružička" in Vukovar
Assistant professor - in the Interdisciplinary Science Field, Law, Economics, Information and Communication Sciences at the "North" University of Varaždin.
Assistant professor - in the field of social sciences, field law, branch of criminal law, criminal procedural law, criminology and victimhood and professor of criminal law at the Faculty of Economy and Law of the University Business academy in Novi Sad.

3. LOYALTY PROGRAM - ADVANTAGES FOR CUSTOMERS AND SELLERS

Customer satisfaction, with the realization of successful sales, is the fundamental goal of forming the loyalty program. A satisfied customer is one who has fulfilled his or her expectations in terms of a certain product or service which was based on the perceived value, i.e. the difference between the received and the given for choices available, i.e. if the customer gains certain benefits and foresees certain expenses. The feeling of satisfaction or disappointment after shopping impacts the likelihood of the customer to buy the same product or use a service again.

Loyalty programs enable the customer to save money because the money spent is reimbursed through collected points and discounts; the communication towards the customer itself is centered around promises in terms of benefit because customers do not buy products and services, they buy benefits.

Advantages, both for consumers and companies themselves, gained through loyalty programs in terms of generating customer data bases are numerous - increase in satisfaction for current and potential customers, increase in sales, creating loyalty for the company, generating a data base on the shopping habits of consumers (ability to adapt to customers), identifying target customer segments with the ability to apply adapted marketing communication in each segment, application of direct marketing and a series of other benefits.

Through loyalty programs, based on gathered customer data, companies can create business strategies, i.e. determine which sales promotion program to use, incentive value, customer segment, means of communication as well as budget itself for the mentioned activities which will, ultimately, result in higher revenues and profits. Furthermore, based on gathered customer data companies develop their relations with suppliers because they monitor customer spendings and therefore plan purchasing based on sales, i.e. results of customer spendings and thus are able to negotiate more favorable terms, which ultimately reflects on their expenses as well.

***Marina Stanić**, student at the College of Applied Sciences "Lavoslav Ružička" in Vukovar.*

The process of creating and retaining new customers is one of the tasks of loyalty programs which enables implementation of targeted marketing activities focused on the customer. Loyalty programs are successful if they are used to increase customer satisfaction, recognize and satisfy a certain customer's need, and establish a trust-based relationship. Fostering relationships with existing customers and maintaining their loyalty is more cost-effective in the long term than developing new programs and identifying new customers because a satisfied customer will often buy from the same store and thereby lower the risk of going to the competitive store. Positive experiences created through the overall process of purchase affect customer loyalty to the store where they make their purchases and achieve certain benefits as well as to certain products.

4. RESEARCH ANALYSIS

53 respondents participated in the conducted research on sales promotion as one of the forms of marketing communication which influences consumer satisfaction through various incentives via loyalty programs. The research was conducted through an online questionnaire in the period between 22 May and 30 May 2018, and it included 69% of female and 31% of male respondents of the following age groups: from 18 to 24 years of age 57%, from 25 to 30 years of age 17%, from 46 to 55 years of age 9%, from 31 to 36 and 55 to 62 years of age 4% each, and from 63 and above 2%. According to the current status, most of the respondents (43%) were students, followed by employed persons (40%), unemployed persons (15%) and, finally, pensioners (2%). Respondents' monthly incomes are shown on Chart 1. Most of the respondents, 52.8% of them, generate an income up to 3,000.00 HRK per month. 18.9% of the respondents generate an income between 5,001.00 HRK and 8,000.00 HRK, furthermore, 15.1% of the respondents with income between 3,001.00 HRK and 5,000.00 HRK, and 13.2% of the respondents monthly generate an income over 8,000.00 HRK.

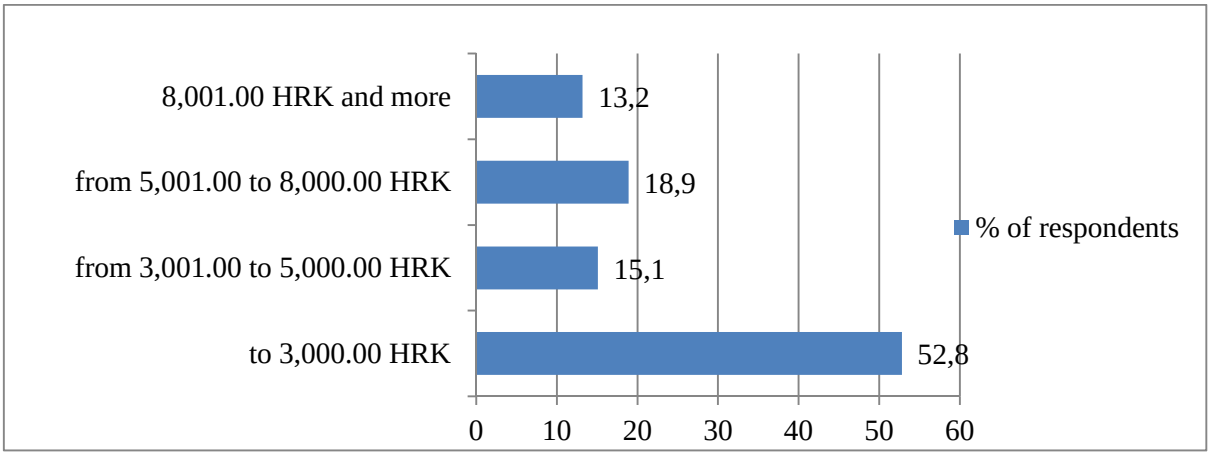


Chart 1. The structure of the respondents according to generated monthly income

Moreover, there were statements made in the questionnaire for which the respondents expressed their agreement or disagreement using a number between 1 and 5, 1 meaning "strongly disagree", and 5 meaning "strongly agree". Based on the expressed agreement with statements made, the respondents assess the loyalty program positively because it makes them feel privileged, and they communicate their positive experiences to others. The loyalty program also motivates them to shop again and it significantly influences their store choice as well as frequency of purchase. They also positively rate the option of trying out new products during which they decide whether to purchase them, as well as getting a free product as a purchase incentive. Chart 2. shows agreement or disagreement with the statements made.

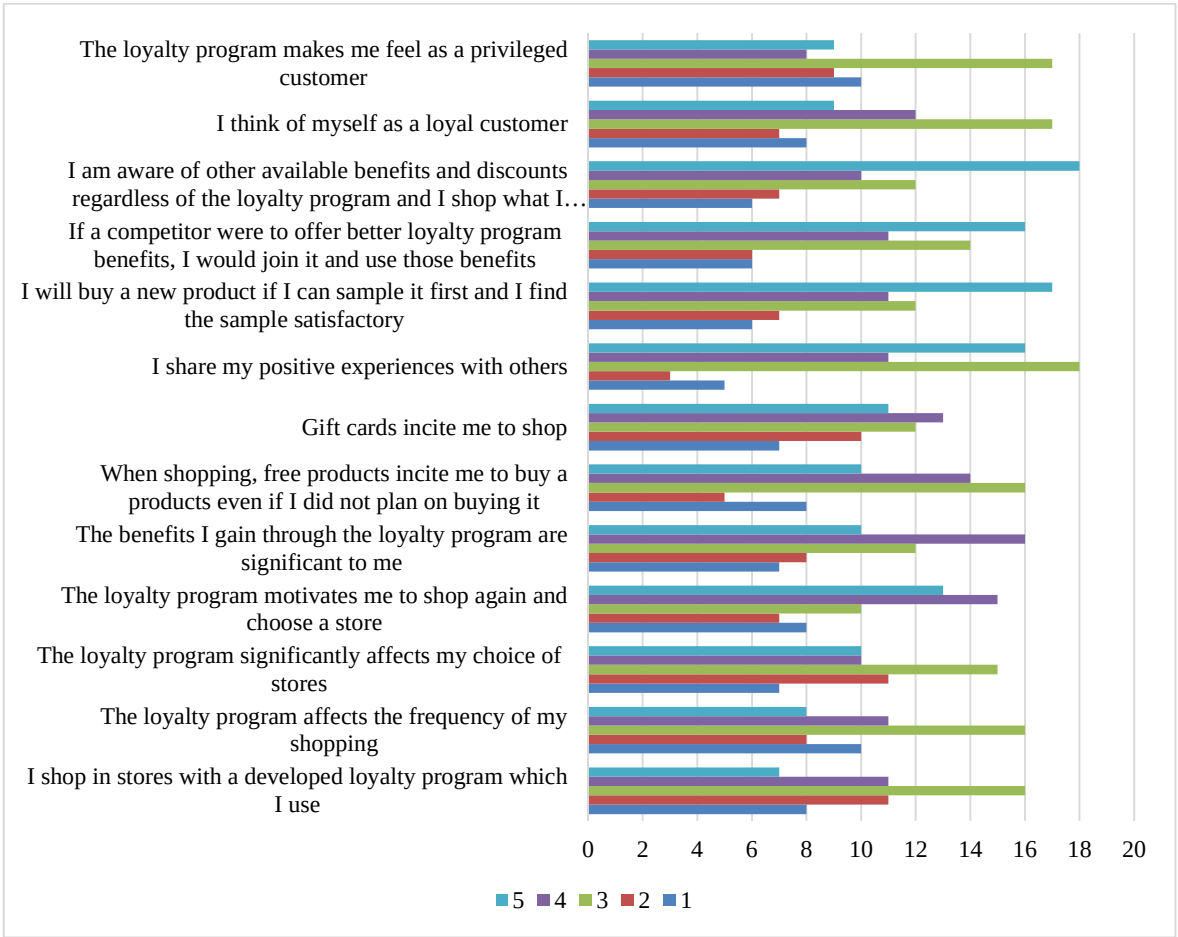


Chart 2. Respondents' agreement/disagreement with the statements made

The respondents answered the question: *Which loyalty card do you own and mostly use* by writing in their answers. Most of the respondents, 66% of them, used one of the loyalty cards during shopping, and 34% of them did not use loyalty cards. Chart 3 shows the respondent's answers and cards they used.

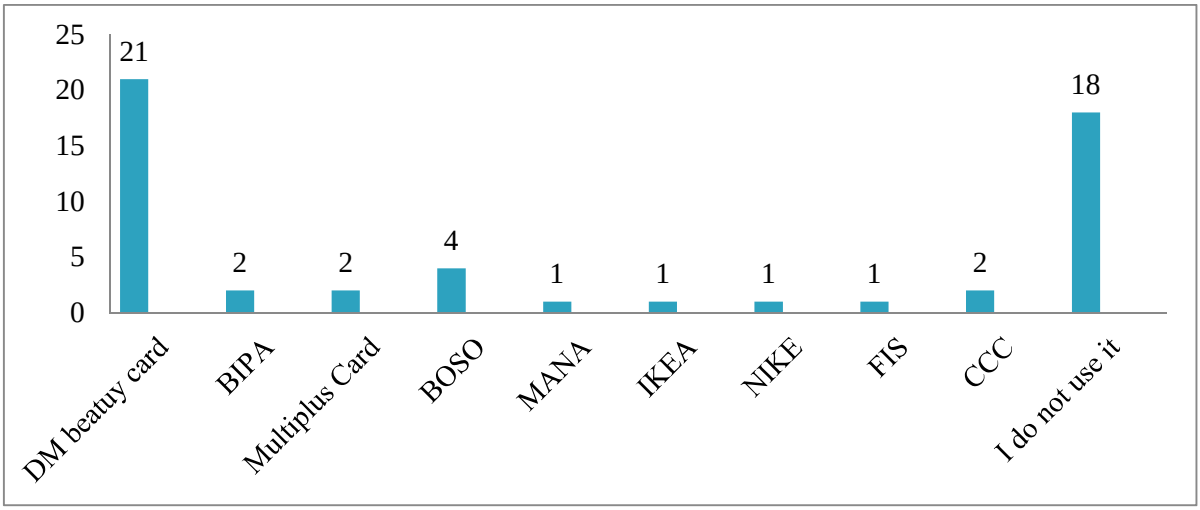


Chart 3. Loyalty program card representation and frequency of usage

Sales promotion is accomplished via short-term incentives such as: samples, coupons, refund offers, promotional price packaging, premiums (gifts), frequency of purchase programs, free trials, product guarantees, licensed promotions, cross-promotions and other. Chart 4 shows the structure of respondents according to their favorite form of sales promotion. The chart shows that the favorite forms of sales promotion are: promotional price packaging, refund offers and product guarantees, gifts and coupons. Other forms are represented to a lesser degree.

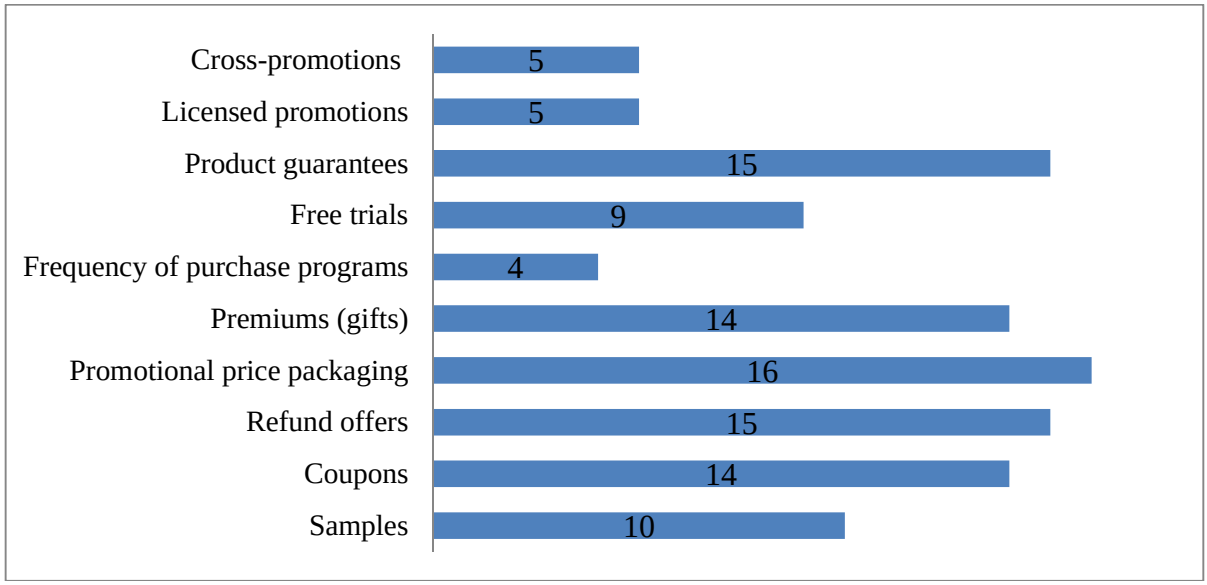


Chart 4. Respondents' favorite forms of sales promotion

In the following part of the questionnaire, the question was related to the way customers express their dissatisfaction with a product or a service. 53% of the respondents expressed their dissatisfaction with a poor rating, 17% of respondents submitted written complaints, 16% of

them used customer service, and 14% of them used other forms. Chart 5 shows the structure of respondents according to the way they express dissatisfaction.

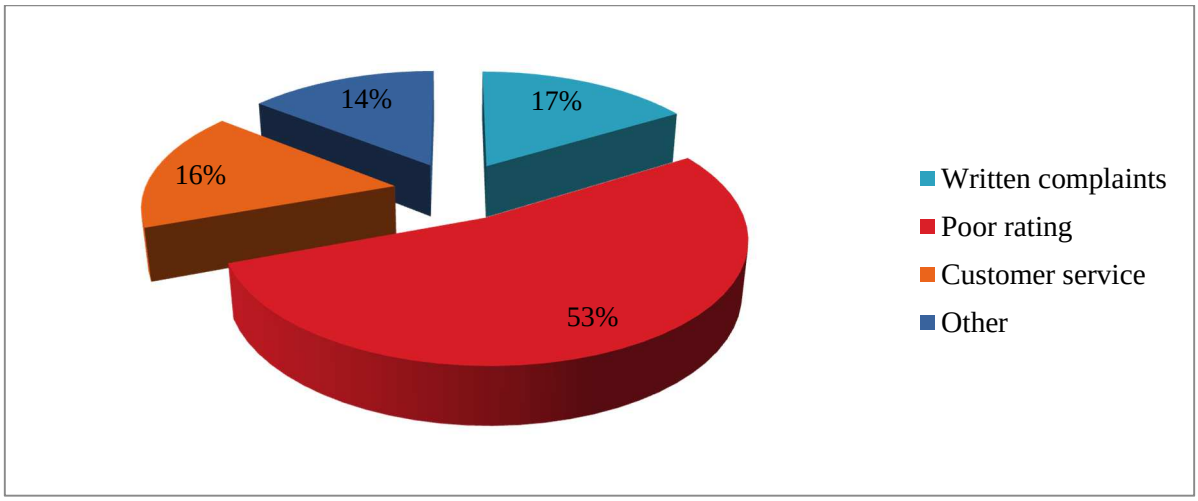


Chart 5. Manner of expressing dissatisfaction

5. CONCLUSION

Brand positioning means the space a service company is looking to occupy in the mind of a service user compared to the competition, or, more precisely, in the user's reflections about differentiating based on who offers what and who is better or worse [6]. Customers assess products and services comparing perceptions with expectations. Satisfaction is a subjective value that differs from customer to customer depending on perceptions, i.e. set expectations. Generating an overall satisfaction and a positive attitude toward products, the store, as well as frequency of purchase can be influenced through sales promotion as one of the forms of marketing communication with customers, and through establishing a loyalty program. The sense of saving money, i.e. the feeling of cost reductions creates additional satisfaction in the customer through short-term sales promotion incentives, which are achieved through promotional packaging, free products, trying out new products, coupons, refund possibilities and similar. Developing a customer relationship management system as well as loyalty programs is important for companies given that customers' desires and habits change, and they should thereby adjust the offer and keep the existing customers. Creating satisfied and loyal customers, keeping the existing market share and the company's public image is possible only by tracking changes on the market and tracking own customers, which is provided by the CRM system, as well as the loyalty program by which one can influence the sales promotion and the mind of the end customer.

6. REFERENCES

[1] Kotler, P., Keller, K.L. (2008) *Upravljanje marketingom*, 12 edition, MATE, Zagreb, p. 141.
[2] Kumar, V., Reinartz, J.W. (2006) *Customer Relationship Management: A Databased Approach*, John Wiley & Sons, Inc.
[3] Meler, M. (1999) *Marketing*, Osijek, Josip Juraj Strossmayer University of Osijek, Faculty of Economics, p. 341.
[4] Kotler, P., Keller, K.L. (2008) *Upravljanje marketingom*, 12. edition, MATE, Zagreb, p. 586.

[5] Gómez, B. G., Gutiérrez Arranz, A., Gutiérrez Cillán, J. (2006), *The role of loyalty programs in behavioral and affective loyalty* Journal of Consumer Marketing, Vol. 23, Issue. 7, pp. 387-396, p. 388
[6] Ozretić Došen, Đ. (2002) *Osnove marketing usluga*, Mikrorad, Zagreb, p.58.

BEHAVIOURAL FACTORS TO ANALYZE THE READINESS FOR INDIVIDUAL CONSUMPTION

Maya Tsoklinova[229]
Konstantin Kolev[230]

DOI: https://doi.org/10.31410/eraz.2018.474

Abstract: *The basis of behavioral economics is the belief that, with the help of the realism that is characteristic of psychological theory, the economic analysis would be enriched and this would in turn improve the methodological apparatus of economic science. This improvement will lead to the generation of new theoretical insights, making better predictions of studied economic phenomena and processes. This process of enriching the economic instrumentation does not imply rejection of the neoclassical approach to the economy, based on maximizing utility, achieving equilibrium and generating efficiency, but only to enrich and further develop it. The neoclassical approach is useful because it gives economists a theoretical framework that can be applied to almost every form of economic (even non-economic) behavior [1]. A particular focus in this report is on the identification of a set of behavioral factors that are relevant to the readiness of individuals to consume certain products. J. Hammond, R. Keenny and H. Raffa publish an article that describes seven psychological traps that can negatively affect decision-making and, hence, consumer behavior [3]. D. Kanev and V. Terziev, in their paper "Behavioral Economy: Development, State and Perspectives," outline and describe these trapping factors of consumer behaviour [2]. The purpose of this report is to investigate these behavioral factors on the readiness of individual consumption and to draw conclusions and recommendations on their role and place in neoclassical economic theory.*

Key words: *behavioral economics, factors, neoclassical economic theory, economic research tool.*

1. INTRODUCTION

At the core of the behavioral economics is the understanding that increasing the realism of the psychological foundations of economic analysis will improve the economy in its own conditions - generating theoretical insights, making better predictions of investigated dependencies and suggesting better policy. This belief does not imply rejection of the neoclassical approach to the economy, based on maximizing utility, achieving equilibrium and generating efficiency. The neo-classical approach is useful because it gives economists a theoretical framework that can be applied to almost any form of economic behavior (and even non-economic) and makes refutable predictions.

2. BEHAVIORIAL ECONOMICS AND ECONOMIC SCIENCE

Economic theories should be assessed on three main criteria: ability to reflect reality, a theoretical basis, and a universal approach to the phenomena that is studied. Like all economic theories, including the theories describing the essence of behavioral economics, are assessed on

[229] University of Forestry, 10 Kliment Ohridsky Blvd., Sofia 1797, Bulgaria
[230] University of Forestry, 10 Kliment Ohridsky Blvd., Sofia 1797, Bulgaria

the basis of the ability of the particular theory to give accurately and clearly predictions about the future state and development of the researched phenomena and processes. Behavioral economic theories also strive for a common nature in the study of concomitant phenomena, and economic analysis can be improved by adding one or several additional parameters to standard economic models [4]. This shows that behavioral economics does not deny the classical economic paradigm but aims to enrich it and further develop it, to deliver results (and thus seek answers and make recommendations for improving and refining the research of a number of phenomena and processes of economic life) through research tools that are not used by classical economic theories [5]. Methodological tools of behavioral economics enriched with the parameters used to analyze economic life offer a broader scope and scope and thus improve the standard model for evaluating parameter values.

In this line of thought, adding assumptions about the behavior of economic agents often makes the models less flexible. Despite the fact that behavioral economic models often add additional parameters to standard models, in some cases they are even more precise than traditional ones. A number of researchers in this field [6; 7; 11; 13; 15] note that the rational expectations of economic agents (as an element of traditional economic models) imply many hypotheses of reaction, while behavioral economic models abolish the fluctuations in the behavior of economic agents using the properties of their adaptive expectations. The same mechanism of action can be noticed in game theory where models based on cognitive algorithms often generate accurate predictions.

The general principles shared by behavioral economics as part of economic theories can be illustrated, for example, by the loss of uncertainty in economic behavior. The absolute of losses is expressed by the inconsistency between the strong reluctance to loss with respect to a reference point and the weaker desire for profits of equivalent magnitude. The intention of economic agents to protect themselves from real-life situations is a useful model for identifying their real behavior, sometimes outside the logic of classical market principles [8]. It is precisely this absolute loss that can also be parameterized in a general way because the ratio of marginal inapplicability as a result of loss to marginal profitability is intersecting is one point - the point of the best situation in which economic agents are placed, expressing their limitless desires.

Maya Tsoklinova *graduated in 2009 from the University of National and World Economy, Sofia, specialty „Economics of Tourism" - Master of Economics. After winning candidate doctoral competition in 2010 Maya was PhD student at the Department of Economics of Tourism at the University of National and World Economy. Early defended PhD thesis – "Influence of leisure on tourism". Since January 2013 is PhD in Economics, in professional field 3.8 „Economics and Management" (Tourism). In 2013, she joined the University of Forestry as a part-time assistant professor. In 2014 won a competition for assistant professor at the department of "Economy" at the University of Forestry. Since March 2018 Maya Tsoklinova is an associate professor. Lectures and leads seminars in courses:*

- *Microeconomics.*
- *Economics of the Public Sector.*
- *General Economic Theory.*
- *Tourism Markets.*

3. HISTORICAL FOUNDATIONS FOR THE DEVELOPMENT OF BEHAVIOURAL ECONOMICS

Most ideas in behavioral economics are not new. They return to the roots of neoclassical economic theory. When the economics is first identified as a separate scientific area, psychology still does not exist as an established and approved science. For example, Adam Smith, the creator of the term "the invisible hand on the market," and he laid the foundations of classical economic theory with his work "An Inquiry into the Nature and Causes of the Wealth of Nations" is also the author of the book "Theory of Moral Sentiments" which outlines a number of psychological principles of individual behaviour as elements of economic observations [4]. This work by Adam Smith is a new look at the scientific horizon from then. It shows that the underlying moral principles of economic agents are the product of their intrinsic nature as social beings. It is these innate moral indices that are the basis of the individual economic behavior that economic literature describes as rational and economical. The "Theory of moral Sentiments" is a work that proves that this personal social psychology is the more faithful guide than reason. By following Adam Smith's basic views, it can be concluded that, in his view, the economic agent, driven by the desire to increase his prosperity, observing all rules of rational economic behavior, is more dissatisfied with a possible loss than with happiness than possible victory (profit) [4]. Jeremy Bentham, whose concept of utility forms the basis of the neoclassical economy, writes extensively about the psychological foundations of utility. What needs to be added is that some of his insights into determining utility factors are only beginning to be assessed [9].

The theory of Francis Ysidro Edgeworth, the economist who develops the alternative to the cardinal approach, namely the Ordinate, describes a specific behavioral situation known as the „Edgeworth–Bowley box". It is model that shows the results of bilateral negotiations, including a simple model of social benefit. Reflecting on the historical development of behavioral economics, it is necessary to clarify several important conditions. First of all, the rejection of psychology as a scientific theory by a number of economists paradoxically begins with a neoclassical revolution that builds an image of economic behavior based on assumptions about the nature and psychology of the intelligent man (Homo sapiens). Secondly, at the beginning of the 20th century, economists believe (and hope) that their discipline can be defined as a natural science. At this stage of human development, psychology has just begun without the necessary features of scientific discipline. This is the reason why a number of economists at that time believe that it provides a very unstable basis for further development and enrichment of economic theory.

Despite the uncertainty of a number of economists to use psychology as a science enriching their theoretical constructs and research, studies by economists such as Irving Fisher and Vilfredo Pareto at the beginning of the 20th century include theoretical statements about how people feel and think about economic choices. Later, in the work of John Maynard Keynes, psychological insights are noticed. One cannot fail to note the fact that in economic theory a number of researchers such as George Katona, Harvey Leibenstein, Tibor Scitovsky and Herbert Simon emphasize in their articles of psychology as science. They highlight the importance of psychological principles and the limits of rationality [10; 11; 12; 15]. The conclusion that can be made is the following: despite the passage of psychology in economic research, they do not change their main direction of development.

In the context of the above, it is necessary to point out that a number of concomitant events lead to the emergence of behavioral economics. One of them is the rapid recognition by economists

of the expected useful models as normative and descriptive decision-making models of uncertainty and choice based on rationalization. This allows for an in-depth analysis of models with the expected beneficial benefits describing the behavior of economic agents [13]. As a result of this development of economic behavioral patterns, some of the first clear targets for critics of classical theory are provided. A series of seminars and lectures on the expected and subjective utility in the behaviour of economic agents began. [15] With the development of experimental psychological methods, later developments by scientists such as D. Kanemann, A. Tversky and R. Taylor described anomalies in the economic behavior, especially regarding the expected utility of making economic choices in conditions of uncertainty, but observing the principles of rationality and maximization of the benefits of economic behavior [14; 15; 16].

After this period of development of public life, a number of economists began to perceive the development of psychology as a basis for judging a new economic theory. After the 1960s, cognitive psychology was associated with a brain metaphor as an "information processing tool", replacing the behavioral concept of the brain as a "stimulus and response machine". The information processing metaphor allows a new study of previously neglected topics, problem solving, and decision making. These new themes are obviously related to the neoclassical concept of maximizing utility. Psychologists such as A. Tversky and D. Kahnemann began using economic models as a reference against which to contrast their psychological patterns [10]. Perhaps the two most significant contributions were published by A. Tversky and D. Kahnemann. In 1974 they published a scientific paper in which they argued that heuristic mechanisms of brain activity created probabilistic judgments that deviated from statistical principles. Their development in 1979, "Prospect Theory: An Analysis of Decision under Risk," confirms the existence of disruptions in the expected utility, and proposes an axiomatic theory based on psychophysical principles that seeks to explain the violations found [6].

Konstantin Kolev *was born in 1976 in the city. Sofia. Defended his doctoral thesis: "Economic contradictions and conflicts caused by the mechanism for forest management since 1997". Teaches "Economics and management of forestry", "Forest management", "Investment and Innovation Management", "International economic and foreign relations". Author of over 60 monographs, studies, books, articles and reports. His research interests are in the fields of economics and management of forestry, economic realization of the ownership of the factors of production, the assessment of investments in real assets analysis of the company's competitiveness.*

What has been achieved through the insight that psychology should be used for economic research purposes can be summarized as follows:

- The need to identify the normative rules and models that economists use everywhere about expected and reduced utility.
- Identification of anomalies (defects appearing outside the logic of neoclassical theory) - i.e. to outline visible distortions/deviations in the classic market model.
- Use of discovered abnormalities in order to create conditions for the development of alternative theories that build on and enrich the existing economic models.
- Building behavioral economic models to test new factors influencing the behavior of economic agents and through new economic theories to verify scientific hypotheses.

4. METHODOLOGY OF BEHAVIOURAL ECONOMICS

The methods used in the behavioral economics are the same as those used in other areas of the economy. Beginning of its development, the behavioral economics relies heavily on the evidence generated by experimental studies. In the last few years, economists who deal with behavioral economics go beyond experimentation and cover the whole range of economic methods used. Earlier papers on behavioral economics use methods such as field experiments; computer simulation and even brain scans [17; 18]. In the initial period of behavioral economy development, experiments play an important role as experimental control is extremely useful for distinguishing behavioural explanations from standard ones. Experiments involving a game element are preferred because they are made anonymous - they do not include intermediate participants, and last but not least: they are structurally simplified, which implies that potential participants may not be confused. Thus, experimental data clearly establishes that economic agents are concerned about fair behavior. Other experiments are useful for testing whether mistakes in consumer behavior habits that are usually made by individuals in psychological experiments have an impact on prices and volumes on the markets [19].

Behavioural economics methods include, in particular, experimental studies that seek to establish the use of experiments as part of the research toolkit. In line with this objective, economists who analyze the behavior of economic agents make a significant investment in developing new experimental methods that are appropriate to solve economic problems and thus: reach consensus among themselves on a number of important methodological questions. For example, experimental economists rarely collect data on demographic profiles of subjects, self-assessment, time response, and other cognitive measures that behavioral economists find useful. In behavioral economics, descriptions of the experimental environment are usually abstract, not a specific image in the surrounding world.

Economic experiments typically use the same methodology in which the phenomenon or process under investigation is repeated, but with different (mostly quantitative) data over the time that is the subject of a study. In the situation described, the data obtained as a result of the applied methods is compared with the theoretical economic concepts and the differences (and in some cases the similarities) are derived from the equilibrium state of the economic phenomena. In behavioral economics, the study of the behavior of economic agents is of great interest. For example, there is a significant difference in the behavior of economic agents relative to the type of goods and the repeatability of the decision on consumption [20]. In this context, the focus on psychological realism and the economic feasibility of research promoted by the behavioral economic outlook implies immense utility, as well as for economic agents and decision-makers.

Therefore, it is necessary to systemize factors beyond the purely market (including cost of goods, personal disposable income of the consumer, related goods and substitute goods, consumer preferences, technology and technological progress in the national economy, the number of economic agents on the market, the time of their reaction, if the economic situation changes, etc.), which are aimed at analyzing the behaviour of economic agents under the influence of the psychological traps of the subconscious.

5. BEHAVIOURAL FACTORS TO ANALYZE CONSUMER BEHAVIOUR

A specific place in this report is the establishment of a set of behavioral factors that are related to the readiness of individuals to consume certain products located in five large user groups.

John S Hammond and Ralph Keenney publish the article ("The hidden traps in decision making"), describing seven psychological traps that can negatively impact the decision-making process and hence consumer behavior [3]. D. Kanev and V. Terziev in their article "Behavioural Economy: Development, Condition and Perspectives" set and describe these factors-traps of consumer behavior [2]. Based on these two articles and the methodology of behavioral economics, this report presents behavioral factors that affect consumer readiness to decide on the purchase of certain goods and services, the factors influencing their consumer behavior. These factors can be grouped as follows:

1. The factor "giving more weight to unverified information /from mouth to mouth/ when we buy goods".
2. Factor "established habits in consumer behavior".
3. The "successive repetition of past errors in the purchase of goods"
4. The factor "neglect of contradictory information when buying goods".
5. The factor "over-confidence and overestimation of own expectations when buying goods".
6. The "caution when assessing uncertain events when purchasing goods" factor.
7. The Fault "Bad Memories of Recent Purchases of Poor Goods".

D. Ariely puts forward the idea that there are so-called "Anchors" in the psychological field of consumers. The author argues that these additional factors ("anchors") have a significant impact on consumer behavior. These factors, apart from the operation of the market mechanism, remain permanent in the subconscious of economic agents. Additional non-market factors (named by D. Ariely anchors), which influence the willingness of economic agents to consume goods and services, are extremely numerous. D. Ariely gives the following examples, characterizing typical "anchors" and leaving a lasting trace in consumer behaviour [21].

1. "Anchor" may be any new product.
2. "Anchor" may also be that the product is unusual and is characterized by exclusivity.
3. The price can also be "anchor".
4. "Anchor" is also the initial decision of the user. It is considered to have a lasting impact on consumer willingness and willingness to pay voluntarily for the product in question, regardless of its cost. Full determination for consumption speaks of sustainability in individual behavior. In traditional economic science, it is known that commodity prices on the market are determined by the balance between the production of the commodity at a given price (i.e. supply) and the desire of individuals with the purchasing power to buy that commodity at a certain price (demand) [22]. The point at which these two forces meet determines the prices of the respective commodity on the market. The idea is, of course, elegant, but it starts from the understanding that the two market forces in question are independent of each other and that the market price is formed as a function of the market [23].

The behavioural economics, and in this case D. Ariely's experiments, show that what consumers are willing to pay is incredibly easy to manipulate. Consumers are not actually able to fully control their preferences or the prices they are willing to pay for the various goods and experiences. It is of the utmost importance that they themselves can manage this process. [24]. Reflecting on this point, one essential element stands out, namely: what is the reason that manipulates and distorts consumer behavior? It turns out that this element is an integral part of the individual behavior of each economic agent and depends mostly on his personal "anchors"; all factors beyond the cost (a pure market determinant) that change the theoretical path of economic science.

6. CONCLUSION

This report attempts to define behavioral economics as an additional element of economic theory that aims to complement it theoretically and experimentally. Behavioural economics aims to increase the explanatory and exploratory power of economic theory, enriching it with more sound psychologically plausible fundamentals. Therefore, it can be concluded that behavioral economics is a direct result of the cognitive revolution. This share of economic science reflects the desire of behavioral economists to work at a level that gives them the opportunity to explain individual economic behavior not only with purely market factors, but also to add those cognitive factors that build up the emotional state of individuals. Currently, behavioral economics (as an example of cognitive science) is likely to have a major impact on the modern look of economic science, helping to improve causal analysis in economic forecasting.

ACKNOWLEDGEMENTS

This document was supported by the grant No BG05M2OP001-2.009-0034-C01 "Support for the Development of Scientific Capacity in the University of Forestry", financed by the Science and Education for Smart Growth Operational Program (2014-2020) and co-financed by the European Union through the European structural and investment funds.

REFERENCES

[1] Атанасов, А., Поведенски икономикс, издателство на УНСС, ISBN 978-954-644-475-2, София, 2013, с. 210.
[2] Канев, Д., Терзиев В., Поведенческа икономика: развитие, състояние и перспективи, издателство Стопанска академия „Д. А. Ценов”, 2017. с. 26.
[3] Hammond, J., Keeney, R., Raiffa, H., The Hidden Traps in Decision Making, Harvard Business Review, January 2006.
[4] Ashraf, N., Camerer, Colin F., Loewenstein, G., (2005). Adam Smith, behavioral Economist. Journal of Economic Perspectives, 19, 131-145.
[5] Camerer, C. F. (2000). Prospect theory in the wild: Evidence from the field. In D. Kahneman, A. Tversky (eds.), Choices, values, and frames (pp. 288-300). Cambridge: Cambridge University Press.
[6] Kahneman, D., Tversky, A. (1979). Prospect theory: An analysis of decision under risk. Econometrica, 47, 263-291..
[7] Camerer, Colin F. (2003). Behavioral game theory: Experiments on strategic interaction. Princeton: Princeton University Press.
[8] Camerer, Colin F., Loewenstein, G., (2003). Behavioral economics: Past, present, future. In Colin Camerer, George Loewenstein and Matthew Rabin (eds.) Advances in Behavioral Economics (pp. 3-51). New York and Princeton: Russell Sage Foundation Press and Princeton University Press.
[9] Kahneman, D., (1999). Objective happiness. In Daniel Kahneman, Ed Diener, Norbert Schwarz (eds.), Well-Being: The foundations of hedonic psychology (pp. 3-25). New York: Russell Sage.
[10] Kahneman, D., Knetsch, J. L., Thaler, R. (1986). Fairness as a constraint on profit seeking: Entitlements in the market. American Economic Review, 76, 728-741.
[11] Leibenstein, H. (1976). Beyond economic man: A new foundation for microeconomics. Cambridge. MA: Harvard University Press.

[12] Thaler, R., (1985). Mental accounting and consumer choice. Marketing Science, 4, 199-214.
[13] Thaler, R., (1991). Quasi-Rational Economics. New York: Russell Sage Foundation.
[14] Thaler, R., H. Benartzi, Sh. (2004), Save more tomorrow: Using behavioral economics to increase employee savings. Journal of Political Economy, 112, S164-S187.
[15] Tversky, A., Kahneman, D., (1974). Judgment under uncertainty: Heuristics and biases. Science, 185, 1124-1131.
[16] Kahneman, D., Tversky, A., (1991). Loss aversion in riskless choice: A reference dependent model. Quarterly Journal of Economics 106, 1039-1061.
[17] McCain, R.A. (2008). Cooperative Games and Cooperative Organizations, Journal of Socio-Economics.
[18] Angeletos, G-M., Repetto, A., Tobacman, J., Weinberg, S. (2001), The hyperbolic buffer stock model: Calibration, simulation, and empirical evaluation. Journal of Economic Perspectives, 15(3), 47-68.
[19] Stahl, D., Wilson, P. (1995), On players' models of other players: Theory and experimental evidence. Games and Economic Behavior, 10(1), 218-254.
[20] Weizsacker, G. (2000), Ignoring the rationality of others: Evidence from experimental normalform games, Harvard Business School working paper.
[21] Ariely, D., The Upside of Irrationality: The Unexpected Benefits of Defying Logic at Work and at Home, Harper Collins. 2010.
[22] Leibenstein, H. (1982). The Prisoner’s Dilemma in the Invisible Hand: An Analysis of Intrafirm Productivity. American Economic Review, 72: 92–97.
[23] Lucas Jr., R. E. Jr. (1975). An equilibrium model of the business cycle. Journal of Political Economy, 83, 1133-1144.
[24] Петков, А., Нейков, Н., (2011). Кооперативен и корпоративен мениджмънт, С., 2011.

ANALYSIS OF THE CONNECTION BETWEEN TELEVISION COMMERCIALS FOR BEER AND FOOTBALL

Nikola Vukčević[231]
Luka Rakojević[232]

DOI: https://doi.org/10.31410/eraz.2018.482

Abstract: *The paper deals with the relationship between the marketing activities of the producers of one of the most popular drinks in the world – beer and one of the most popular sports in the world – football. First, a chronological overview of this relationship was given and a historical cross-section of the relationship between beer and football industry was examined. Then a review of the modern global beer market was given; regional context was also analyzed, and special attention, through the application of SWOT analysis, was dedicated to the local brand - Brewery Trebjesa.*

Key words: *television commercials for beer, marketing, beer, football, media.*

1. FIRST TOUCH OF FOOTBALL AND BEER

It seems that the link between football and beer is always there. Both football and beer were at one time a party of the poor and they are closely tied to circles of the working class. It looks as if they grew up together - football megalomania and beer brands are now walking side by side.

The biggest impact on these new contexts and the huge amount of money in the whole story was made by television. Thanks to her, a huge market has been created, for which the prettiest public entertainment has been transformed into a game of millions (pounds, euros or dollars) and where the producers of their favorite drink began to compete with the fabulous amount of money.

It looks like it all started in the late thirties. "The first transfer of a football match on television was made by the BBC, when the first team and the Arsenal reserve on September 16, 1938. met at Habibi! Soon at the television you were able to watch the first FA Cup final in history between Hadersfield and Preston.

After a few years, a good part of the pubs in England had televisions and fans would gather in pubs a couple of hours before the game, where they began to discuss the current situation in English football. (...)

From the pubs, a few hours ahead of the game, a song is heard. If the supportive team wins, the fans will rejoice until the little hours. Beer is flowing all day and watching football is, at least without two, three mugs, unthinkable."[3]

[231] Faculty of Arts and Communications, University of Donja Gorica, Donja Gorica bb – Podgorica, Montenegro
[232] Faculty of Arts and Communications, University of Donja Gorica, Donja Gorica bb – Podgorica, Montenegro

After this period, the fame of the clubs grew, the true sports idols were born, which led to their engagement for marketing purposes. Skembler states that in 1951. legendary Stanley Matthews earned 20 pounds a week signing booties produced by CWS, while Gary Lineker, only four decades later, signed a contract with the same obligation in the name he received 3% of total earnings, which involved about million pounds.[10] This example clearly shows that the status of a football idol has evolved and how much money has increased in sport.

In support of this assertion is the question of the author of one of the best soccer books, Daj gol!!!: "Who in madness could have predicted that schooling will become the most popular game in the world and that players will rise from the level of hire, which were bought and sold as commodities in humiliating regulated transfers during the sixties of the twentieth century, to the status of multimillionaires that they have today? ".[2] But that still happened. In addition, according to a sociologist Giulianotti, in northern Europe and in the old British colonies, alcoholism is the basic thing for sports popular culture "[4], so the clue that this text deals with is even clearer.

And why exactly football? Why is it so important?
Probably because it is a metaphor of life. This game represents the essence of enjoyment and passion for the vast percentage of people in the world. "Football game reminiscent to what is possible but not certain that it does not in principle excluded from human life. Human life without a possible but not certain loses the characteristics of human life."[12] When media influence is added as the strongest weapon of the modern world, then it is undoubtedly clear that today's viewer is hypnotized by the spectacle offered to him by euphoric ambient, whether it's in the stadium, the square next to the video buzz, or in the apartment near the TV or computer.

This enables an extremely strong and clear breakthrough of the most diverse brands related to football teams and competitions. Numerous manufacturers have found their marketing space precisely with football matches.

Nikola Vukcevic *was born in 1993 in Podgorica. He completed his basic studies in 2015 at the Humanities Studies of the University of Donja Gorica (direction Communication and Media), where he continued his further education. He graduated at the same Faculty in 2016, and in 2017 got the title of Master of Political Science. Since 2016, he has been an assistant on 8 subjects in Humanities and the Faculty of Arts and Communications: Communication, Public Relations, Techniques of Creativity, Introduction to Creative Writing, Media and Culture of Speech I, Media and Culture of Speech II, Communication and Advertising, Media – Advertising and Art. He participated in two International Scientific Conferences: XIX national and V international scientific and technical conference SYSTEM OF QUALITY OF CONDITIONS FOR SUCCESSFUL BUSINESS AND COMPETITIVENESS on Kopaonik; XVII th International Conference THE TEACHER OF THE FUTURE; and published two papers in the International Journal KNOWLEDGE. He is fluent in English, and has completed a month – long course at the Exeter Academy in England. He also possesses good German knowledge, which he perfected at a monthly course in Dusseldorf.*

2. THE RELATIONSHIP OF THE GLOBAL BEER MARKET WITH THE FOOTBALL WORLD IN A MODERN CONTEXT

World beer production has become a monopoly of several giant companies that cover the entire market. Namely, there was a unification of a large number of breweries and the global market is reduced to only a dozen manufacturers, which are stationed on the European, Asian and American continents, which are:[9]

AB Inbev is a Brazilian-Belgian company that ranks first since 2009. Its headquarters are in Missouri and in Luvens. Their production weighs over three hundred beer brands, which is twenty percent of the world's volume. The most famous products are: Budweiser, Michelob, Beck's, Stella Artois, Bass and Brahma.

Sab Miller is under British roof, headquartered in London and, of course, the second is on the world's top list. There are about two hundred brands in the portfolio. It covers about eleven percent of the world market.[1] The distinguished brands are: Fosters, Grolsch, Peroni, Nastro Azzuro, Pilsner Urquell.
Heineken, as the third world company, sells one of the world's most famous beers. In addition to Heineken, the best-selling brands that come out here are: Amstel, Murphy's, Cordoba and Tiger.

The next giant would be Carlsberg, a Danish company that sells about one hundred and twenty million barrels annually.[11] In the first place they have the brand Tuborg.

The fifth in a row is CR Snow, a Chinese company based in the United States, whose full name is China Resources Snow. The most famous brand is CR Snow.

Tsingtao is again Chinese, but the second largest brewery. The interesting fact is that it was founded by German entrepreneurs, and all of its brands are named Tsingtao.

Modelo, as a seven-seater brewery with the most famous Corona brand, makes up about sixty percent of the Mexican market. Half of the property belongs to AB Inbev Brewery. The best-selling brands in this case are: Estrella, Leon Negra, Montejo, Pacifico, Negra Modelo and Victoria.

The next company is Molson Coors, which was created in 2005 when the two largest American breweries, the Canadian Molson and Coors based in Denver, merged into a single company under this name. In America, this company operates together with SABMiller called Miller Coors.[8]

Beijing Yanjing is one of the world's giants when it comes to beer production. The headquarters of this brewery is in Vancouver.[5]

The last on this list, Femsa, is a Latin-American giant that produces famous brands in Mexico and Brazil, such as: Carta Blanca, Dos Equis, Tecate, Bohemia and Sol.

Based on previous research and analysis, it has been found that six out of the ten strongest beer producers in the world currently use football elements for advertising purposes. What is particularly important is that football beer advertisements are noticeable in the four leading beer brands of today: Budweiser, Brahma, Amstel, Carlsberg.

3. REVIEW OF THE REGIONAL BEER BRANDS

Reflecting on the beer of a regional character, the cohesion of this popular product with football is encountered. In further discussions, you will find several examples of the above.

One of the most popular beer companies in Serbia, Apatin Brewery with the main brand Jelen Beer, in its activities has devoted considerable space to strengthening sports culture in Serbia and popularizing the football game. Jelen beer, as a sponsor of Super League Serbia, annually awards prizes in four different categories: best young player, best player, best coach and best score.[6] Namely, Jelen KUP has been organizing for several years now, and it represents a traditional competition in a small football game, where local teams from 16 cities of Serbia are trying to show their mini football spells.

In a series of advertisements for Jelen Beer, which are closely related to football, there are also those that have left the most striking impression with their quality and impact on the consumer public. The first one, which we would like to point out in this case, is the advertisement of Jelen Beer from 2010, where a group of fans of Serbia's football team is leaving to support their players at the World Championship held in the South African Republic. As a sponsor of the team, Jelen Beer organized a prize game, where winners receive the mentioned arrangement. At the beginning of the advertisement, the winding of the two fans begins with a modified, standard motto, used extensively by the fans of the region: *Javi se krilo, javi se krilo*, then they begin singing: *javi se rep, javi se rep*. After various unsuccessful attempts to transfer the euphoria to the rest of the bus, some fans begin to sing *Javi se Jelen*. At that moment the enthusiasm was dominated and the whole spirit of the fan spirit was gained, so that the experience was spiced up by the arrival of a young girl who appeared on the cheers of the fans, bringing them Jelen Beer.

In the corpus of Serbian beer brands, one of the more popular brands, besides Jelen Beer, is Lav Beer. Unlike the previously analyzed product, Lav Beer belongs to the Carlsberg Corporation. In the segment of marketing, this company launched an action to help the rivals, Red Star and Partisan. The idea was realized by the fact that the percentage of each purchased can with the club's coat of arms went to the fund for the purchase of the Red Star bus and for the purchase and installation of new chairs in the stadium of the Partisan.[7] In the advertising spot from 2015, called Football Motivation, in the foreground is the power of the brand name and its motivational component, in this case for the purpose of a football game. In this advertisement in the spirit of the village football, the coach, who is in this case famous director Dragan Ostojic,

Luka Rakojević *was born in 1991 in Nikšić, where he finished elementary and high school. He graduates from basic, specialist and master studies at the Faculty of Arts of the University of Donja Gorica. He has won four student awards (December 19, September 18, Student of the Year of the Faculty of Arts, Vladimir Vukićević Award), as well as the Prize for best young comic theorist of the Balkans. He participated in five International Conferences: First international symposium of young art historians in Split, IV International Congress of Art History Students in Zagreb, II International Symposium of Young Art Historians in Split, Regional Conference (Dis) Continuity in Belgrade and International Philological Days in Cetinje. He was editor of the culture section of the student portal tragom.me and correspondent of the portal mulj.net. He published in the magazines Camera Lucida, Pogled and Ars, as well as in the daily newspaper Blic CG. He participated in the Podgorica film festival program as a jury member for Eye to Eye films. Works as an assistant at the Faculty of Arts.*

speaks to his players at a break and calls them aunts and mice. However, he does not find an adequate way to motivate them to continue, in order to achieve a positive result. At one point, which is characterized by the psychological abyss of everyone in the changing room, the teacher of these players retains his view of an article glued on the wall, where it says: *Naš Lav na vrhu sveta*! Then, using the keyword of this title, he calls them lions and in that way he manages to find that spark in the stone. After that, there is a message that is confirmed during these half minutes: *Reci lav i ne možeš da pogrešiš. Ili jesi, ili nisi, Lav.*

In order to provide a better and more systematic analysis of the cohesion of football and beer in the region, we will also look at the Croatian area.

Ožujsko beer also gives a lot of attention to advertising regarding football. In one of their older advertisements, cans become a ball, and the city stadium. What is most important for Žujo in this context is that it is related to the Croatian football team since 1998. This relationship with national identity and sport bias also produces "Srce koje nema ravna" advertising, which represents their perception of representation. Likewise, there are a number of video commercials featuring Spaniards, Czechs and Turks – the rivals from one championship. Another very interesting video content is related to the Premier League Preparation Campaign, which is two works of *False and Assistance and Teamwork*. Famous Croats – from the midfielder Luka Modric, through the actor Rene Bitorajc to the frontman of the TBF band Mladen Badovinc – appear as the protective faces of these advertisements.

4. POSITION OF FOOTBALL IN THE ADVERTISING SPACE OF THE LOCAL BREWERY TREBJESA

After a global and regional overview of the topics, we will also look at the analysis of the position of football in the advertising space of the local brewery Trebjesa.

In this case, the research is supported by a well-known method. The SWOT analysis provides qualitative data that enables you to make strategically important decisions of the company.

- Based on the collected available information SWOT analysis of the Trebjesa brewery is presented in Table 1.

Strengths	**Weaknesses**
- Tradition - A market created - Consumer patriotism	- Periodically inadequate marketing - Insufficient visibility of sponsorship participation on the equipment of sponsored clubs - Insufficiently intensive relationship with football in the advertising space
Opportunities	**Threats**
- Expanding a network of sponsored sports teams - Organization of amateur tournaments of regional character	- Stronger competition - Possible bad results of sponsored clubs and national teams that could indirectly affect the reputation of the brewery

Table 1: SWOT analysis for the Brewery Trebjesa

From the SWOT analysis of the position of football in the advertising space of the Trebjesa Brewery, we learn that, when it comes to the strengths, the most significant would be the tradition and consumer patriotism that can be traced back to the advertisement "*Pivo za društvo*" with Dejan Savicevic in 2011, and which is certainly influenced by the fact that Niksic's Beer is an official sponsor of the Montenegrin football team. The most important factors that indicate the weakness of the brand, is allocated inadequate marketing, or lack of commitment in order to evaluate and strengthen these links to adequately and quality way. Usually, these attempts are not at the level where they should be. Also, there is a danger that a part of the football audience will, according to the Scottish model, give up consumption of this beer when its logo appears on some of the shirts of the local football clubs. In the third element of the analysis, the potential is highlighted by the expansion of the market, where the space is envisioned to better represent of the brand with the soccer national team to the world. An important point here is the possibility of even greater popularization of amateur football and strengthening of the sports spirit. Namely, Brewery Trebjesa also has the organization of FAN Cups in its business, but the domains in this case could be regional in character. It seems that the threat, to which most attention should be paid, is competition. Niksic's beer has the potential to separate itself from other beer brands through football-related advertisements. Products of foreign brands such as Amstel or Carlsberg and regional ones such as Jelen and Lav are more and more affordable, and their marketing is often more tempting than the one that features Brewery Trebjesa. Of course, the bad results of sponsored teams or even the same representation, can partly be characterized as reputational damage of Brewery Trebjesa.

5. CONCLUDING REMARKS

On the basis of everything exposed, it could be concluded that the link between football and beer contains customs and beliefs, rattling history and modernity, and that advertising messages are one of the fields in which this is most obvious.

As football and beer today became inseparable in the world of fan culture, beer producers use this cling when creating promotional content, which is most evident in television commercials. Addressing football fans, they encourage massive beer consumption, and often opt for sponsoring those clubs with a large number of fans, to further boost sales.

Based on the analysis of regional beer brands, it can be concluded that local brewers may have domination in the domestic market, which is a consequence, above all, of consumer patriotism. But for the development and expansion of markets at regional and global level, they would greatly benefit from networking with other local brands, regardless of their participation in the national frameworks of the football world and Žthe linking to the identity of their country.

REFERENCES

[1] Barth, John. 2017. "140 YEARS BARTH – REPORT", the *BARTH REPORT*. Retrieved in April 25, 2017, from http://www.barthhaasgroup.com/en/media-library/downloads?medium__downloads=BART+BERICHT+-+MARKET+LEADERS+REPORT&cck=media_center__downloads&boxchecked=0&search=media_center__downloads&task=search

[2] Brej, Ken. (2006) *Daj gol!!!*, Plato, Beograd, pp. 205.

[3] Cvejanov, Andrej. 2016. "Fudbal, pivo, pabovi i njihova tradicija", *Engleski fudbal*. Retrieved in June 10, 2017, from http://engleskifudbal.com/vesti/poverljivo-iz-engleske/fudbal-pivo-pabovi-i-njihova-tradicija/

[4] Giulianotti, Richard. (2008) *Sport: kritička sociologija*, Clio, Beograd, pp. 176.
[5] Guo, Shu. 2009. "About Us", *Yanjing Canada*. Retrieved in April 25, 2017, from http://www.yanjingbeer.ca/aboutus.html
[6] Ivaniš, Sanja. Lekić, Dragoljub. 2013. "MILOŠ JOJIĆ NAJBOLJI IGRAČ JELEN SUPER LIGE", *Inovations*. Retrieved in October 24, 2017, from https://inovations.co.rs/uncategorized/milos-jojic-najbolji-igrac-jelen-super-lige/
[7] Janković, Igor. Filipović, Snežana. Broćić, Goran. 2012. "NAVIJAČKI VEČITI DERBI: Pij pivo i pomozi voljenom klubu", *Telegraf – sport*. Retrieved in October 24, 2017, from http://www.telegraf.rs/sport/362164-navijacki-veciti-derbi-pij-pivo-i-pomozi-voljenom-klubu
[8] Molson Coors. 2016. "OUR STORY – OUR HISTORY", *Molson Coors Brewing Company*. Retrieved in April 25, 2017, from https://www.molsoncoors.com/en/our-story/our-history
[9] Munson, Cheryl. 2017. "What Are the Top 10 Brewing Companies?", the *Our everyday life*. Retrieved in April 25, 2017, from https://oureverydaylife.com/what-are-the-top-10-brewing-companies-12310243.html
[10] Skembler, Grejem. 2007. *Sport i društvo: istorija, moć i kultura*, Clio, Beograd, pp. 206.
[11] Smith, Monica Gregers. 2017. "Annual Report 2016", the *Carlsber Breweries Group*. Retrieved in April 25, 2017, from https://carlsberggroup.com/investor-relations/investor-home/full-year-2016-results/
[12] Vrcan, Srđan. (2003) *Nogomet-politika-nasilje*, Naklada Jesenski i Turk, Hrvatsko sociološko društvo, Zagreb, pp. 260.

APPLICATION OF SOCIAL NETWORKS IN EVERYDAY LIFE IN BOSNIA AND HERZEGOVINA

Zvezdan Stojanović[233]
Fuad Hasanović

DOI: https://doi.org/10.31410/eraz.2018.489

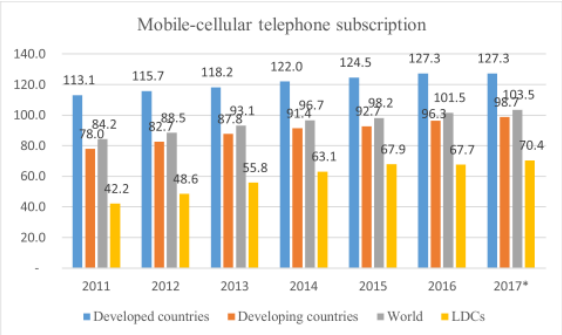
Abstract: *Bosnia and Herzegovina (BiH) is a transitional economy which is pursuing membership in the European Union and the World Trade Organization. Key ICT indicators: penetration rates for fixed, mobile and Internet subscribers, for BiH are solid. This good ICT infrastructure allows users to access social media, regardless of whether they used fixed or mobile networks. Social media can be used for different purposes. This paper will show the application of social networks in areas such as tourism, education, marketing, politics and local and state administration bodies in Bosnia and Herzegovina.*

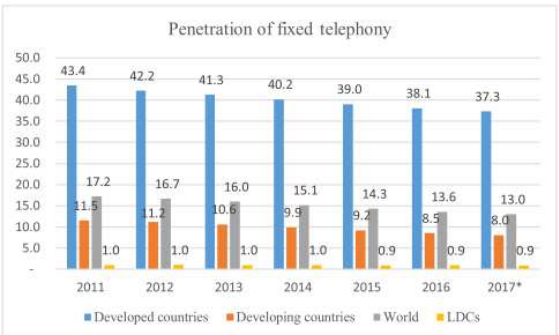
Key words: *social networks, ICT infrastructure, local and state administration*

1. INTRODUCTION

We live in an era of digitization that inevitably leads to changes in businesses, government and society in general. Information and communication technologies (ICT) have significantly changed the way we live and have become an inseparable part of our lives.

Many people, especially the youth, use ICT on a daily basis and for various purposes. People use computers (desktop, laptop, tablet and notebook), cell phones and smart phones to study, to search for information on the Internet, to play games, for communications via social media. Social media can be used for different areas such as: tourism, education, marketing, politics and local and state administrative bodies. Today, social media is easily accessible and does not cost much more than paying for Internet connectivity. Good ICT infrastructure allows users to access social media, regardless of whether they used fixed or mobile networks.





[233]Kallos University, Technical Faculty, Tuzla, Bosnia and Herzegovina

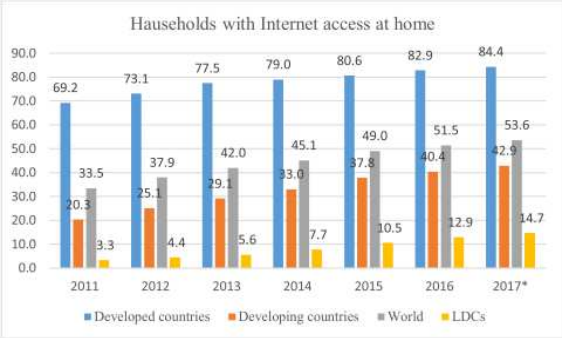


Figure 1: Global ICT indicators

In accordance by International Telecommunications Union, key ICT indicators for developed and developing countries are: penetration rates for fixed, mobile and Internet subscribers, as we can see on Figure 1, [1].

Good ICT infrastructure is fundamental to the development of all new services. Below we will first consider the state of ICT infrastructure in Bosnia and Herzegovina.

2. ICT INFRASTRUCTURE IN BOSNIA AND HERZEGOVINA

Communication Regulatory Agency (CRA) in Bosnia and Herzegovina (BiH) collects data from the all operators in BiH and performs their processing and analysis. ICT indicators for BiH (based on CRA reports) are shown in Figure 2, [2].

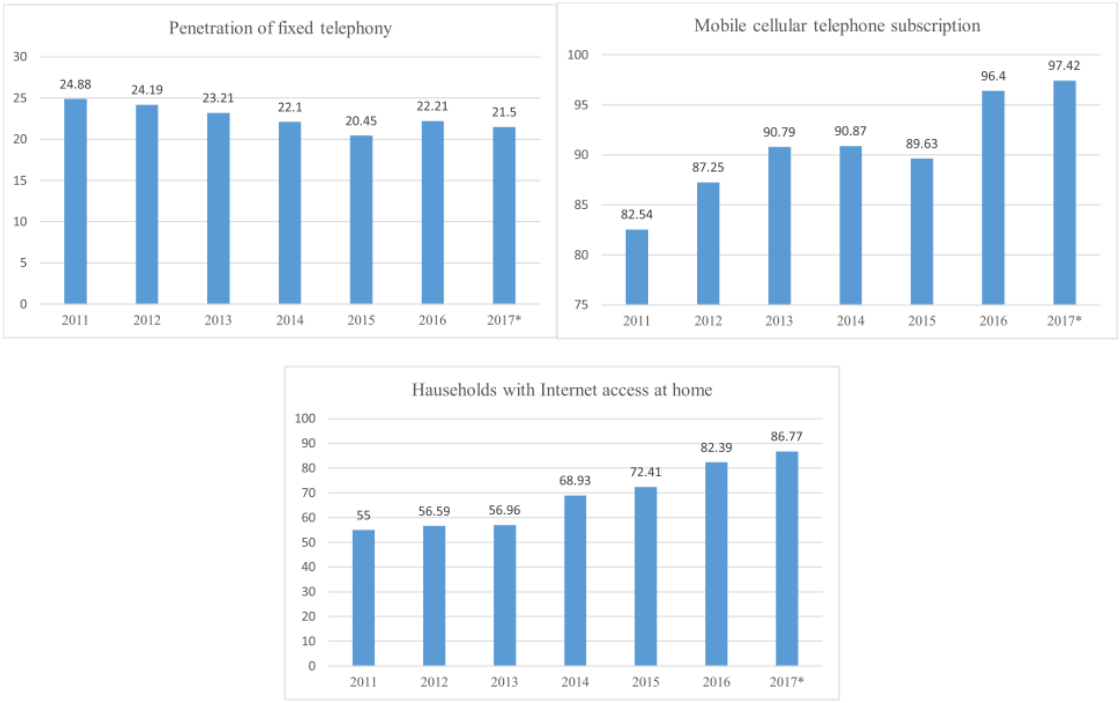


Figure 2: ICT indicators for BiH

From the Figure 2 it can be concluded that BiH has solid ICT infrastructure which is solid base for developing new services. BiH also follow all world trends which can be seen from Figure 2, like increasing number of mobile and Internet users and decreasing number of fixed users.

3. SOCIAL MEDIA IN BiH

Bosnia and Herzegovina (BiH) is a transitional economy, which is pursuing membership in the European Union and the World Trade Organization. From the previous chapter it can be seen that BiH has solid ICT infrastructure. In this paper, we focused on access to social media, and this good ICT infrastructure allows users to access social media, regardless of whether they used fixed or mobile networks. Social media can take many different forms, including Internet forums, message boards, weblogs, wikis, podcast, pictures and video. The popularity of social media is increasing year after year, [3].

The most popular social media in BiH is shown in Figure 3, [4].

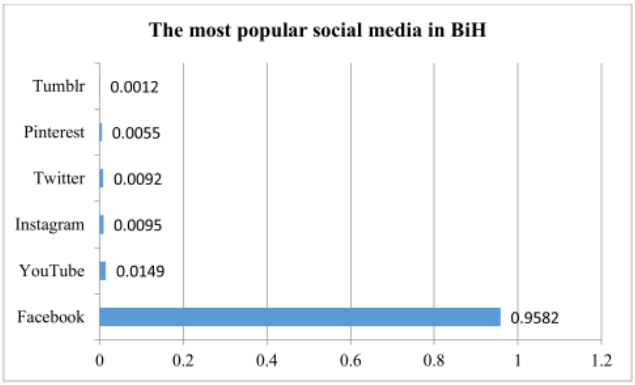


Figure 3: The most popular social media in BiH

Social media can be used from different purposes. The basic is that, social media is used “to sharing and discussing information among human beings”, [5]

From the rest of the paper is considered using social media in tourism, in administrative bodies educations, marketing and political campaigns.

3.1. Social media in tourism

Tourism is one of the sectors with a very close relationship with the new information and communication technologies. Using social media is also changing the way in which tourist planning their trips, [6], [7].

Different technological interfaces, such as search engines, online travel booking sites, and Websites of destination marketing organizations facilitate the information exchange between online travelers [8].

Tourism in Bosnia and Herzegovina is a fast-growing sector making up an important part in the economy of the country. Current level of development of tourism best illustrates BiH's position in the WEF's (World Economic Forum) annual report for 2016/2017. Report for 2016/2017 year covers 136 economies and BiH is on the 113 position in it, [9].
Why is so bad?
Perhaps we will answer on this question if we look at the leading tourist portal in BiH http://www.visitmycountry.net. It contains links to 94 sites of travel agencies. Immediately we can see that some links are duplicated, and a simple check has found that as many as 25 links do not work. By further checking, through access to all links of remaining travel agencies, we

could draw conclusions about the popularity of certain social networks in the BiH (Fig. 4) in the tourist domain.

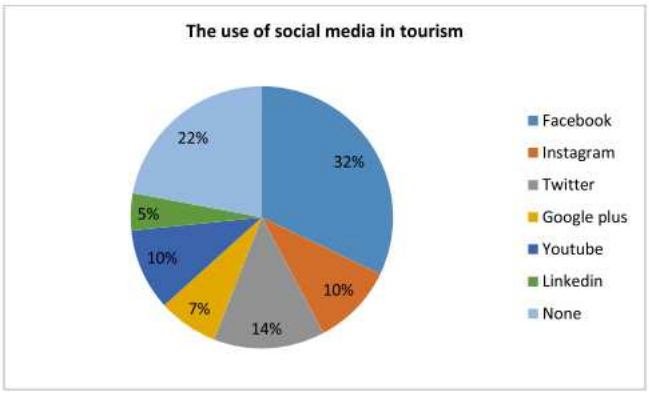


Figure 4: Popularity of social media in tourism in Bi

It is evident that despite proven advantages of using social media in tourism, still a big part of the travel agencies do not understand this (22%).

3.2. Using social media for connecting citizens with administrative bodies

The use of ICTs has made e-participation more widespread and pervasive than ever before. It allows people to interact more frequently with officials on an increasing host of issues. Many governments have established pages on social media to promote interactive networking and communication with the public. This is particularly important for those countries that do not have a dedicated portal for public consultation and deliberation online. The rise of social media has accelerated e-consultation progress – today, as many as 152 countries out of 193 (four out of five) offer social networking features, such as the “Like” button, on their national portals (i.e. there are links to, for example, Facebook, Twitter, Sina Weibo (in China), Odnoklassniki/VK in the Russian-speaking countries, etc.), [10].

Zvezdan Stojanović *works as associate professor at the Slobomir P Univerity and European University in Bosnia and Herzegovina. He had over 20 years of experience working in M:TEL, the biggest telecommunication operator in BiH. His main research interests are telecommunication engineering, Internet programming and e-bussiness. He has master degree in the electrical and computer engineering and phd in the information technology. He has published three book and over 40 research papers. Since 2010 she is engaged as professor on the postgraduate and doctoral studies at the Slobomir P University and European Univesity in the department for information technology.*

In accordance with the Dayton Peace Agreement, the state-level government is weak and has limited jurisdiction over the adoption and implementation of public policies. Bosnia and Herzegovina consists of the two entities - the Federation of BiH (FBiH) and Republika Srpska (RS), and the Brcko District as a separate administrative unit of local self-government. The FBiH is divided in ten cantons and additionally includes 79 units of local self-government. RS has 64 units of local self-government. The state level has no authority over the issues of local self-government. There are 125 government institutions in BiH. Nevertheless, analysis showed that only 22, i.e. 17.6%, of them use social networks, [11], [12].

By visiting sites of the largest cities in BiH (Sarajevo, Banja Luka, Tuzla, Zenica, Bijeljina, Prijedor, Mostar), we conclude that only Sarajevo has enabled its citizens access to social media.

3.3. Social media in educations

In Report of United Nation is also considered at those three key indicators and they are compared to different countries of Southeast Europe, but this report looks at more two important indicators which can be used to determine the availability of e-Government services:

- the percentage of government institutions that use some form of networking services;
- the percentage of government institutions that are connected to the Internet, [13].

Number of pupils per computer (in primary and secondary schools) is used also as indicator of the level of a country's investment in ICT infrastructure in this Report.

Today's teens are already collaborating and connecting with other teens via social media, and now some educators are pushing to make this collaboration happen inside school walls too.

Learning Management System (LMS) like Moodle have been envolved in online learning more then a decade. Now, public and private schools are taking a first step to embrace social media into classroom. Schools try to find creative ways to integrate social media into their schools.

In article [14] is presented a flexible architecture to provide integration between Moodle and Facebook and Twitter.

Edmodo is an educational website that takes the ideas of a social network and refines them and makes it appropriate for a classroom. Using Edmodo, students and teachers can reach out to one another and connect by sharing ideas, problems, and helpful tips. A teacher can assign and grade work on Edmodo; students can get help from the entire class on Edmodo. It is a safe environment. There is no bullying or inappropriate content, because the teacher can see everything that is posted on Edmodo, [15].

Edmodo is somewhat similar to Facebook. The purpose of this is to create a sense of familiarity among the users of Edmodo since the most students have a Facebook account and to ensure that it is user friendly. However, the difference between Edmodo and other social media is it that Edmodo is a social learning platform for students, teachers and parents to collaborate, communicate, share content, access homework and view grades [16].

On Moodle's website [17], it can be seen that Moodle today in BiH uses 12 faculty institutions, two secondary schools and one elementary school and 85 private users. Edmodo is mainly used in elementary and secondary schools, but there are no reliable data on their number.

3.4. Social media in marketing

Social media provides an open platform for two-way communication between businesses and customers. Consumers now have a wide variety of new technologies at their disposal, with ubiquitous access to massive amounts of information, giving them near complete transparency into every company's products, services and pricing data. This is good platform to broadcasting different thoughts and opinions far and wide. As a result, consumers are shifting their trust away

from corporate marketers and brands and instead talking and listening to their fellow consumers, [18].

Social media give marketers a forum to build digital rapport on a highly personalized scale — one retweet, like, and comment.

Historically, companies were able to control the information available about them through strategically placed press announcements and good public relations managers. Today, companies must contend with the huge and growing social web, where customer experiences and opinions are shared on a massive scale, and corporate reputations can be ruined almost instantaneously.

Now, companies have neither the knowledge nor the chance or, sometimes, even the right to alter publicly posted comments provided by their customers. Top marketing teams must understand the need for real-time communication and engagement on social channels.

As we can see from previous, the most popular social media is Facebook with more than 2 billion people around the world (Fig. 3) Facebook is also the most popular social media in BiH (Fig. 6).

From page [19], it can be seen that the three most popular brands in BiH are:

1. MBuy-Monika Posredovanje with 261160 fans,
2. Deichmann BiH with 259920 fans,
3. M:TEL with 243 920 fans.

There is no research about impact of social media for marketing purposes in Bosnia and Herzegovina, but by observing some research we can see the trend in the world regarding the use of social media for advertising purposes.

In Report [20] is analyzed nearly 4000 marketing leader worldwide and it is concluded that in 2016 year, "82% of marketers agree that social media marketing is core to their business. Last year, 27% of marketers said social would eventually generate ROI and 28% said it already generated ROI, accounting for 55% of all respondents. This year, 75% of respondent's report that social is currently generating ROI".

Fuad Hasanovic *has master degree in information technology. He is a PhD student at the European University, Bosnia and Herzegovina. He has published three research articles.*

3.5. Social media in politics

Barack Obama was the first presidential candidate to effectively use social media as a major campaign strategy.

The use of social networks in the electoral process in BiH is still at the beginning. However, political parties have recognized the potential of social networks. On the sites of all main parties in BiH (SNSD, PDP, SDS, SDA SDP, SBB), the possibility of establishing a contact of the citizen with the bodies of the party through the social media was given.

Based on the research conducted by the Center for Education Pro Educa from Banja Luka, the five politicians who are best using social media are: Igor Radojičić (SNSD), Branislav Borenović (PDP), Damir Mašić (SDP), Saša Magazinović (SDP) and Fahrudin Radončić (SBB), [21].

4. CONCLUSION

Social media have great impact in daily life of human being. Despite satisfactory ICT infrastructure and great number users of social media (Facebook) in Bosnia and Herzegovina, influence of social media in tourism, government, marketing, education and political life is small. However, it could be expected that trend of development and implementation social media will come with some delay in Bosnia and Herzegovina

REFERENCES

[1] ITU (2017),"*Key ICT indicators for the ITU/BDT regions (totals and penetration rates)*", ITU, available online: https://idp.nz/Global-Rankings/ITU-Key-ICT-Indicators/

[2] CRA(2016), "*The Annual Report of the Communications Regulatory Agency for 2016"*, available online: https://www.rak.ba

[3] A. M. Kaplan, M. Haenlein, (2010) "Users of the world unite! The challenges and opportunities of Social Media", *Business Horizonts* Vol 53, pp 59-68, available online: http://dx.doi.org/10.1016/j.bushor.2009.09.003.

[4] Adcombo "Internet usage in Bosnia and Herzegovina," available online https://adcombo-blog.com

[5] Wikipedia, "*Social media*", available online https://en.wikipedia.org/wiki/Social_media

[6] J. Miguens, R. Baggio, C. Costa (2008),"Social media and Tourism Testinations: TripAdvisor Case Study", *Proceedings to the IASK* Portugal.

[7] Oxford Economics (2016) ,"*The Global Economic Contribution of TripAdvisor*".

[8] Z. Xiang, U. Gretzel(2010), "Role of social media in online travel information search", *Tourism Management*, Vol.31, , pp 179-188, available online: http://dx.doi/10.1016/j.tourman.2009.02.016

[9] WEF, "*The Travel & Tourism Competitiveness Report 2017*", available online https://www.weforum.org/reports/the-travel-tourism-competitiveness

[10] UN (2016), "e-government survey 2016".

[11] B. Babic, D. Gaspar, D. Lucovic,(2017), "Social networks-potential and challenges in Bosnia and Herzegovina", *DIEM* Vol3, No1 pp 480-490 online available https://hrcak.srce.hr/187404

[12] Z. Stojanovic (2017), "E-Government in Bosnia and Herzegovina" *Proceedings to UNITECH*, Gabrovo, Bulgaria, IV-171 to IV-175

[13] UNDP (2010), "*eGovernance and ICT Usage Report for South-East Europe (second edition)*", available online: https://issuu.com/unitednations_bih

[14] L.M. Braz, T. Sarao, S. Crespo, G. Clunie (2013), "A Flexible Architecture to Promote the Integration between Moodle and Social Network Sites" *Revista Brasileira de Informáticana Educação*, Volume 21, No 1, http://dx.doi.org/10.5753/RBIE.2013.21.01.37.

[15] P. Cauley (2012), "*The guide to explain it all Edmodo, version 3.1*", available online http://www.csub.edu

[16] K. Balasubramaniana, V. Jaykumar , L.N Fukeyb (2014) "A study on Student preference towards the use of Edmodo as a learning platform to create responsible learning

environment", *Procedia Social and Behavioral Sciences*, Vol 144 pp 416-422 available online http://dx.doi.org/10.1016/j.sbspro.2014.07.311

[17] Moodle, "Registered Moodle sites", available online https://moodle.net/sites/index.php?country=BA

[18] S. Neti, (2017) "Social media and its role in marketing", *International Journal of Enterprise Computing and Business Systems*, Vol 1, No2, available online: http://www.ijecbs.com.

[19] https://www.socialbakers.com/company/

[20] Sales force (2016), "State of marketing" available online www.salesforce.com/research

[21] Pro Educa (2016), "*Novinarstvo i društvene mreže u Bosni i Hercegovini*", available online http://proeduca.net

THE ROLE OF THE SOCIAL MEDIA IN THE TRADITIONAL MEDIA DEVELOPMENT IN ALBANIA

Holta Heba[234]

DOI: https://doi.org/10.31410/eraz.2018.497

Abstract: *This study consists in the examination of the development trend of the traditional media in the area of network. The aim of this study is to analyse the influence of the media professional's attitude towards the new technological shapes, and the study of the impact that social media has in informing us and the way that this attitude towards the information has evolved.*
Hypothesis: Expanding and use of social media as a source of information has led the transformation of its manufacturing process and professional practices in the Albanian journalism.
It will be studied the impact that new information platforms have on the evolution of the traditional media and the changing access of the audiences towards the information.
Research question: How has the sourcing structure of the news in Albanian journalism changed within the impact of new communication technologies, particularly social media?

Key words: *social media, traditional media, audience, Albanian journalism.*

INTRODUCTION

Albanian media, likewise in the other parts of the world, is faced with the influence of the technological transformation. The transformation changes during the history from the Gutenberg epoch up to nowadays have had their influences in the information use industries.

History has proven that evolution is an irreversible process, this because of the technological developments, which have transformed the media not only in infrastructural concerns but also the process of communication relationship and the recipient of the information providers. For every step of technological transformations in the media, field researchers have tried to understand the impact on production processes, distribution and information to the public. With the technology development web 2.0, the attitude of the well-known authors McLuhan over on the technological determination in the individual-media relation, took a new development. The new media based on the "web" including here the last generation that we know by the term "social media", are now a part of our daily life.

The use of broadband internet in Albania began to get enlarged more after the privatization of the main fixed telephony operator Albtelecom in 2007. Taking in consideration the navigation in the internet and mainly in the social media, it might be stressed that they didn't find a special space at the Albanian internet users at the beginning of the year 2000, this because of the fact that this period was the time of the private televisions enlargements and its high taxes. People are abandoning the old media to return more towards each -other, to share things through social

[234] European University of Tirana, Albania

networks that are still in their first steps, each has its own printing press (blog), his own radio station (podcast) or his own television (YouTube).

STUDY'S AIMS AND OBJECTIVES

This study aims exactly reviewing the social media's role in the process of production, distribution and consumption of information. In a detailed way it shows how an analysis of the use of social networks by journalists, has affected their access to sources of information and interactivity with the audience.

Methodology of this study consists of a comparative review of social media with the traditional ones in terms of production, distribution and consumption of information, in the socio-political context of Albania.

THE DIFFERENCES BETWEEN SOCIAL MEDIA AND TRADITIONAL MEDIA

The effects that the changes in the media, especially in the social media, have brought to communication field make up one of the greatest challenges of the scientific research in these fields. Not only does internet include all the skills that traditional media has, such as: text, image, graphics, animation, audio, video, up to date information, but it also offers a wide range of new features where the most important ones are interactivity, access upon request and the personalization of content. Essentially, Web 1.0 contained the model of unilateral communication where the information producers (media actors) imposed the customer (audiences) a specific content.

Web 2.0 technology brought a transformation in scientific research as well as in the field of media and journalism. Researcher David Holmes, in his edition of 2005 "Communication theory media, Technology, Society", defines Web 2.0 technology as "Second Age Media". Judging from the prospects of "Second Age Media", the tyranny that was attributed to traditional media, relates to their hegemonic role in the definition of culture as well as the individual effects, which are a result of their vertical structure. So, somehow, the customer has to see the case from the communication point of view which is dictated from mass media institutions. On the other hand, in 'Second Age Media' we deal with a bypass of this type of institutional communication passing on to a less mediated mutual communication.[235] Stephen Coleman and Karen Ross have described the essential differences that digital technologies brought, particularly internet, providing a wide media and democratic space.

The monological features of traditional media, based on one-to-many type of communication, have been transformed, from a fixed centre, to a many-to-many type of communication where the sender of the messages can expect to receive messages simultaneously.[236]

It can be said that Digital media and Internet has destroyed the elite domination regarding to the information production and distribution. It also has increased public access to a wider knowledge and information. Enabling access to media technologies, providing a low cost and accessibility to all, digital media has expanded the product range of media resources; anyone can become a media content producer. However, we cannot include all generations, as different generations have different approaches to information acquisition. For example; the third age is more connected to television or daily print media. We should not forget the fact that for the

[235] Holmes, Communication Theory Media, Technology, Society, 52.
[236] Coleman, S. & Ross, The media and the public. "Them" and "Us" in media discourse, 95.

majority can be easier and perhaps more appropriate to get acquainted with the schedules set by media televisions. Morning coffee is accompanied by daily newspaper news. Unlike the traditional media, digital media has a flexible agenda related to the information distribution. Digital media means quickly news distribution. We should not overpass the difference between the public of these two kinds of media.

The traditional media audience, unlike the digital media, acquires that information that is being produced in a certain period of time. So, the audience cannot select the information, but he only acquires the information transmitted in the television. We cannot say the same thing for the digital media audience, as the latter is totally free to choose the news or information that he wants to follow, just one click on the page or the link he is looking for. It is important to have internet access and he selects the news or the desired information. It is not necessary waiting for or acquires the unnecessary information or news.

There are many differences between social media and traditional media, but below are going to be mentioned the three main ones:

- The users of social media actively participate in the content, posting links or news topics from different resources, whereas in traditional media, on whose contents the audiences are constantly exposed, is mainly determined by professional editors, who have control over the daily flow of news.
- The users of social media, even though they are separate because of the physical distance, create links between each other based on their same or similar interests and approximate points of view. Consequently, the information might be shared through these virtual online communities and it might also become part of wide discussions in a short period of time. In this case, social media dissolves the boundaries of inclusion and the public debate might contain topics and individuals who would cope with obstacles that would prevent them from conveying their voice within the traditional system.
- The audiences make the difference between social media and traditional media. They can customize their choice of information and interact with each other. This happens through the choices that social media users make during their activity within the network.

The number of sources and channels of information as well as the great opportunities for interactivity and cogeneration that the information consumers have nowadays, have significantly affected the news consumption. Within the major transformations that have come along with the raise of social media, we also face the changes that the theory of "gatekeeping" has undergone. According to this theory, the journalist was given the right to convey the message to the audience. Axel Bruns describes "gatekeeping" in a classic form and considers it a necessary practice in the era of mass media.

A news edition or a number of newspaper pages can only offer a limited amount of news. This way, it was deemed reasonable to have a professional team that selects the information and provides the audiences with the most important topics.[237]

Bruns separates “gatekeeping” in three stages that are related to the steps that the journalistic process follows:

- The first stage has to do with the “input”, the default of the basic information which serves to build up the news. In this stage, within the different news, the journalist elects

[237] Bruns, Gatekeeping, Gateëatching, Real-time Feedback new Challenges for Journalism, 119.

the ones that have a high informative value and serves the public interest. At this point, there are many discussions in terms of the capacity, the vocational and social training of the journalist, the affects that he might have at this stage and also the impact of his selection of social and political developments of the society.

- The second stage is the "output". On this stage, the "gatekeeping" decides over the collected and prepared information that is going to be passed to the audience.
- The third stage, according to Bruns, is "response". At this point, only a selected group of audience responses may be included in the content of the newspaper in the following days or the subsequent editions. This will only happen if there is a reserved space for these responses in the broadcasting of the following day.

The researcher Artan Fuga, qualifies this system as an "individual authoritarianism" where a group of directors can arbitrarily decide on the information that the audience is going to consume. The researcher McLuhan, known for his famous axiom "medium is the message" considered the traditional media as a tool in the hands of elite. We would then arrive to the conclusion that 'elite is the message'. In the case of internet, media is the hands of everyone and this lead to 'everyone being the message. [238]'

The main characteristics of the over distribution of media new reality is audience facing with a large information exposure. Starting from the idea that the information is a product for media market actors, they aim to maximize their Profit from the sale. For this reason, they use any distribution channel that is offered to convey information to the audience. This amount of information does not fit our needs. Here, it is included "spam" information and sponsored content in social media, which is imposed on us by violence. In this context, the risk of new media audience consists in his ability to find the needed information. Virtually that characterizes communication in social media that is in fact a second reality, making it possible "reality duplication". Consequently, this type of communication is to close within them and disconnected from reality. New media users are increasingly choosing news or filtering information influenced by the opinion of well-known people in relation to the opinion of traditional news sources. In this way the user who distributes information on the network, even if the latter is not authentic product of his, takes the role of an "opinion leaders" or even the role of a "gatekeeper" that decides which news or information is available for his network friends. All these are due to the interactivity that characterizes the new media, where each individual becomes a kind of media itself. For this reason, the audience of traditional media is reducing, though the latter is trying to transform in front of the new conditions of information distribution, by integrating information coming from new media to its sources.

Albanian media context

Regarding the concept of the public area in Albania, its use began with the fall of the dictatorial system and the allowance of political pluralism. If we start from the concept of Habermas for the public area as a space where public opinion is formed, then it seems difficult to talk about a fair public space in the period of communism. Freedom of expression, freedom of speech and freedom of the press are concepts without which it cannot be discussed for the public area. Albanians, immediately after the fall of communism, began to articulate their thoughts and opinions about the social political development and the actors involved in these developments. The birth of free press brought the opportunity to express critical thinking. The change of the political system brought a "noisy" start after the long public silence. The release of the informal

[238] Zguri, Mbi shkaqet e braktisjes sw mediave tradicionale, 174.

public area has sensibly awakened the interest of Albanians in public affairs. The public area in Albania as well as in the other countries of the region in the post-communist period resembled the process of forming the public area in Europe of the 18th and 19th centuries. The new public sphere created a space for the creation of autonomous collective action organizations that make up the essence of civil society.

In post-communist Albania the developments in the communication and public area are moving fast. While these paces have consequences for the quality of the transformational steps, the stages of media development and communication space "mutilate" one another. Initially Albanians characterized a great desire to be informed by new and "free" sources. They had just come out of great isolation and the need to be informed without censorship and freely expression was the main feature of the post-communist years. The first opposition newspaper "Rilindja Demokratike" was created on January 4, 1991, then passed on the phase of private television establishment such as "Tv Shijak" in 1995 and "Tv Klan" in 1997, while in 2000 the Albanian public would be acquainted with the first information portal on the web "Balkan web". Online media have reported an important overcrowding regarding public discourse. In the second decade after political pluralism, we have a dramatic development in the field of media and communication technologies. Online media have grown considerably after the establishment of social media (Facebook, Twitter etc). Albanians rushed again to try the innovations that brought the new media. Soon, the number of individuals using social networks was "hundreds of thousands". Of course, in such a situation even the public discussion was shifted. Now politicians and other actors understood the opportunities offered by Cyberspace by adding public discourse and the "virtual" element.

Albanian context offers many examples which show that the social media users, thanks to the opportunities to build up virtual communities, may organize themselves through interactive communication and discuss or oppose a particular political action or a wrong decision.

Example: The spread news that the dismantling of Syria’s chemical weapons would take place in Albania caused a strong reaction from the audience. Facing the fact the televisions and major newspapers, with or without purpose, weren’t making it part of their informative agenda, encouraged the reaction of a considerable number of citizens about this issue. A community on Facebook organized a campaign which gathered a lot of people. In very few hours, the Facebook page against the dismantling of the chemical weapons in Albania reached a high number of followers. This Facebook page served to organize protests which followed later. The case of the protests against the chemical weapons, mediated and enabled by social media, is a genuine example of how media enables public debate, which furthermore serves as an alternative public sphere where the public opinion is given a ‘shape’.

The government had to take steps back because of strong objections from the public opinion. The official Facebook profile of the Albanian Prime Minister was covered in comments and critics related to this issue and this situation forced the head of government to work more on how to reply to the critics against him on Facebook, rather than those who were commenting the issue on the television screens. Judging by this case, we can freely say that media in Albania has reached the digital media area, like a great number of other countries. It should be mentioned that, unlike other countries, especially western countries, it was very difficult for Albania to reach this era because of its political and social history.

Albanians, after the fall of communism, discovered 'the other' as a harmless object for dialogues. In fact, this is the moment when 'oral taboos' of the past are broken and the borders of allowable discussions are crossed. [239]

Initially, Albanians had a great need to get informed from new and "free" sources. They had just left behind a big isolation and they had a big need to get informed without censorship and express themselves freely. In the late 90s, private televisions and newspaper brought for the first time the pluralism of information which was once the exclusivity of ART (Albanian Radio Television). After 2005, apart from TV media, there were also informative televisions which helped creating and expanding the diversity of the ways to spread the news. As mentioned above, the internet and the massive use of social media began after 2009.

In 2014 Albania counts 1.360.000 active users of Facebook from which 98.000 access the social media from their mobile phones.[240] (Wearesocial, 2014)

Televisions, newspapers and radios have now their own websites where they are free to publish all their contents. Also, the three traditional media have their own official profile on social media, especially on Facebook. It is noticed that, as the time goes by, these media use social media to increase their viewership not only on social media, but on their original media as well. Also, they tend to create interactivity with their audience in order to measure their viewership of their programs and to use various reports as sources of news which are mainly based on images.

Former news editor in ABC News Television, Mr. Armand Shkullaku, admits that there are cases when the information comes from social media user and it gets published in its original form, without the intervention of the editorial. This happens, he says, when the denouncement comes with images that are mainly related to the object where these images are also used for verifications, such as: damages in the forests, the occupation of a park from the buildings, pollution of a public environment. Meanwhile, some televisions, such as Top Channel, continuously promote their corporation channel "you report", requiring the contribution of the audience for events they have witnessed. It is also worth it to mention the investigative programs in particular, which main object is reporting problems. The viewership of these programs is considerably high compared to other programs, which shows that the main reason for a wide audience is the interactivity with the audience itself since the very beginning of programming.

*Dr. **Holta Heba** has been graduated from University of Tirana, (2002) in Translation/ Interpreting in Foreign Languages Faculty. Later on she obtained in 2010 The Second Level Master studies in Theory and Models of Communication, Communication Sciences at the European University of Tirana.*

In 2015 she obtained the title Doctor in Communication Sciences at European University of Tirana. She has avery rich work experience as a translator and interpreter of French and Italian in different activities and national televisions.

She is working as a university professor and as the General Secretary of the European University of Tirana, from 2011 and on going.

[239] Fuga, *Media, politika, shoqeria*, 20)

[240] http://www.slideshare.net/wearesocialsg/social-digital-mobile-in-europe

In this table it is noticed that in the bandage of the standard time period (20:00-20:59) when the investigative emissions are transmitted exactly at Top Channel and TV Klan , and the audience is concentrated exactly in these two media.

It is worthy to mention that the mostly watched emissions "Opinion", "Top Story", "X-factor" in big televisions such as Top Channel and TV Klan , are integrated the audiences of the social audiences, rising up the participation of these audiences, but also the shaping of the programmes above.

So, traditional media appears in this case that "calling" themselves in social media the help to increase the audience information sources and outlining the content. The combination of the sources of information from social media and their integration into current processes of information in the traditional media comes, it is increasing.

Artan Fuga, a researcher of the communication science explains to us exactly the connection with a concept that explains this transformation, what is happening with the information and its sources in the Albanian journalism. An important feature is to develop a new language codification of media information online. Multimedia period, the mobile phone (mobile) and Internet usage, it brought important phenomenon that was called media convergence. [241]

Fuga raises questions of how newspaper newsrooms, television or radio within a single media company will function in terms of convergence. They will remain as a whole by paging all the information on a large central screen and then distributed in specific media, or standing still as independent units? In what ratio will stay the media version of the information stay in conventional media in comparison with those online? What are the differences between a newspaper number on paper and the same number in the online version? Which are the differences between a newspaper number paper based and that of an online version? These changes are determined by the fact that the information in the conventional media and the same information is placed online, being broadcast by different technological channels, it cannot be structured the same way. Even the public perceives them differently. Not "read" like on the screen as well as a paper page. At the first read vertically, while the second is horizontally. [242]

Regardless the degree of the diffusion model of convergence, Albanian media is in a constant effort to adopt it. In Albanian media it can be noticed that convergence is seen as an opportunity to add and alternate channels of information distribution .

Newspapers and main television stations are implementing a strategy which is based on the model 'multiplatform'. The main purpose in this case is to provide an "escape route" to withstand continuous erosion that including conventional media nowadays. basic argument is: " being present in every moment there where the audience / user is ."

Besides broadcasting, Top Channel distributes to the customer through a rich and updated website. Meanwhile, media product can also be accessed through the television profile in Facebook, Twitter, YouTube and Instagram.

In addition to the virtual space of information or content distribution produced in the television studio, we can find other posts that aim to increase the interactivity among users. Also we have content and promotional nature, whereby the intended promotion of the television various

[241] http://al.ejo-online.eu/mediat-e-reja/sfida-perpara-mediave-shqiptare
[242] http://al.ejo-online.eu/mediat-e-reja/sfida-perpara-mediave-shqiptare

products before their occurrence. Examples are illustrated by short videos "promo-video" as recognized in language television, the television network profiling in Instagram, which precede the audience with summary information on what they will see. In this context we have an orientation towards convergence editorial where media actors in Albania have created special groups within the traditional editorial newsrooms to engage specifically with the content network (Top Channel, TV Klan, Vizion Plus etc).

This transformation of traditional media is mostly happening with television, while other traditional media such as radio has not changed the content; they just dealt with a new official websites on the Internet. Televisions are placed on the pressure of shifting audiences in terms of online audience, causing decrease in advertising budgets.

Therefore, the integration of TV content with information sources from new media; Creation of live stream platforms that enable the television programs following in the network; Empowering the TV with real-time information; “Actors” and themes interplay that emerge from social networks in television content are some of the forms that are being pursued by televisions in their challenge with new media.

However, it should be noted that in Albania, the credibility of television news is still dominant in relation to news broadcasts due to the television's influence during the Communism Period (1960-1990). Precisely the lack of technology in Albania's economy makes it possible that even though the audience is largely oriented towards the new media, the budgets towards these media are at minimal levels in relation to the traditional media. The perception of the Albanian audience towards the new media is not yet clear and reliable in the context of the economic and business functions and opportunities offered by the new media. Despite this, there is a growing trend towards the "exploitation" of these media in the function of business development and its promotion, but this trend is still far from the expectations and pace of the Western world. New media in the world are not only transforming journalism but even economical and financial models. In this context, journalism has started changing while the impact of new media in the economic and financial model has no power to influence. However, the pace of the day-to-day changes of all developed economies around the world will force all other countries, adapting quickly as the only way to be part of the economic market and not just informative. In addition to this "economic pressure" in Albania is also the "Generation Changing Pressure" that is taking over the management of businesses and the media.

CONCLUSIONS

Social media are in the course of a Continuous technological evolution. Media researcher Rrapo Zguri an uppermost important author in the field of media, David Domingo which states: In their experience of studying journalism in the web, researchers cannot escape sensations of being observers of a new-born creature, which is still exploring its language, finding its rhythm and creating her routine[243]

The main impact of social media it is seen in the exercise of the profession of journalism and the production process information. The use of social media by journalists in Albania has affected all stages of the information production process, from the initial search for information, resource structure, deontological principles of journalism and to solicit feedback from the audience.

[243] Zguri, *Gazetaria shqiptare ne internet*, 4.

The utilization of social media platforms creates more opportunities for journalists. Social media has facilitated more intermediate processes in the production of information, although Albania has not yet clear policy in terms of relationship that journalists need to build with the new media and therefore has not yet strategies for effective use of these platforms.

The reference to social media as an information source by journalists in Albania has changed the original structure of the news. As outlined above, the social network Facebook remains the main social media where journalists are directed to obtain information. We can say that currently on Albanian journalists but not limited to, the choice of social media for information source is more a liability than elections despite the lack of reliability of information by journalists. Journalists consider social media as an opportunity to monitor the actual developments, to be closer to sources of news to present their work, to discover new ideas, to strengthen links with the audience and to monitor reactions of the latter.

Through the above examples, journalists agree that the information coming from social media has influenced the report quickly to events, the content of news bulletins and thematic programs, noting here and increase the audience in their media products precisely because of interactivity created through the traditional media format intertwining with innovations in information and its structure of social media. After all, the basic principle of modern journalism in Albania is: "To be where the customer is," so medium that the customer chooses to be informed will be the main medium and the journalist will be used to obtain information and for diffusing them.

BIBLIOGRAPHY

Coleman, Stephen.& Karen Ross. “The media and the public. “Them” and “Us” in media discourse”, West Sussex: Wiley-Blackwell Publishing, 2010

Fuga, Artan. *Media, politika, shoqëria 1990-2000*. Tiranë: Dudaj, 2008.

Holmes, David. *Communication Theory Media, Technology, Society*. London: Sage Publication, 2005.

Scherer, Eric. *A na duhen me gazetaret*, Tiranë: Papirus, 2012.

Zguri, Rrapo. *Gazetaria shqiptare në internet*. Tiranë: Universiteti i Tiranës, 2015.

Bruns, Axel. Gatekeeping, Gatewatching, Real-time Feedback new Challenges for Journalism.” *Brazilian Journalism research*, No.11. (2011): 119.

Zguri, Rrapo. “Mbi shkaqet e braktisjes se mediave tradicionale”, *Studime Albanologjike*, No.1 (2012): 174.

Fuga, Artan. “Sfida përpara medias shqiptare.” *European Journalism Observatory*. 22 January, 2013.

http://al.ejo-online.eu/mediat-e-reja/sfida-perpara-mediave-shqiptare

Wearesocial. “Slideshare”. 5 February, 2014. http://www.slideshare.net/wearesocialsg/social-digital-mobile-in-europe

POSSIBILITIES OF USING EDULARP IN EDUCATION IN SLOVAK REPUBLIC

Adriana Grenčíková[244]
Dagmar Petrušová[245]
Karol Krajčo[246]

DOI: https://doi.org/10.31410/eraz.2018.506

Abstract: *The authors had focused on using the Larp method, which is little used in Slovakia in the present study. Contemporary modern and fast time requires that the process of learning used not only established standard methods such as lectures, reading and exercise, but also unconventional methods that can mobilize students to work independently and to find suitable solutions to problems. The aim of the present study had been to evaluate the potential of use of edu-LARP, its advantages and disadvantages in case of applications in higher education in our country. Higher education usually takes place through a presentation method involving the direct contact of the student and the pedagogue, most often the lectures, seminars and exercises. The aim of using edu larp is to integrate, consolidate and acquire the content of a larger number of lessons that are linked to each other. It is a tool for facilitating students' understanding and expression of context. The advantage of using edu larp in student education is the opportunity to experience model situations that could not be experienced before, with which they gain important knowledge and experience in working life. Nowadays, role plays are known all over the world, and their popularity is still rising, which also applies to the educational context. In the context of emerging Industry 4.0, the use of new technologies in education is highly up-to-date.*

Key words: *Larp, education, role playing, educational methods, motivation*

1. INTRODUCTION

Falk and Davenport [1] define larp in a following way: "A live role-playing game is a dramatic and narrative game form that takes place in a physical environment. It is a story-telling system in which players assume character roles that they portray in person, through action and interaction. The game world is an agreed upon environment located in both space and time, and governed by a set of rules – some of which must be formal and quantifiable." Larp or Live Action Role Playing are role plays that are very little known in the Slovak Republic. If people already know role playing, like leisure time. We will focus on the educational activities of LARP, which is referred to as edu-LARP in our study. Teaching methods represent a very important element in the education process. Using them conveys to students the relevant curriculum content. Contemporary modern and fast time requires that the process of learning used not only established standard methods such as lectures, reading and exercise, but also unconventional methods that can mobilize students to work independently

[244] A. Dubcek University of Trenčín, Faculty of Social and Economic Relations, Studentska 3, 911 51 Trenčín, Slovakia
[245] A. Dubcek University of Trenčín, Faculty of Social and Economic Relations, Studentska 3, 911 51 Trenčín, Slovakia
[246] A. Dubcek University of Trenčín, Faculty of Social and Economic Relations, Studentska 3, 911 51 Trenčín, Slovakia

and to find suitable solutions to problems. At the same time, however, they are motivation, and they support the development of logical, creative and social thought. Nowadays, role plays are known all over the world, and their popularity is still rising, which also applies to the educational context. In the context of andragogy, role playing can still be considered pioneering. From the point of view of adult learners or teachers, there is considerable mistrust about gaming in general, especially for roller games. For this reason, we are devoted to role-playing education in the present study to point out their issues and potential benefits or challenges.

Doc. Ing. Adriana Grenčíková, PhD*. works at the Department of Economy and Economics of Faculty of Social and Economic Relations, A. Dubcek University in Trencin. During her pedagogical activity she has been involved in work on scientific research projects of faculty and departmental character as an effective project leader, deputy head of the project, co-worker. In her teaching and research, work focuses on the problems of the human resources and the labor market.*

We meet with role playing quite often when studying didactic methods. We think that importance is not sufficiently emphasized for learners. Role play is often perceived by laymen as "playing" and also the loss of their time, which is why they have a negative attitude. The aim of this study is to highlight the phenomenon of play and role play in education, including the opportunities it offers. We point to a specific method of education that is still not used in higher education. Larp is a common part of teaching in some higher education institutions in Scandinavian countries. In our country, it is unfortunately not used in schools. It focuses on larp as an educational method. The use of new learning methods is closely related to the acquisition of new knowledge and skills that are very important in connection with the arrival of Industries 4.0. The education system at universities is relatively obsolete and does not provide students with the required quality for the labor market and the new demands of employers, and this also applies to soft skills.

EDUCATIONAL WAY OF UTILIZING METHODS LARP

The learning method of using the LARP method has been discovered in Scandinavian countries. The Danish School of Østerskov Efterskole was the first to classify the LARP method as the main teaching method, and compared with schools that did not use the LARP method, the results were above average. It was on the basis of these surveys that non-participating teachers started to implement the LARP method into teaching. There are a number of reasons why LARP should be used to educate students. The authors Bryhn, Movold and Raaum (2001) define LARP as an adventure through which we can learn and it is an opportunity that helps to understand different situations.

Various subjects can be used to prepare LARP. Thus, LARP helps students acquire the practical use of different subjects and see the relationships between them. Playing on other personalities allows students to learn more about others, themselves and discover within their boundaries and limits. Through this method, students can find themselves in their own identities and thus detract from others. Bryhn, Movold and Raaum [2] consider LARP as the perfect way to teach students to cooperate. They talked about dividing pupils into groups they do not usually have. We give them a role, so they have nothing else to do than to learn to cooperate with other people. However, LARP's most popular method of learning is that it's fun. Students, respectively. players feel safe, which in the first place supports their work while experiencing unrepeatable situations. Andersen in Kundrat [3] suggests that one of the typical features of larp is direct social interaction. Also educational groups like group activity work with the group, its

dynamics and tasks or challenges directly require cooperation with other players. Hylthof [4] said that any pedagogical method that uses action role games as student activities with a clear pedagogical or therapeutic goal is called edu larp.

Each edu-larp has three components: a teacher, students, and their parents. Parents are, however, part of the game, mainly because edu larp may exceed the time frame of the lesson, so students can also fulfill their role in personal education outside the school. By using edu larp, the teacher should assume that most students have never met with this type of activity. For this reason, the teacher is expected to tolerate students because they may not be able to make direct play on role-playing and so they will not enjoy the game, which may affect their emotional side. Therefore, it is important for the teacher to introduce the game to the students in advance and then, based on the players' opinion, to modify the game for their needs. One of the typical features of larp is direct social interaction. Also educational larps as a group activity work with group dynamics and the roles and challenges require direct cooperation with other players. Cooperation is divided into tasks that are resolved individually. The aim is therefore to learn together one's knowledge through one activity and, of course, social learning. Knowledge is related to the social skills that the players acquire basically alongside the knowledge. Larp has great potential for pedagogical use. When setting educational goals in its planning, it can be an effective tool for the development of its participants in many ways. Berger's Theory of Role [5] is one of the most important and key elements of the human exploration and interpretation of society, because it not only determines what we are doing but also who we are. We think that edu larp will not be included as a proper method of teaching for many years, given the constant skeptic view of using this method in education in Slovakia. Therefore, we would recommend using the edu larp in the form of a supplementary method of learning to traditional forms of learning theoretical and professional knowledge as a partial alternative. The edu-larp's contribution to pedagogy is particularly important in developing students' competencies. According to Dovhunová and Černý [6] the greatest emphasis is put on the area of motivation. Edu-larp enforces pupils to ask questions and find answers to them, motivating pupils in a natural way. The common feature of most larps is collective, active and physical role playing in a prepared environment. Bøckman [7] defines larp as a role play in which a player receives a fictitious personality in a story that is shaped by his actions. The Oxford Dictionary [8] defines larp as a type of role play in which a participant physically plays a screenplay, typically using costumes and props.

OBJECTIVE AND METHODS

We had gotten information about the time that college students spent through joint education at school and personal education from publicly available databases. We had evaluated the acquired information verbally, for better clarity and also graphically through tables and charts. As the information obtained is in numerical values, interpretation of the results will be clearer. Based on the information about scheduling time dedicated to education, the aim of the present study has been to evaluate the potential use of edu-LARP, its advantages and disadvantages in case of applications to universities in our country.

Because we had tried to point out the current information, we have obtained important data from online sources. Book resources do not provide the required information. The key sources for obtaining statistical information will be in particular the OECD, the EUROSTUDENT VI project [9], the Ministry of Education, Science, Research and Sport as well as Eurostat [10].

Data collection methods and techniques selected for processing the goal of our study were chosen to maximize different types of information. Among these, the information is used and acquired knowledge of teaching practice and study. From the point of view of the chosen method at work, the analysis supplemented by the synthesis and the comparison method, which allows the obtained results to be broader.

EDUCATION METHODS USED AT SLOVAK UNIVERSITIES

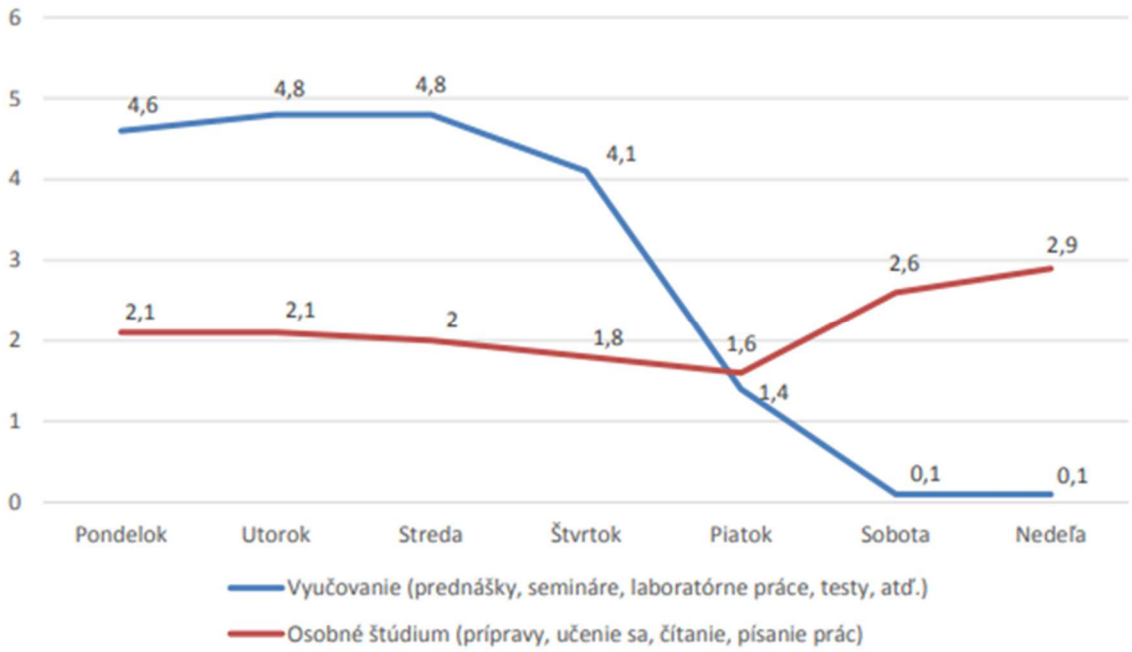
We distribute colleges at public, private and state high schools in Slovakia. The Ministry of Education, Science, Research and Sport (2018) currently registers 20 public schools, 12 private schools and 3 state schools. We had analyzed the number of teachers in the university sector also. According to Eurostat, the number of teachers was 14,447 in 2016.

Higher education studies are usually conducted with a presentation method involving the direct contact of the student and the pedagogue, the most frequent ones being lectures, seminars and exercises. This method is especially characteristic for day-time students. The university system in Slovakia offers to students three levels of study. Each university in the Slovak Republic provides bachelor study, respectively. first level of study. It usually lasts 3 years and ends with the elaboration and defense of the bachelor's thesis and state examinations. The graduates will be awarded the Bachelor's degree after their successful completion. Subsequently, students have the opportunity to continue their studies at the second degree in the Master or Engineer. The study lasts 2 years and ends with the elaboration and defense of the diploma thesis and state examinations. The last third stage of study that anyone with a second degree can complete is a PhD study lasting from 3 to 4 years. It ends with defense of dissertation work and state examinations. In the following table no. 1 we can see a summary of the structure of the university education system in Slovakia.

Age	19	20	21						
Year of study	1	2	3	4	5	1	2	3	4
Degree	Bachelor's degree			Master / Engineering degree		Doctoral degree			

Table 1 The Structure of the Higher Education System - Slovakia
Source: Own processing according to UNICEF (2018)

Based on the respondents' replies, which are presented in the EUROSTUDENT VI Final Report [9] we found that daytime students spend a total of 19.7 hours on average from Monday to Friday on classes. Students spend a total of 15.1 hours per week on a personal study, which is 2.2 hours per day during the semester. On Monday (6.7 hours), Tuesday (6.9 hours), Wednesday (6.8 hours), Thursdays (5.9 hours) and Fridays (3 hours), students spend more hours at school on teaching. On Saturday, students spend a total of 2.7 hours on a personal study, on Sunday 3.0 hours.



Graph 1 The average number of hours spent by university students at school and personal study during the current week during the semester . Source: EUROSTUDENT VI. (2018)
*red line – personal study blue line – teaching at school (seminars, lectures, ...)

Ing. Karol Krajčo
PhD student at the Department of Management and Development of Human Resources. He works as researcher at Faculty of social and economic relations. During his pedagogical activity he has been involved in many scientific research projects, as a co-worker and coordinator. In his teaching and research, work focuses on the problems of economic policy, microeconomy and macroeconomy

We can see the time spent learning throughout the week, including weekends, whether in school or out-of-school environment. It is clear from the above chart that students usually spend the most on personal study during the weekend when they are not required to attend school. For personal study, we consider preparation, learning, reading recommended literature or writing works. In addition, we can see in the graph that Slovak university students spend most of their time in lectures (lectures, seminars, laboratory works, tests) in the school from Monday to Thursday because our universities do not allow day-time students to attend school during the weekend.

In terms of timing, we have studied the number of hours during the current week devoted to participation in school education and personal study in bachelor, master or engineering students. Bachelor study students spent 26 hours per week on a weekly basis, of which 17 hours per week for joint education, respectively. school education and 9 hours per week for a personal study. Students of Master or Engineering study spent 26 hours a week together. Of that, joint education at school is 16 hours per week and personal education is 10 hours a week. In Table 2, we can see a summary of the time spent in the first and second degree studies divided into school and personal study.

Degree of study	School education	Personal study
Bachelor's degree	17 h. / week	9 h. / week
Master / Engineering degree	16 h. / week	10 h. / week

Table 2 Number of hours devoted to study at different levels of study - Slovakia
Source: Own processing according to EUROSTUDENT VI. (2018)

CONCLUSION

Edu-larp can be used in soft but also in hard skills and abilities, so in the area of expertise. However, it may be ineffective given to the new content. The most efficient possibilities of edu-LARP may in particular be in the final inspection of a larger volume of curriculum and existing knowledge. The aim of using such edu-LARP is to integrate, consolidate and acquire content greater number of lessons that are interlinked. It is a means by which students can facilitate understanding and manifestation context. The advantage of using edu larp in student education is the opportunity to experience model situations that they could not have experienced before to gain important knowledge and experience in working life. Among the acquired experiences of role-playing, including education, communication skills are second. The only and most serious disadvantage of edu-larp is the time-consuming difficulty that is sometimes difficult to estimate. Another disadvantage may be the lack of student involvement and their refusal to play the game. Thanks to the fact that edu larp is especially considered to be a game, it is motivation for the students to work. During the game, the atmosphere changes in the classroom, which can greatly enhance student creativity, but also stimulate the desire to achieve the best results.

Larp has great potential for pedagogical use. When setting educational goals in its planning, it can be an effective tool for the development of its participants in many ways. We think that edu larp will not be included as a proper method of teaching for many years, given the constant skeptic view of using this method in education in Slovakia. Therefore, we would recommend using the edu larp in the form of a supplementary method of learning to traditional forms of learning theoretical and professional knowledge as a partial alternative.

Primary is the use of edu- larp in higher education. One of the first steps is a positive approach to role-play education, respectively. adopt other training methods than those currently set up at universities. It is important to use larp as a tool for learning to convert gaming into control settings at school or in a classroom. There may be a problem that the game becomes uninteresting and so unplayable. If the student is forced to play, the game will lose its attraction and interest. Therefore, educators must ensure that the game is actually played in the school environment.

Each higher education institution must create an edu - larp for a particular subject that is accredited. By using this method, students will be given individual tasks, based on their solution, they should understand the curriculum as a whole. Adequate is the assignment of different characteristics to participants, and through communication with each other, based on predefined curricula, find a solution. The most exciting way to apply edu- larp to teaching is to imitate normal life roles. It is difficult to describe the implementation of edu larp to the teaching process because there are many professional specializations and subjects that have different curricula. The larp method can be used as a full-fledged learning method, especially when role playing is applied for a particular purpose. The attitude of the lecturer or pedagogue must be

correct. In this way, it becomes an adventurous learning activity that presents a number of practical experiences and skills that players can use in real life.

The advantage of edu-larp is unknowing education. Participants learn, but they do not even notice it as opposed to sitting on a lecture and listening to a pedagogue. This innovative method of education provides participants with the opportunity to try out, on their own skin different aspects of personal activities, for some it is the opportunity to try themselves how they respond to new, unexpected situations. It is also possible for participants to learn from their mistakes, right in the game, and learn what to change. Possible mistakes in the process that this experience carries and reveals itself is a material for later group reflection and awareness of new knowledge and tips in practice for other students.

This study was created in the frame of the project VEGA No. 1/0430/18 **"**The impact of Industry 4.0 on changes in job structure".

REFERENCES

[1] Falk, J., Davenport, G. (2004) *Live Role-Playing Games: Implications for Pervasive Gaming.* Online: http://mf.media.mit.edu/pubs/conference/RolePlayingImp.pdf

[2] Bryhn, H., Movold, C., Raaum, M. (2001) *Experiencing History: Using Larp as Education; Experiencies and Visions*. In: RAASTED, C. ed. The book: kneutepunkt 2001 online. Oslo: Knutenpunkt. online: https://rollespilsakademiet.dk/pdf/books/book_kp2001book.pdf

[3] Doleček, J., Kundrát J. (2014) *Metodika pro pedagogy: Tvorba larpů (nejen) v dopravní výchově.* Brno: Centrum dopravního výzkumu. p. 18

[4] Hyltoft, M. (2010) *Four reasons why edu-larp works*. In Dombrowski, K. (Ed.) *LARP: Einblicke. Aufsatzsammlung zum MittelPunkt 2010.* Germany: Zauberfeder, p. 43-44.

[5] Berger, P. L. (2007) *Pozvání do sociologie, Humanistická perspektiva*. Brno: Společnost pro odbornou literaturu - Barrister&Principal, 3. vyd, 2007, p. 100

[6] Dovhunová, P., Černý, M. (2010) *Možnosti využití metody LARP ve výuce českého jazyka.* In: Didaktické studie. 2010, roč. 7, p. 20

[7] Bøckman, P. *(2003) The Three Way Model: Revision of the Threefold Model*. In Gade, M., Thorup, L., Sander, M. (Eds.). As LARP Grows Up. Frederiksberg: Projektgruppen ,KP03

[8] OXFORD DICTIONARIES (2015) *Definition of LARP in English*. Online: http://www.oxforddictionaries.com/definition/english/LARP

[9] Kollár, R. (2017) *Sociálno-ekonomické podmienky života denných študentov vysokých škôl na Slovensku*. CVTI, Bratislava, p. 59. http://www.cvtisr.sk/buxus/docs//VS/eurostudent/EUROSTUDENT_VI/1-Eurostudent_VI_denni_final_web.pdf

[10] EUROSTAT (2018) *Classroom teachers and academic staff by education level, programme orientation, sex and age groups*. Online: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=educ_uoe_perp01&lang=en

THE ROLE OF WOMEN IN THE CREATION OF KNOWLEDGE FOR THE FOURTH INDUSTRIAL REVOLUTION

Marijana Vidas-Bubanja[247]
Snežana Popovčić-Avrić[248]
Iva Bubanja[249]

DOI: https://doi.org/10.31410/eraz.2018.513

Abstract: *Talent and technology together will determine how the Fourth Industrial Revolution can be harnessed to deliver sustainable economic growth and innumerable benefits to society. In this paper we will try to examine the opportunities and challenges of information-communication technologies (ICT) and Internet for women population from the gender gap perspective. It is evident that technological change has a significant impact on job creation and displacement, skills gaps, education and gender gaps. Preparing talent for this new world will be the key for full use of ICT potentials for development purposes. This will require breaking down old relations between education systems and labour markets, agile approaches to regulation, new forms of public-private collaboration, and new norms and values granting equal gender possibilities.*

Key words*:* *Information-communication technologies, gender, equality, knowledge, development.*

1. INTRODUCTION

The world is witnessing today the increasing proliferation of technology and its effects on advancing global prosperity. As ICT-fuelled digital economy is taking off in an exponential way, it is recognized that we are facing with the beginning of a Fourth Industrial Revolution that will fundamentally change the way we live, work, and relate to one another.

This Revolution is characterized by the high speed of developments, disruption across all major industries, and the ICT impact on entire systems of production, management, and governance. The future holds an even higher potential for human development as the full effects of new technologies such as the Internet of Things, artificial intelligence, 3-D Printing, and quantum computing unfold [1]. In order to be able to manage development, ICT potentials, the world has to ensure that women, as one half of the global population, are equally integrated both as beneficiaries and shapers of knowledge, technology and resources for the Fourth Industrial Revolution.

2. ICT AND INTERNET USE FROM THE GENDER GAP PERSPECTIVE

As is usually the case with technology, information technology is gender neutral. However, there are gender dimensions in terms of ICT access and use that can hinder progress towards

[247]Alfa University, Faculty for Finance, Banking and Auditing, Belgrade, Palmira Toljatija 3, Serbia
[248]Metropolitan University, FEFA Faculty, Belgrade, Bul. Zorana Đinđića 44, Serbia
[249]Belgrade Business School, High School for Applied Studies, Belgrade, Kraljice Marije 73, Serbia

gender equality. There is a pervasive gender divide in Internet use by men and women. According to the latest figures published by ITU in 2017 the global Internet penetration rate for men stands at 50,9% compared to 44,9% for women. The proportion of women using the Internet is 11,6% lower than the proportion of men using the Internet worldwide. The gender gap is currently more pronounced in developing countries, where 16,1% fewer women than man use the Internet, compared with 2,8% fewer women than man in the developed world (Table 1). While the gender gap has narrowed in most regions since 2013, it has widened in Africa. In Africa, the proportion of women using the Internet is 25% lower than the proportion of men using the Internet. In LDCs, only one out of seven women is using the Internet compared with one out of five men [2].

	Internet penetration rate*		**Internet user gender gap****	
	Men	Women	2013.	2017.
WORLD	50,9	44,9	11,0	11,6
Developed	82,2	79,9	5,8	2,8
Developing	44,7	37,5	15,8	16,1
LDC	21,2	14,1	29,9	32,9
REGIONS				
Africa	24,9	18,6	20,7	25,3
Arab States	47,7	39,4	19,2	17,3
Asia&Pacific	47,9	39,4	17,4	17,1
The Americas	65,5	66,7	-0,4	-2,6
CIS	69,8	65,8	7,5	5,8
Europe	82,9	76,3	9,4	7,9

* Penetration rates in this chart refer to the number of women/men that use the Internet, as a percentage of the respective total female/male population

** The gender gap represents the difference between the Internet user penetration rates for males and females relative to the Internet user penetration rate for males, expressed as a percentage.

Table 1: International penetration rate by man and woman in 2017
Source: [2].

Huyer, Hafkin, Ertl & Dryburgh note that women's rate of Internet access does not always increase in tandem with national rates of Internet penetration, and the high overall ICT penetration does not guarantee equitable access by gender [3]. The fewer women access and use of the Internet and ICT is a direct result of their unfavourable conditions with respect to employment, education and income. Gaps in wages and therefore gaps in purchasing power are major determinants of the different abilities of men and women to access ICTs [4].

There is no single ICT or Internet gender gap, there are several. Bimber (2000) noted two Internet gender gaps for the United States, one with access to the Internet, and the other is the difference in the use of the Internet among those men and women [who are already equipped] with access [5]. For example, consistent and measurable gender gaps are observed in the use of e-commerce and the use of smartphones, with consistently higher proportions of men choosing to purchase and use these services than women [4].

Access is especially important in relation to the right to communicate. According to Broadband Commission data, women worldwide are, on average, 21% less likely to own a mobile phone, representing a gender gap of 300 million, equating to $13 billion in potential missed revenues for the mobile sector [4]. Even when women own a mobile phone, they are far less likely than men to use it, especially when it comes to the more transformational services like mobile

Internet and mobile money services. The key barriers to women`s mobile access include costs, culture, technical literacy and perceptions of value.

According to analysis in developing countries, every 10 % increase in access to broadband translated to a 1,38 % growth in the gross domestic product (GDP). This means that bringing an additional 600 million women and girls online could boost global GDP by as much as $18 billion. In this respect, in March 2013, the *ITU/UNESCO Broadband Commission for Digital Development* endorsed a fifth broadband advocacy target, calling for gender equality in access to broadband by 2020 [6].

3. WOMEN IN ICT EDUCATION AND EMPLOYMENT

Two factors highly determine the contribution of women to the economic development process under the Fourth Industrial Revolution and those are women`s technical education and their participation in science and technology (S&T) professions. Available data clearly indicate differences in access to education and employment opportunities in ICTs for women.

Education - Globalization, digital technologies and new ways of working puts a high premium on workers with skills and qualifications in science and technology, workers historically less likely to be women. Women are vastly underrepresented in these subjects at the secondary and tertiary education levels and in the overall technical workforce [7]. Although more governments are collecting data on the use of ICTs in public education, it is still not possible to obtain data on the number of men and women studying ICTs and computer science in most countries and in nearly all developing countries. All the same, the data that are available indicate consistently low participation by women and girls in S&T education [7].

Marijana Vidas-Bubanja *graduated in 1982 at the University of Belgrade, Faculty for Economics in International Economy and obtained a PhD at the same University. She worked as senior research fellow with the Institute of Economic Sciences in Belgrade. Scientific adviser degree, she obtained in 2008. Marijana Vidas-Bubanja has been working as professor of Faculty for Trade and Banking, Alpha University, Belgrade and of Belgrade Business School since 2004. Besides topics in International Economy in her work, dr Vidas-Bubanja deals with development aspects of eEconomy, information society, economic impacts of e-business practices, etc. In period (February 2000-February 2002) she was eEnvoy for Serbia in the eSEEurope Initiative under the II Table of the Stability Pact for SEE. The Chair of the same Initiative was since February 2002 up to October 2007. Dr Vidas-Bubanja participated and coordinated creation of two basic documents for information society development in SEE - eSEE Agenda in 2002 and eSEE Agenda+ in 2007. She is author or coauthor of 5 books and more than 100 articles in country and abroad.*

Despite the growth of female tertiary graduates in science over the past few years, women still engage in different fields of study than men and remain under-represented in science and technology fields in all EU Member States. Across the EU-28, the second most common field of education was engineering, manufacturing and construction-related studies which accounted for 15,7% of all tertiary education students. In this field, three quarters of the students were male [8]. At the postgraduate level, the share of women in S&T fields declines further and yet again in the transition to the workplace. In 2012 women accounted for 47% of top-level graduates and in 2013 they held only 35,5% of total research positions in EU [9].

Few data are available also in the area on women's participation in computer science and engineering research especially in the developing countries. However, existed data indicate the low participation of women in higher-skilled, higher-ranking, and higher-paid positions in ICT research and development [10].

Employment - Disadvantages in education translate into lack of access to skills and limited opportunities in the labour market. Female participation in the labour force and employment rates are affected heavily by economic, social and cultural issues and care work distributions in the home. In 2015 the global labour force participation rate was 50% for women, but 77% for men. Worldwide in 2015, 72 % of working-age (ages 15 and older) men were employed compared with only 47% of women. Achieving higher engagement in paid work confers multiple benefits not just to women, but to societies and economies at large. It is well recognized that a higher female labour force participation rate boosts economic growth. For example, raising the rate in Japan from the current 66% to 80% (still 5% lower than the male participation rate) could boost the country's output 13 percent [7].

Snežana Popovčić-Avrić *is a full-time professor at the Faculty of Economics, IT Management and Creative Production, Metropolitan University in Belgrade. She graduated, got her master degree and obtained a PhD at the Faculty of Economics, University of Belgrade in the field of international economics. She speaks English and German. Snežana is the author of monographs and textbooks in the field of international economics, as well as over hundreds of professional and scientific papers. She teaches International Economics, International Economic Relations and International Business. In the period from 2003 to 2015 she was at the positon of the Vice Dean for Education at FEFA Faculty. In the same time, dr Popovčić-Avrić holds classes from Economics at the Faculty of Electrical Engineering, University of Belgrade. She also worked at the Institute for Market Research and Institute of Economic Sciences in Belgrade. Snežana led numerous projects in the field of international trade, research of macroeconomic economic trends and economic trends in the country and abroad, as well as* market product research and assessment of the justification of investments.

In particular, the participation of women in ICT design and development is generally low. Available data show a progressive decline of the number of women in ICT-related employment at increasing levels of complexity. Many women operate computers, largely for word processing and related office programs and for data entry. Many fewer are programmers and systems analysts. The least number of women are in software and hardware engineering in North America, Europe, and Asia [11].

As a growing sector of the EU economy, ICT in 2014 accounted for 4,2% of the EU's GDP. This sector creates 120.000 new jobs every year, with expectations that by 2020, the EU will lack 900.000 skilled ICT workers. Women made only 16,7% of the nearly 8,2 million employed as ICT specialists in the EU in 2016. Also, women only take up 19% of managerial position in ICT whereas the average for other sectors is 45% [12].

Women are underrepresented in senior business management globally. They hold only 22% of senior leadership positions, and 32 % of businesses do not have any female senior managers, with regional variation ranges from 8% in Japan to 40% in the Russian Federation. Women hold only 19% of senior technology roles. The situation is even starker at the top of enterprises, with only 9 % of companies having a female chief executive officer in 2014 [7].

3. DIGITAL DEVELOPMENT IN SERBIA AND THE IMPACT OF GENDER UNEQUALITY

For a small country in transition like Serbia, digital economy is great development opportunity and in this respect, all available human and knowledge resources should be used for its realization. This includes women`s potentials as well, as according to Census from 2011 53,2% of the population in Serbia were women [13]. This number indicates that women present half of human potential for the development in Serbia that should be properly used. In reality gender equality in Serbia has not yet been reached and women continue to face a number of problems in attempting to exercise their capabilities and their guaranteed rights. The same is true for the digital gender perspective.

The data from the Statistical office of the Republic of Serbia show that in 2017 there were 3.616.000 persons using *computers* in the last three months, 72,2% of men and 63,4% of women. Over 3.750.000 persons in Serbia in 2017 used *Internet* in last three months, and the relation between men and women was similar, 73,7% of men and 67,4% of women. Over 90% of men and women in Serbia used mobile phones in 2017 [14].

Use of	Computer		Internet		Mobile phone	
Age	Male	Female	Male	Female	Male	Female
16-24	96,9	93,9	98,7	97,3	98,6	97,2
25-54	85,7	80,4	87,5	85,1	97,3	98,4
55-74	39,3	28,2	40,3	31,6	84,2	81,2

Table 2: Use of computers, internet and mobile phones in Serbia in 2017, by gender and age groups
Source: [14].

Use of computer and Internet in Serbia is statistically significantly correlated with household monthly income, age, level of education and profession. Women in rural areas, with lower monthly income, lower secondary education, and older than 50, are less likely to be ICT users in Serbia.

When online, Serbian women use internet differently than men. They are more active on social media and in using e-mail as internet service, but in all other online activities, especially more sophisticated one, they are less active than men (Table 3).

Different Internet use	Male	Female
Sending/receiving e-mails	83.3%	76.1%
Social networks participation	67.9%	71.1%
Reading and downloading online newspapers and magazines	61.5%	59.2%
Searching for information about goods and services	56.4%	50.0%
Searching for information related to education, courses	52.6%	51.8%
Services related to traveling	44.9%	40.4%
Software download	39.1%	17.9%
Searching for information related to health	36.5%	47.2%
Searching for job and job applications	35.9%	24.3%
Selling goods and services online	29.5%	15.1%
Internet payments	25.6%	11.9%
Participation in professional networks	24.4%	13.3%

Gambling	21.8%	3.7%
Online courses	12.8%	9.6%

Table 3: Different ICT use by gender in Serbia
Source: [15].

These results of the different Internet use are correlated with the fact that in the Republic of Serbia, 34,2% of persons aged 15 and over are computer literate. Observed by sex, among computer literate persons the share of men and women is almost equal (50,4% of men and 49,6% of women), while among illiterate persons the share of women is higher than that of men (54% and 46% respectively) [13].

Iva Bubanja *is a PhD student at Faculty of political sciences, University of Belgrade in the field of culture and media. She works as a teaching assistant at Belgrade business school and holds classes from Business communication and Sociology. Topic of her master thesis deals with the commercials in Belgrade daily press. For a few years now, she is interested in researching the new concepts in marketing and propaganda with a large focus on the digital sphere. She is an author of scientific papers in domestic and international magazines. Iva also worked as a journalist and was active in non-governmental organizations that stand for equality and human rights.*

Education is very attractive to women in Serbia but not so much in science and informatics. In fact, the number of students in technical areas in Serbia is rising, but in 2012/13 school year they are still representing less than 20% of the Serbian student's population, and only 15,5% out of the total number of graduates [16]. Women in Serbia are underrepresented in the field of the science and engineering in education. During the period 2009-2013 around 23% of all graduate students at Electrical engineering faculty in Belgrade were women and 77% were men [17].

Serbian IT industry itself employed 17.711 workers in 2013 but women are underrepresented either as ICT workers, or ICT experts. Inequality between men and women persists, especially in the highest corporate positions and in academia as well [16].

Activities are needed for the all levels in the Serbian economy for the rising awareness about gender equality in ICT use, and for the elimination of stereotypes that women are less competent and capable to use ICT and to work in IT sector.

4. CONCLUSION

Performed analysis confirms that digital gender divide persist in the world and is more pronounced in less developed countries. Closing the digital divide is a pressing concern and it is a significant opportunity for growth in today's digital economy. All stakeholders, including governments, policymakers, industry stakeholders and operators must work together to give women equal access to information and communication technologies. Especially governments and enterprises need to be more proactive in helping women thrive in the ICT workforce.

On one side, women's and girls' empowerment in ICT is essential to expand economic growth and promote social development under the dynamic and technology intensive environment. The full participation of women in labour forces would add percentage points to most national growth rates double digits in many cases. On the other side, ICTs are very useful for women. ICTs have potentials to increase women`s capacity to cope with the requirement of modern,

demanding life more efficiently, and at the same time, ICTs enable women to transform the conditions of life and work and assert alternative gender roles.

In Serbia as a country where a little over 50% of the population is female, it is crucial for women to shape our country's future in the engineering industry alongside men. The rising number of men and women are using the Internet, but gender gap still exists on the level around 5%-7%. Positive trends are noticed concerning younger age groups where women exceed men concerning the use of computer, internet or mobile phones.

Data indicates that while Serbian women actively participate in developing the information society and digital economy, both as users and producers of information services, still there is a gender imbalance in the ICT industry workplace. Women are underrepresented in ICT business sector occupying small number of corporate positions in the ICT sector.

Serbia needs innovative strategies to advance gender equality, focusing in three areas: 1) ACESS - Achieve equal access to digital technology for women and girls; 2) SKILLS - Empower women and girls with the skills to become ICT creators; 3) LEADERS - Promote women as ICT leaders and entrepreneurs. Special attention should be placed on creating the platform for advancing women's meaningful engagement with ICTs and their role as decision-makers and producers in the technology sector.

On the global level, digital gender equality and gender empowerment is clearly recognized in the United Nations Sustainable Development Goals (SDGs), and in particular SDG 5, "Achieve gender equality and empower all women and girls". Global Partnership to Ensure Gender Equality in the Digital Age that brings together all relevant stakeholders was launched during the UN General Assembly in September 2016.

The use of ICTs by women and men reflects to a large extent the wider socio-cultural and economic context within which the technologies are produced and used. Gender and technology should be viewed as evolving and changeable. The holistic strategy focused on transforming the company culture and mindset is essential to cultivating wider change. It is equally important to continue studying, document and analyze the situation of women in ICT, specially in developing counties where the lack of gender sensitive data prevent reaching right conclusions and creating adequate strategies.

ACKNOWLEDGE

This Research Paper was a part of the Project "Advancing Serbia's Competitiveness in the Process of EU Accession", no. 47028, and of the Project "Modelling of Serbia's Development and Integration into Global Trends, in the Light of Economic, Social and Political Fluctuations", no. 179038, financed by the Serbian Ministry of Education, Science and Technological Development.

REFERENCES

[1] World Economic Forum (2016) *The Global Information Technology Report 2016: Innovating in the digital economy*, Geneva, V.
[2] ITU (2017) *ICT Facts and Figures 2017*, Geneva.
[3] Huyer, S., Hafkin, N., Ertl, H., and Dryburgh, H. (2005) "Women in the Information Society", *From the Digital Divide to Digital Opportunities: Measuring Infostates for Development*, Montreal

[4] ITU and UNESCO (2013) *Doubling Digital Opportunities Enhancing the Inclusion of Women & Girls in the Information Society*, A Report by the Broadband Commission Working Group on Broadband and Gender, Geneva.
[5] Bimber (2000) "Measuring the Gender Gap on the Internet", available at www.dleg.state.mi.us/mpsc/electric/workgroups/lowincome/internet_gender_gap.pdf
[6] www.itu.int/net/pressoffice/press_releases/2013/08.aspx
[7] UNDP (2015) *Human Development Report 2015 Work for Human Development*, NY.
[8] Eurostat (2016) *Key figures on Europe*, Luxemburg.
[9] Eurostat (2016) "*Smarter greener more inclusive?"* Indicators to support the Europe 2020 strategy, Luxemburg.
[10] http://www.un.org/womenwatch/feature/wsis2005/
[11] http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTGENDER/EXTICTTOOLKIT/0,,contentMDK:20272986~menuPK:562601~pagePK:64168445~piPK:64168309~theSitePK:542820,00.html
[12] European Parliament (2018) "More women in ICT: empowering women in the digital world", available at: http://www.europarl.europa.eu/news/en/headlines/society/20180301STO98927/more-women-in-ict-empowering-women-in-the-digital-world
[13] Republički zavod za statistiku (2016) *Statistički godišnjak*, Beograd.
[14] Republički zavod za statistiku (2017) *Upotreba infomaciono komunikacionih tehnologija u Republici Srbiji*, Beograd.
[15] Ministarstvo rada, zapošljavanja i socijalne politike Republike Srbije (2014) *Istraživanje o ulozi znanja iz oblasti IKT i položaja žena na tržištu rada*, Beograd, februar.
[16] Vojvodina ICT cluster (2015) *ICT in Serbia at glance*, Novi Sad.
[17] Bečejski Vujaklija, D., Pajić, A.,(2014) *Učešće žena u broju diplomiranih inženjera*, Projekat "Istraživanje uloge poznavanja IKT u kontekstu položaja žena na tržištu rada", Beograd

DEPENDENCE OF QUANTITATIVE MODELS OF MANAGEMENT ON IOT AND DIGITAL TRANSFORMATION

Milos Loncar[250]
Marina Jovanovic Milenkovic[251]
Milos Trkulja[252]

DOI: https://doi.org/10.31410/eraz.2018.521

Abstract: *The current research investigated technological support to managers in adopting quantitative models of management due to the latest inventions of the Internet of Things in the digital age. The research evaluated the potential influence of IoT-based digital transformation on the internal business processes and external business processes in competitive workplace environment. It examined how successfully artificial intelligence based IoT and IoT-based Robotics supported the management of growing businesses in the manufacturing industry to improve productivity, employee performance, competitiveness and sustainability in their business operations due to latest technological developments and their implementation for the quantitative models of management. The research also explored the potential influence of IoT-based digital transformation on reducing operational costs, improving business operations and ensuring safety and security of business data through IoT-based databases. Overall, the research examined how successfully the applications of IoT-based digital transformation changed business operations and manufacturing processes by empowering the management with latest technologies and quantitative models of management to succeed in achieving their desired goals.*

Key words: *Internet of Things, IoT-based digital transformation, quantitative models of management, business data, artificial intelligence, IoT-based Robotics*

Chapter 1: Introduction

Introduction

The current research investigates the dependence of quantitative models and methods of management on the Internet of Things and digital transformation. Before identifying potential influence of IoT and digital transformation on quantitative models and methods of management, it is essential to describe quantitative models of management and their importance in competitive business environment. The quantitative models and methods of management are considered to be highly important for businesses because they are based on scientific methods and effectively used by the management to manage and analyze their business performance in more appropriate manner. The quantitative models are scientifically used for managerial decision making to interpret the data, manipulate or process the business-related information and make valuable business decision making to protect people and business resources (Balic & Ebrahimi, 2017). The quantitative models or methods in management are used to formulate the problem, define decision-making variables, develop a suitable model,

[250] Faculty of Organizational Sciences, University of Belgrade, Serbia
[251] Faculty of Organizational Sciences, University of Belgrade, Serbia
[252] Faculty of Economics, University of Banja Luka, Bosnia and Herzegovina

acquire input data, solve the model, validate the model and implement the results to achieve desired results for the management. There are different models and methods of quantitative data for management including regression analysis, linear programming, factor analysis and data mining. In the areas of quantitative models and methods of management, regression analysis is a popular technique by which economists and statisticians adopt regression analysis to solve complex statistical equations in the context of managerial decision making (Pacis et al., 2017).

The current research critically investigates the influence of Internet of Things (IoT) and digital transformation on established business models and methods of manufacturing companies. The research is aimed at observing and analyzing the potential influence of the IoT and digital transformation on the business models based on business level perspectives. In particular, the research is focused on determining the interrelationship or dependence of quantitative models and methods of management on IoT and digital transformation. In the areas of Internet of Things (IoT), the research indicates that IoT is based on network of worldwide objects that are interconnected, unique addressed and based on standardized communication protocols. IoT and digital transformation is incorporated with latest technologies and different types of devices such as RFID tags to censors, complex wireless network sensors, and wearable connected cars (Garetti & Taisch, 2012). Along with Internet of Things (IoT), digital transformation plays a very crucial role to influence the quantitative models and methods of management. The digital transformation facilitates the management of asset-intensive businesses by focusing more on operational technology (OT) and information technology (IT) by offering best solutions to the businesses by integrating them. The integration of operational technology and information technology unlocks opportunities for businesses to make business processes more efficient and productive and making their products and services more valuable. The Internet of Things (IoT) has become the most important concept that enhances the connectivity of the business by enabling the integration of various business resources including human resource, assets and processes into one agenda or point of view and paving ways to obtain valuable business insights for industrial players (Milojevic, 2017).

Background of the Research

The current research is conducted to observe and analyze the dependence of quantitative models and methods of management on Internet of Things (IoT) and digital transformation in asset-intensive industries such as manufacturing. It identifies that these industries are adopting emerging technologies to streamline and improve their decade-old business operations and processes to ensure considerable improvements in their existing products and services by designing and developing new products, creating new channels of communication, advertising and marketing to their customers through the development of new business models and methods (Rong, Vanan & Phillips, 2016). The research indicates that this transformation enable industrial companies to be able to enhance their business values by becoming well-organized, technologically managed, more agile and lean to address their customer needs and tailor their products and services accordingly. The management of best performing manufacturing companies can implement IoT-based digital solutions at different levels of their enterprise ranging from floor to back office to reduce costs and improve the overall productivity and performance to enhance revenues. The research indicates that large numbers of companies have adopted and incorporated IoT and digital transformations in their models and methods and management quantitatively to incorporate a digital mindset by adopting IoT solutions and boosting the quality and cost-effectiveness of their manufacturing process to produce innovative and creative products and services by cutting down their operational costs (Crump & Brown, 2013).

Milos Loncar

IoT Solutions professional, WW Global Black Belt, Microsoft

Internationally experienced team leader, with proven track record in sales and business development through many different channels. Focused on digital transformation, IoT and Artificial Intelligence. Full P&L responsibility and sales team development with overachieving results in last 6 consecutive years. Speaker on many IoT conferences, focused on business model innovation and design thinking.

Education
Executive MB A
UK, University of Sheffield 2011 – 2014

Experience
IoT, business model innovation Manufacturing, Industry 4.0, Team leading & development, Direct & Indirect Sales, Cloud Business Transformation

The research indicates that IoT-based digital transformation provides best solutions to the top performing enterprises by making considerable improvements in quantitative models and methods of management. These IoT-based solutions could be offered in various sizes and shapes and applied across different levels of an enterprise and help companies to reach out at their digital momentum. The management of the manufacturing concerns can adopt these IoT-based solutions at their quantitative models and methods of management to improve internal business performance such as on the shop floors, empowering and improving their workplace performance and transforming back-office business operations along with IoT-enabled mobility solutions for these enterprises (Rong, Vanan & Phillips, 2016). Immense numbers of devices have populated the Internet of Things (IoT) that supported them to adopt heterogeneous technologies and standards in the areas of processing, communication and energy availability. The integration of Internet of Things (IoT) and digital transformation could make substantial influence on the quantitative models and methods used by the management of fast growing businesses. The technological development ensures continuous monitoring and control of the physical environment of the manufacturing firms by which their human resource and other resources are used and managed through quantitative models of management. The heterogeneity and critical nature of the IoT and digital transformation makes this combination a very complex environment for businesses because it is associated in rich with opportunities and threats. The research indicates that it is essential for the management of best performing organizations to practice IoT and digital transformations to survive and operate effectively in complex business environment. They need to practice technologically developed platforms, tools and techniques that could be very useful to control the work process and operations in the real-life workplace environment (Shrouf & Miragliotta, 2015).

The current research indicates that quantitative models and methods of management are largely dependent on the IoT and digital transformation because the combination of IoT and digital technologies could be used as a tool for organizations to reduce their operational costs and improve their operational efficiency. In the process of operating costly industrial machines, IoT and digital transformation techniques supports their management with quantitative models of management to guide their employees to adopt integrated systems in complex production processes and production lines (Crump & Brown, 2013). The management adaptation of quantitative models and methods supported with IoT is considered to be very useful to improve external capabilities of the organization by improving the quality of the products by enabling the organizations to develop new products and services and business models to achieve their business goals successfully. The IoT and digitally transformed applications are regarded as very useful for the manufacturing business organizations to specialize in different areas of business

operations by adopting quantitative models of management to fulfill their customer needs (Weber, 2016).

The research indicates that large numbers of business corporations adopt quantitative methods of management associated with IoT and digital technologies to ensure data security and privacy of their customer database. IoT and digital transformation facilitates managers and the IT departments of the organizations to adopt latest scientific models and approaches to overcome growing numbers of cyber-attacks and data stolen from the database of the business corporations. With IoT, every connected machine or complex management system becomes an endpoint that could potentially be breached and damaged if not secured properly. When the quantity of cyber-attacks is increasing and businesses are facing huge challenges of protecting their database, mounting compliance and regulatory burdens are increasing on firms to raise concerns and slowdown the pace of adoption. When business organizations adopt IoT and digital transformation techniques for their quantitative management models, Internet of Things or IoT improves internal capabilities and certain level of confidence of companies when it comes of IoT initiatives and strategy development (Crump & Brown, 2013).

Research Aims and Objectives

The main aim and objective of the research is to examine how quantitative models and methods of management are largely dependent on IoT and digital transformation. The research is also focused to add following points as the research aims and objectives:

- To investigate the potential influence of IoT and digital transformation on internal and external business performance of quantitative models of management,
- To examine the artificial intelligence of IoT and their managerial support to the management to adopt technologically developed quantitative models of management,
- To evaluate the IoT-based Robotic Things and their support to management to adopt quantitative models of management for better results in business solutions,
- To evaluate how IoT and digital transformation improved operational costs by improving the operational performance of the manufacturing organizations,
- To explore how successfully the quantitative models of management are dependent on IoT and digital transformation which facilitates the management to overcome cyber-attacks from growing numbers of cyber-attacks worldwide.

Importance of the Research

The current research is regarded as highly important because it describes how successfully the management of an organization can adopt quantitative models and methods of management to succeed in achieving their desired business goals. It indicates that different quantitative or scientific models of management are popular among successful managers such as linear programming, solution methods, integer programming, network models, project management models and multi-objective models. It identifies how successfully quantitative models of management are dependent on Internet of Things (IoT) and digital transformation. It identifies how the Internet of Things (IoT) has revolutionized the businesses by improving the level of security and privacy of the private database (Kranz, 2017).

In reality, the most of the current implementation of the Internet of Things (IoT) are related to business-to-business scenarios where management is focused to improve the efficiency and productivity around existing process. IoT and digital transformation has gained incremental growth and popularity among business managers because it has facilitated them to adopt

quantitative models and techniques to succeed in improving productivity, business performance and success over their competitors in continuously changing business environment. The IoT and digital transformation can be effectively used to automate the existing processes by delivering fast paybacks, revolutionary applications, new business models and incremental revenue streams. Such a business growth was never possible before the introduction of IoT and digital transformation in the business world (Marjani et al., 2016). It has provided great opportunities to the business managers to improve their production processes, safety and security of the workplace environment by employing new business models, streamlining product design and supply chain management processes and enhancing the competitiveness of advertising, marketing and promotional campaigns. The application of IoT and digital transformation has provided new business opportunities to various business organizations through increased flexibility and quick adaptation to market changes whether they need to introduce a new product or they are planning to do necessary changeover at the production lines (Balic & Ebrahimi, 2017).

Chapter 2: Literature Review

Review of the Literature

The internet of things and digital transformation has changed management practices and facilitated them in adopted highly innovative quantitative models and methods. The IoT has revolutionized the industry and enabled their management to adopt advanced digital technology to conduct their daily business operations. IoT and digital transformation has also changed the workplace environment to enable people to interact with each other using latest digital technologies. Workplace disruptions reduced and the performance of employees increased in a technology-driven world where managers adopted new and innovative quantitative models and methods to succeed in achieving their business goals (Marjani et al., 2016). The conceptualization of IoT was based on different qualities, vision and multidisciplinary activities with a variety of things such as wireless and wired connections and unique quantitative techniques by which people can interact and cooperate with other things and succeed in creating new applications/services to reach at common organizational goals. IoT and digital transformation has also enabled the management of the fast growing and competitive businesses to develop new communication protocols and devices to reach at the multidisciplinary domains where services, internet technology and people were covered through data and semantics to create a complete ecosystem for business innovation, interoperability and reusability to solve security, privacy and trust implications (Pundir, Sharma & Singh, 2016).

The research work conducted by Balic & Ebrahimi (2017) indicated that IoT and digital transformation provided new technological developments and opportunities to the managerial decision making to communicated and interact with their employees through technologically developed devices. The management of top performing organizations could adopt efficient wireless protocols, improved sensors, cheaper processors, bevy startup and establish their business environment by developing necessary managerial and application software and other techniques through IoT mainstreams. The IoT and digital transformation facilitates the management to converge with their consumers, businesses and industrial internet consumers to achieve desired business goals and objectives by adopting quantitative models and methods of management. The convergence through IoT and digital transformation facilitates the management to create open and global networks of connecting and communicating with people, data, and other organizational things. The convergence of also important because it leverages the cloud to ensure the connectivity with intelligent things that could be used to transmit a broad

array of data and help the management to create services that would not be obvious without the level of connectivity and analytical intelligence (Chen et al., 2014).

The dynamics that are associated with the development of IoT and digital applications are regarded as highly complex and enable the management to ensure network connectivity, systems integration, value-addition services and other managerial functions that are used to address the requirements of the end-users to connect intelligent edge devices into complex IoT applications. The management of highly competitive organizations is also dependent on the IoT and the digital transformations to create IoT-enabled ecosystems that offer greater solutions to their customers comprising of large heterogeneous systems to solve important technical issues in different industrial verticals. The disruptive nature of the IoT also needs strong commitment and dedication from the management to assess the requirements of each project separately to ensure future deployment across the digital value chains in various industrial and application areas to ensure better exchange of data, the use of standardized interfaces, interoperability, security, privacy, safety and trust could generate transparency and integration of consumer, business and industrial operations in competitive workplace environments (Pundir, Sharma & Singh, 2016).

In the areas of digital transformation, Internet of Things or IoT is one of the major technologies that could be used to improve quantitative models and methods of management to enhance the productivity and performance of the organization. Over the years, management has realized the importance of developing new business applications and technologies to enable, drive and accelerate digital transformation of their business operations to establish strong working relationship with their customers and business suppliers. Internet of Things or IoT enables the management to develop quantitative methods to create/change new business opportunities by improving the ways people work, live, entertain and connect with other groups within the organization. It has enabled the management of fast growing businesses to create a number of devices and connections through the Internet of Things by correlating it with other technologies to address the transformational needs of their business growth (Manika et al., 2015).

The research article indicated that IoT as a part of digital transformation has become a big task for every successful organization. The role of management is very important to adopt quantitative models of management through IoT to survive in highly competitive market by adopting emerging technologies and adapting changes rapidly. The changing process in large business organizations are not easier but through IoT digital transformation, it is possible for the management to make necessary decisions to carry out change through the value proposition assumptions of digital transformation and Internet of Things. It would be helpful for the management to improve their business operations and competitiveness while entering into new markets and competing with local and foreign companies. Furthermore, the management of the fast growing businesses is also responsible to adopt effective business strategies associated with quantitative models of management to lead their companies and succeed through IoT digital transformations. The management of these organizations can adopt automation models to make processes easier by employing necessary management skills and technological solutions. The research indicated that most of the studies were focused on transforming the digital workflows into technological solutions that could employ to digitalize the information. The research was also focused on observing and identifying the concepts of digital transformation and IoT and the ways of automation solutions to support the digital transformation of the business to achieve greater efficiency in their business operations by reducing mistakes about decision making and proposing value for digital transformation assumptions.

The research work conducted by Microsoft (2015) identified that millions of people, products and other resources are interconnected with each other produce terabytes of data in everyday business operations. Internet of Things (IoT) in digital transformations has revolutionized many industries including agricultural, manufacturing and services. The management of various businesses has adopted quantitative models and methods in the context of Internet of Things (IoT) to improve their business operations, processes and procedures in different areas of the business including operations, administration, finance, marketing and sales. IoT in digital transformation has facilitated the management to find out new ways to engage with their customers and to optimize their business operations by enhancing the motivation and commitment of their employees through technologically developed business operations and processes. IoT in the context of digital transformation has brought together operational technology and information technology to manage their business operations successfully by creating new business opportunities for digital manufacturers to transform their business offerings. Managers and leaders in manufacturing organizations who has an access to the desired information and capable to extract deep insights are quite capable to optimize their business operations and manufacturing processes better than before (Rossi, 2018). The managers can adopt quantitative models of management through Internet of Things of digital transformation to streamline their business operations, make well-informed decisions, and predict customer preferences and preferences to achieve desired business goals and objectives. More importantly, when managers have an insight into the large amounts of data which is secured through Internet of Things, they are quite able identify new revenue streams by developing high-value service offerings that are focused on how products and customers interact in the real world. The digital transformation through the Internet of Things (IoT) has changed the landscape for the manufacturers that has enabled them to differentiate themselves by offering unique and differently designed products by achieving operational excellence and disrupting the markets (Gubbi et al., 2013).

Chapter 3: Research Methodology

Introduction to Research Methodology

The research methodology section is regarded as highly important in the context of current research to examine the dependency of quantitative models and methods that management adopts through Internet of Things (IoT) of digital transformation to ensure the safety, security and reliability of business data. The research methodology is defined as the process by which a theory is observed through the processes of data collection to make desired results. In the research methodology, current research adopts exploratory methods of data collection, analysis and observation to examine the dependence of quantitative models and methods of management on the Internet of Things (IoT) digital transformation. The exploratory method is preferred in the current research because it is useful for both the qualitative and quantitative methods of data collection and observation. The current research adopts qualitative methods of data collection through secondary sources of data collection by evaluating the dependency of qualitative models and methods on IoT digital transformation through already published materials such as books, journals and online sources. Once the necessary literature is reviewed, the research critically evaluates the interpret the results by indicating the importance of managerial practices in the 21st century and their dependence on the Internet of Things (IoT) digital transformations by selecting specific quantitative models and methods to resolve existing organizational issues and complications to improve their business operations, process and procedures to improve their organizational performance and competence (Gubbi et al., 2013).

Explanation and Justification of the Research Methodology

The research methodology in the context of social science research is used to collect necessary information relevant to the research topic to help the management of industrial organizations to make better organizational decisions. The research indicates that a company which is planning to gather necessary information on important models and methods of management that are dependent on the Interne of Things (IoT) digital transformation, they need to review theoretical observation and data associated with theories on managerial models and methods. The current research is conducted to observe three major objectives including descriptive, exploratory and explanatory research process to gather necessary information and analyze it considering the importance of the research topic. The current research is related to management related issues in the context of technological developments like Internet of Things and digital transformation and adopts exploratory methods of data collection, analysis and observation.

Exploratory Research

In the current research, exploratory method is chosen because it presents the situation or process to examine a theoretical idea and then observe it through statistical reasoning. It investigates how successfully managerial models and methods are dependent on the Internet of Things (IoT) of digital transformation. The exploratory research is useful because it provides the groundwork in the social science research to examine its relevance to the current research. It examines existing theoretical approach on quantitative models and methods of management that are dependent on IoT and digital transformation. It is used to collect necessary information by illustrating the relevance of the collected data to the current research and its implications to the future research.

Research Design

The research design is regarded as highly important in the context of current research because it provides a structure to the research to gather necessary information about the research topic to reach on the research conclusions. It describes detailed research process and procedures that could be adopted to gather data relevant to quantitative models of management, IoT and digital transformation and their relationship in the industrial or manufacturing context. The research design for the current research topic is selected with a framework to examine already published sources as the data sources and evaluate their relevance to the current research and what else is needed to be observed for the future research implications. In the current research, qualitative sources of data collection are used to observe and analyze the data collected through www.googlescholar.com to examine the relevance of already published literature in books, journals and online sources.

Chapter 4: Analysis and Discussion

Potential influence of IoT and digital transformation on internal and external business performance

The current research is regarded as highly important to observe the dependence of quantitative models and methods of management on the IoT of digital transformation because technology has constantly developed and provided new opportunities to the management to improve their business processes and operations. The research examine the importance of Internet of Things (IoT) of digital transformation that has revolutionized the world and created new challenges

and opportunities for competitive business organizations operating in the manufacturing industry. The researched investigated how successfully IoT and digital transformation in the past decade influenced internal and external business processes and operations at the international levels. It also examined the contribution of IoT digital transformation on the safety, security and protection of the given set of data in the collaborative business environment. The research also investigated the dependence of quantitative model and methods that the management of industrial organizations could adopt to improve their operational costs and operational performance in highly competitive and changing market environment. In order to investigate the influence of managerial models of IoT and digital transformation, the study evaluated the management approach to specifically adopt unique models of management to address their operational costs, administration, finance and other business-related issues. The research also observed and analyzed the dependency of managerial models on latest technological solutions to improve their business performance by overcoming cyber-attacks and ensuring the safety, security and complete protection of the given set of data (Coleman et al., 2017).

The research indicated that the dependence of quantitative models and methods of management on IoT digital transformation has increased over the years and businesses adopting latest technological solutions are succeeded in achieving business competitiveness and increased business performance in comparison to their industrial competitors. The current study was specifically focused on the quantitative models and methods of management associated with the manufacturing industry that depended on the IoT digital transformation in the recent years. For example, the research indicated that in the models of management, customer relationship management or CRM was effectively used by the management through the Internet of Things (IoT) to enhance the relationship of the management with their potential customers. Operational CRM was involved in providing customer services in the sales and marketing processes along with technical support to succeed in cross-selling and up-selling of further products and services to the existing business customers. The management of manufacturing organizations has adopted a large numbers of trends in the evolution process of CRM to predict and adopt self-learning adaptive models to increase the mining of big data to leverage marketing and sales. It helps the company representatives to learn from the market and customer behaviors when during specific customer interaction processes to develop next best strategy for the organization to take necessary actions for a specific customer by taking into considerations the individual background of transaction and interaction history of the customers.

Artificial Intelligence of the Internet of Things and Managerial Support

The review of literature from different sources indicates that the Internet of Things has provided considerable support to the managers to develop quantitative models to collect data from different industrial sectors to facilitate in their business operations. The data generated through IoT provides an insight from the applications that generated it. Therefore, managers can adopt artificial intelligence techniques that could be useful to monitor and automate the data to facilitate in smarter decision-making approach. The IoT applications that are enabled with artificial intelligence provides additional features of managerial methods to create the next generation smart homes, vehicles, smart manufacturing and smart buildings through intelligent automation, proactive intervention and predictive analytics. In the context of smart models and methods for management, IoT-enabled artificial intelligence provides a complete support to the managers to find out the smart business data and analyze it for better decision-making trends and patterns based on well-defined rules and regulations. The research indicated that artificial intelligence techniques would be helpful for the top level management of manufacturing

organizations to adopt cognitive systems to integrate their business with the IoT applications to get optimized solutions for various business problems. Cognitive IoT technologies are regarded as highly effective and useful to embed intelligence into systems and processes by allowing the management of these businesses to enhance the efficiency of business processes to find out new business opportunities. It helps the management to identify risks and threats that could disrupt business processes and deteriorate their business growth and productivity. The Internet of Things (IoT) applications through latest technologies would be highly effective and useful for the management to integrate and collect necessary data through different types of sensors, sources and reasons and learn how to interact the data with business processes by creating communities of devices that share information. The information collected through IoT-based applications will be interpreted and managed by the business managers by using cognitive systems to ensure the generation of new and better services for their customers that enable them to expand their business beyond their national borders. When companies expand their business operations internationally, they depend largely on latest technological solutions like the Internet of Things to make better business decisions by addressing and fulfilling their customer needs and preferences (Marsh, 2017).

IoT-based Robotic Things and Managerial Support in Quantitative Models of Management

Internet of Things (IoT) based robotics could also be used by the managers of various businesses as the programmed machines to involve in labor intensive and repetitive work. IoT-based robotics provides an excellent source of quantitative models to empower machines in labor intensive and repetitive tasks to achieve desired workplace objectives without any need for additional human resources. The robotics and machine learning has become essential in the recent years for business managers but they need extensive robotic and machine learning to perform autonomous tasks through advanced state of intelligence in using statistical patterns, parametric algorithms, neural networks and recommended systems. The technological development of the IoT-based robotics has improved the business operations and workplace environments through great technological innovation by creating new business opportunities. In the recent years, large numbers of business initiatives are focused on using connected devices to ensure the successful management, monitoring and optimization of systems and their processes. The research indicated that intelligent devices that monitor events and business processes are associated with advanced and transformation aspects of connectivity and communication to fuse sensor data from the variety of sources and to determine the best sources of action in the industrial workplace environment. The development of internet of robotic things has revolutionized the industrial manufacturing and workplace environment b contributing greatly through advanced robotic capabilities, along with novel applications of these technologies and tension in creating and developing new business and investment opportunities (Shea, 2017).

The research indicated that the development of advanced technologies through IoT digital transformation has greatly supported the managers and business leaders to adopt latest quantitative models of management through advanced sensing, communication, local and distributed processes with net classes of opportunities for IoT robotics solution providers. The characteristics of robotic technologies are regarded as highly distinguished from other technologies because they are based on separate, unique and distinguished class of IoT objects that the management of an organization could prefer to improve their business operations based on robotic machine environment. The salient features of this technology make it distinguished and unique from other technologies because it is featured with movement, mobility,

manipulation, intelligence and autonomy and enhanced IoT-based paradigm with edging devices. The combination of IoT digital transformation and the robotic technologies has provided new classes of applications to deliver value in the business manufacturing processes through Ambient Sensing, intelligent and localization environment (Unhelkar & Murugesan, 2016).

IoT Digital Transformation and Improved Operational Performance

The current research indicated that IoT-based digital age has brought about new ways of thinking about the manufacturing and business operations. It created incredible change in the labor rate in the emerging economies and influenced global production associated with distribution decisions. Digital transformation has brought about significant in the latest technologies such as big data and analytics, the IoT, robotics and the additive manufacturing that enhance the capabilities of the manufacturing enterprises by improving their competitiveness at the global level. In response, the manufacturing and operations needed digital overhaul at their production processes and needed training of their employees with challenges of redesigning of their manufacturing and retaining of highly skilled employees. In the detailed literature review, the research indicated that new and technologically developed devices and automatic machines were introduced at the industrial manufacturing processes due to the IoT digital transformation. It helped the managers to adopt new and advanced quantitative models of management to perform various functions of their business enterprises. Latest devices were used for the purpose of increased communication among managers and their employees that benefited the manufacturing industry, improved decision-making, enhanced productivity, ensure more efficient energy management, improved investment management systems and reduced production costs per unit. The intelligent IoT systems made incredible impact on the manufacturing of new and technologically improved products by giving dynamic response to the market conditions and changing business environments. It provided a real-time optimization to the manufacturing production processes and operations through supply chain network of interconnected machines, sensors and control systems.

Chapter 5: Conclusion

Conclusion

The current research critically investigated the dependence of quantitative models of management on technological developments of IoT and digital transformation in the digital age. The research indicated that before the digital age, managers were unable to adopt quantitative models because most of the business processes were based on old-fashions methods of management. It evaluated that development of latest technologies has changed the production processes of manufacturing industry and provided an opportunity to the management to adopt latest ways of management to improve productivity and employee performance at competitive workplace environment. The research indicated that quantitative models of management were scientific methods that needed complete understanding of the managers to instruct and guide their employees to work on latest and technologically developed industrial machines and communication networks. The quantitative models of management are specifically adopted by the management to formulate the problems, define decision-making variables, develop a suitable model, acquire input data, validate the model and implement results to achieve desired results.

The research was conducted on evaluating the dependence of quantitative or numeric models of management on IoT digital transformation and examined how it influenced the internal and external processes and performance of the businesses. It also observed the artificial intelligence of IoT digital transformation and support it provided to the managers to adopt technologically developed quantitative models of management. In the research objectives it examined the IoT-based Robotic things that improved the manufacturing processes and provided added support to technologically developed organizations to adopt quantitative models of management and to succeed in achieving their desired business objectives. The research indicated that by adopting IoT digital transformation, companies have succeeded in achieving operational efficiency by improving their business operations based on Internet of Things digital transformations and latest technological developments. The research also explored the impact of IoT digital transformation through in-depth literature review by indicating that it has supported the management to safe, secure and protects their confidential business data by overcome cyber-attacks from the growing cybercrimes worldwide. Overall, the research showed that latest technological inventions in the form of IoT have provided incredible technological support to the management of best performing businesses to adopt latest technologies in quantitative models of management to improve their business operations including production processes, finance, operations, managers to employee level communication, enhanced productivity, performance and competitiveness of the businesses.

References

Balic, T., & Ebrahimi, H. (2017). Automation and Digital Transformation: The ways that automation solutions can support digital transformation within ICT companies. *Master of Science Thesis work in IT Management*, University of Gothenburg

Chen, M., Mao, S., Zhang, Y., & Leung, V., C., M. (2014). Big Data: Related Technologies, Challenges and Future Prospects. Springer Cham Heidelberg New York Dordrecht London

Coleman, S., Anderson, K., Alexander, A., Lynch, M., & Cummings, J. (2017). Matching Talent to the Internet of Things era: Go beyond technical proficiency and include a more people-focused approach. *Korn Ferry Institute*

Crump, J., & Brown, I. (2013). The Societal Impact of the Internet of Things. *The Chartered Institute for IT*

Garetti, M., & Taisch, M. (2012). Sustainable Manufacturing: Trends and Research Challenges. Production Planning & Control, Vol. 23, No. 2-3, pp. 83-104

Gubbi, J., Buyya, R., Marusic, S., & Palaniswami, M. (2013). Internet of Things (IoT): A vision, architectural elements, and future directions. Future Generation Computer Systems, Vol. 29, Issue 7, pp. 1645-1660

Kranz, M., (2017). Building the Internet of Things: Implement New Business Models, Disrupt Competitors, And Transform Your Industry. *John Wiley & Sons, Inc*

Marjani, M., Nasaruddin, F., Gani, A., Karim, A., Hashem, I., A., T., Siddiqa, A., & Yaqoob, I. (2016). Big IOT Data Analytics: Architecture, Opportunities, and Open Research Challenges. IEEE Access, Vol. 5, pp. 5247-5261

Marsh, J. (2017). How Does IoT and Mobility Help Digital Transformation. *WSO2*, retrieved from https://wso2.com/library/articles/2017/08/how-does-iot-and-mobility-help-digital-transformation/

Manika, J., Chui, M., Bisson, P., Woetzel, J., Dobbs, R., Bughin, J., & Aharon, D. (2015). The Internet of Things: Mapping the Value Beyond the Hype. *McKinsey & Company*

Microsoft, (2015). Competing in the digital age of manufacturing: Transforming business process with Industrial IoT capabilities. *TCS Global Trends Study*

Milojevic, M. (2017). Digital Industrial Transformation with the Internet of Things: How can European companies benefit from IoT? *CXP Group, pp. 1-18*

Pacis, D., M., M., Subido, E., D., C., & Bugtai, N., T. (2017). Research on the Application of Internet of Things (IoT) Technology Towards a Green Manufacturing Industry: A Literature Review. DLSU Research Congress, De La Salle University, Manilla, Philippines

Pundir, Y., Sharma, N., & Singh, Y. (2016). Internet of Things (IoT): Challenges and Future Directions. International Journal of Advanced Research in Computer and Communication Engineering, Vol. 5, Issue 3, pp. 960-964

Rong, W., Vanan, G., T., & Phillips, M. (2016). The Internet of Things (IoT) and Transformation of the Smart Factory. In 2016 International Electronics Symposium (IES), IEEE, pp. 399-402

Rossi, B. (2018). How the Internet of Things is changing Business Models. Information Age, retrieved from http://www.information-age.com/how-internet-things-changing-business-models-123461371/

Shea, T. (2017). Digital Transformation Drives Operational Excellence in Oil and Gas. *Industrial IoT/Industries 4.0 Viewpoints on Digitizing Industry & Infrastructure*

Shrouf, F., & Miragliotta, G. (2015). Energy Management based on Internet of Things: Practices and Framework for Adoption in Production Management. Journal of Cleaner Production, Vol. 100, pp. 235-246

Unhelkar, B., & Murugesan, S. (2016). IoT Data Management and Analytics: Realizing Value from Connected Devices. *Cutter IT Journal, The Journal of Information Technology Management*, Vol. 29, No. 4, pp. 1-40

Weber, R., M. (2016). Internet of Things becomes Next Big Thing. Journal of Financial Service Professionals, Vol. 70, No. 6, pp. 43-46

STUDY ON THE DIGITIZATION LEVEL OF ROMANIAN ENTERPRISES

Catalin Gheorghe[253]

DOI: https://doi.org/10.31410/eraz.2018.534

Abstract: *The low level of enterprise digitization prevents productivity improvements. By addressing the main digital technologies included in the digital intensity index, Romania is among the three EU Member States, with the lowest proportion of enterprises with high digital intensity. Although the percentage of enterprises with a very high digital intensity is superior to those in the equivalent Member States and is close to the EU average, the digital competencies of the labor force are among the lowest in the EU. Despite the existence of a large number of qualified ICT specialists, workers in the labor market generally lack digital competencies, which affect the level of productivity of Romanian enterprises. Taking into consideration these general coordinates, the study aims are: determining the position occupied by Romania in the EU, identifying the causes leading to the low level of digitization, determining the influence on productivity and finding growth solutions.*

Key words: *enterprise digitization, digital technologies, digital intensity*

1. INTRODUCTION

The study aims to determine the stage of digitization of Romanian enterprises. Stages in the research are: identification of digital technologies, comparative analysis between Romania and the European Union, identification of the causes that led to the evolution of digitization in Romania, finding solutions for increasing the analyzed aspects.

2. RESEARCH ORGANIZATION

The necessity of studying the issue of the article was constituted by the position that Romania holds in the EU in terms of the economy and the digital society. The benchmark was the economy and digital society index (DESI). Calculated annually, aims to measure the progress made by an EU Member State, in the development of an economy and a digital society. DESI is a tool for detailed analysis of national digital policies, giving an overview of the progress and implementation of policies by the Member States. In order to evaluate member states results, DESI allows comparative analyzes between countries in the following areas: connectivity, skills, internet use, adoption of digital technology by enterprises, digital public services, investment in information and communication technology. The Digital Economy and Society Index (DESI) is a composite index published every year by the European Commission. Since 2014, the index measures progress of EU countries towards a digital economy and society, bringing together a set of relevant indicators on Europe's current digital policy mix [1]. The DESI is composed of five principal policy areas which regroup overall 34 indicators presented in Table 1. Romania is on the last position among the 28 EU member states in DESI 2018. Although it stayed the same as in 2017, its score has increased thanks to a performance

[253] Department of Engineering and Industrial Management, Transylvania University of Brasov, 29 Eroilor Street, 500036, Brasov, Romania

improvement in four of the five dimensions of the DESI index. Overall, progress in the past year has been slow, and Romania has failed to catch up with other countries.

Current number	Policy areas	Percent of DESI Composite	Indicator
1	Connectivity	25	Fixed broadband, mobile broadband, fast and ultrafast broadband and broadband prices
2	Human capital	25	Basic skills and internet use, advanced skills and development
3	Use of internet service	15	Citizens' use of content, communication and online transactions
4	Integration of digital technology	22	Business digitization and e-commerce
5	Digital public services	15	eGovernment and eHealth

Table 1: The main categories of the DESI index

From the point of view of the score obtained, the index allows the grouping of the member countries into three categories (clusters) (Table 2):

Cluster	Performance	Country
1	High	Denmark, Sweden, Finland, the Netherlands, Luxembourg, Ireland, the UK, Belgium and Estonia
2	Medium	Spain, Austria, Malta, Lithuania, Germany, Slovenia, Portugal, the Czech Republic, France and Latvia
3	Low	Slovakia, Cyprus, Croatia, Hungary, Poland, Italy, Bulgaria, Greece and Romania

Table 2: DESI index clusters in terms of performance

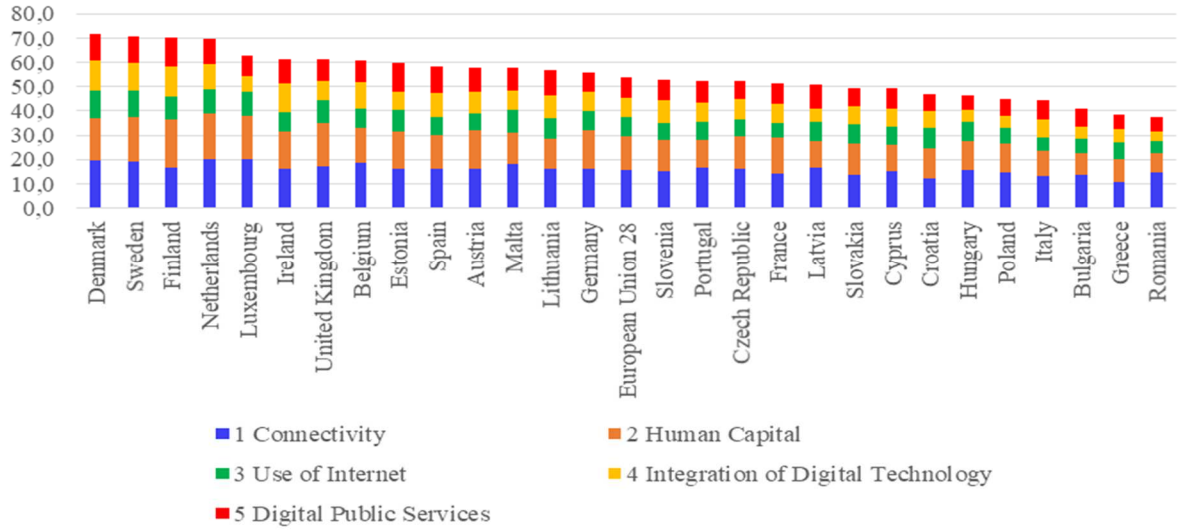


Figure 1: Digital Economy and Society Index [2]

Globally, the index shows that the progress made by the EU are insufficient to allow Europe to

catch up with the world leaders. It is imperative that the digital single market is rapidly completed and that investment in the economy and digital society will increase. Of the five categories, research has focused on participation and integration of enterprises in the development of digital economy and society. Paper presents the results of research on 12 digital technologies included in DESI for Romanian companies.

2.1 The use of ICT specialists. The digital competencies of the Romanian labor force are among the lowest in the EU. The research results show that among all the identified causes, the lack of basic digital skills has the greatest impact on the Romanian enterprises results. Thus, in 2016, only one third of the workforce had basic or above basic skills, while at EU level that proportion was two-thirds. Moreover, from the total population only 28% of Romanians have basic digital literacy skills or above the basic level, while in the EU this proportion amounts to 56% [3]. Despite the existence of a large number of qualified ICT specialists, comparable to the European average, workers in the labor market generally lack digital skills, which negatively influences labor market participation. As far as ITC specialists are concerned, Romania has made little progress, with only 2% of employees being classified as ICT specialists. The growing number of IT vacancies could increase the number of ICT specialists in the future. However, this situation may be affected by recent changes in wage taxation that may affect tax exemptions for ICT specialists starting with February 2018 [5]. In Figure 2 are represented percentage of enterprises without financial sector (10 persons employed or more) that employ ICT specialists. The comparative analysis highlights the existing gap and the tendency to decrease the percentage of IT specialists in Romania, generated by their migration to developed countries.

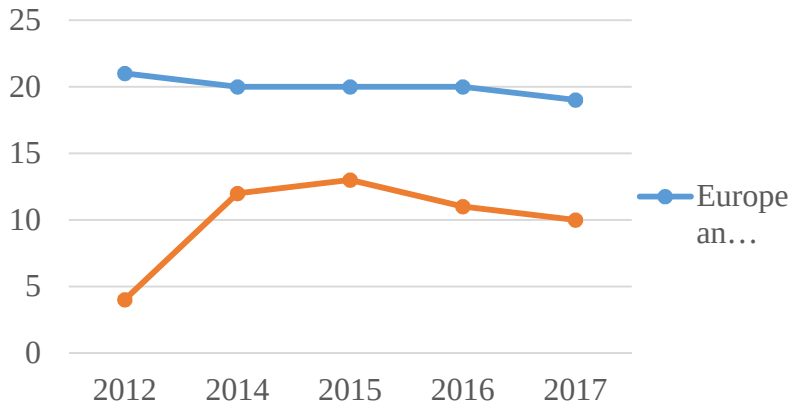


Figure 2: Enterprises without financial sector (10 persons employed or more) that employ ICT specialists (%) [6]

2.2 High-speed broadband connections (30 Mbps or more). Romania is below the EU average and has average progress. The coverage level of households by fixed broadband is still among the last (26th) countries in the EU (89% of households are covered, compared to the EU average of 97%). However, the level of coverage of households through the Next Generation Access (NGA) network at speeds above 30 Mbps is 72%, similar to the EU average. In terms of usage, the number of broadband subscriptions is among the highest in the EU (63% of fixed broadband subscriptions have a speed above 30 Mbps, compared to only 30% in the EU) [2].

Regarding the use of fixed broadband subscriptions, despite the progress made, Romania is among the weakest in the EU. The reasons for low degree of use could be the low levels of population digital competences and the price of subscriptions to broadband networks, which, although low in absolute terms, is one of the highest in the EU, relative to the income of a

Romanian citizen. Another reason could be the low level of development of digital public services. Therefore, access to Information and Communication Technologies (ICT) services remains uneven, with great disparities, especially in rural areas. Also, the use of mobile broadband is below the EU average (59 vs. 75 subscribers/100 people). National investment efforts in broadband networks continue in line with the "National Digital Agenda for Romania 2020" Strategy, which sets the following targets for 2020: fixed broadband coverage for 100% of households, coverage through broadband infrastructure with speeds above 30 Mbps for 80% of households and Internet connection via subscriptions with speeds above 100 Mbps for 45% of households [7],[8].

2.3 Mobile Internet access devices for at least 20% of employees. Broadband networks are underdeveloped in rural areas, leading to the risk of digital exclusion. Romania is one of the first countries in terms of internet speed. However, there are still rural areas that do not have access to the internet. Among the barriers that endanger the successful completion of broadband projects are: low implementation capacity, difficult administrative procedures for obtaining broadband deployment licenses and bureaucratic procedures for site commissioning. In order to eliminate the digital divide between urban and rural areas and ensure a viable connection rate, broadband investment could be complemented by demand-side measures. In 2017, only 43% of Romanian companies put their employees in portable devices with internet access (laptop, netbook or tablet, smartphone or smartwatch). Internet penetration rate increased slightly compared to 2016, showing that there are 4.6 million fixed broadband internet connections (+6% compared to 2016) and 16.6 million broadband mobile internet connections (+13% compared to 2016). Thus, the penetration rate of the fixed Internet per 100 households is approx. 55%, and mobile internet penetration per 100 inhabitants is 85% [9].

2.4 An internet site with complex functions. In general, businesses in Romania have a very simple website and a few computers, which explains the low level of digitization. Most sites do not have features like: website providing product catalogues or price lists, private policy statement, privacy seal or certification related to website safety, advertisement of open job positions or online job application, online ordering or reservation or booking, shopping cart, order tracking available online, electronic submission of complaints, at least one of the following: webacc, webctm, webot or webper (Figure 3).

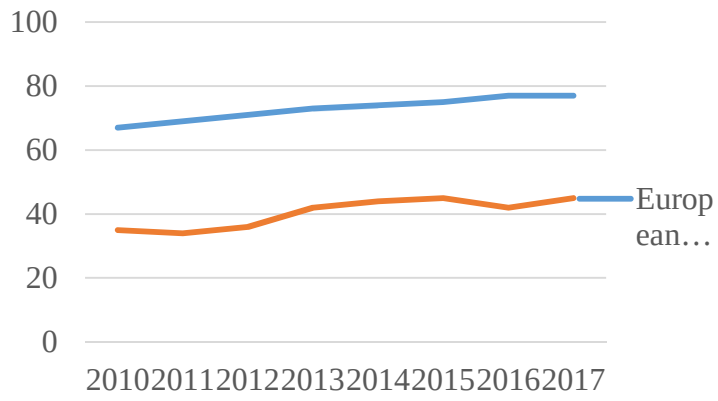


Figure 3: Enterprises having a website without financial sector (10 persons employed or more) (%)

2.5 The presence on social networks. Internet access for at least 50% of employees. The impact of social networks on the business environment has grown recent years, and marketing specialists are aware of the importance of the presence of any business on social networks.

Efforts of a successful social media strategy materialize after some time in an online active community on some of the social networks. The main benefits of social networking are: better targeting of the target audience, influencing the ranking of search engines, supporting site traffic, building a brand image, maintaining a permanent contact with customers, encouraging brand storytelling and "behind the scenes" images [10]. At European level, 63% of people entering the Internet do so for social networks, Romanians being, from this point of view, significantly above the average and on the ninth place in the European Union [11]. Among the favorite activities of Romanians entering the Internet are conversations through Whatsapp Voice Call applications. At the opposite end, banking services and online documentation are the least used: only 8% of Romanians use internet banking, at a European average of nearly 60%. Romanians also use the sharing and e-mail services (e-mail), online documentation (other information than press releases) or tourist bookings, according to the study. (Figure 4). All the ways of Internet access were taken into account in the research: via a fixed telephone line, from a router (or ADSL modem) connected to the fixed telephone network, through a dedicated communication controller, via telephone networks cellular, mobile (GSM), cable TV or satellite network.

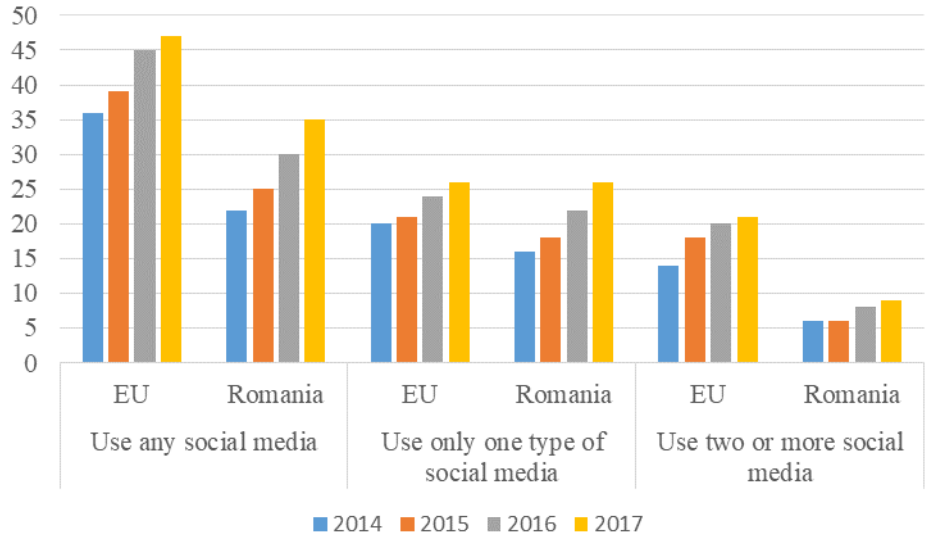


Figure 4: Social media use by type, internet advertising by enterprises without financial sector (10 persons employed or more) (%) [6]

2.6 Using an Enterprise Resource Planning (ERP) software package. ERP systems make a new step in their development by using the Internet to make functionalities more efficient. Customers located thousands of miles away can access the orders status placed or the company's inventory, by integrating ERP facilities with WEB applications. ERP systems are modular programs, each area of activity being covered by a specific application. Modules of an ERP system work together using a common database or can operate independently. The main modules that serve to manage an enterprise effectively are: planning and tracking production, stock records, suppliers, payments and receipts, salary calculations and personnel management, financial bookkeeping, fixed asset accounting and amortization calculations, management customer relations, reporting, analysis, and forecasting.

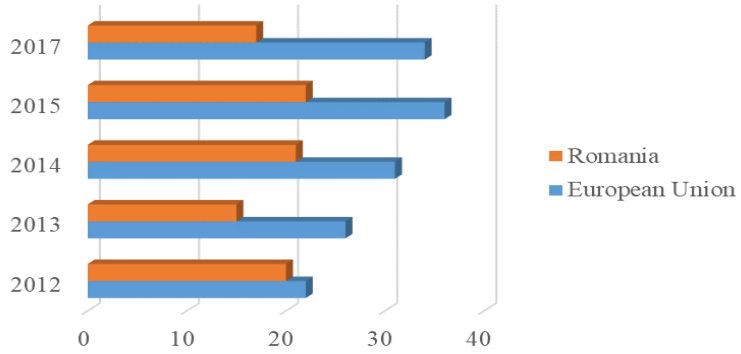


Figure 5: Enterprises who have ERP software package to share information between different functional areas (10 persons employed or more) (%)

In Romania, a small percentage of large or medium-sized enterprises use such applications due to the high cost and need of specialized staff. The comparative analysis highlights the existing gap between Romania and European average (Figure 5) [6].

2.7 Use of Customer Relationship Manager Applications (CRM). The customer relationship management system includes all types of interaction between a company and its customers, such as sales or complementary services. The purpose of a CRM application is to unify a company's interactions, with its customers and capitalize on the information they hold about them. The system is perceived as a control center for all customer activities, with an easy-to-use interface that meets the company's needs and organizational structure [12]. The software presents numerous benefits to the company, including: increasing customer loyalty and increasing sales, improving the company's image, improving products/services by providing feedback from the customer, helping customize and configure campaigns marketing, maintaining existing clients and strengthening relationships with major customers.

2.8 Electronic exchange of Supply Chain Management (SCM) information. Supply chain management includes coordination and management of all activities involved in the supply chain, to achieve optimum performance. Nowadays, some analysts call these activities operations of the supply network operations, desiring to better reflect the increased degree of collaboration among the actors involved in the process. E-commerce for supply and distribution allows collaborating within the company and business partners by providing information on mobile channel management, collaborative supply and demand planning, event management in the procurement process, materials management and order delivery management.

2.9 A turnover for e-commerce representing more than 1% of total business turnover. The value of online shopping in Romania reached 2.8 billion euros in 2017, at least 40% more than in 2016 (when the total gross was of 1.8 to 2 billion euros). It is a huge leap that shows the increasing appetite of Romanians for online shopping and especially the potential for accelerated growth of e-commerce. More Romanian online stores have grasped the trend and optimized their websites for mobile devices, but poor optimization of the mobile theme that generates higher loading times remains the main challenge of most online stores. The main factors in making the buying decision are, in order: the lowest price, brand reputation, delivery time as short as possible, the clarity and quality of the information, site usability and policy of the online store. An online buyer made an average of 8.7 purchases over the past year up from 2016, when the average was 8.4 acquisitions, but also from 2015, when the figure was 8.2 acquisitions per year. Figure 5 shows web sales of the enterprises where these are more than 1% of total turnover [6].

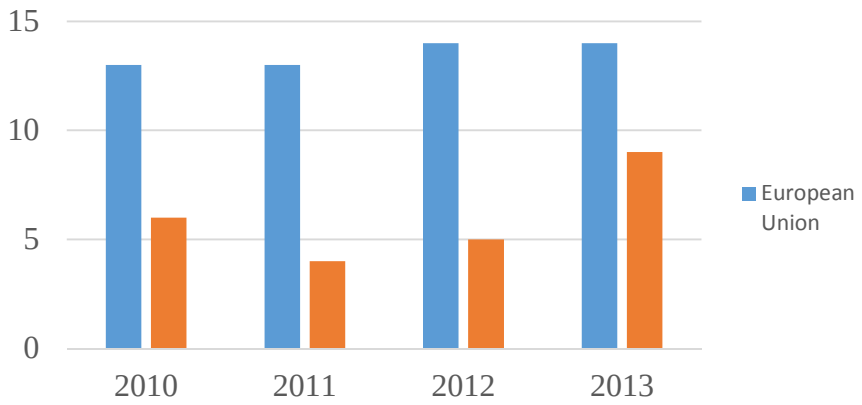


Figure 6: Web sales of the enterprises (10 persons employed or more) (%)

2.10 Internet sales between businesses and consumers of over 10% of total Internet sales. The number of online stores increased significantly from approx. 5000 stores in 2016 to over 7000 online stores in 2017. The trend of growth will continue in 2018 and the number of online merchants will double to around 14000. There are already about 25000 e-shops.ro that have an "add to cart" tool, so they can be considered as online stores – but their low traffic makes them insignificant in Romania. Thus, only 7000 stores are sufficiently relevant in terms of traffic and orders. The top categories of products sold online in 2017 (excluding e-tail) are, in decreasing volume order: electro-IT&C products, fashion&beauty products, home deco products, books and children's products. The main reasons of those who did not buy online are, in order: mistrust in the products displayed on the website, lack of possibility to see and test the products before purchase, mistrust in the quality of online shops and the obligation for payment of additional shipping charges.

Gheorghe Catalin *was born in Sinaia, Romania, in 1971. He graduated from Faculty of Technological Engineering, Transylvania University of Brasov in 1995. Five years later he graduated from Bucharest University of Economic Studies, Finance, Insurance, Banking and Stock Exchange Faculty. In 2006 he was awarded with Ph.D. in Industrial Management by Transylvania University of Brasov, Faculty of Technological Engineering.*

Now, he is lecturer at Faculty of Technological Engineering and Industrial Management, Department of Engineering and Industrial Management.

His research interests include economic analysis, financial management and capital market. Over 20 years experience in teaching and more than 80 published scientific papers, textbooks and books.

3. CONCLUSIONS

The low level of the digital business conditions, among other factors dynamics, reduced productivity. Taking into account these researched technologies, Romania is among the three EU member states, with the lowest proportion of enterprises, with a high degree of digital intensity.

REFERENCES

[1] European Commission. *Digital Single Market. DESI Index* available at https://digital-agenda-data.eu/datasets/desi.

[2] European Commission (2018). *Country Report Romania. Digital Economy and Society Index (DESI)* available at http://ec.europa.eu/information_society/newsroom/image/document/2018-20/ro-desi_2018-country.

[3] European Commission (2016d), *Open data maturity in Europe* available at https://www.europeandataportal.eu/sites/default/files/edp_landscaping_insight_report_n2_2016.pdf.

[4] Bologa, R., Lupu, A. R. (2017) *A Model for Predicting Future Demand for ICT Specialists in Romania*. Economic Computation & Economic Cybernetics Studies & Research . 2017, Vol. 51, Issue 1, pp. 154-155.

[5] Ministry of Public Finance Order no. 1168/2017/3024/2018/492/2018/3337/2017 of 14 December 2017 regarding the assignment in the activity of creation of computer programs, published in Official Monitor no. 52 of 18 January 2018.

[6] European Commission. *Eurostat* available at http://ec.europa.eu/eurostat/data/database.

[7] Ministry for Information Society (2015). *National Strategy on the Digital Agenda for Romania 2020*, Bucharest, 2015, pp. 77-79.

[8] Ministry of Communications and Information Society (2016). *The National Strategy on Monitoring and Evaluation of the Digital Agenda for Romania*, 2016, pp. 36-38.

[9] National Authority for Management and Regulation in Communications of Romania (2016). *Market of Electronic Communications Services in Romania*, 2016, pp. 57.

[10] Herskovitz S., Crystal M., (2010) *The essential brand persona: storytelling and branding*, Journal of Business Strategy, Vol. 31, Issue 3, , https://doi.org/10.1108/02756661011036673, pp. 24-25.

[11] Ecommerce Foundation (2017). *European Ecommerce Report 2017* available at www.ecommercefoundation.org/reports, pp.90.

[12] Ptak A. C., Schragenheim E. (2016). *ERP Tools, Techniques, and Applications for Integrating the Supply Chain*, Second Edition. CRC Press, eISBN9781420056020, pp. 65.

SUSTAINABLE MARKETING STRATEGY - THE WAY TO GAIN PROFITS ON INTERNATIONAL MARKETS

Saša Virijević Jovanović[254]
Vesna Pijevac[255]
Vesna Filipović[256]

DOI: https://doi.org/10.31410/eraz.2018.542

Abstract: *The aim of the paper is to show that sustainable development is the only alternative for achieving the long-term success in modern international marketing. By researching various business examples, the paper explains that the application of well-designed, sustainable marketing strategies leads to profitability of the company. The paper also points to the connection of sustainable marketing and social innovation that represents the development of new ideas - products, services and models in order to meet social needs and create new social relationships or collaborations.*

Key words: *sustainable development, sustainable marketing, green marketing, social innovation*

1. INTRODUCTION

The theory of marketing in general is based on economic and technical systems, which are concentrated on exchanges, products, production and profit. Over time, the theory and practice of marketing management has evolved towards humanity and sustainability with the emergence of concepts such as social marketing, ecological marketing, environmental marketing, green marketing and sustainable marketing.

Kotler and Zaltman (1971) were among the first authors who have defined social marketing as design, implementation, and control of programs calculated to influence the acceptability of social ideas and involving considerations of product planning, pricing, communication, distribution, and marketing research.[1] The first definition of social marketing was given by Fisk (1974), according to whom, "Ecological marketing focuses on the acknowledgement of an impending ecological crisis and the willingness and ability of marketers to assume responsibility for avoiding this doom."[2] Green marketing and environmental marketing concepts were formed as focus-group strategies to persuade green consumers to purchase high-price products that are green products or environmentally friendly products. Henion and Kinnear (1976) introduced the concept of ecological marketing as an effort to provide solutions to environmental problems.[3]

Further evolution of marketing went towards sustainability, resulting in the concept of sustainable marketing. Unlike previous concepts, sustainability marketing focuses on the balance between economic, ecological and social considerations in marketing. The term sustainable marketing is coined by Sheth and Parvatiyar in 1995.[4] According to them the term

[254]Faculty of Applied Management, Economics and Finance, Belgrade, Serbia
[255] High school for tourism, Belgrade, Serbia
[256] High school for tourism, Belgrade, Serbia

addresses the “ways and means” for reconciling economic and ecological factors through reinvented products and product systems. Belz and Peattie came to the following definition “Sustainable marketing is a kind of marketing, which builds long lasting customer relationships effectively, without any particular reference to sustainable development or consideration of sustainability issues”.[5] Sustainability marketing involves building and maintaining sustainable relationships with customers, the social environment and the natural environment.[6]

Marketing based on sustainable fundamentals is a marketing of future that will envelop the survival and competitiveness of organizations in domestic and foreign markets. Although the concepts of ecological, social and sustainable marketing were considered incompatible with profitability, world marketing practice successfully denounced such attitudes. Therefore, this article analyzes sustainable marketing in terms of opportunities to gain competitiveness and profit in international markets.

2. THE CONCEPT OF SUSTAINABLE MARKETING

2.1.THE SUSTAINABLE DEVELOPMENT

After the Rio Conference in 1992, the idea of sustainability is getting more important, as it gathers a growing number of supporters who perceive the need to carefully and benevolently treat the environment. The most frequently quoted definition is from the Brundtland Report, which defines sustainable development as development that meets the needs of the present without compromising the ability of future generations to meet their own needs.[7]

Bearing in mind the significance of the sustainability concept, General Assembly of the United Nations has adopted 2030 Agenda for Sustainable Development. The Agenda defines Sustainable Development Goals (SDGs) and targets that will stimulate action over the next 12 years in areas of great importance for humanity and the planet. The 17 Sustainable Development Goals include the following [8]:

- 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.

2.2. THE SUSTAINABLE MARKETING STRATEGY

If we chronologically analyze marketing concepts, from productive, sales-oriented to consumer-oriented concepts, we can conclude that sustainable marketing is a step further in the evolution of marketing. The sustainability marketing integrates the key economic and technical perspectives with the emerging concepts of relationship marketing and the social, ethical, environmental as well as the principles of the sustainable development. This evolution is illustrated on figure 1.

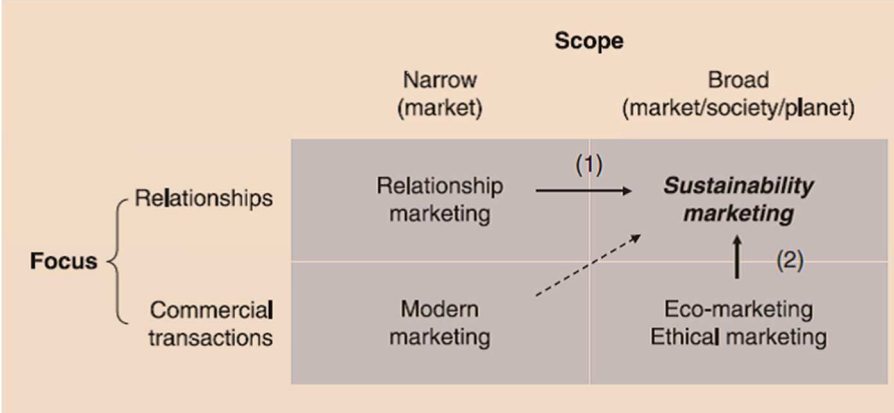


Figure 1:The evolution od sustainable marketing [9]

A sustainable strategy is one that enables a company to create value for its shareholders, while at the same time contributing to a sustainable society.[10] In accordance to this, sustainable marketing can be defined as socially and environmentally responsible marketing that meets the present needs of consumers and businesses while preserving or enhancing the ability of future generations to meet their needs.

Fuller (1999) defines sustainable marketing as: "The process of planning, implementing and controlling the development, pricing, promotion and distribution of products in a manner that satisfies the following three criteria: (1) customer needs are met (2) organizational goals are attained, and (3) the process is compatible with ecosystems."[11]

Sasa Virijevic Jovanovic *is a marketing author and associate professor at Faculty of Applied Management, Economics and Finance, MEF in Belgrade, Serbia. She received her Bachelor Degree in economics. Postgraduate and PhD studies she finished at the University of Braca Karic, both in management. Sasa Virijevic Jovanovic is the author of over 40 publications (researches, papers, books) about marketing, brand management and digital branding. In her works, she was particularly interested in the concept of branding, emphasizing that the brand is a strategic issue of business and the essence of modern marketing.*

Jamrozy (2007) presented sustainable marketing model as a triangle, shown on figure 2. According to this model three dimensions of sustainability marketing are economic viability, social equity and environmental protection.

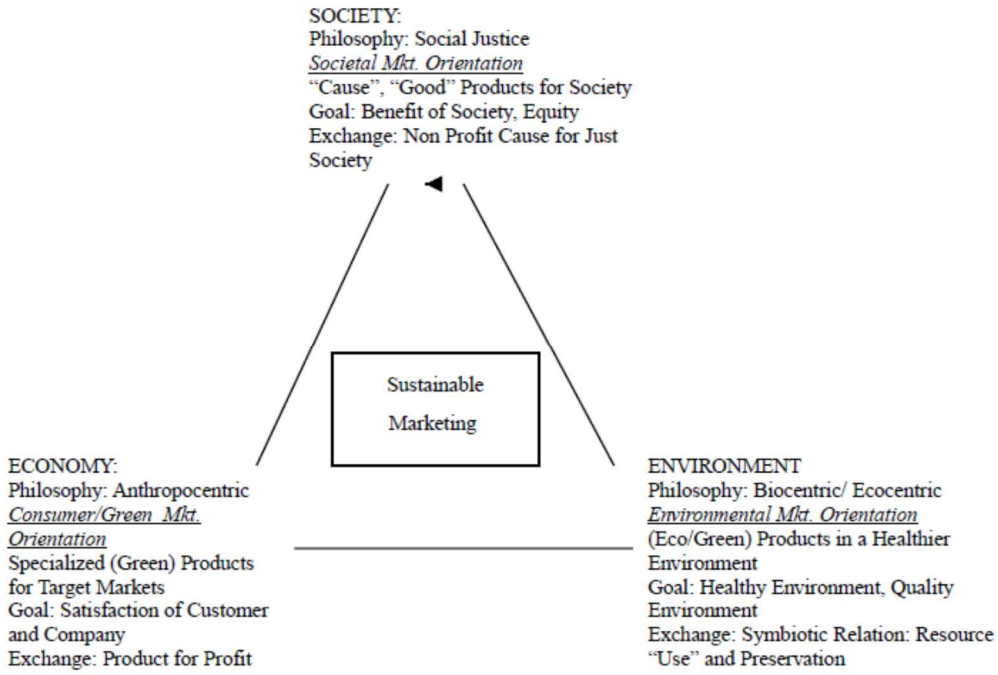


Figure 2: Sustainable marketing model [12]

The triangle model indicates that sustainable marketing implies the integration of three approaches simultaneously. Therefore, a focus on just one dimension of the model, even with either societal or environmental objectives, limits the potential of marketing.

According to Slater and Olson (2001), "Marketing strategy deals with decisions related to market segmentation and targeting, and the designing of positioning strategy based on marketing mix."[13] Therefore, when discussing a sustainable marketing strategy, it is important to consider the impact of sustainable development on the elements of the marketing mix. The marketing mix is used for strategic purposes to provide the right product in the right place at the right time and with appropriate promotion, all with the aim of increasing the satisfaction of consumers' needs and achieving better results than the competition. In order to demonstrate this effect Peattie and Belz (2010) have converted the traditional 4P's into 4C's which include sustainability criteria into marketing strategy. This theory is based on the 4P's of marketing given by McCarthy, shown on figure 3.

Vesna Pijevac *is a teacher and researcher at high school for tourism in Belgrade. In her research and pedagogical work she is engaged in marketing, tourism and entrepreneurship. For many years she has successfully led student teams in various international competitions, in order to encourage entrepreneurship among young people.*

She graduated at The Faculty of Economics in Belgrade, and completed her master studies at Modern Business School. Before teaching career, she has been working in foreign trade and finance.

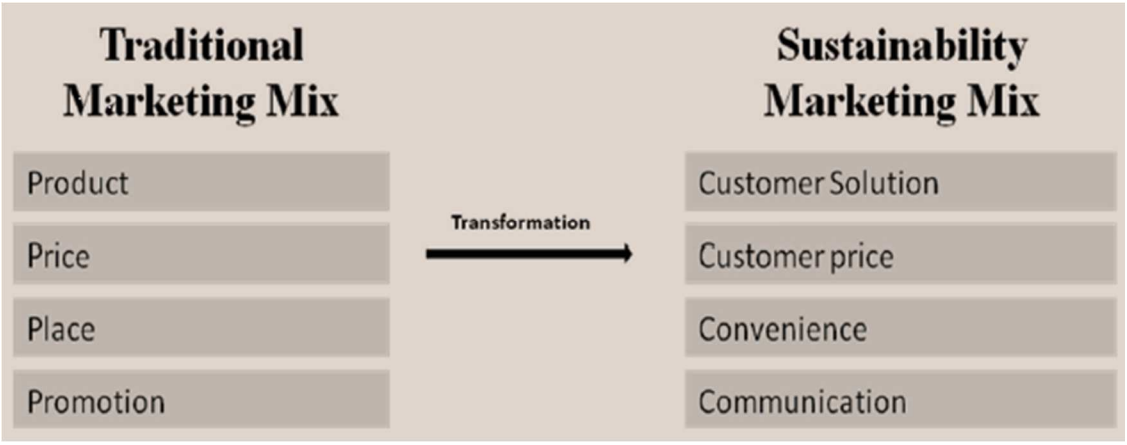


Figure 3: McCarthy's 4P Approach Vs Sustainability Marketing Mix

According to Belz and Peattie sustainable marketing delivers solutions to customer needs that are:[14]

- ✓ Ecologically oriented, taking account of the ecological limits of the planet and seeking to satisfy our needs without compromising the health of ecosystems and their ability to continue delivering ecosystem services.
- ✓ Viable, from technical feasibility and economic competitiveness perspectives.
- ✓ Ethical, in promoting greater social justice and equity, or at the very least in terms of avoiding making any existing patterns of injustice worse.
- ✓ Relationship-based, which move away from viewing marketing in terms of economic exchanges towards viewing it as the management of relationships between businesses and their customers and other key stakeholders.

The role of consumers and company marketing in achieving sustainable development is equally important and interconnected. The increasing significance of sustainable marketing has among other things been the result of change in the consciousness of consumers who became ecologically more conscientious over time. For example, research conducted by the Eurobarometer has shown that a majority of Europeans think that protecting the environment is very important to them personally. More than nine in ten respondents (94%) say that the protection of the environment is important to them personally, and among these more than half (56%) say it is very important. The most important environmental issues for Europeans are climate change (51%), followed by air pollution (46%) and the growing amount of waste (40%). More than a third consider the pollution of rivers, lakes and ground water an important issue (36%), while around a third choose the following issues: agricultural pollution and soil degradation (34%), the decline or extinction of species and habitats, and of natural ecosystems (33%) and marine pollution (33%).[15]

The role of the company's marketing is also important, bearing in mind that its innovative solutions and promotion should influence changing attitudes of consumers and stakeholders in general. Companies contribute in a variety of ways to sustainable development, and one of them is a social innovation that represents new ideas that meet social needs, create social relationships and form new collaborations. The starting point for innovation is an awareness of a need that is not being met and some idea of how it could be met [16], such as hunger, violence, poverty, gender equality, homelessness etc.

3. SUSTAINABLE MARKETING TOWARDS PROFITABLE MARKETING

Nidumolu, Prahalad, and Rangaswami have found that companies on their journey to sustainability go through five distinct stages of change: (1) viewing compliance as opportunity; (2) making value chains sustainable; (3) designing sustainable products and services; (4) developing new business models; and (5) creating next-practice platforms.[17]

It is interesting that we can find successes stories that confirm this path toward sustainable business in not so recent past. Namely, organic products were a luxury with little market to speak of when Ibrahim Abouleish founded Sekem, Egypt's first organic farm in 1977. The years Sekem spent honing sustainable cultivation practices paid off, though, in 1990, when it moved into growing organic cotton. Organic produce was entering mainstream Western stores then, and worldwide demand for all things organic began to surge. Besides the profitability in foreign market organic farming has brought other advantages as well: Sekem's farming techniques helped reclaim arable land from the Sahara, which had been spreading into the Nile delta. With them, the soil absorbed more carbon dioxide from the atmosphere, decreasing greenhouse gases, and cotton crops needed 20% to 40% less water. [18]

However, the story of an organic farming in Egypt was one of the few examples from the past, proving that sustainable business can make a profit and competitiveness. Much common were the examples of companies that saw the sustainable development concept as an obligation, which creates cost.

I
n 2001 Polonsky and Rosenberger argue that from the consumer perspective, consuming sustainable product does not always mean that the costs associated with the specific product will be higher as in the long term, for instance, fuel and energy efficient goods will be more likely to provide savings in the long run, even if the initial out-of-pocket expenses are higher.[19] Whiting (2008) pointed out that sustainability in marketing strategy not only helps in competitive advantage but also opens door for cost savings and innovation.[20]

Vesna Filipovic *is a teacher and practice coordinator at High school for tourism in Belgrade. She teaches subjects connected with marketing and tourism. Also in charge cooperation with social partners. She graduated at The Faculty of Economics in Belgrade, and completed her master studies at Modern Business School.*

Over the time, the idea of sustainable development has evolved, gaining more and more supporters every day. In order to explore the performance of sustainable companies and their business results Deutsche Bank has conducted a research, which evaluated 56 academic studies. The research showed that companies with high ratings for environmental, social, and governance (ESG) factors have a lower cost of debt and equity; 89 percent of the studies they reviewed show that companies with high ESG ratings outperform the market in the medium (three to five years) and long (five to ten years) term.[21]

In 2015 MIT Sloan Management Review, in partnership with The Boston Consulting Group (BCG), conducted a global survey of managers about corporate sustainability. The survey response set included 7,011 respondents from 113 countries. This research pointed out that a strong majority of all respondents recognize that good sustainability performance matters to

investors more today than in past years. Investors recognize that good sustainability performance is a source of many types of business value such as: increased potential for long-term value creation, improved revenue potential, and operational efficiency.[22]

When it comes to marketing and business, the idea of sustainable development has eventually received a new connotation, which is not inconsistent with profit. The innovators adopted a different mind-set about costs: They focus on increasing the efficiency of the system as a whole. Research and development of clean energy-oriented innovations and ecologically conscientious business behavior models have led to reduced costs of environmental technology, so that sustainable business is seen as an investment. For example, over the past decade, the Chinese government has invested billions of dollars in the research and development of solar panel production, which has led to a fall in their price. The famous Zara company has introduced savings of € 500 million by introducing new product designs that reduce the impact on the environment. A $ 400 million savings was also achieved by Xerox, which has implemented an environmentally-friendly product design.[23]

Sustainable product is significant for performance in many markets, bearing in mind the following benefits:

- ✓ New market opportunities. Access to a new, green market that is rapidly evolving;
- ✓ Differentiation on the market;
- ✓ Possibility of cutting the costs. The use of more sophisticated, clean technology can provide a reduction in energy and resource consumption, as well as pollution.
- ✓ Opens up access to market niches. For example, ecological products such as cosmetics without cruelty to animals are targeting conscientious consumers who are willing to pay more for such products.

For marketing strategists the key is to understand the potential effects of the green agenda on the company's business and its consumers. For example, climate change poses a threat to companies from tourism, agriculture, insurance, etc. Bio diversity is a central theme for the fisheries sector and forestry. Issues of carbon dioxide emissions and global warming are of great importance for businesses in the automotive and petroleum industries. Therefore, sustainable marketing often begins with a sustainable product design, which represents the interface between production and consumer demand/environmental demand. The product should be designed to meet the needs of both manufacturers, consumers and the future generations. Production on sustainable principles should anticipate green marketing at the beginning of the production process itself, not at the end of the production chain. Therefore, market research becomes an extremely important segment of marketing companies that suggest producers ways of linking ecology, aesthetics, business and ethics. In addition, environmental designers should be encouraged to experiment with the radical moves of releasing packaging products or multipurpose use of environmental packaging, which a smart economic policy should support with credit benefits and tax concessions.

CONCLUSION

Sustainable marketing is a new evolutionary marketing trend that emerged due to the emergence of environmental conditions that highlighted the issues of ecology, health, human rights protection, poverty, and the needs of new generations, that have not been included earlier marketing concepts. Starting from the importance of sustainable development, this paper pointed to the necessity of applying sustainable marketing strategies, which should be a key part of the business of any organization wishing to achieve competitiveness in the contemporary

markets. The practice has shown that the implementation of sustainable business is not only a cost to the organization, but an investment that opens the way to new innovative solutions that change the world, but at the same time brings profitability and competitiveness.

REFERENCES

[1] Kotler Ph, Zaltman G. S.(1971) *Social Marketing: An Approach to Planned Social Change*, American Marketing Association Journal of Marketing Vol. 35, No. 3, pp. 3-12.
[2] Fisk G. (1974) *Marketing and the ecological crisis*, Harper & Row, Wisconsin
[3] Henion K. E., Kinnear T. C. (1976) "A Guide to Ecological Marketing." in *Ecological Marketing*. Columbus, Ohio: American Marketing Association.
[4] Sheth J., Parvatiyar A. (1995) *The Evolution of Relationship Marketing,* International Business Review Vo|. 4, No. 4, pp. 397-418.
[5] Belz F. M., Peattie K. (2012) *Sustainability Marketing: A Global Perspective,* John Wiley and Sons
[6] Belz, F.-M. (2006): *Marketing in the 21st Century,* Business Strategy and the Environment, 15, 3, pp. 139-144.
[7] WCED (1987) *Our Common Future, Report of the World Commission on Environment and Development*
[8] United Nations, *2030 Agenda for Sustainable Development*
[9] Belz F.M., Peattie K. (2012) *Sustainability Marketing: A Global Perspective*, John Wiley and Sons, pp.17.
[10] Eccles R. G. and Serafeim G. (2013) *A Tale of Two Stories: Sustainability and the Quarterly Earnings Call, Journal* of Applied Corporate Finance, Volume 25 Number 3, Harvard Business School, pp.6.
[11] Fuller D. (1999) *Sustainable marketing Managerial – Ecological Issues*, Sage Publications, London
[12] Jamrozy U. (2017) *Marketing of tourism: a paradigm shift toward sustainability,* Marketing of tourism, 1 (2), p. 117-130.
[13] Slater SF and Olson EM (2001) *Marketing's contribution to the implementation of strategy: an empirical analysis,* Strategic Management Journal 22(11), pp.1055-1067.
[14] Belz F. M., Peattie K. (2012) *Sustainability Marketing: A Global Perspective*, John Wiley and Sons, pp.16.
[15] European Commission, *Special Eurobarometer 468, Attitudes of European citizens towards the environment,* September-October 2017
[16] Mulgan G. (2007) *Social innovation what it is, why it matters and how it can be accelerated*, Oxford
[17] Nidumolu R., Prahalad C.K., and Rangaswami M.R.(2009) *Why Sustainability Is Now the Key Driver of Innovation*, Harvard Business Review, september
[18] Knut H., David M., Jeremy J., Subramanian R. (2013) *Making Sustainability Profitable,* https://hbr.org/2013/03/making-sustainability-profitable
[19] Polonsky M., Rosenberger Ph. (2001) *Reevaluating green marketing: a strategic approach*, Business Horizons, 2001, vol. 44, issue 5, p.21-30.
[20] Whiting D. (2008) *Why is marketing missing from the sustainability agenda?* https://www.marketingsociety.com/the-library/why-marketing-missing-sustainability agenda#GmwwhK1lG3crcVL4.97
[21] Fulton M. et al. (2012) *Sustainable Investing: Establishing Long Term Value and Performance,* DB Climate Change Advisors, Deutsche Bank Group, dbadvisors.com.

[22] Unruh G., Kiron D., Kruschwitz N., Reeves M., Rubel H., and Meyer zum Felde A. (2016) *Findings from the 2016 sustainability global executive study and research project, Investing For a Sustainable Future*, Boston Consulting Group, pp.7.
[23] http://ec.europa.eu/environment

THE USE OF TWITTER AS A MARKETING TOOL BY TOUR OPERATORS IN ANTALYA

Nur Undey Kalpaklioglu[257]
Egemen Gunes Tukenmez[258]

DOI: https://doi.org/10.31410/eraz.2018.551

ABSTRACT: *Tour operators have important role in development of tourism and people participating in tourism. Especially in developing countries, tour operators have significant part in number of tourists and the increase on tourism revenue. They also have a natural effect on the development and marketing of destinations. In this context, social media accounts of incoming tour operators with biggest tourist volume in Antalya have been analyzed. Antalya which has a significant role in Turkish tourism, hosted 20% of the tourists in Turkey in 2016. In this regard, a content analysis has been applied. The twitter accounts of 10 tour operators which have the biggest tourist volume in Antalya have been analyzed. The number of tweets, the content of tweets, topics, destinations in Antalya, the percentage of tweets related both to Antalya and Turkey has been analyzed.*

Key words*: Antalya, social media marketing, tourism marketing, digital marketing, twitter marketing*

INTRODUCTION

Nowadays customers are the pioneer factors in marketing. The customers of the modern world have high demands and they want their voices to be heard. Due to their viral characteristics social networking sites are best for them. Social networking sites ensure the communication of individuals between each other and with companies. So they are crucial in terms of pervasion of information from companies, brands, recommendations and the comments of customers related to products and ideas.

Consumers are confused when they buying goods and service. The mess they are exposed to during the buying process makes decision making harder. Especially in information intense sectors like tourism, the effect of internet and social media are high because of this reason. Destinations are important in holiday planning process and consumers try to reach the right information. [2] Since the product cannot be pretested, the past experiences of others become more important. Consumers not only use social media to communicate, they also use social media to follow new products and brands, get information about various goods and services [3] this makes it an important marketing tool for companies.

The interaction and bringing people together in social networking sites is very important. The reason why the first networking site SixDegrees fell in 2000 is its inefficiency in bringing together different ethnic identities after accepting the friendship requests [6]. Today the most known social networking sites like Twitter, MySpace, Facebook, Flickr, LinkedIn, Instagram developed with Web 2.0 and reached to incredible dimensions with Web 3.0. In such sites

[257] Halic University, Faculty of Management, Imrahor Cad. No 82 Sutluce, Beyoglu, Istanbul Turkey
[258] Halic University, Faculty of Management, Imrahor Cad. No 82 Sutluce, Beyoglu, Istanbul Turkey

information spreads interactively. It is a fast and easy way of getting information about companies, brands and products both from the company and from other customers (their experiences with the product/brand/company).

The basic difference between networking sites and traditional channels is that the answers to questions can be seen by a wide population. As the information is open; benefiting, evaluating, developing and criticizing activities makes social networking sites more trustworthy. The users of such social networking sites like Twitter, Facebook, Instagram etc. other than communicating with each other promptly, can reach brief information and tolerant to promotional messages, advertising and sales they are exposed to [4]. For frequent users of social media, the speed, visuality and entertainment level [1] of the media are significant. They want to reach the information they are interested not only fast but also with good visual quality. One of the most significant characteristics of twitter unlike other social media networking sites is "the learning process". The users get information from their friends, relatives, role models, teachers, news groups, beloved ones [5] and companies, brands and destinations that they follow. They learn about the company, brand, new product, change in product, discounts, offers, destinations etc. Learning is important in buying behavior and learning occurs with repetition. Twitter allows its users a fast and easy way to reach their target audience.

METHODOLOGY

In this study content analysis method have been used to reveal the relevant information to find out how the tour operators use social media. Primarily most visited web sites have been analyzed to determine the types of web sites to be examined. The alexa.com data have been used for this analyzing. Alexa.com is one of the most famous and reputable web site for research, analyze and specify web sites' statistics. According to alexa data among the most visited 20 web sites, there is 8 social media web sites all over the world. [7]

According to surveys and business searches especially in last 10 years, number of visits of a web site is not enough for firms. Companies are also interested in how people spend their time in these firms' web sites. Basically, the more customers spend time in a web site, the more the company gets benefits and attract new customers. Therefore, social media is one of the most important tool for firms to attract customers while they are looking for services and goods to fulfill their needs. When firms try to catch the attention of customers with their web sites especially with their social media accounts, they put some relevant or irrelevant links to make people spend time surfing in their web sites.

When a firm's web site has plenty of links in a page, customers spend more time on that page than its components. For that reason, importance of linking root domains have become very crucial in business sector. According to linking root domains, social networking sites take the lead.[8] Facebook is the pioneer, Twitter is the second biggest social networking site in the number of linking root domains. This shows that, when people surf on internet, they spend their time in social networking other than official/other web sites. This behavior of the consumers catch the attention of companies. In regard of this change in consumer behavior, companies adopted themselves to this new position and digitalized and reorganize their marketing strategies to use social networking sites as a marketing tool.

When we look at the popularity of social media web sites, Facebook takes the lead according to number of users. Youtube is second, Instagram is the third, Twitter is the fourth most popular social networking site.[9]

To find out the social networking site and twitter usage of tour operators in Antalya a content analysis have been done. Twitter is the 12th most visited web sites all over the world. Furthermore, it is the second web site that has linking root domains. Moreover, Twitter has the fourth biggest web site user volume. These facts make Twitter crucial web site to reach to customers by every kind of companies and brands.

As Twitter has a significant importance in digital world, Twitter post shares of top ten incoming foreign tour operators that organize package tours to Antalya in the year of 2017 have been investigated. Before investigating this, top ten foreign tour operators with the most tour package to Antalya destination in 2016 has found.[10] After that, all the tweet shares have been investigated and classified between 1 October 2017 and 31 December 2017. Then these shares of tour operators are classified according to topics. After this, tweet shares about destinations are classified with regard to continents. The number of tweets have been tabulated month by month and identified by general numbers, monthly and daily averaged and standard deviation.

Tweets of these tour operators were classified as topics about general Turkey and specific about Antalya and also the content of these tweets have been classified.

FINDINGS

As the twitter usage of top ten incoming tour operators in Antalya have been investigated, it was determined that only 4 out of 10 tour operators use twitter (have twitter address). However, only 3 of these 4 tour operators' Twitter addresses are active in 2017. This means, only 3 of 10 tour operators use Twitter actively during 2017.

When other social networking sites analyzed, 7 of 10 tour operators use Facebook, 6 of 10 use social networking other than Twitter and Facebook. Existing situation makes tweet distribution irregular. Figure 1 shows the number of Twitter information about top ten tour operators in Turkey .

Tour Operators	Numbers of Tweets	Like	Followers	Following
A	2057	3200	32,2 K	558
B	6	1	42	2
C	306	126	212	98
D	157	195	2255	714
E	127	12	97	167
F	-	-	-	-
G	-	-	-	-
H	-	-	-	-
J	-	-	-	-
K	6844	218	9321	22

Figure 1: Twitter Features of Tour Operators

Figure 1 shows the general twitter features of tour operators. Tour operators in all figures in this study are put in order from highest volume to lowest. Tour operator A highest tourist volume in Antalya. Tour operator K has the lowest tourist volume in 2016. Tour operators' names have not been declared due to privacy concerns.

Figure 1 shows that, according to number of tweets, tour operator K takes the lead. However, tour operator A has the most likes from users in Twitter. Moreover, tour operator A has the biggest number of followers. The number of its followers is almost about four times the tour operators K. Tour operator A uses the Twitter more active than others. It reflects to number of followers and likes. Nevertheless, all 4 tour operators do not use Twitter frequently as it is seen.

Tour Operators	Number of Tweets in 2017 Whole Year
A	655
B	0
C	1
D	46
E	58
F	0
G	0
H	0
J	0
K	0

Figure 2: Number of Tweets of Tour Operators in 2017

As mentioned in methodology, this study analyzes the tweet shares of tour operators just the year of 2017. Figure 2 shows the total number of tweet shares in 2017. Only 4 tour operators shared Tweets in 2017 figure 2 shows. Tour Operator A has a great dominance in 2017 in comparison to its competitors.

Figure 3 shows the distribution of tweets of tour operators monthly. Left side of column shows the names of tour operators, the top row shows the months. In the figure, there are two columns in every month. Left column shows the number of Tweets of tour operators in a certain month, right column shows the percentage of the total Tweets in a certain month which is in bold in figure 3. For example, in January, T.O.A posted 24 tweets. Thus, all tweets in January is 3.7% of all tweets in total posts of T.O.A.

In general T.O. A posted tweets mostly in summer months. T.O.C and D posted tweets mostly in January. T.O.C posted only 1 tweet in 2017. T.O. E posted tweets mostly in August and November. Only 4 tour operators were active in Twitter in 2017 .

The monthly tweet shares, total number of tweets and total percentages are at the bottom of the table. For example, in January, total tweets of all tour operators are 57. In the light of these results, we can conclude that tour operators posted tweets mostly in August. This means, summer has the most number of Tweets in all year .

Months / Tour Operators	January	%	February	%	March		April		May		June		July		August		September		October		November		December	
A	24	3,7	41	6,3	50	7,6	27	4,1	63	9,6	78	11,9	67	10,2	91	13,9	62	9,5	56	8,5	54	8,2	42	6,4
B	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0
C	1	100,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0
D	26	56,5	6	13,0	0	0,0	0	0,0	1	2,2	9	19,6	2	4,3	0	0,0	0	0,0	0	0,0	0	0,0	2	4,3
E	6	10,3	5	8,6	7	12,1	5	8,6	6	10,3	4	6,9	3	5,2	8	13,8	3	5,2	1	1,7	8	13,8	2	3,4
F	0	0	0	0,0	0	0,0	0	0	0	0,0	0	0	0	0,0	0	0,0	0	0,0	0	0,0	0	0	0	0,0
G	0	0	0	0	0	0,0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
J	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	57	7,5	52	6,8	57	8	32	4,2	70	9,2	91	12,0	72	9,5	99	13,0	65	8,6	57	8	62	8,2	46	6,1

Figure 3: Monthly Distribution of Tweets

Figure 4 shows the daily and monthly mean of total number of tweets of the tour operators. T.O.A takes the lead in daily and monthly mean. T.O.E is the second, T.OD is the third one according to daily and monthly mean in number of Tweets. T.O.A takes also the lead in standard deviation because of the number of total tweets.

Tour Operators	Daily Mean	Monthly Mean	St. Dev.	Total Number
A	1,8	54,6	19,6	655
B	0,0	0,0	0,0	0
C	0,01	0,1	0,3	1
D	0,1	3,8	7,5	46
E	0,2	4,8	2,3	58
F	0,0	0,0	0,0	0
G	0,0	0	0,0	0
H	0,0	0	0,0	0
J	0,0	0	0,0	0
K	0,0	0	0,0	0

Figure 4: Tweeter Characteristics of Top Ten Tour Operators

Figure 5 shows the continental distribution of number of tweets of tour operators. According to information in this figure, T.O. A, D and E shared tweets about Europe the most. T.O.C posted just one tweet in 2017, which was about Africa. T.O. A posted 224 tweets about a destination. The 192 tweets by all of the tour operators about Europe and it is 73.6% of all of the tweets about destinations. There are 261 total tweets about a destinations posted by tour operators in 2017. As a result, Europe takes the lead and Europe surpluses 62% of the second biggest continental is Africa. As it is seen, there is a huge gap between continents in tweeter posts by tour operators.

Continents / Tour Operators	EUROPE		ASIA		AFRICA		NORTH AMERICA		SOUTH AMERICA		ANTARCTICA		AUSTRALIA		TOTAL
A	166	**73,3**	20	**8,9**	23	**10,3**	12	**5,4**	2	**0,9**	1	**0,4**	0	0	**224**
B	0	**0**	0	**0**	0	**0**	0	**0**	0	**0**	0	**0**	0	0	**0**
C	0	**0**	0	**0**	1	**100**	0	**0**	0	**0**	0	**0**	0	0	**1**
D	5	**66,7**	0	**0**	2	**22,2**	1	**11,1**	0	**0**	0	**0**	0	0	**9**
E	21	**77,4**	1	**3,7**	4	**14,8**	1	**3,7**	0	**0**	0	**0**	0	0	**27**
F	0	**0**	0	**0**	0	**0**	0	**0**	0	**0**	0	**0**	0	0	**0**
G	0	**0**	0	**0**	0	**0**	0	**0**	0	**0**	0	**0**	0	0	**0**
H	0	**0**	0	**0**	0	**0**	0	**0**	0	**0**	0	**0**	0	0	**0**
J	0	**0**	0	**0**	0	**0**	0	**0**	0	**0**	0	**0**	0	0	**0**
K	0	**0**	0	**0**	0	**0**	0	**0**	0	**0**	0	**0**	0	0	**0**
TOTAL	192	**73,6**	21	**8,0**	30	**11,5**	14	**5,4**	2	**0,8**	1	**0,4**	**0**	0	**261**

Figure 5 : Continental Distribution of Total Tweets of Tour Operators

Figure 6 shows the main topics of all tweets posted by tour operators in 2017. After the analysis of all the tweeter posts of ten tour operators, basically there are 11 topics that tour operators shared. In another year for example in 2016 or in 2018, there could be other topics but in 2017 there are almost 11 topics that is revealed. Some of tweets have more than one topics like destinations and hotel advertisements.

As it is seen in this figure, T.O. A has posted tweets about 11 topics. T.O.C has only destination topic. Tour operator D posted about almost every topic except accommodation, transportation and survey. T.O.E has every topic except accommodation, survey and governmental news. 6 of 10 tour operators do not have any twitter posts in 2017 as it is mentioned before.

Topics / Tour Operators	*Social Responsibility*	*Tourism News*	*Destination*	*Corporate News*	*Accomodation*	*Tour*	*Business Partnership*	*Transportation*	*Event*	*Survey*	*Consulate - Governmental News*
A	x	x	x	x	x	x	x	x	x	x	x
B											
C			x								
D	x	x	x	x		x	x		x		x
E	x	x	x	x		x	x	x	x		
F											
G											
H											
J											
K											

Figure 6: Tweeter Shares Topics of Top 10 Tour Operators

The tweeter posts about Turkey and Antalya, have been very low in 2017. These ten tour operators posted 760 tweets during whole year. However, only 12 of these tweets are about Turkey and only 5 of the tweets about Antalya. As figure 7 shows that, only 1.6 % of all tweets

were about Turkey. Also, only 0.7 % of all tweets are about Antalya. T.O. A posted the most tweets about Turkey and also about Antalya. For example T.O.A posted 9 tweets about Turkey and 4 of them are about Antalya. There is only 2 more tour operators that posted tweets about Turkey. However, as seen in figure 7, in general there is only 2 tour operators posted tweets about Antalya.

Tour Operators	TURKEY		ANTALYA	
A	9	**4,0**	4	**1,8**
B	0	**0,0**	0	**0,0**
C	0	**0,0**	0	**0,0**
D	1	**11,1**	1	**11,1**
E	2	**7,4**	0	**0,0**
F	0	**0,0**	0	**0,0**
G	0	**0,0**	0	**0,0**
H	0	**0,0**	0	**0,0**
J	0	**0,0**	0	**0,0**
K	0	**0,0**	0	**0,0**
Total	12	**1,6**	5	**0,7**

Figure 7: Twitter Statistics about Turkey and Antalya of top 10 Tour Operators

According to UNWTO report in 2017, as the number of tourists, Turkey is one of the biggest ten tourist attracting countries. However, the number of tweets of top ten tour operators in 2017 about Turkey is too low for a country's position in tourism sector.

If we look at the topics about Antalya that posted by tour operators in 2017 , the topics are about Fethiye destination, prize news, general tourism information about Antalya, tour operators team information and congress publishing. However, tweets about Antalya is only 0.7 %. tweets which is a very low figure.

CONCLUSION

Twitter usage of the top ten incoming tour operators to Turkey seems to be not enough. Tweeter is the fourth popular social networking site all in the world. Moreover, it is the second web site that has linking root domain. Furthermore, it is the 12 of the most visited web sites in 2016. According to brandwatch.com, in 2016 tweeter with its 330M monthly active users, 550 million people have posted a tweet once in their life, 500 million people visit Twitter each month without logging in. 23% of US citizens are monthly active users of Twitter and 80% of active users access the site via mobile. There is 707 average number of followers of a twitter page. 500 million tweets sent each day. which makes 6,000 Tweets every second. 65.8% of US companies with 100+ employees use Twitter for marketing and 77% of Twitter users feel more positive about a brand when their Tweet has been responded. 58% of top brands have over 100,00 followers on Twitter and 92% of companies tweet more than once a day. 80% of Twitter users have mentioned a brand in a Tweet and 60% of consumers expect brands to respond to their query within the hour. 76% of consumers are likely to recommend the brand following friendly service and companies using Twitter for customer service see a 19% lift in customer satisfaction. Most importantly, Twitter revealed total ad grew 208% year to year. [11]

In this context, twitter is an effective marketing tool to reach the target costumers, get in interaction with them, and to manage their perceptions about their services. So tour operators should use this tool effectively and regularly to keep active communication with their

customers. Especially customers from Y and Z generation spend long hours in social networking sites. When they decide to buy a good or a service like travel, they definitely take search on internet and social networking sites. They read the comments, see the advertisings and refer to experiences of others. As traveling is intangible social media has a crucial importance, especially customers who want to travel long distance/abroad, check the social networking sites before making their decisions about the destination, tour operator, travel services etc.

However, this study shows that, tour operators organize tour packages to Turkey do not pay enough attention to twitter. The tweeter posts about Turkey and also Antalya, are very inadequate. Turkey has very important role in tourism sector in the world. Antalya is also one of the most attractive destinations of Turkey. It is the second city after Istanbul which welcomes most tourists. For that reason, all partners in the sector, both governmental and private sector, should plan marketing strategies in digital world using social networking sites as marketing tools. They should may provide some relevant information, some financial priorities and opportunities to tour operators which generate tour packages to Turkey.

Further studies are possible about this subject. Another deep content analysis or other research methods can be used to analyze twitter or other social networking sites, other social media and web sites and a comparison with other web sites and destinations, countries, firms, corporations can be made.

ASSOC.PROF.DR. ***NUR KALPAKLIOGLU***

Bachelor's degree: Public Relations in Ege University
Masters: Journalism in Ege University
PhD: Journalism in Ege University
Assoc. Professorship : Public Relations
2017: Corporate Communications Director, Halic University
2015: Faculty member, Management Faculty, Halic University
2014: Faculty member, Communications Faculty, European University of Lefke
2010-2013: Faculty member, Communications Faculty, Beykent University
2013: Career Center Director, Beykent University
2005-2010: Public Relations Department Head, Communications Faculty, I. Aydin University
Research Fields: tourism marketing, digital marketing, gastronomy tourism.

REFERENCES

[1] Cetin, Mustafa. Ozgiden, Hatice (2013). *A Research on Digital Natives and Digital Immigrants Twitter User Behavior in the Process of Digital Culture*, Gumushane University E-journal of Faaculty of Communication, Volume 2, Number 1, pp.172-189, Gumushane.

[2] Doganer, Mehmet Can. Armagan, Ece (2018). *Seyahat Bloglarının Destinasyon Seçimine Etkisi*, Pamukkale University Journal of Social Sciences Institute, Issue 30, pp.223-237, Denizli.

[3] İbis, Salim. Engin, Yahya (2016). *Determining the Role of Socail Media Use for the Selection of Food and Beverage Enterprise*, Mehmet Akif Ersoy Üniversitesi Sosyal Bilimler Enstitusu Dergisi, Volume 9, Number 17, pp.323-336, Burdur.

[4] Kalpaklioglu, Nur Undey. Toros, Nihal. (2011). *Viral Marketing Tecniques Within Social Network*, JOY, Volume 6, Number 24, pp. 4112-4129, Izmir.

[5] Odabaşıi H. Ferhan vd. (2012). *A New Media for Education* Anadolu Journal of Educational Sciences International, 2(1), pp.89-103, Eskisehir.

[6] Toprak, Ali. Yildirim, Aysenur. Aygul, Eser. Binark, Mutlu. Borekci, Senem. Comu, Tugrul. (2014), *Toplumsal Paylasim Agi Facebook: Goruluyorum Oyleyse Varim*, Kalkedon, Istanbul
[7] www.alexa.com/top500
[8] www.moz.com
[9] www.dreamgrow.com
[10] www.turizmdatabank.com
[11] www.brandwatch.com

OECD MEMBERSHIP CHALLENGES FOR CROATIAN TOURISM; SUSTAINABLE PERSPECTIVES

Jasmina Gržinić[259]

DOI: https://doi.org/10.31410/eraz.2018.560

Abstract: *Tourism is in global transformation. Countries which do not adapt lose market competition. OECD countries realise numerous benefits from their membership (publication of statistical indicators, comparison of indicators, pointing to benefits and costs, discussions through forums, encouraging sustainable behaviour). The aim of this paper is to determine whether the economy of a country which is outside the OECD is indeed less efficient than one which is a member and whether, following the implementation of recommendations, countries can realise benefits for themselves, i.e. greater effects of their own economy. The high dependency of the Croatian economy on tourism threatens the national economy due to the changeable nature of tourism, as well as due to the number of arrivals in destinations. The contribution of this paper lies in the indication of the advantages of inclusion and disadvantages of the absence of membership based on the analysis of two European, touristically attractive, markets (France and Croatia) which use the potentials and manage them in different ways. International organisations can assist in the management of the tourist destination development in three directions: priority policies, pointing to the importance of what is authentic and attractive and undertaking of activities for the purposes of improvement of destinations.*

Key words: *OECD, membership, Croatian tourism, potentials, sustainability*

1. INTRODUCTION

Tourist regions in the wider sense (non-specialised or heterogenous), in which tourism is not the main business activity, can have benefits for their development from OECD association membership. Furthermore, economies which are highly dependant on tourism can have benefits in the form of transformation of tourism towards sustainable challenges. The subject and, at the same time, the problem area of the research is valorisation of the potentials of the Croatian economy (tourism). The goal of the research is an analysis of the purpose and significance of joining the OECD organisation, both for Croatia and in the wider sense. In the available economic literature of recent dates, papers dealing with “new trends” in global economies and tourism are predominantly represented as well as efforts to adapt. Most represented are papers which refer to proactive policies, analyses of influences, change management and sustainable development. Bracy (2015) considers the possibility of substitution of regulation with reputation and points to such a possibility due to the emergence of new global trends in the market. Ritchie et al. (2010) prove that tourism of Canada and USA is affected by a crisis and that it will reflect on the future, which requires proactive policies. Bartoluci (2013) points out that in tourism it is “not enough to just manage changes, but that it is necessary to be ahead of them, i.e. to be ahead of the competition”. Pallis (2015) and Pucher and Dill and Handy (2010), analyse the co-relationship between traffic and urban development with the aim of improving infrastructure, programmes and policies. OECD (2011) issues instructions about

[259]Juraj Dobrila University of Pula, Faculty of Economics and Tourism "Dr. Mijo Mirković", Zagrebačka 30, Croatia

climatic changes and OECD policies and, the same year, issues the publication "Green Innovation in Tourism Services".

In 2014, it emphasizes the term "creative economics" with the aim of encouraging innovations and managing changes. Sharma (2011) analyses economics as a quantitative and qualitative discipline and stresses the need for the creativity in regard to logic, epistemological, sociological and educational characters of some economic subjects. However, Thévenot (2017) analyses and further points to the problem of imbalance of the quality of OECD countries. McManners (2017) and Šergo, Gržinić, Poropat (2009) stress the need for reformative economic policies towards sustainability and the need for sustainable management of changes and for further actions. Based on the above stated, we can conclude that, due to the influences and changes in economies, as well as to an increase in the risks of externalities (economic deviations) the importance of international associations is growing. According to what has been said, sustainability (economic, ecological, and social) is becoming the main premise of stakeholders' actions.

Jasmina Gržinić *is Full Professor of Tourism at Juraj Dobrila University in Pula, Department of Economics and Tourism. She was educated at the Faculty of Tourism of Hospitality and Management (Opatija, Croatia) and Pula University (Croatia). She is a member of the editorial boards of 5 international scientific publications. Her main research topics are: Principles of tourism, International tourism, Tour operators and Travel agencies, Cultural tourism, Tourism attractions. She has published more than 80 scientific papers and two books, including the book "International tourism" (2014) and "Tour operators and hoteliers in modern tourism". She is also editor of three scientific monographs. She was Head of Department of Tourism and a member of the Senate at the University of Pula. Besides her scientific work, her duties also include teaching activities with international students. She is actively involved in the work of a student entrepreneurial incubator and a member of numerous professional and academic associations.*

2. ROLE OF ASSOCIATIONS FOR MEMBERSHIP COUNTRIES

The Organisation for Economic Cooperation and Development (OECD) is a transnational economic organisation, founded by the United Nations in 1960, in the capacity of an observer and is situated in Paris, France. Given that France is one of the first signatory countries, the official language is English and French. The last acceding country is Latvia (in 2016). The purpose of the organisation is encouragement of economic progress and world trade. The goal is to promote the policies of economic and social wellbeing in the way that the governments of the countries exchange experiences and seek solutions for problems with the aim to encourage changes. OECD is directed towards provision of assistance to the governments of the member countries, but also throughout the world by means of:[260]

- return of trust to markets through the institutions which facilitate their functioning;
- establishment of public finances in the form of a basis for future sustainable economic growth;

[260] OECD, http://www.oecd.org/general/oecdlaunchesyourbetterlifeindex.htm

- encouragement and support of new sources of growth through innovations, ecologically acceptable strategies of "green growth" and development of new economies;
- guarantee of development of skills of different age groups in order to work on future tasks in a productive and satisfying manner.

In the following text, the "dimensions of the entry" are analyzed, important for organisation of economic cooperation and development, social, demographic and economic aspects of development. For this purpose, the comparison of the economic progress of countries which have different tourism positions, observed from the aspect of the national authority, as well as a long time delay from the initiative of entry (Croatia,[261] France) seems justifiable.

3. COMPARATIVE ANALYSIS OF SELECTED COUNTRIES

3.1. Demographic and developmental characteristics

France is one of the 19 countries which, on 14th December 1960, signed the Convention for the Establishment of the Organisation for Economic Cooperation and Development (OECD). With over 64 million inhabitants, it has an unemployment rate of 9.3% and poverty rate of 8.1%.[262] Life expectancy is approximately 82.5 years, among the highest among the countries of the European Union.[263] Health consumption is higher than in the majority of other membership countries and expenditure for health reaches €3,382 per capita (2015).[264] For the same year, Croatia has 4.2 million inhabitants, risk of poverty 19,5% and an unemployment rate of 16.1%. Life expectancy in Croatia is 77.5 years. Health consumption in Croatia equals €1,200 per capita.[265] The difference in the minimal level of income (1,038 €) points to the Croatian economic backwardness.[266]

The OECD advisory body has a strong partnership with the European Commission, as well as a cooperative relationship with other organisations, such as UNWTO (*The World Tourism Organisation*). In 2016, travel and tourism contributed with a total of approximately 200 billion euros to the gross domestic product, while employment in tourism created 3 billion jobs.[267] Therefore, the development of the global tourism sector is monitored and development recommendations are given.

3.2. Tourism sector

The OECD membership countries have a distinctive role in international tourism. International arrivals in the OECD membership countries made up 54% of global arrivals in 2014 (up to 57% in 2012). On average, tourism directly contributes with 4.1% and the share of service export is considerable in the OECD economy. On average, international income from tourism represents 21.3% of the product export in the OECD. That share varies from country to country. Tourism makes up 39.5% of product export in Italy and 12.9% in Great Britain. In addition, it is estimated

[261] In OECD sources, Croatia is quoted as a partner country
[262] OECD https://data.oecd.org/france.htm and STATISTA 2018, https://www.statista.com/statistics/460446/poverty-rate-france/
[263] average age in Europe is 80 years
[264] EU average is €2,797, *France: Country Health Profile 2017*
[265] UNDP in Croatia, http://www.hr.undp.org/content/croatia/en/home/countryinfo.html
[266] OECD data Croatia, https://data.oecd.org/searchresults/?q=CRoatia
[267] OECD Tourism Trends and Policies 2018, p. 30.

that around 80% of tourism export turned into domestic added value, which is more than the average of the overall economy.[268]

Countries encourage the introduction of mechanisms to improve the stability and reliability of the processes, needed for procurement of permits, concessions and other requirements for construction and operation of tourism companies (Brazil, Greece), as well as direct and alleviate investment in accommodation and other tourism infra/suprastructures (Croatia, France, Israel, Switzerland; OECD, 2014;54). Although there are several countries (Brazil, Bulgaria, Costa Rica, Croatia, Egypt, India, Israel, Malta, Mexico, Morocco, Philippines and the South African Republic), where tourism operates under the Ministry of Tourism, and others where tourism portfolio is predominantly within other (economic) country ministries (Austria, Canada, Chile, Columbia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Latvia, Lithuania, Luxembourg, Macedonia, The Netherlands, New Zealand, Norway, Portugal, Romania, Spain, Sweden, Switzerland and the United States; OECD, 2014;32).

Table 1. shows a comparative review of the observed countries' tourism scope. In Croatia, travel and tourism contribute with approximately 17 billion euros to the Croatian gross domestic product. The number of arrivals and the number of overnights is evidently higher in France in relation to Croatia, which is understandable given the number of inhabitants, but it is under the influence of numerous other factors. France develops "supporting attractive products", which are recognizable as trade marks (OECD, 2014;35), based on the principles of clarity, cooperativeness and selectiveness. It develops sustainable forms of tourism and validly covers regional imbalances.

Table 1. Number of overnights, arrivals and employed in tourism – selected countries (2016); (in mil.)

Country	Overnights	Arrivals	Employed
France	404.8	157.3	1.180
Croatia	91.3	16.3	0.138

Source: *Statista,* https://www.statista.com/statistics/413224/number-of-arrivals-spent-in-short-stay-accommodation-in-france, *Total Croatia news,* https://www.total-croatia news.com/travel/17314-croatian-tourism-income-surpasses-18-percent-of-gdp

Arrivals in the OECD have grown faster than global arrivals (on average 6.4% in 2014). Five OECD countries recorded an annual growth of over 20% in relation to 2008, namely: Denmark (21.4%), Greece (23.0%), Iceland (23.6%), Japan (29.4%) and Mexico (21.5%). OECD contributes to future trends in the form of active policies for tourism:[269]

- Tourism trends and priority policies,
- The role of transport in raising of clients' experiences,
- Policy for tourism "sharing economy".

Competitive, but also sustainable tourism activity, as well as the role of the governing structures in the development of the funds are specifically emphasized. Tourism has a key role in the global economic activity, creation of new jobs, export income and domestic added values. The result is improvement of the development of regions by means of recognition by visitors who repetitively visit or transfer information about their experiences.

[268] Ibid

[269] http://www.oecd-ilibrary.org/industry-and-services/oecd-tourism-trends-and-policies-2016_tour-2016-en;jsessionid=3ilprvg4vohgr.x-oecd-live-02

Table 2. Selected economic indicators (2016)

Country	GDP (in mill. €)	GDP per capita	Minimal income	Tourism in GDP (%)	Unemployment (%)
France	2 465.45	41.364	1 480	8.9	9.4
Croatia	46.406	11.118	442	18.01	16.3

Source: Prepared by the author according to: *Le portail de l'Économie, des Finances, de l'Action et des Comptes public*s, https://www.entreprises.gouv.fr, *Knoem*a, https://knoema.com/atlas/France/topics/Tourism/Travel-and-Tourism-Total-Contribution-to-GDP, *HNB*, https://www.hnb.hr/statistika/glavni-makroekonomski-indikatori

France has been progressing despite the insecurity caused by terrorist attacks (table 2). Although, in 2016, it realized a fall of 2.2%,[270] it is the most popular world destination in the observed year. Croatia is the destination of rapid growth and continues to be oriented towards predominantly mass tourism. Tourism is a main sector of economic development and on which the economy is highly dependent. Creation of an experimental measurement framework is in progress, which would unite the practices of countries, methodology of preparation and examples of applicability.[271] The Organisation wishes to moderate new tourism marketing models and influence the countries in order for them to, using governmental funds, encourage a higher level of participation in the cooperative sector or industry (especially: Austria, Croatia, France, Iceland, The Netherlands, New Zealand, Portugal, The Slovak Republic, Spain, Sweden, United Kingdom, Bosnia and Herzegovina and the United States; OECD, 2014;42).

4. DISCUSSION AND DEVELOPMENT RECOMMENDATIONS

To increase the potential of the countries, the Organisation will request further progress by the governments concerning the reduction in the cost of roaming or finding alternative mechanisms to facilitate local access to the Internet (for example Croatia, France). In Croatia, the Ministry of Tourism implemented the HOT-SPOT programme (support to free Internet access in tourism destinations), which is deemed to be an improvement. For its goal, the programme has to improve the competitiveness of Croatian tourism by providing free Wi-Fi in the most frequented destinations.

Although in numerous countries initiatives for improvement of the access to finance for small and medium-sized companies are not directed towards the tourism sector, small and medium-sized tourism companies can join public support for improvement of access to the financing of small and medium-sized companies in general. However, certain financing options are better matched to the needs of small and medium-sized companies in tourism of some countries (for example Austria, Brazil, Columbia, Croatia, Mexico, Portugal) (OECD, 2014;35). Apart from quantitative data, reports are also issued about how traffic can improve tourism experience, in the same way as possibilities, challenges and implications can improve tourist board management. Numerous private schools/faculties demonstrate greater agility in the development of relationships with economy, putting state universities in a competitive position. Linking of the academic community with the social and economic communities is becoming an integral part of institutional strategies for both countries.

[270] Le portail de l'Économie, des Finances, de l'Action et des Comptes publics, https://www.entreprises.gouv.fr
[271] Dupeyras, A., MacCallum, N. (2013), "Indicators for Measuring Competitiveness in Tourism: A Guidance Document", *OECD Tourism Papers*, 2013/02, OECD Publishing, http://dx.doi.org/10.1787/5k47t9q2t923-en.

Understanding international tourism and its dynamic environment, whose changes in a great measure affect its future, give us a possibility to better understand the whole of tourism as an important economic development originator. For Croatia, access to OECD represents easier adaptation to global trends and resolving disputes with the important and traditional tourism markets (eg border disputes with Slovenia). Otherwise, it will lose orientation on the priority policies (sustainable development) and activities in order to improve coastal and rural tourism destinations.

In order to avoid unfavorable conditions and reduce negative effects, except the government, tourism must be managed by experts (stakeholders) who are familiar with the paradigms of sustainable development, socially responsible business and technological innovations and who are prepared to adapt methodology to the demands of advanced economies.

5. ACKNOWLEDGEMENTS

This paper is a result of scientific - research project „Identification of externalities in the modelling of sustainable development of tourism“ supported by the Faculty of Economics and Tourism „Dr. Mijo Mirković“, Juraj Dobrila University of Pula. Any opinions, findings, and conclusions or recommendations expressed in this paper are those of the author(s) and do not necessarily reflect the views of the Faculty of Economics and Tourism „Dr. Mijo Mirković Pula".

LITERATURE

1. Bracy, J. (10 June 2015), “In the sharing economy, could reputation replace regulation?”, *The Privacy Advisor, Privacy Association*, https://privacyassociation.org/news/a/in-the-sharing-economy-couldreputation-replace-regulation/.
2. *Croatia and France: Country Health Profile* 2017, OECD, 2017.
3. Dupeyras, A., MacCallum, N. (2013) “Indicators for Measuring Competitiveness in Tourism: A Guidance Document”, *OECD Tourism Papers*, 2013/02, OECD Publishing, http://dx.doi.org/10.1787/5k47t9q2t923-en
4. HNB, https://www.hnb.hr/statistika/glavni-makroekonomski-indikatori
5. *Knoema, World Data Atlas:* https://knoema.com/atlas/France/topics/Tourism/Travel-and-Tourism-Total-Contribution-to-GDP/Contribution-of-travel-and-tourism-to-GDP-percent-of-GDP
6. *Le portail de l'Économie, des Finances, de l'Action et des Comptes publics*, https://www.entreprises.gouv.frhttps://www.entreprises.gouv.fr
7. McManners, P. (2017) *Reframing economic policy towards sustainability*, Routledge.
8. Pallis, T. (2015) “Cruise Shipping and Urban Development: State of the Art of the Industry and Cruise Ports”, *International Transport Forum Discussion Papers*, No. 2015/14, OECD Publishing, Paris, http:// dx.doi.org/10.1787/5jrvzrlw74nv-en.
9. Pucher, J., Dill, J., Handy, S. (2010) “Infrastructure, programs, and policies to increase bicycling: An international review”, *Preventive Medicine* 50: 106-S125.
10. Ritchie, J.R.B., Molinar, C.M.A., Frechtling, D.C. (2010) “Impacts of the World Recession and Economic Crisis on Tourism: North America”, *Journal of travel research*, Vol. 49, No. 1, pp. 5-15, doi: https://doi.org/10.1177/0047287509353193.
11. Sharma, S. (2011) *Collected Works of Soumitra Sharma: Economics in an Awkward Corner*, ed. Škare, M., Tomić, D., Juraj Dobrila University of Pula, Faculty of Economics and Tourism Dr. Mijo Mirković, Pula.
12. Šergo, Z., Gržinić, J., Poropat, A. (2009) “Links between tourism, employment, unemployment, and productivity: case of Croatia”, 8th International Conference

Challenges of Europe: financial crisis and climate change: proceedings / Zlatan, Reić; Vladimir, Šimić (ur.). - Split: Faculty of Economics, 2009. 533-547.
13. *Total Croatia news*, https://www.total-croatia-news.com/travel/17314-croatian-tourism-income-surpasses-18-percent-of-gdp
14. OECD: *www.oecd.org/* 2014, Tourism and the creative economy.
15. OECD *Tourism Trends and Policies* 2016, 2018.
16. http://www.oecd.org/general/oecdlaunchesyourbetterlifeindex.htm
17. *Statista,* https://www.statista.com/statistics/413224/number-of-arrivals-spent-in-short-stay-accommodation-in-france.
18. Thévenot, C. (2017), *Inequality in OECD countries*, Scandinavian Journal of Public Health 45(18):9-16.
19. *UNDP in Croatia*, http://www.hr.undp.org/content/croatia/en/home/countryinfo.html
20. *UNWTO Tourism Highlights 2017*, available at: https://www.e-unwto.org/doi/pdf/10.18111/9789284419029 (2018).

ANALYSIS AND FORECAST OF TOURIST NIGHTS IN CROATIA BY 2022

Justin Pupavac[272]
Antonio Badurina[273]

DOI: https://doi.org/10.31410/eraz.2018.567

Abstract: *The tourist nights variable is one of the most popular measures of tourism demand. In accordance the main objective of this paper is to estimate the number of tourist nights in Croatia by 2022. The analysis of the number of tourist nights in Croatia is based on the methods of descriptive statistics. To estimate the number of tourist nights in Croatia the moving averages methods and method of exponential smoothing are used. This methods are efficient and useful in the short run period. The main finding of this paper points to the fact that the number of tourist nights in Croatia will continue to show a growth trend in the coming period. Findings in this paper provides a good starting point to forecast tourism demand and could be helpful to tourist managers of all levels in making business decisions.*

Key words: *Croatia, tourism, tourist nights, forecast, moving-averages, exponential smoothing*

1. INTRODUCTION

Tourism is a significant source of export revenues for Croatia, it is vital for policymakers to understand the trends and factors that affecting tourism demand. Tourism demand is usually measured in terms of tourists arrivals, in terms of tourist's overnight stays, or in terms of tourist's expenditure. A large number of econometrics studies used, both time series and econometric approaches to forecast tourism demand. Good forecast are of critical in all aspects of tourist business especially for two activities: 1) human resources and 2) capacity.

Subject of this research is tourism demand measured by the number of tourist nights in order to prove the hypothesis that insufficient tourism demand is not a limiting factor for the development of Croatian tourism. Some of the world-famous Croatian tourist destinations such as Dubrovnik, Plitvice Lakes National Park or Krka National Park because of the pronounced seasonality of Croatian tourism have a problem of over-demand. To achieve the purpose and purpose of the research and to prove the set hypothesis in various combinations, several scientific methods were used, from which the method of descriptive statistics and two quantitative forecasting methods are used: moving averages and exponential smoothing method.

This scientific paper has five logically related parts. After the introduction, in the second part of the paper, the theoretical framework of the research, gives a detailed description of the methods of prediction used. The third part of the paper encompasses secondary data that are the subject of analysis in the work and the presentation of the scientific methodology used in the work. After the results of the research and discussion covered by the fourth part of the paper, the conclusion is reached.

[272] Faculty of Tourism and Hospitality Management, Primorska 42, p.p. 97, 51410 Opatija, Republic of Croatia
[273] Faculty of Tourism and Hospitality Management, Primorska 42, p.p. 97, 51410 Opatija, Republic of Croatia

2. THEORETICAL FRAMEWORK OF RESEARCH

Justin Pupavac *was born on November 9th, 1992 in the city of Rijeka. He graduated from the Faculty of Economics, University of Rijeka. In 2015. he successfully attended International Summer Schools in Vienna. Currently, he is PhD student at the Faculty of tourism and hospitality management in Opatija. His research and education is focused on Management of sustainable development. He is author of several scientific articles. Since graduation, he has been working in tourism.*

Decision making in the tourism industry is often based on the forecast of behaviour of a variable, such as the number of tourist arrivals, number of overnight stays, the price of tourist services, etc. Witt, Song and Anhill (2004) refer to the forecast of tourist demand as a key factor for planning and making decisions in tourism. Mervar & Payne (2007) in their study provide long-run elasticity estimates associated with the aggregate foreign tourism demand for Croatian destinations in the period 1994 – 2004 using the autoregressive distributed lag (ARDL) approach. Foreign tourism demand is appraised by the aggregate number of foreign overnight stays in Croatia. Bahovec, Dumičić and Čeh Časni (2008) in their work present an econometric model of Croatian tourism demand for the period between 1998 and 2007. Tourism demand is estimated by total tourist nights. Multiple Regression analysis was applied. Baldigara, Štambuk and Mamula (2013) endeavor to express a theoretical e−tourism demand model, as a mathematical function that indicates the presence of a relationship between the dependent variable, expressed by the number of tourists' overnight stays and a number of commonly used explanatory variables (income, prices, substitute pries). The authors also research the possibilities of adding some additional supplementary independent variables i.e. the number of internet users, the number of overnights stays that were booked online or the number of online reservations.

In this paper two simple but very useful quantitative forecasting methods have been used: moving averages and exponential smoothing which are fall into time-series model. Time-series models predict on the assumption that the future is a function of the past.

Moving averages

Moving averages are useful if we can assume that market demands will stay fairly steady over time. A 3-years moving average is found by simply summing the demand during the past 3-years and dividing by 3. With each passing year, the most recent year's data are added to the sum of the previous 2 years and the earliest year is dropped. This practice tend to smooth out short-term irregulations into the data series.

Mathematically, the simple moving average (which serves as an estimate of the next period's demand is expressed as

$$\text{Moving average} = \frac{\sum \text{demand in previous n periods}}{n} \quad (1)$$

where n is the number of periods in the moving average.

When a detectable trend or pattern is present, weights can be used to place more emphasis on recent values. This practice makes forecasting techniques more responsive to changes because

more recent periods may be more heavily weighted. Deciding which weights to use requires some experience.

A weighted moving average may be expressed mathematically as

$$\text{Weighted moving average} = \frac{\sum(\text{weight for period n})(\text{demand in previous n periods})}{\sum weights} \quad (2)$$

Exponential Smoothing

Exponential smoothing is a sophisticated weighted moving-average forecasting method. The basic exponential smoothing formula can be shown as follows:

New forecast=last period's forecast + α(last period's actual demand–last period's forecast) (3)

Where α is a weight or smoothing constant, chosen by the forecaster, that has a value between 0 and 1. Equitation (3) can also be written mathematically as

$$F_t = F_{t-1} + \alpha (A_{t-1} - F_{t-1}) \quad (4)$$

Where:
F_t – new forecast
F_{t-1} – previous forecast
α – smoothing constant ($0 \leq \alpha \leq 1$)
A_{t-1} – previous period's actual demand

The smoothing constant, α, is generally in the range from 0,05 to 0,5 for business applications. It can be changed to give more weight to recent data (when α is high) or more weight to past data (when α is low).

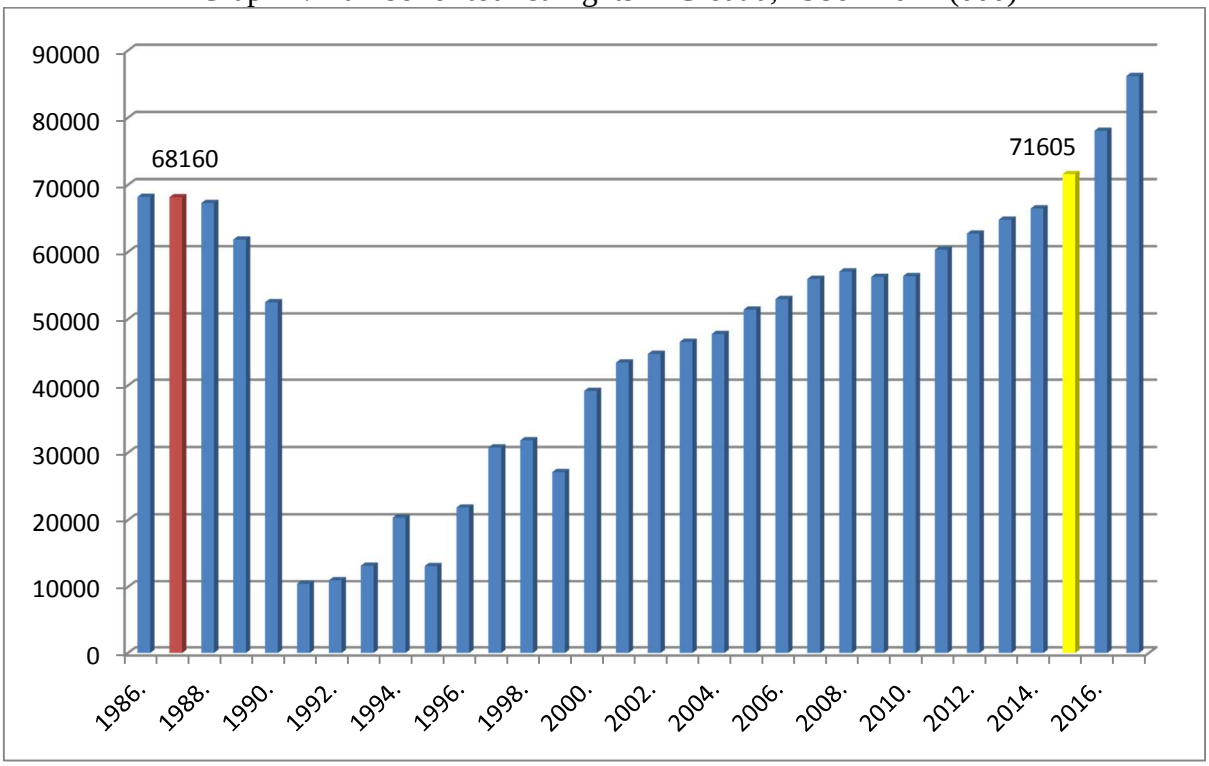
The overall accuracy of any forecasting model-moving average, exponential smoothing, or other – can be determined by comparing the forecast values with the actual or observed values. One of the most popular measures is mean absolute deviation (MAD). This value is computed by taking the sum of absolute values of the individual forecast errors and dividing by the number of periods of data (n):

$$\text{MAD} = \frac{\sum(\text{actual} - \text{forecast})}{n}$$

3. DATA AND RESEARCH METHODOLOGY

According to collected data, regarding the number of tourist nights, it is visible that the Republic of Croatia, in the year of 2015., has not only reached the results from the year 1987. but the number of tourist nights has been increased. (cf. Graph 1).

Graph 1. Number of tourist nights in Croatia, 1986 - 2017 (000)



Source: DZS, Statistical Yearbooks of the Republic of Croatia, different years

Based on the chart data, there is a great fragility of tourism on political, war and economic factors. Tourism demand is negatively affected by the political conflicts in the 1990s. In the post-war period from 1996 to 2017, almost continuous increase in the number of realized tourist nights has been observed. Exceptions to this positive trend occurred only in 1999 because of the military and political conflict in Kosovo, and for two years: 2009 and 2010, which coincide with the outbreak of the great economic crisis in the world as well as in Croatia, of course.

Antonio Badurina *was born on Jun 27th, 1990 on island Mali Losinj. He graduated from Faculty of tourism and hospitality management, where he is currently PhD student focusing on management of sustainable development. He works as independent referent propagandist and Tour Guide.*

The results of this paper are based on data on the number of tourist nights for the period from 1996 to 2017. Based on this data, first there will be a descriptive analysis of the number of tourist nights in Croatia for the period 1996 to 2017, and then will be used by 2022 in moving averages and model of exponential smoothing to predict the number of tourist nights in the Republic of Croatia.

4. RESEARCH RESULTS AND DISCUSION

Based on the collected data (cf. Graph 1), a brief descriptive analysis of the number of tourist nights was made (cf. Table 1).

Table 1. Descriptive statistics of the number of tourist nights to Croatia, 1996 - 2017. (000)

Mean	**52446,86**
Standard Error	3478,60
Median	54506,00
Standard Deviation	16316,07
Kurtosis	-0,20
Skewness	0,01
Range	64340,00
Minimum	21860,00
Maximum	86200,00
Sum	1153831,00
Count	22,00

In the observed period, the Republic of Croatia had somewhat more than 1,15 billion tourist nights. The average annual number of tourist nights in the observed period was 52.4 million (SD = 16.3). The median value (M) was 54,5 million. The lowest number of tourist nights in the observed period was recorded in 1996, the first post-war year, amounting to only 21,86 million, while the highest number of tourist nights occurred in 2017 with 86.2 million tourist nights. That is an increase of 3,94 times.

Based on formula (1) moving averages are calculated. A 3-year moving average appears on the right (cf. Table 2).

Table 2. Estimate the number of tourist nights with moving average model (000)

Year	Actual tourist nights	3-year moving average	Forecast error
1996	21860		
1997	30775		
1998	31852		
1999	27126	28162,33	-1036,33
2000	39183	29917,67	9265,333
2001	43405	32720,33	10684,67
2002	44692	36571,33	8120,667
2003	46635	42426,67	4208,333
2004	47797	44910,67	2886,333
2005	51421	46374,67	5046,333
2006	53007	48617,67	4389,333
2007	56005	50741,67	5263,333
2008	57103	53477,67	3625,333
2009	56300	55371,67	928,3333
2010	56416	56469,33	-53,3333
2011	60354	56606,33	3747,667
2012	62743	57690	5053
2013	64818	59837,67	4980,333
2014	66484	62638,33	3845,667
2015	71605	64681,67	6923,333
2016	78050	67635,67	10414,33
2017	86200	72046,33	14153,67

2018	78618,33
2019	80956,11
2020	81924,81
2021	80499,48
2022	81126,53

MAD = 5691,46

Thus we see that forecast for 2018 is 78 618,33 mil. tourist nights. To project demand for tourist nights in the 2018 we sum the 2015, 2016, 2017 and divide by 3.

Based on formula (2) we decided to forecast tourist nights by weighting the past 3 years as follows: 3-last year, 2-two years ago and 1-three years' age. Sum of weights are 6. The results of this weighted-average forecast are as follows:

Table 3. Estimate the number of tourist nights with weighted moving average model (000)

Year	Actual tourist nights	3-year weighted moving average	Forecast error
1996	21860		
1997	30775		
1998	31852		
1999	27126	29827,67	-2701,67
2000	39183	29309,5	9873,5
2001	43405	33942,17	9462,833
2002	44692	39284,5	5407,5
2003	46635	43344,83	3290,167
2004	47797	45449	2348
2005	51421	46892,17	4528,833
2006	53007	49415,33	3591,667
2007	56005	51610	4395
2008	57103	54241,67	2861,333
2009	56300	56054,33	245,6667
2010	56416	56518,5	-102,5
2011	60354	56491,83	3862,167
2012	62743	58365,67	4377,333
2013	64818	60892,17	3925,833
2014	66484	63382,33	3101,667
2015	71605	65305,17	6299,833
2016	78050	68766,83	9283,167
2017	86200	73974	12226
2018		81050,83	
2019		82266,83	
2020		82516,86	
2021		82189,1	
2022		82307,31	

MAD = 4793,13

Moving averages, however, present three problems: 1) Increasing the size of n (the number of periods averaged) does smooth out fluctuations better, but it makes the method less sensitive to real changes in data; 2) Moving averages cannot pick up trends very well. Because they are averages, they will always stay within past levels and will not predict changes to either higher or lower levels. This is, they lag the actual values; 3) Moving averages require extensive records of past data.

Based on formula (4) we estimate the tourist nights with exponential smoothing model. The following table shows the results for $\alpha = 0,8$.

Table 4. Estimate the number of tourist nights with exponential smoothing model (000)

Year	Actual tourist nights	Rounded forecast with =0.8	Forecast error
1996	21860	20000	1860
1997	30775	21488	9287
1998	31852	28917,6	2934,4
1999	27126	31265,12	-4139,12
2000	39183	27953,82	11229,18
2001	43405	36937,16	6467,835
2002	44692	42111,43	2580,567
2003	46635	44175,89	2459,113
2004	47797	46143,18	1653,823
2005	51421	47466,24	3954,765
2006	53007	50630,05	2376,953
2007	56005	52531,61	3473,391
2008	57103	55310,32	1792,678
2009	56300	56744,46	-444,464
2010	56416	56388,89	27,10712
2011	60354	56410,58	3943,421
2012	62743	59565,32	3177,684
2013	64818	62107,46	2710,537
2014	66484	64275,89	2208,107
2015	71605	66042,38	5562,621
2016	78050	70492,48	7557,524
2017	86200	76538,5	9661,505
2018		84267,7	

MAD = 3651,57

On the basis of analysis, an exponential smoothing forecast model is preferred because its MAD is smaller. Based on the forecasts made, a further increase in the number of realized tourist nights in the Republic of Croatia is visible. Presented models show the highest accuracy of the forecast at a time of slowed or unsettled growth, as it was during the time of the global economic crisis in 2009 and 2010. The reasons should be sought in the gap between actual and forecast values. Specifically, the projected values are almost always lagging behind for current values (usually one year). Thus, the forecast values can be taken with reserve, or as a pessimistic variant of the forecast of the number of tourist nights spent.

5. CONCLUSION

Tourism demand in the Republic of Croatia measured by the number of overnight stays has been growing steadily. The number of tourist nights spent over the last twenty years has increased almost four times. According to current knowledge and estimates made in this paper, tourism demand will certainly not be a limiting factor for the development of Croatian tourism. Progress made in this work suggests a further tendency of growth of tourist demand measured by the number of realized tourist nights. The increase of realized tourist nights by 2022 will be higher than the estimated number in this work. Estimated made in this paper represent pessimistic variant of the forecast. Croatia has an invaluable wealth of natural beauty that creates demand for itself. Consequently, the task of tourist workers is increasingly reduced to the management of tourist offer in order to exploit natural beauty in a quality, economic and ecologically sustainable way. The economy of natural beauty should be supported by quality tourism products based on tradition, culture, knowledge and creativity with the full respect and encouragement of entrepreneurship in tourism. Cultural and creative tourism should become a fundamental part of the tourist offer of the Republic of Croatia.

REFERENCES

Bahovec V., Dumičić K., Čeh Časni A. (2008). Modeliranje turističke potražnje Republike Hrvatske modelom višestruke linearne regresije, *Zbornik Ekonomskog fakulteta u Zagrebu*, Vol.6 No.1.

Baldigara, T., Štambuk, A., Mamula, M. (2013). Contribution to E-tourism Demand modelling. Informatologia, 46(4), 343-352., https://hrcak.srce.hr/113094

DZS, Statistical Yearbooks of the Republic of Croatia, different years.

Heizer, J. & Render, B. (2004): *Operations Management*, seventh edition, Prentice Hall.

Mervar, A., Payne, J.E. (2007). An Analysis of Foreign Tourism Demand for Croatian Destinations: Long-Run Elasticity Estimates. Radni materijali EIZ-a, (1), 5-21., https://hrcak.srce.hr/71591

Pupavac, J. (2017). Analysis and Forecast of Tourist Arrivals in Croatia, 24th International Congress, TOURISM AND HOSPITALITY INDUSTRY 2018, TRENDS AND CHALLENGES, Faculty of Tourism and Hospitality Management, Opatija, April 26 – 27 2018.

Witt, S., Song, H., Anhill, S. (2004). Forecasting tourism-generated employment: the case of Denmark, *Tourism Economics*, 10 (2), pp. 167 – 176.

Schroeder, R. (1999). *Upravljanje proizvodnjom*, četvrto izdanje, Mate d.o.o., Zagreb.

EXPLORING CONNECTIONS BETWEEN CULTURAL HERITAGE, TOURISM AND SUSTAINABLE DEVELOPMENT: THE CASE OF ROMANIA

Călin Vegheș[274]

DOI: https://doi.org/10.31410/eraz.2018.575

Abstract: *Far from being properly understood, valued, cared for and enjoyed, the cultural heritage, in its tangible and intangible forms, represents a resource that may contribute in a higher extent to the sustainable development of the local communities. Paper presents, from a marketing perspective, the results of an exploratory assessment of the connections between variables describing cultural heritage, tourism and sustainable development, in order to identify ways that may be considered in the capitalization of cultural heritage for supporting the sustainable development.*

Key words: *Cultural heritage, cultural tourism, sustainable development, Romania*

1. INTRODUCTION

UNESCO (1972) has defined cultural heritage as including: monuments (architectural works, works of monumental sculpture and painting, elements or structures of an archaeological nature, inscriptions, cave dwellings and combinations of features, which are of outstanding universal value from the point of view of history, art or science), groups of buildings (groups of separate or connected buildings which, because of their architecture, their homogeneity or their place in the landscape, are of outstanding universal value from the point of view of history, art or science) and sites (works of man or the combined works of nature and man, and areas including archaeological sites which are of outstanding universal value from the historical, aesthetic, ethnological or anthropological point of view) [14]. Three decades later, UNESCO (2003) expanded what seemed almost exhaustive by recognizing the value of the intangible components of the cultural heritage also considering the practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artefacts and cultural spaces associated therewith – that communities, groups and, in some cases, individuals recognize as part of their cultural heritage [15].

ICOMOS International Cultural Tourism Committee (2002) has proposed a more preferable, from a marketing perspective, definition of cultural heritage focusing on the experiences people may enjoy discovering it: expressions of the ways of living developed by a community and passed on from generation to generation, including customs, practices, places, objects, artistic expression and values. Cultural heritage takes the forms of tangible (places of human habitation, villages, towns and cities, buildings, structures, art works, documents, handicrafts, musical instruments, furniture, clothing and items of personal decoration, religious, ritual and funerary objects, tools, machinery and equipment, and industrial systems) or intangible (all forms of traditional and popular or folk culture, the collective works originating in a given community and based on tradition – oral traditions, customs, languages, music, dance, rituals, festivals,

[274] Bucharest University of Economic Studies, Faculty of Marketing, 41 Dacia Blvd., 1st. floor, Room 1112, Romania

traditional medicine and pharmacopeia, popular sports, food and the culinary arts and all kinds of special skill connected with the material aspects of culture) heritage [9].

*Dr. **Calin Veghes** is Professor of Direct Marketing and Cultural Marketing at the Bucharest University of Economic Studies, Romania. He carries out teaching and research in the area of Cultural Marketing aiming to substantiate that arts become culture through marketing and that cultural resources, properly preserved, restored, promoted and capitalized, can be successfully employed to support the sustainable development of the local communities. He is a member of EMAC (European Marketing Association), AMA (American Marketing Association) and ARMAD (Romanian Direct Marketing Association) and has a strong passion for history, cultural tourism and football (as a devoted fan of UTA Arad).*

From all the entities involved in the management of the cultural heritage, museums appear the most representative both in terms of conducting related activities (research, preservation, restoration, promotion and capitalization) and of bringing its tangible and intangible elements in relationship to the interested audiences. A classical, very technical, yet most referenced definition was proposed by the International Council of Museums (2007), according to which a museum is a non-profit, permanent institution in the service of society and its development, open to the public, which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment for the purposes of education, study and enjoyment [8]. The Museums Association (1998) advanced a definition that focuses on the experiences visitors may enjoy: museums enable people to explore collections for inspiration, learning and enjoyment. They are institutions that collect, safeguard and make accessible artefacts and specimens, which they hold in trust for society. This definition includes art galleries with collections of works of art, as well as museums with historical collections of objects [10]. Badalotti et al. (2011) have observed that, traditionally dedicated to our relations with the past, museums collect the heritage of our culture and past experiences aiming to enable a bridge between the present and the past, interacting with large number of people in the process of generating collective narratives of the past as an interpretation of the roots and the evolution of our culture [2]. Fromm (2016) has observed that museums will staunchly continue to collect tangible material telling about the practices, cultures, skills, and values of societies near and far while attempting to transform themselves into lively and engaging spaces and thriving to remain a nexus of living culture in their communities [7]. As Bjerregard (2015) argued, these collections of storytelling objects should be organized to stage atmospheres and the gaps established in-between objects and in-between objects and subjects allowing a dissolution of objects seen as the way in which museums create presence and the displayed objects stop being stable and isolated entities storing value and meaning, turning instead into ecstasies tincturing space [4].

All these evolutions are centered on visitors and their experience which may still not be a concern for nowadays museums. Dragicevic and Letunic (2014) have found that curators of Dubrovnik museums do not care enough about marketing researches, do not apply results of scientific research in practice and did not adapt to customers needs and expectations, hence a strong need for rewriting their agendas in terms of meeting customers preferences and satisfying their expectations [5]. According to Sua and Teng (2018), providing a memorable and enjoyable experience involves considering certain dimensions of museum services' quality: reliability, tangibles, communication, empathy, responsiveness, communication, consumables,

convenience, services cape, purposiveness, contemplation, and first-hand experience under a context in which acquiring education should be perceived as equally important to entertainment, enjoyment, and restoration [13].

Studying the role of museums in supporting the sustainable development, Azmat et al. (2018) have confirmed the potential of museums in promoting sustainable development as value created by cultural institution is captured, on most occasions, by key beneficiaries producing a positive social, environmental and economic impact. Cultural institutions should use different art-based initiatives to address economic, social and environmental issues and promote sustainable development by connecting and engaging people and creating positive spill-over effects at the individual, organizational, community and public domain levels [1]. In the context, Basso et al. (2017) consider that evaluation of overall museum performance may use a model based on four perspectives: customers (number of visitors, website visits, members, catalogues, value of donations), internal process (conservation and restoration costs, amount spent for new acquisitions, number of visitors), innovation and learning (personnel training, enjoyment of exhibits, environmental consideration and museum accessibility) and financial (incomes from tickets, sponsorships, donations, public funding, other sources) [3].

2. METHODOLOGICAL NOTES

The overall scope of the research was to explore the relationships between the cultural heritage, tourism and sustainable development at the level of the Romanian market considering that cultural heritage represents a resource that can be capitalized by the local communities in their efforts of sustainable development and tourism, particularly the cultural tourism, is the best way to put this resource to work in the benefit of these communities.

The research objectives aimed to identify and assess the relationships between (1) the cultural heritage and tourism, respectively (2) the cultural heritage and sustainable development. The related research hypotheses assumed that: (1) cultural heritage and tourism should be significantly associated as the cultural heritage, in its tangible and intangible components, may represent both an attraction and a motivation for the tourists; (2) cultural heritage and sustainable development should also be significantly associated as the tangible and intangible elements of the cultural heritage could contribute, through their capitalization, to the sustainable development of the local communities.

A set of research variables has been built in order to explore these relationships, each component being described through specific variables:
(1) cultural heritage has been described by the number of:
- 1.1. museums, comprising art museums and public collections of archaeology and history, science and natural history, science and techniques, ethnography and anthropology, specialized, regional, general and mixed museum (2016);
- 1.2. visitors, defined as persons visiting a museums or public collections, individually or in group, to see the exhibited museum goods, statistically registered based on the tickets sold and the number of visitors attending the “Night of Museums” (2016);
- 1.3. employees, defined as museums’ personnel including the employed personnel at the end of the financial year, in full-time equivalents (2016).

(2) tourism has been described by the number of:
- 2.1. tourists, defined as number of persons accommodated in tourist reception units including all persons (Romanians and foreigners) who travel outside the locality where they normally reside, none other than to carry out a remunerated activity in

the visited places, for a period of less than 12 months, and spend at least one night in a tourist accommodation unit (2016);

2.2. domestic tourists, defined as above and considering the Romanian tourists (2016;

2.3. foreign tourists, defined as above and considering the foreign tourists (2016).

(3) sustainable development has been expressed by the:

3.1. gross domestic product, defined as the sum of final uses of goods and services by resident institutional units (actual final consumption, gross fixed capital formation) plus exports and minus imports of goods and services (2015);

3.2. employment, defined as the average number of employees comprising all persons with an ongoing individual labour contract/agreement for a definite or indefinite duration including seasonal workers, the manager or the administrator (2016);

3.3. number of enterprises, defined as economic units – organisations consisting of one or several persons with legal entity, created in order to carry out certain activities according to the specific laws (2016);

3.4. salary, defined as gross monthly average earning represented by the gross sums paid from the salary fund (the seasonal and annual bonuses included), the sums paid from the net profit and other funds averagely paid by the company to an employee monthly (2016).

Secondary data provided by the National Institute of Statistics [11] referring to the research variables, at the level of each of the Romanian counties, have been collected and used to determine correlation coefficients whose values have been analyzed, in terms of significance (on a scale from 0 – lack of association and 1 – perfect association) and nature (positive / negative) in order to assess the relationships between the investigated variables.

3. MAIN FINDINGS

There is a relatively strong connection between the number of the museums and number of their visitors (r=0.5759), as museums seem to provide interesting opportunities for the visitors and an increase in the number of museums may correspond to a similar evolution in the number of their visitors. Although positive, this connection suggests that museums still have to improve in terms of their functioning focusing more on developing their audiences by attracting more visitors. Number of museums and the number of their employees are moderately associated (r=0.4928) which means that although a museum provides reasonable work opportunities in the local community, an increase in the number of museums may correspondingly generate increase of the local job's market. Although positive, this connection indicates a rather moderate contribution and a limited impact of the museums in terms of the sustainable development due mainly to the limited number of workplaces made available to the local community.

Museums do not appear as being of primary interest for the tourists visiting the Romanian counties as the assessment of the relationship between the number of museums and the number of tourists indicates a slightly moderate connection (r=0.4368). Increasing the number of museums may attract a higher number of tourists (particularly domestic, r=0.4112, than foreign, r=0.3502), but not to a significant extent. An increased number of museums may attract a higher number of tourists but just the opening of a new museum will not make the tourist crowds assaulting it.

It is quite comforting and, nonetheless, hopeful to observe the strong association between the number of visitors and the number of tourists (r=0.8189), valid both in the cases of domestic (r=0.7924) and foreign (r=0.8258) tourists. An increase in the overall number of museum

visitors will also determine an important increase in the number of tourists, with a potentially relevant impact on the incomes generated. Museums should assess the contribution of their main visitors' segments – tourists, respectively non-tourist (mainly local inhabitants, students, pensioners etc.) – by measuring the revenue per capita produced by each of these segments, identifying the sources of this revenue (in terms of the cultural products and services delivered) and opportunities to increase the generated income for each source and, also, to diversify the income sources.

As the association between the number of employees of the museums and the number of tourists reveals (r=0.8713), also both in the cases of domestic (r=0,6395), and, particularly, the foreign ones (r=0.9578), an increasing number of tourists gives museums opportunity to create workplaces, which may support the sustainable development of the local communities that are primary workforce suppliers. These newly created workplaces could and, from a marketing perspective, quite should cover positions and responsibilities meant to improve the experience of the tourists discovering, exploring and, in the end, enjoying these cultural heritage objectives.

In terms of the research variables considered, the relationships between the cultural heritage and sustainable development appear, in an open and positive view, as rather moderate. Number of the museums and gross domestic product associate slightly moderately (r=0.3725) suggesting that a higher number of museums may impact positively, but to a limited extent, the gross domestic product. It is to be further investigated if the potential increase of the gross domestic product may be the result of a higher public and/or private financial support for culture and related activities or of the public and/or private spending for cultural goods and/or services, particularly for those provided by the museums.

The number of museums and employment also associate slightly moderately (r=0.3906). While the cultural sector, including the segment of museums, generate a certain number of workplaces, they obviously are not among the branches that can strongly support the sustainable development. If museums exert a limited direct impact over the labor market, they could instead influence it indirectly by engaging other industries to create workplaces: travel and tourism industry is, probably, the most noticeable case in this respect. This idea is also supported by the slightly moderate association between the number of museums and entrepreneurship (r=0.3564), as a part of the entrepreneurial initiatives could provide goods and services addressing directly the cultural market.

Last but not least, museums and salaries paid are, not at all surprisingly, in a slightly moderate association (r=0.3829). If the museums are not among the major employers in the market, it is hardly expected they could pay either higher salaries or a significant number of employees as to influence the labor market and, overall, the whole economy. In terms of sustainability, this association should be considered in connection to the number of visitors as increasing the number of museums and attracting more visitors allow getting a higher income from which a part could be employed to pay improved salaries.

Number of visitors is more than moderately associated with all the considered indicators – gross domestic product (r=0.5815), employees (r=0.6056), entrepreneurship (r=0.5769) and salaries paid (r=0.5345) – to describe the sustainable development. Seen from a marketing perspective, this situation is quite natural as it is hard enough to imagine a supplier of goods and/or services without customers. Similarly, a museum cannot operate without visitors: increasing their number and value (in financial terms) represent the best organic source of museums's and, by aggregation, of the culture and overall economy's and society's sustainable development.

Finally, the number of employees in museums is strongly associated with all the considered indicators – gross domestic product (r=0.9525), employment (r=0.9511), entrepreneurship (r=0.9365) and salaries paid (r=0.7171) – to describe the sustainable development. Creating workplaces continues to be probably the best form of supporting the sustainable development of a market segment, industry, economy as whole and, finally, society, as workplaces, on the one hand, provide the income the community members need to acquire the products and services satisfying needs and, on the other hand, they are created to facilitate the provision of the goods and services demanded in the economy.

4. CONCLUSIONS

Romania has 761 museums: they may be too many – for those not involved or not interested, or too few – for those working in the cultural market, creative industries, cultural economics or cultural management. Although Romania is not among the most relevant cultural markets, and the museums are not necessarily the most representatives cultural institutions, the analysis of the relationships between the cultural heritage (illustrated by the museums' sector), cultural tourism and the sustainable development at the level of the Romanian market allows drawing several interesting and, nonetheless, challenging conclusions.

The simple existence of a museum does not provides opportunities to grow if the connection with their visitors – the beneficiaries of the museums' goods, services and activities – is missing. Therefore, museums should aim to extend their visitor base as a main source of their further growth searching primarily for the cultural tourists that tend to replicate outside their homes and countries their domestic behavior proofing what Stylianou-Lambert (2011) observed, that cultural tourism is an extension of everyday life [12]. They should embrace the marketing vision acknowledging that more visitors means more income, thus more resources capable to support their current operation and future growth. Under the same vision, these museums should become, as Badalotti et al. (2011) suggest, multi-located, scalable at the European or international level institutions, open to multiple experiences offered to public physical and virtual spaces, and providing points of interaction with different and wider communities, providing alternative visions of possible futures to today's public, but also a rich and valuable archive to their future audiences [2].

The answer to the question whether museums and cultural heritage can contribute to the sustainable development of their communities has two parts: yes, they may but currently do not. What really matters aiming to answer this question is that there are evidences that cultural heritage has connections, some of them slightly moderate, other more relevant, with some of the elements characterizing the sustainable development. Based on them it is possible to imagine and put into practice a strategy of growth centered on visitors and/or cultural tourists, in fact consumers of cultural heritage and their experiences. The extremely inspiring example of the Guggenheim Museum Bilbao works as an effective proof that it is possible and the "Bilbao Effect", as described by Franklin (2016), leading to the regeneration of a former industrial city as a pole of new service industries, emerging technologies, design, culture and aesthetics, based on the more than one million visitors per year and generating a contribution of $33.5m by linking art museums, art tourism and urban regeneration, can be replicated, in adapted version, to the different local contexts [6].

REFERENCES

[1] Azmat, F., Ferdous, A., Rentschler, R., Winston, E. (2018) *Arts-based initiatives in museums: Creating value for sustainable development*, Journal of Business Research 85, 386-395.

[2] Badalotti, E., De Biase, L., Greenaway, P. (2011) *The Future Museum*, Procedia Computer Science 7, 114-116.

[3] Basso, A., Casarin, F., Funari, S. (2017) *How well is the museum performing? A joint use of DEA and BSC to measure the performance of museums*, Omega, https://doi.org/10.1016/j.omega.2017.09.010.

[4] Bjerregaard, P. (2015) *Dissolving objects: Museums, atmosphere and the creation of presence*, Emotion, Space and Society 15, 74-81.

[5] Dragicevic, M., Letunic, S., (2014) *Should museums and art galleries be just "for arts' sake" or should they suit the needs of tourists?* Procedia Economics and Finance 15, 1197-1200.

[6] Franklin, A. (2016) *Journeys to the Guggenheim Museum Bilbao: Towards a revised Bilbao Effect*, Annals of Tourism Research 59, 79-92.

[7] Fromm, A. B. (2016) *Ethnographic museums and Intangible Cultural Heritage return to our roots*, Journal of Marine and Island Cultures 5, 89-94.

[8] ICOM International Council of Museums (2007) *Museum definition*, http://icom.museum/the-vision/museum-definition/.

[9] ICOMOS International Cultural Tourism Charter (2002) *Principles And Guidelines For Managing Tourism At Places Of Cultural And Heritage Significance*, International Council on Monuments and Sites, ICOMOS International Cultural Tourism Committee, http://www.icomos.no/wp-content/uploads/2014/04/ICTC-Charter.pdf.

[10] Museums Association (1998) *What is a museum?*, https://www.museumsassociation.org/about/frequently-asked-questions.

[11] National Institute of Statistics (2018) *TEMPO Online Time series*, http://statistici.insse.ro/shop/?lang=en.

[12] Stylianou-Lambert, T. (2011) *Gazing from home: Cultural tourism and art museums*, Annals of Tourism Research 38 (2), 403-421.

[13] Sua, Y., Teng, W. (2018) *Contemplating museums' service failure: Extracting the service quality dimensions of museums from negative on-line reviews*, Tourism Management 69, 214-222.

[14] UNESCO (1972) *Convention Concerning the Protection of the World Cultural and Natural Heritage*, http://whc.unesco.org/?cid=175.

[15] UNESCO (2003) *Convention for the Safeguarding of the Intangible Cultural Heritage*, https://ich.unesco.org/en/convention#art2.

MANAGING DIVERSITY IN THE HOSPITALITY INDUSTRY OF SLOVENIA

Marija Rok[275]

DOI: https://doi.org/10.31410/eraz.2018.582

Abstract: *Diversity and diversity management are indisputably current issues in the global socio-economic circumstances and particularly evident in the labour market. Diversity encompasses both differences and similarities among people. The paper assesses diversity in the context of the Slovenian hospitality industry (HI). The HI of Slovenia has been experiencing diversity for a long time due to the shortage of skilled workforce. In contrast to an extensive research on diversity abroad Slovenia lacks similar surveys. The paper has an aim to fill this gap and thus, the first purpose of the present survey was to provide an overview of the migrant workforce in Slovenia, their origin and structure. Secondly, a qualitative content analysis of the HI corporate websites was performed seeking information on their diversity strategies and practices. Surprisingly, employers in the HI seem to ignore diversity and thus miss the opportunity to derive benefits from it.*

Key words: *Slovenia, Hotel industry, Diversity management, Corporate statements*

1. INTRODUCTION

Diversity is indisputably a current issue in the global social and economic circumstances and particularly evident in the labour market. The hospitality industry (HI) of Slovenia has been experiencing diversity for a long time due to the shortage of skilled workforce. Diversity occurs mainly in case of low-skilled and low-paid jobs where employers constantly face shortages of well-trained cooks, waiters, bartenders, chambermaids, etc. To fill in the labour gaps employers in the Slovene HI recruit among students, immigrants, members of marginal groups, and in the black market. Besides, the rates of female workers have always been high in the HI. Thus, workforce in the HI of Slovenia has always been heterogeneous yet there is hardly any evidence of management practices reflecting diversity issues.

The first purpose of the survey is to provide an overview of the migrant workforce in Slovenia, their national structure and an overview of industries with national diversity of workers; the author also seeks answers to what extent employers in the HI fill the vacancies with immigrant workers. Statistical data of the Employment Service of Slovenia (ESS) is processed in order to get a picture of the migrant inflow of workers to Slovenia and their structure (by nationality, age, level of education, and activity).

The main focus of the survey is on the hospitality industry and their diversity management (DM) practices, namely in their corporate diversity statements on web sites. What are their attitudes towards diversity? Do they communicate their diversity strategies and operational policies? Does the process of attracting and recruiting talents from different cultural backgrounds reflect through their statements? Are the advantages of the diverse workforce

[275] FACULTY OF TOURISM STUDIES, UNIVERSITY OF PRIMORSKA, OBALA 11A, 6320 PORTOROŽ, Slovenia

recognized within their corporate social responsibility (CSR) image? The field of hospitality in Slovenia lacks empirical research assessing DM and practices applied. Therefore, the author`s objective is to fill this gap in the hospitality sector. A qualitative content analysis of the HI corporate websites was performed seeking answers to these questions. Furthermore, some recommendations were produced in order to provide competitive advantages of the HI companies over their rivals.

1. LITERATURE REVIEW

Diversity refers to any mixture of themes characterized by differences and similarities. Diversity in organizations is much more than demographics [1]. Although diversity includes several aspects of differences among people, mainly age, gender, nationality, sexual orientation, social and household status, religion, marital status and disability, each country faces some predominant diversity issues. In this paper the author focuses mainly on the national diversity. Slovenia has always been a desired destination for workers from the Balkans and the author posits that they could be a solution to shortages of skilled personnel. Moreover, to gain competitive advantages on the market employers should be aware of the benefits of diverse workforce [2]: increased productivity, improved innovation, enhanced problem solving, less absenteeism and turnover, better public image, etc.

As distinct from foreign research Slovenia lacks surveys on diversity workforce and DM in the hospitality sector. Few authors explored diversity management strategies and operational practices in the overall economy [3] or legislation policies [4]. Particularly attention-grabbing were examples of ruthless exploitation of foreign workers in the construction industry [5]. However, challenges of the diverse workforce in the hospitality industry have not received attention of the researchers so far despite the fact that the HI constantly lacks skilled labour force. Several unfavourable conditions like unsocial and long working hours, hard work, low pay, few opportunities for career advancement, high levels of stress at work, low benefits, and dissatisfaction with the employer or the HI in general, result in high turnover rates [6]. Furthermore, there is a problem of ageing population and unfavourable demographic trends leading to diminishing sources of new recruits from vocational schools. However, there is very little information on the extent to which employers in the HI recruit immigrants. The author posits that thus employers experience problems of usually under-trained and under-experienced international workers, as well as acculturation and assimilation problems.

In the North-American, European and Asian context several researchers have pursued surveys on diversity recently [7], [8], [9], [10], mainly focusing on the human resource managerial point [2], establishing a model of diversity management [11], or preparing a review of DM literature and research and its perspectives [12]. Researchers often explore diversity from the employees` viewpoints and experiences [2], [13], [14]. Authors also highlight the potential of international workers as an invaluable new source of labour force for the HI if properly managed and looked after [15].

Several industries depend on immigrant workforce both in Slovenia and worldwide. Various reasons lead to deficits of personnel: the ageing population, demographic trends, low interest of domestic people in occupations on semi- and unskilled levels, low image of some sectors and employers, etc. Deficiencies in the labour market are often solved by recruiting immigrants. This concerns industries like food processing, nursing and health care, agriculture, hospitality and catering. Why immigrants leave their native country? There are push factors (e.g. limited employment opportunities) or pull factors (better wages, promotion, attractive target countries

with a higher living standard, etc.). As authors emphasize people are mostly motivated by economic reasons [4].

2. IMIGRANTS IN SLOVENIA – STRUCTURAL CHARACTERISTICS

Foreign-born citizens are those who do not have a Slovene citizenship but have a permanent or temporary residence. By the end of 2017 the foreign-born population in Slovenia consisted of 114.438 persons (table 1), three-quarters of them were born in one of the republics of the former Yugoslavia [16].

Number	*%*	*Sex - total*	*men*	*women*
Foreign-born population - total	100	114.438	74.314	40.124
Countries of former Yugoslavia	76,0	82.012	58.461	28.551
EU countries	16,4	18.719	11.881	6.838
Other countries	7,6	8.707	3.972	4.735

Table 1: Foreign-born population by country of birth, 2017

When seeking employment the legal status of immigrants differs depending on the country of origin: those from EU/ EEA countries and the Swiss are practically in equal position to the natives while people from other countries need work permits.

According to the national statistics [16] the structure of people from the EU/ EEA countries and the Swiss who found employment in Slovenia in 2017 shows that there 7.708 people from EU/ EEA countries, most of them Bulgarians, Romanians, Hungarians, Italians and Slovaks.

For immigrants from other countries the procedure is more complex. Nevertheless, immigrants from so called third countries prevail over others. Table 2 illustrates trends in issuing work permits to foreign workers in years 2011-2017 [17].

	2011	2012	2013	2014	2015	2016	2017
Work permits - issued	27.010	20.519	21.033	17.457	14.811	7.033	12.546
Work permits - valid	34.266	32.734	27.124	22.853	22.805	16.993	19.838

Table 2: Employment of foreign workers in Slovenia (2011- 2017)

Labour market statistics also point to the fact that foreign workers in Slovenia are predominately younger men (the rate of men is over 91%), low-skilled or unskilled, they work in developed regions and mostly in the construction industry, transport, agriculture and hospitality and catering. Statistical data [17] reveals that there is a considerable demand for foreign workforce in Slovenia as the domestic job seekers do not correspond the needs of the businesses or jobs in these sectors do not attract them.

Surprisingly, the author found out that only 1,5 % of valid work permits were issued to the workers in hospitality and catering, while in the construction industry 29%, processing industry 24 %, transport 21%, etc.

The so-called third countries are mostly represented by workers from the republics of former Yugoslavia, Russians and Ukrainians (table 3) [17].

Country	*Number of work permits*
total	19.838
Republics of former Yugoslavia	19.643
Russia	96
Ukraine	46
others	53

Table 3: Valid work permits by nationality, December 2017

Despite the membership in the EU and rather complicated procedures for work permits for non-EU citizens employers in Slovenia prefer workforce from the former Yugoslav state. Although national diversity brings also cultural, religious and social diversity there is more acceptance or tolerance for these workers as for others from the EU (e.g. Bulgarians or Romanians). Researchers explain this paradox with various reasons deriving from the common history, similar languages, mentality, cultural similarities and customs. After all they lived in the same country until 1990. Furthermore, employers also claim that these migrants show more motivation for work and cost less [4].

3. DIVERSITY MANAGEMENT CORPORATE COMMUNICATION ANALYSIS

The second survey has been performed on a sample of employers in hospitality including leading Slovene hotel enterprises, most of them managing several hotels. The author followed their messages on websites with the intention to identify the management`s viewpoints, their attitude and sensitivity to workforce diversity. Corporate websites constitute an increasingly important data source as well as a tool for public relations [18]. The emphasis was on the websites of the internationally operating hotel groups with members in Slovenia so that communication messages were explored and compared globally and locally. Based on the list of hotels on the Slovenian Tourist Board website, 24 hotel companies were selected, including all five star hotels and a selection of four-star hotels, all of them belonging to international or domestic hotel chains or associations (table 4). The choice is based on the assumption that bigger companies operating internationally are more likely facing diversity workforce challenges and have more sophisticated human resource policies.

Marija Rok *is a senior lecturer at Turistica - Faculty of Tourism Studies (University of Primorska) and holds a M.Sc. in Management awarded by the Faculty of Management Koper (University of Primorska) where she also completed a specialization in Management in Education.*

She teaches courses at the undergraduate professional level (Ist Bologna level) concerning students` employability competencies and practical training. Apart from her pedagogical and research work, she also takes part in project groups comprising tourism and HR, e.g. national project »Establishing a contemporary model of HR management for the tourism industry« within the Target research programme Competitiveness of Slovenia 2006 – 2013.

Her main points of interest in academic and applied research are: labour market, employability, human resource management, diversity management, stress management, studies of tourism, lifelong learning, recognition of non-formal and informal learning. She is also active in the system of assessing and accrediting NVQ as a researcher, counsellor and commission member for qualifications in the tourism and hospitality industry.

Hotels	*Open since*	*Place*	*Hotel chain*
Hotel Kempinski Palace Portorož	1910	Portorož	Kempinski
Hotel Grad Otočec	1252	Otočec	Relais & Châteaux
Hotel Kendov Dvorec	1377	Idrija	Relais & Châteaux
Grand Hotel Toplice	1850	Bled	Small Luxury Hotels
Hotel Aleksander	1906	Rogaška Slatina	Zdravilišče Rogaška
Grand Hotel Portorož	1971	Portorož	LifeClass Hotels&Spa
Mind Hotel Slovenija	1971	Portorož	LifeClass Hotels&Spa
Remisens Premium Hotel Metropol	1972	Portorož	Remisens Hotel Group
Hotel Habakuk	1974	Maribor	Terme Maribor
Grand Hotel Bernardin	1976	Portorož	Hoteli Bernardin
Hotel Livada Prestige	2006	Moravske Toplice	Sava Hotels & Resorts
Bohinj Park Eco Hotel	2008	Bohinjska Bistrica	ECO Resort & Spa
Atlantida Boutique Hotel	2016	Rogaška Slatina	Zdravilišče Rogaška
Hotel InterContinental Ljubljana	2017	Ljubljana	InterContinental Hotels Group
Radisson Blue Plaza Hotel Ljubljana	2011	Ljubljana	RHG Radisson Hotel Group
Austria Trend Hotel	2008	Ljubljana	Austria Trend
Four Points by Sheraton Ljubljana Mons	2004	Ljubljana	Starwood Hotels&Resorts
Grand Hotel Union	1905	Ljubljana	Union hoteli d.d.
Mond Hotel&Casino	2016	Šentilj	HIT d.d.
Hotel Slon	1856	Ljubljana	Best Western Hotels&Resorts
Hotel Balnea Dolenjske toplice	2008	Dolenjske toplice	Terme Krka
Hotel Lev	1964	Ljubljana	Union hoteli d.d.
Ramada Hotel & Suites Kranjska Gora	1960	Kranjska Gora	Ramada Worldwide by Wyndham
Vander Urbani Resort	2012	Ljubljana	Design hotels

Table 4: List of selected hotels

The analysis comprised all diversity related statements, information and attributes on the websites (Slovenian and English). Key words were not only diversity and diversity management, but also gender, race, age, disability, pregnancy, as well as discrimination, equality, inclusion and wellbeing. Since diversity strategies can have a significant impact on end results, such as being considered socially responsible the author followed carefully all statements regarding corporate social responsibility (CSR) and well-being of their employees. The website content search produced materials that were stored separately and data analyzed. The author defined four judgement criteria: CSR messages, target stakeholders (placement of diversity related information), identified dimensions of diversity and the recognition of benefits from DM. What follows is a summary of findings.

Corporate social responsibility messages

As a starting point the author considered all CSR related messages on the websites of the analyzed hotels. CSR messages integrate environmental, societal and economic parts of sustainable development within the business strategy and operations. Surprisingly, the author found CSR messages only in 50 % of the hotels` websites. Though organizations are always socially responsible in a voluntary manner, it is clear that this is good for their business. Companies should be more aware of the fact that by having a CSR policy they make an impression both on guests, employees, potential recruits, communities and other stakeholders [6]. The author is well aware that some of the hotels may have a CSR policy and do not promote it. Yet, having in mind the importance of corporate websites, this would be a missed opportunity.

Further, most of the CSR related data were connected to the environmental aspects, sometimes very generally, without concrete data on activities like the following quote from the Terme Krka:

> Terme Krka is eco-friendly – we are committed to protecting the environment and we want to leave the world better than we found it. Our tourism services strive to be the best, top-quality and professional. And the same passion goes into how we think about environmental responsibility. We work tirelessly to reduce our impact on climate change and conserve resources we all need to thrive with the help of our guests [19].

As expected the environmental part got most of the focus, besides nature protection two of the companies expressed also animal care. Sava Hotels&Resorts mentioned that they are swan custodians in Bled [23]. Bernardin hotels report on the installation of heat pumps and the abandonment of fuel oil heating [25]. An interesting initiative comes from one of the hotels in the capital: their employees were stimulated to use bicycles [20].

Societal aspects of CSR included information on humanitarian activities of the company, sponsorships and donations within the local community or support to various charity projects (e.g. donating Christmas dinner for the homeless people [20]), while some of them remained on the rather ambiguous and general level:

> As a global company, Kempinski believes its responsibility extends beyond its employees and guests, into the communities in which it operates. In addition to its hotels' individual engagement into socially responsible initiatives that meet the specific needs of their local community. Kempinski is active in three main areas: commitment to health, arts and culture and environment [21].

Some companies informed that they were awarded a family-friendly certificate [22]. They also promote responsible tourism by raising awareness of the tourists about their impact [25].

Societal and economic aspects of CSR included also data on human resource management. The function of HR plays a central role in building organization's reputation as an ethically or socially responsible organization relating to a manner in which people are managed and the impact on society [24]. Nevertheless, a well-developed and implemented HR policy that includes social responsibility can create trust and strong relationship between employers and employees. Several companies mentioned their Code of conduct as their set of rules and principles for ethical conduct and good business practice [e.g.19]. Within their CSR messages

companies listed their investments in education, scholarships, internships and collaborations with schools and universities [e.g. 23].

Communication of diversity related statements

Though not unexpectedly the author came across a significant lack of communicating diversity statements in most of the websites. If there were any they were claiming that they "respect and support the UN Universal Declaration of Human Rights and the Polaris Project, which combats all forms of human trafficking« [26], most of them claimed that they respect the Management code for publicly traded companies regarding representation in management and supervisory bodies from the perspective of gender, age or education, etc. [e.g. 27] Commitment to protecting human rights and equal opportunities is recorded in most of the available companies` annual reports as well.

> All discrimination against employees is prohibited. Employees are treated equally regardless of their nationality, race or ethnic origin, national or social origin, sex, colour, health, disability, religion or belief, age, sexual orientation, family situation, trade union membership, financial stability or other personal circumstance [19].

Target stakeholders (placement of diversity related information)

Diversity related statements were found mostly on the company profiles, rarely on their careers pages. The author points out that diversity information on HR pages would indicate that target stakeholders are potential recruits and also current employees. Attracting them with diversity related statements would increase interest among potential recruits from different backgrounds and also retain the current ones:

> We believe that diversity enriches our organization as a global hospitality provider. As a result, we proudly embrace a culture of diversity and inclusion that supports team members of all backgrounds and experiences. We offer a variety of leadership training, mentoring opportunities and educational support to continually foster a culture of diversity and inclusion. We view the diversity of our team as a competitive advantage. All are welcome to contribute at Wyndham Hotels. [26]

Having in mind constant shortages of skilled labour force in the HI employers will have to put more effort in recruiting diverse candidates through messages expressing respect for differences in people, cultures, ideas and other attributes.

Recruiting and developing skilled labour are important for any company concerned about competitiveness, productivity, quality, and managing a diverse workforce effectively [1]. Therefore, corporate websites should address potential employees more extensively. The skills gap is primarily solved in HRM but the entire company must engage in attracting recruits with their openness, respect, caring and ethics.

Identified dimensions of diversity

Companies that communicated diversity statements used different terms to define diversity. In total they described 16 dimensions of diversity: culture (4), nationality (4), sex (4), age (3), education (3), religion (3), disability (3), colour (2), race (2), gender (2), language (2), experience (2), background (2), inclusion (1), trade union membership (1), and veteran (1). The

author found that other research [18] produced similar results and companies prefer to promote "anti-discriminatory" ideas and "equal opportunities" or "equal accessibility". Diversity is obviously a very complex term and employers in the HI express limited sensitiveness to it.

The recognition of benefits from DM.

Very few companies defined benefits from DM and did it very generally without any concrete information as to why they are committed to support diversity:

> We believe that diversity enriches our organization as a global hospitality provider. As a result, we proudly embrace a culture of diversity and inclusion that supports team members of all backgrounds and experiences. We offer a variety of leadership training, mentoring opportunities and educational support to continually foster a culture of diversity and inclusion. We view the diversity of our team as a competitive advantage. All are welcome to contribute at Wyndham Hotels [26].

Obviously, by ignoring the phenomenon of diversity employers diminish their competitiveness and fail to attract talents from different backgrounds.

4. CONCLUSION

The purpose of the survey was twofold. First, the survey of the statistical data exploring the volume and characteristics of the migrant workforce in Slovenia. Second, a corporate website content analysis on the diversity oriented messages of selected hotel companies in Slovenia.

The author discusses the fact that although employers in the HI have to deal with more administrative procedures when engaging migrants from Non-EU countries, they prefer them to those from the new EU member countries. There are several reasons why employers choose workers from former Yugoslavia.

Secondly, a considerable lack of website diversity oriented communication in the HI was identified. According to other research [28] organizational approaches towards workforce diversity range from straight denial, hostility, neutral to strategic approach which recognizes the positive potential for the long-term business strategy. Based on the results of the present survey the author can classify the Slovenian HI in general as denial. However, the lack of diversity related statements on websites does not prove that they do not have any strategies or operational processes. Further surveys are necessary and the website content search must be considered a starting point to more in-depth exploration of diversity in the HI.

In spite of the constant lack of skilled personnel the employers in the HI seem to ignore the available resources from diverse backgrounds. Migrant workforce seems to be a neglected pool of recruits. The author believes that the employers` viewpoints and experiences should be explored in order to give explanation to their attitude.

The author proposes a different approach to employers in the HI: to communicate more extensively their mission, values and goals, combined with diversity enriching their competitiveness on the global market. Next, discussion on diversity practices in the Slovene HI should include a selection of programmes introduced for migrant workforce, as well as for domestic workers for integration purposes. Further, migrant workers` wishes for trainings, development and advancements should be discussed.

Finally, the author agrees with other researchers that improved understanding of diversity seems to be an obvious need, yet the firms fail to invest time, resources, and energy needed to become "diversity friendly" [1].

REFERENCES

[1] Ivancevich, J.M. (2003) *Human resource management*, 9th international ed., McGraw Hill, Boston.

[2] Kossek, E.E., Huang, J.L., Piczcek, M.M., Fleenor, J.W., Ruderman, M. (2017) *Human Resource Management*, Vol. 56, No. 1, pp. 151-172.

[3] Brezigar, S. (2015) Critical reflections on managing cultural diversity in workplaces in Slovenia, *Andragoška spoznanja*, 21(4), pp. 69-82.

[4] Malačič, J. (2010) Tuji delavci na trgu dela v Sloveniji v dobrih in slabih časih: zaposlovanje tujcev in prilagajanje trga dela spremembam v gospodarskih aktivnostih, *HRM*, 8(33), pp. 6-11.

[5] Medica, K., Lukič, G., Bufon, M., (eds). (2010) *Migranti v Sloveniji - med integracijo in alienacijo*. Univerzitetna založba Annales, Koper.

[6] Rok, M., Mulej, M. (2014) CSR-based model for HRM in tourism and hospitality, *Kybernetes*, Vol. 43 Iss: 3/4, pp. 346-362.

[7] Aigner, P. (2014) Ethnic Diversity Management in Theory and Practice. *Journal of Diversity Management*, Vol. 9, No. 2, pp. 111-119.

[8] Yap, M.H.T., Ineson, E. (2016) Diversity managemet in Vietnam`s hospitality industry, *Journal of Human Resources in Hospitality & Tourism*, Vol. 15, Issue 2, pp. 147-165.

[9] Madera, J.M., Dawson, M., Neal, J.A. (2017) Managers` psychological diversity climate and fairness: The utility and importance of diversity management in the hospitality industry. *Journal of Human resources in Hospitality & Tourism*, Vol. 16, Issue 3.

[10] Ravichandra, S., Israeli, A.A., Sethna, F., Bolden, E.C. III, Ghosh, A. (2017) Hospitality managers` importance perceptions of human resource practices related to employment of foreign workers in the United States, *Journal of Human resources in Hospitality & Tourism*, Vol. 16, No. 4, pp. 331-348.

[11] Syed, J., Kramar, R. (2009) What is the Australian model for managing cultural diversity? *Personnel Review*, Vol. 39, Issue 1, pp. 96-115.

[12] Kalargyrou, V., Costen, W. (2017) Diversity management research in hospitality and tourism: past, present and future, *International Journal of Contemporary Hospitality Management*, Vol. 29, Issue:1, pp.68-114, doi: 10.1108/IJCHM-09-2015-0470.

[13] Martynowicz, A., Jarman, N. (2009) *New migration, equality and integration; issues and challenges for Northern Ireland*, Institute for conflict research, Equality House, Belfast.

[14] Bell, K., Jarman, N., Lefebvre, T. (2004) *Migrant workers in Northern Ireland.* Institute for Conflict Research, Belfast.

[15] Devine, F., Baum, T., Hearns, N., Devine, A. (2007) Managing cultural diversity: opportunities and challenges for Northern Ireland hoteliers, IJCHM, Vol.19, No.2, pp 120-132.

[16] SURS – Statistical office RS (2018) Demography and social statistics, available at http://www.stat.si/statweb (accessed May 2018).

[17] ESS - Employment Service of Slovenia (2018) Slovenian labour market, available at https://www.ess.gov.si (accessed June 2018).

[18] Groeschl, S. (2009) Diversity management strategies of global hotel groups. *International Journal of Contemporary Hospitality Management*, Vol. 23, No. 2, pp. 224-240.

[19] Terme Krka (2018) available at: https://www.terme-krka.com/us/en/about-us/about-us/ (accessed June 2018).
[20] Union hoteli d.d. (2018) available at: https://www.union-hotels.eu/sl/union-hoteli/o-nas/ (accessed June 2018).
[21] Kempinski (2018) available at: https://www.kempinski.com/en/hotels/about-us/corporate-social-responsibility/ (accessed June 2018).
[22] HIT d.d. (2018) available at: https://www.hit.si/si/skupina-hit/druzbena-odgovornost (accessed June 2018).
[23] Sava turizem d.d. (2018) available at: https://www.sava-hotels-resorts.com/si/ (accessed June 2018).
[24] Torrington, D., Hall, L., Taylor, S. (2009) *Human resource management*, Prentice Hall, Harlow.
[25] Hoteli Bernardin (2018) available at https://www.hoteli-bernardin.si/en/information/responsibility-towards-society-and-the-environment, (accesed June 2018)
[26] Ramada - Wyndham Hotels&Resorts (2018) available at: https://careers.wyndhamhotels.com/diversity-inclusion (accesed June 2018)
[27] Lifeclass (2018) available at: https://www.lifeclass.net/en/ (accessed June 2018)
[28] Moore, S. (1999) Understanding and managing diversity among groups at work: key issues for organizational training and development, *Journal of European Industrial Training*, 23(4/5), 208-217.

HUMAN RESOURCE MANAGEMENT IN HOSPITALITY, RESTAURANTS AND TRAVEL AGENCIES

Goran Pavlović[276]
Nevena Vrcelj[277]

DOI: https://doi.org/10.31410/eraz.2018.592

Abstract: *The main goal of this paper is to determine the impact of human resource management on the business of tourism companies. The modern tourism industry is faced with numerous challenges and problems. In order to achieve success in such conditions, it is necessary to properly manage human resources since employees are a key success factor of tourism companies. The tourism sector of the Republic of Serbia is not excluded from such challenges and changes. However, the practice of human resources management in the tourism industry in the Republic of Serbia has not yet been sufficiently developed. Bearing in mind the aforementioned, the qualitative methodology has confirmed the starting assumption of work and it has been proven that human resource management practice in tourism enterprises, i.e., hospitality, restaurants and travel agencies has a significant positive impact on the achieved business result.*

Key words: *human resource management, tourism, hospitality, restaurants, travel agencies*

INTRODUCTION

The tourism industry is a heterogeneous activity that encompasses a large number of interrelated jobs: hotel industry, restaurants, cafes, bars, nightclubs, travel agencies, rent-a-car companies, casinos etc., [1]-[2]. At the same time, there are numerous trends that affect the supply and demand of the tourism product: economic crisis, complex needs and demands of tourists, demographic change of population, technological and political changes [3], but also intensive migration and terrorist attacks. Changes occurring in the tourism sector also greatly affect national economies. It is well known that tourism contributes significantly to the GDP of the country. Only in 2016, the tourism sector participates with 10.2% of the world's total GDP and generates 292 million jobs [4], with a growing trend expected in the coming years. It is precisely the issue of employment that is one of the key issues in the tourism sector. Taking into account the heterogeneity of tourism as a business activity, a large number of jobs within the tourism sector require employees of different skills and knowledge [1]. In order to achieve the business goal, human resources must be managed properly. However, human resources management in tourism is faced with a large number of challenges and problems, lack of trained staff and high fluctuation rates [3]-[5].

Taking into account the above, the main goal of this paper is to determine the impact of human resource management, i.e. recruitment, selection, training, performance assessment and motivation of employees in the tourism industry. With respecting the goal, the following hypothesis can be defined:

[276] University of Kragujevac Faculty of Economics, Serbia
[277] University of Kragujevac Faculty of Economics, Serbia

H_1: Human resource management is of great importance for achieving the business success of modern tourism companies.

1. STAFFING IN HOSPITALITY, RESTAURANTS AND TRAVEL AGENCIES

Recruitment and selection

Like manufacturing companies, hotels are also cautious when recruiting and selecting candidates. Employees must possess certain knowledge, skills and experience in order to meet consumer expectations better [6], whereby the hotel industry primarily relies on recruitment of external labor market candidates, but internal recruitment is also possible, through the promotion, training and development of employees [7]. Small and young hotels in the recruitment process primarily rely on informal methods, such as recommendations. However, as the hotel grows in the recruitment process, the more formal method is applied [8]-[9]. In small hotels, the recruitment process is mainly done by one person, often not from the human resource management sector, while large hotels have human resource management experts who perform the recruitment process. As a way to advertise job vacancies, large hotels mostly use newspapers, local ads and websites [10]. However, in large and luxury hotels, there is often cooperation between hotels with educational institutions and state authorities, so that potential candidates are recruited in advance. Often, such hotels provide practice to pupils and students and thus familiarize potential candidates with work and hotel expectations [11]. In the selection process, the most common is the interview method with the candidate, but other tests are often performed, such as: job test, personality test, cognitive test, while narcotics tests are less represented [10]-[12]-[13].

Restaurant managers generally consider that human resources management cannot contribute too much to the realization of the restaurant's goal. If this is added to a small number of hierarchical levels, it is clear that managers independently make decisions about recruiting candidates. More precisely, in restaurants, human resource management is treated as an administrative activity [14]. Restaurants are mainly based on recommendations in the recruitment process, but it is possible to use more formal methods: advertising through newspapers, ads, internet, etc. The most common selection methods are interviews, check lists, personality tests and honesty tests [13].

When it comes to travel agencies, the process of planning the required number of employees is carried out regularly and has special significance for other employee’s management activities and overall business success. Potential candidates must first have education, interest in traveling and other qualifications such as foreign language skills, computer literacy, etc. Since they often work with foreigners, potential candidates must be culturally sensitive to people coming from other countries. The recruitment itself is usually done externally, but internal recruitment is more commonly used to recruit managers. Interviews are used as the most common method of selection in travel agencies [15]-[16].

Training

As a result of improved employee knowledge, the hotel achieves better performance, greater efficiency, and as a result of better quality of the services provided, it creates satisfied and loyal tourists leading to higher profitability [17]-[18]. Training of hotel employees implies a preliminary performance appraisal, identifying employees requiring additional knowledge, and identifying which knowledge should be adopted, which must be in line with current or upcoming problems and hotel opportunities [19]. However, in small hotels, training is seen as an extra cost that is not necessary, while in large hotels, training is more common [8].

Training in restaurants is of more importance than in hotels, so training in restaurants is often realized on a continuous basis. As the restaurants are labor-intensive sectors with often low educated employees, the training process can raise the morale of employees due to additional knowledge, which further leads to reduced fluctuation and greater commitment. The training is carried out in the restaurant in accordance with the current requirements of the restaurant, with the aim of improving the existing performance and improving the quality of the service provided [20].

Training is very important for travel agencies. The main reasons for knowledge improvement are the competitive advantage and the improvement of the quality of the service provided. Training in this sector includes a whole range of acquisition of additional knowledge in the field of finance, communication skills, leadership, business planning, foreign languages etc., where different techniques are used for gaining additional knowledge: e-learning, seminars, conferences, educational trips, mentoring, formal training, etc. [16].

Performance appraisal

When it comes to evaluating performance in small hotels, the results of the survey have shown that employees often do not see the relationship between performance appraisal and their own earnings. In such hotels, no basic steps are taken in the performance appraisal, but the problem is solved when it arises, while the practice of replacing existing employees with new employees instead of defining shortcomings in their abilities and certain measures is often. On the other hand, large hotels often apply formal performance appraisal methods and implement this process on a regular basis [21].

In the restaurants, there is a strong link between training and performance appraisal. Performance appraisal is primarily conducted to determine what knowledge the employees must adopt to perform the work better [20]. However, performance appraisals are often performed by restaurant managers, most often on an *ad hoc* basis [22]. Most common methods for performance appraisal in restaurants are: determining the degree of goal realization, graphic scale, narrative essay and 360-degree feedback [23].

In travel agencies, the basics for measuring performance are the quality of services provided, the satisfaction of tourists, the number of sold arrangements, the level of income, the number of tourists served, etc. The results achieved are compared to the defined standards in order to determine deviations, identify employees who need to provide additional education in order to improve the productivity and performance of the agency [24].

Motivation

According to the research carried out by [25], factors that negatively affect the motivation of the employees in the hotel industry are low wages, job insecurity, insufficient training, poor working hours and few opportunities for promotion. The elimination of these factors, with the support of top management to employees, the allocation of autonomy and the involvement of employees in the decision-making process can act positively on the motivation of hotel employees [26]-[18]. As key motivators in the hotels, it is emphasized: management acceptance, equal and stimulative bonus earnings, optimum working hours, job security, additional knowledge, promotion, delegation of authority and many other options such as free transportation, accommodation, days off, etc. [27]-[28]-[29].

As in the previous case, in the restaurant industry there is a strong link between training and employee motivation. Gaining additional knowledge increases the confidence of employees in

restaurants, as they work more efficiently and better [20]. As key motivation drivers in the restaurants, it is emphasized: the possibility of promotion, salary, paid holidays, better working conditions and working hours [13]-[30].

Motivation in travel agencies is related to the degree of satisfaction of employees. Factors that positively affect job satisfaction positively affect the motivation of employees. The key motivators in the travel agencies are: good interpersonal relations, working conditions, job security, acquiring additional knowledge, free travel and transportation, etc. [31]-[32]. In fact, how employees in tourist agencies are characterized by a higher level of education, knowledge of foreign languages, a desire to acquire additional knowledge, etc., it is best to find ways to encourage intrinsic motivation of employees [19].

2. HUMAN RESOURCE MANAGEMENT IN THE TOURISM INDUSTRY IN THE REPUBLIC OF SERBIA

The structure of employees in the tourism sector of Serbia is more complex than in other sectors since there are a large number of temporary and seasonal workers, which significantly aggravates the process of recruitment and planning the required number of workers in the future [33]. There are about 75,000 full-time employees in the tourism sector in Serbia [34]. Many tourism companies in Serbia do not have departments or people involved in the human resource management process. As a result, there is a high fluctuation of employees, poor interpersonal relationships and working conditions, as well as employees with outdated knowledge who do not get relevant training in accordance with market needs [35].

The results of the Cranet research have shown that in those tourist companies where human resource management function is developed, external recruitment is used as the most common method of recruitment. Candidates are recruited through the internet (30% of cases), newspapers, employment agencies and by recommendation. In order to fill managerial positions, internal recruitment is more frequent. When it comes to strategic approach to recruitment, only 10%-15% of the hotel uses public networks. In addition, only 43% of the hotels have a developed recruitment plan. The most frequent recruitment strategies in Serbian hotel companies include: creating a database of candidates, selecting candidates with the best results and recommending colleagues. When it comes to the selection process, the most frequent method is interviewing Serbia [36].

Performance appraisal is carried out periodically in the hotel sector in Serbia. Of the total number of hotels surveyed, 71% of the hotels conduct performance appraisal, while 64% of employees is familiar with the reason for the evaluation. However, the performance appraisal in the hotel sector in Serbia is often not related to identifying the knowledge of employees that need to be improved, but is mainly aimed at identifying gaps between standards and performance [37].

The traditional salary system is dominant in Serbian hospitality, and its main elements are length of service, working hours and system of points for certain groups of jobs. However, net earnings in hotels and restaurants are at a low level. At the beginning of 2018, average net earnings in these sectors amounted to about 32,389 dinars [34]. Low wages produce low motivation of employees and high fluctuation, which is 7.68% in private sectors, and 4.48% in public sector. As the main reasons for leaving the company, employees point to another job, contract expiration and job dissatisfaction [36]-[37].

According to the results of the research realized in the Novi Sad agencies by [31], the situation in the tourist agencies in Serbia is different: 39.5% of the respondents have high education, fluctuation rate is lower since the average years of service are between 5 and 10 years, while the salary varies from 300 to 600 euros. In travel agencies in Serbia, candidates are selected on the basis of knowledge and experience, regular education of employees, participation in decision-making, and good government atmosphere among employees at all levels. Direct and indirect salaries, travel, gratuities, paid courses and prize trips are used as motivation strategies.

3. CONCLUSION

Using the qualitative methodology the starting hypothesis of this work is confirmed. Regarding the candidate recruitment process, the results showed that informal methods, such as recommendations, are generally used in small hotels and restaurants, whereby all recruitment activities are most often performed by the manager or owner of the company. On the other hand, in large and luxury hotels and restaurants, as well as in travel agencies, there are formal recruitment methods, implemented by the human resource management department. The most common method of selection in tourist companies is the interview. Training in small hotels is seen as an extra cost that is not necessary for the company. However, in large hotels, as well as in restaurants, training is carried out on a regular basis with the aim of improving the existing and acquiring new knowledge, which will lead to greater efficiency in the work, as well as an increase in the morale of employees. Particular importance and innovation in the training process is represented in travel agencies. In small hotels, the performance appraisal process is almost non-existent. However, in travel agencies, large and luxury hotels and restaurants, a formalized performance appraisal process is carried out regularly. Finally, when it comes to the motivation of employees in tourism companies, in addition to material awards, employees especially prefer systems of intangible awards such as additional training, free travel, courses, promotions, etc.

The human resource management function in tourism companies in Serbia is almost non-existent. At the very beginning of the staffing, the most commonly used recruitment method is recommendation, while in the selection, the primacy is on the method of interviewing. Performance appraisal is relatively implemented, but it is not related to acquiring additional knowledge or employee benefits. When it comes to motivation, direct earnings and bonuses are most often used, but they are at a low level. The situation in the travel agencies in Serbia is better. Agencies have a higher share of highly educated people who have secure jobs, relatively high salaries, material and non-material motivation systems and ongoing training.
The *scientific contribution* of this paper is reflected in the conceptualization of relevant scientific papers in the area of human resource management in tourism, which further extends the existing knowledge and which creates the basis for further research. The *practical contribution* of work is reflected in presenting the obtained results to managers and using them to formulate a human resource management practice that will lead to good business results. The *limitation of work* is the scope of research itself. This paper analyzes the practice of human resources management in the field of hospitality, restaurant and travel agencies. *Future research* should be conducted in other companies in the tourism industry. The paper is based on qualitative methodology and analysis of secondary information. It would be desirable to carry out an empirical research to determine if there has been a change in the structure of employment in the tourism sector and in the practice of human resources management itself.

REFERENCES

[1] Nickson, D. (2007). *Human Resource Management for the hospitality and tourism industries.* Burlington: Elsevier.

[2] Boella, J.M., & Turner, S.G. (2013). *Human Resource Management in the hospitality industry: A guide to best practice, 9th edition.* Abington: Routledge.

[3] Moutinho, L. (2000). *Strategic management in tourism*. New York: CABI Publishing.

[4] World Economic Forum. (2017). *The travel & tourism competitiveness report 2017*. Geneva: World Economic Forum.

[5] Sun, T., Ayoun, B., & Calhoun, J. (2013). The effect of organizational commitment on word-of-mouth intentions in recruitment in China. *Human Resource Management Journal*,12(2), 192-216.

[6] Hoque, K. (1999). New approaches to HRM in the UK hotel industry. *Human Resource Management Journal*, 9(2), 64-76.

[7] Jago, L.K., & Deery, M. (2004). An investigation of the impact of international labour markets in the hotel industry. *The Service Industries Journal*, 24(2), 118-129.

[8] Cetinel, F., Yolal, M., & Emeksiz, M. (2008). Human resources management in small- and medium-sized hotels in Turkey. *Human Resource Management Journal*, 8(1), 43-63.

[9] Bagri, S.C., Babu, S., & Kukreti, M. (2010). Human resources practices in hotels: A study from tourist state of Uttrakhand, India, *Human Resource Management Journal*, 9(3), 286-299.

[10] Lockyer, C., & Scholarios, D. (2004). Selecting hotel staff: why best practices does not always work. *International Journal of Contemporary Hospitality Management*, 16(2), 125-135.

[11] Kwok, L., Adams, C.R.,& Price, M.A.P. (2011). Factors influencing hospitality recruiters' hiring decision in college recruiting. *Human Resource Management Journal*, 10(4), 372-399.

[12] Chan, S.H., & Kuok, O.M. (2011). A case study of human resources recruitment, selection, and retention issues in the hospitality and tourism industry in Macau. *Journal of Human Resources in Hospitality & Tourism*, 10(4), 421-441.

[13] Dyke, T.D., & Strick, S. (1990). Recruitment, selection and retention of managers in the hotel and restaurant industry. *Hospitality Review*, 8(1), 1-9.

[14] Fulford, M.D., & Enz, C.A. (1995). Human resources as a strategic partner in multiunit – restaurants. *Cornell Hotel and Restaurant Administration Quarterly*, 36(3), 24-29.

[15] Ergun, E., & Gavcar, E. (2013). Recruitment and selection process of human resources: A sample of travel agencies operating in Fethiye. *International Journal of Business and Mangement Studies*, 5(1), 138-149.

[16] ABTA The travel association. (2010). *Training in the travel industry report*. London: People 1st

[17] Nestoroska, I., & Petrovska, I. (2014). Staff training in hospitality sector as benefit for improved service quality. Tourism and Hospitality Industry 2014 – CONGRESS PROCEEDINGS, 437-448.

[18] Maroudas, L., Kyriakidou, O., & Vacharis, A. (2008). Employees' motivation in the luxury hotel industry: the perceived effectiveness of human-resource practices. *Managing Leisure*, 13, 258-271.

[19] Ashton, A.S. (2017). How human resources management best practice influence employee satisfaction and job retention in the Thai hotel industry. *Journal of Human Resources in Hospitality & Tourism*, 1-25.

[20] Rodriguez, J.L.B., Perez, P.D.S., & Falcon, C.D. (2012). The role of organizational Culture and HRM in training success: evidence from Canarian restaurant industry. *The International Journal of Human Resource Management,* 23(15). 3225-3242.
[21] Thelin, L.Y., & Boluk, K. (2012). A case study of human resource practices in small hotels in Sweden. *Journal of Human Resources in Hospitality & Tourism,* 11(4), 327-353.
[22] Kelliher, C., & Perrett, G. (2000). Business strategy and approaches to HRM: A case study of new developments in the United Kingdom restaurant industry. *Personnel Review,* 30(4), 421-437.
[23] Woods. R.H., Ninemeier, J.D., Sciarini, M.P., & Johnson, M. (1998). The use of performance appraisal systems in restaurants. *Hospitality Review,* 16(2), 23-28.
[24] Rubio, R.S., & Gonzalbez, J.L.N. (2009). Assessing performance in services: the travel agency industry. *The Service Industries Journal,* 29(5), 653-667.
[25] Zhang, H.Q. & Wu,, E. (2004). Human resources issues facing the hotel and travel industry in China. *International Journal of Contemporary Hospitality Management,* 16(7), 424-428.
[26] Wong, S. & Pang, L. (2003). Motivators to creativity in the hotel industry – perspectives of managers and supervisors. *Tourism Management,* 24, 551-559.
[27] Kingir, S., & Mesci, M. (2010). Factors that affect hotel employee's motivation: The case of Bodrum. *Serbian Journal of Management,* 5(1), 59-76.
[28] Simons, T., & Enz, C.A. (1995). Motivating hotel employees: Beyond the carrot and the stick. *Cornell Hotel and Restaurant Administrations Quarterly,* 36(1), 20-27.
[29] Siu, V., Tsang, N., & Wong, S. (1997). What motivates Hong Kong's hotel employees? *Cornell Hotel and Restaurant Administrations Quarterly,* 38(5), 44-49.
[30] Ukandu, N.E., & Ukpere W.I. (2011). Strategies to improve the level of employee motivation in the fast food outlets in Cape Town, South Africa. *African Journal of Business Management,* 5(28), 11521-11531.
[31] Kovačević, B., Gajić, T., & Penić, M. (2012). Job satisfaction among the employees in Novi Sad's tourist agencies. *Economics of Agriculture,* 2, 217-228.
[32] Gajić, T., Kovačević, B., & Penić, M. (2012). Employees' satisfaction in travel agencies. *African Journal of Business Management,* 8(14), 540-550.
[33] Šekarić, M., Milovanović, M., Kostić, M., & Sotirovski Šekarić, J. (2015). Značaj obrazovanja ljudskih resursa u hotelijerstvu. Resources as a factor of tourism destination competitiveness – SITCON 2015, *Singidunum Belgrade*, 273-276.
[34] Republički zavod za statistiku. (2018). *Mesečni statistički bilten 01/18.* Beograd.
[35] Blagojević, S., & Redžić, V. (2009). Zaposlenost u hotelijerstvu u Republici Srbiji kao pokazatelj stanja ljudskih resursa u domaćem hotelijerstvu. *Zbornik radova Departmana za geografiju turizam i hotelijerstvo,* 39, 252-264.
[36] Leković, B., Slavić, A., & Berber, N. (2015). Praksa upravljanja ljudskim resursima u Srbiji – 2014/2015. *Izveštaj Cranet istraživanja*, Subotica.
[37] Krstić, S. (2016). Human resources management in hotel industry: The analysis of current practices in Serbia. Resources as a factor of tourism destination competitiveness – SITCON 2016, *Singidunum Belgrade*, 174-180.

NETWORK AND KNOWLEDGE SYSTEMS IN INDUSTRIAL AND TOURISM CLUSTERS

Tülay GÜZEL[278]
Tarık YALÇINKAYA[279]

DOI: https://doi.org/10.31410/eraz.2018.599

Abstract: *Clustering and its network system are considered as significant knowledge exchange environment for companies. When noticed that technology and knowledge exchange are improving day by day, knowledge is undoubtedly decisive for the companies trying to survive in the 21st century. For this reason, how network systems work within a cluster is literally vital as well as advantages of being in a cluster for a company.*
The tourism sector, called also "smokeless industry", has many distinctive characteristics compared to other industrial sectors. That's why clustering in the tourism sector may be more effective if well managed. In order to create a tourism product with value-added features for the region of a cluster, several diversified companies are supposed to be in cooperation.
In this regard, the goal of the study is to analyze how knowledge is shared within the network of a tourism cluster and its ways (for instance, information technologies, management information system, intranet, extranet, electronic data interchange etc.) Having figured out that of an industrial one, it has been also aimed to reveal the differences of a tourism network from other industrial ones. It concludes from the paper that there are many formal and informal channels through which knowledge flows within the network system in a tourism cluster. It can be observable that the intensity of knowledge exchange among cluster actors is not at the same level: it depends on inputs and outputs of cluster companies.

Key words: *network, cluster, tourism, knowledge, network system*

1. INTRODUCTION

Clustering is defined by Porter (1998) as that geographical concentrations of interconnected companies, specialized suppliers, service providers, firms in related industries, and associated institutions (for example universities, standards agencies and trade associations) that compete but also co-operate. In this regard, it plays a vital role in the survival of industrial firms in the conditions of the 21th century, which are getting more painful day by day owing to fierce competitiveness among today's firms. In order to deal with this issue, firms can utilize know-how and take advantage of network system in clusters as a solution keys.

As technology improves, the way companies do business is also changing. This forces companies to keep up with the latest developments in the business world. When viewed from this aspect, it can be observed how advantageous is being in an industrial cluster and its network system.

[278] Canakkale Onsekiz Mart University/Tourism Faculty, Turkey
[279] Canakkale Onsekiz Mart University, Social Science Institute/Tourism Management, Turkey

Like in most sectors, there are numerous benefits of network system in a tourism cluster. The most obvious difference of tourism cluster from other industrial cluster is its heterogeneity. "Whereas customers cannot observe the actors within the most industrial clusters that are suppliers, sellers, agencies, logistic firms, etc., which is not the case in tourism clusters: customers (tourists) experience most actors until they consume tourism services and products." (Guzel and Yalcinkaya, 2017) Within this heterogeneity, network systems assist tourism cluster companies to raise their competitiveness; therefore, network system plays more crucial role for tourism clusters compared to other industries.

Network systems are considered as one of the most important outputs for the company which is active in a tourism cluster. Having opportunity to collaborate with other members which can be other companies in the cluster, education centers or non-governmental organizations, the company is likely access to more tacit knowledge and know-how that improves its innovation and competitive capacity.

Companies are able to obtain more innovative outputs by collaborating in network systems of a tourism cluster compared to the ones trying to survive alone in the market. Reaching tacit knowledge and know-how in networks, cluster companies turn this situation into an advantage. This demonstrates the importance of network system in clusters for tourism companies.

The way how knowledge transfer is performed within networks of clusters should be well determined. Another crucial point is to ensure its sustainability for the sake of cluster companies. For these reasons, the goal of this study is to analyze the network systems in tourism clusters.

2. THE NETWORK SYSTEM IN AN INDUSTRIAL CLUSTER

Cluster actors are composed of education centers, incubator centers, non-governmental associations as well as cluster companies. The relationship among these actors forms the network system of cluster. The relationship through the network is considered as a complex and interactive process; therefore, there are numerous communication ways for companies in industrial clusters. One of them is called local buzz based on face-to face meeting of cluster members in non-formal environment such as cafes or restaurants (Bathelt et al., 2004). They come together and exchange information. One of the other ones is employee mobility as Rosenkopf and Almedia (2003) mention about it in their study. Employees take information with them to their new business when they change their companies. These above-mentioned relationships can be observed in different form, whether by individual contacts, business meetings and gatherings (e.g. fairs) or by formal authorities (Ellis, 2000; Harris and Wheeler, 2005; Zhou et al., 2007). Or companies may utilize their current contacts as bridge in order to reach any new one. (Johanson and Mattsson, 1988). Dayasindhu (2002) also indicates that knowledge can be transferred by the formal training sessions, intranets, and knowledge repositories in networks and organizations.

For instance, the SMEGonet, which was launched in 2011 to create a network for life science companies within the Cluj in Romania, has 29 active companies and research center in life science sector and its connection with local authorities was sustained through business meetings. As well as the system of a good-structured network, it is also critical for its members to keep up with the network and to have needed abilities for it. That is why the project owners of SMEGonet carried out also an online program called "Collaborative Innovation

Competences" for their members to gain necessary skills for network collaboration. (Negruşa, A. L., Rus, R. V., & Sofică, A, 2014)

Janasová, Bobáňová and Strelcová (2017) state in their study that medium and small enterprises of transport clusters and associations related to transport can utilize the possibility to register on several websites. They generally provide free storage and transport capacity with them as they can easily find numerous transporters, forwarders and customers all around the world to increase the frequency of their deliveries and have more effective inventory management. One of those is as follows: www.trans.eu. (Janasová, Bobáňová and Strelcová, 2017)

Another advantage in being a member of a cluster network is to reach opportunity to utilize business partners' resources (Johanson and Vahlne, 2009). Since you keep in contact with many different companies from the same value chain, it is likely for you to reach the necessary or innovative information when compared to a company trying to survive alone. In this point, a barrier can be shown up to obtain the information. Not too many company representatives would like to give their business knowledge, which is absolutely natural in business world. To overcome to the barrier, there should be an environment of trust among members of cluster network. This could be built in the cluster in progress of time.

Within the network system, companies which have had no international experiences so far can improve their capabilities to launch their export sales thanks to knowledge and experience of other members (Gadde and Håkansson, 2001). Furthermore, they can reach experimental know-how without experiencing trials (Zhou et al., 2007), which is crucial for companies in terms of economical dimension. They do not need to trial and risk their time and money for the information.

As technology improves, it is more vital for companies to keep up with it and social media has been utilized not only for getting social but also for commercial purposes. In this regard, its power for networks cannot be underestimated. There are different reasons why to use social media in business area. Since it has considerable influence on clients and market, it can be utilized to carry out the advertisement and distribution of commercial products. Negruşa, Rus and Sofica (2014) suggest that social media may contribute to the cluster's development by helping gather more participants for events and find partners for co-operation. It also serves the purpose to promote the cluster and the network in an easy way. They also imply that social media is free of charge and does not bring a financial burden to companies. It is a practical way to keep up with what happens in their network and it helps shape the cluster's image and a strong reputation in the market. In addition, it is an effortless form to reach remote potentials for their commercial products

Assoc. Prof Dr. Tülay Güzel

She was born in 1968 in Istanbul. She gained her PhD in the field of Business Administration. Tülay has been working as academic staff at the Canakkale Onsekiz Mart University since 1993. Her fields of specialization are: strategic management, public relations, communication, management and organization

From the perspective of innovation, network systems are also advantageous for most of companies which are already in the network. When a company creates something innovative, that makes other companies imitate it in the process of time and then this triggers cooperative competition and regional development in the end (Alves, Marques, Saur, 2004).

Members belonging to network of an industrial cluster come together in business events or meetings and exchange knowledge and brainstorm about their cooperation. As well as by online through internet, tacit knowledge can be efficient by being transferred through face-to-face communication between individual and personal practice in industrial clusters as Liu (2013) implies in his study.

3. THE NETWORK SYSTEM IN A TOURISM CLUSTER

In tourism, the significance of networks and relationships between companies is vital so that they ensure their survival. (Hsu, Liu, & Huang, 2015). The network system becomes more important for tourism industry when taken the number (some 30-50 different) of entities, which a tourist contacts in a one-week stay (tour operator, insurance company, carrier, hotel, restaurant, tourism attraction, exchange office, taxi-driver, souvenir shop, local authorities etc.), into consideration as Kachniewska (2013) states in her study.

In the heterogeneity of the tourism sector, knowledge exchange process should be well managed since it can be essential for actors of tourism sectors in planning or organizing tourism activities.

As tourism is one of the most service industries and travel for pleasure and its products are sold in the sector, sector actors are supposed to reach necessary knowledge in time and utilize technology as required for their customers; hence, this makes knowledge more significant for the sector. Clusters and their network systems serve this purpose: to obtain the necessary knowledge and technology when needed.

Like other industry clusters, knowledge exchange and the way the network works in tourism clusters can occur in various ways. Sørensen (2007) implies in his study that this can vertically happen such as tour operators at tourism destinations and their distributors; or horizontally take place when complementary tourism companies exchange knowledge with each other in a destination.

Djankov and Hoekman (2000) suggest that labor mobility is one of the most significant ways for knowledge spillovers in industrial manufacturing. When it is assumed that tourism is more heterogeneous compared to other industrial sectors, it can be seen that one of the most common way in tourism clusters to exchange knowledge is through employees. This has been suggested by Shaw and Williams (2009) in this way that the particular nature of tourism markets gives labour mobility a potentially distinctive role in this sector. In tourism sector, several tourists travel to where there is another language spoken and other clusters which are unfamiliar to them (Williams, 2012) For this reason, there is a knowledge need about these cultures in tourism. Maybe this is the explanation why there are many more immigrant employees in tourism sector compared to other ones.

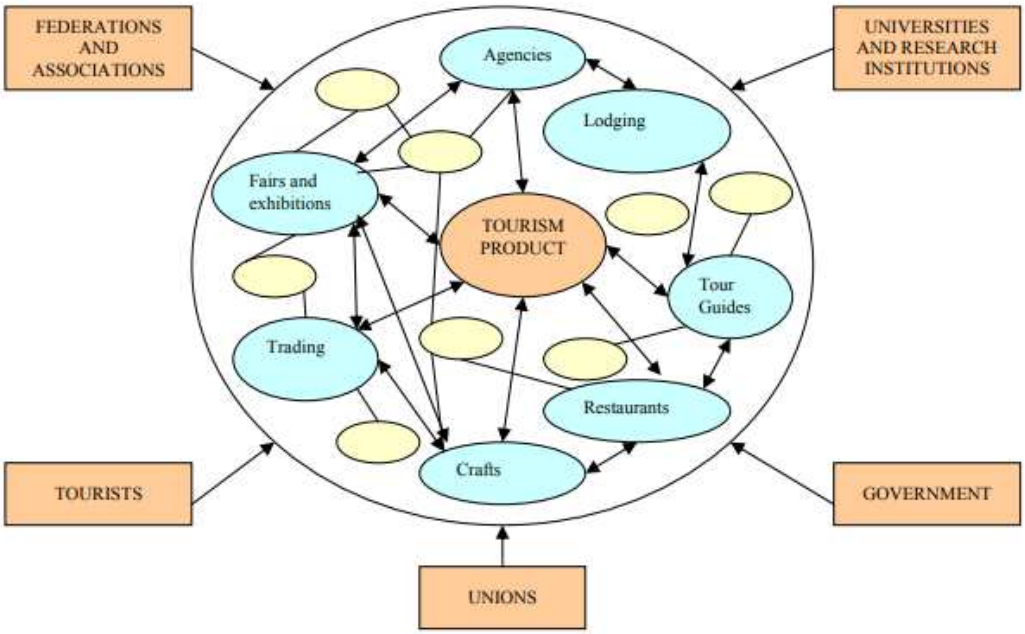
Tarık Yalçınkaya

He was born in 1992 in Istanbul. He graduated from translating and interpreting (German-Turkish-English), Dokuz Eylul University and he is currently master student in tourism management. He worked as a province-coordinator for the South Marmara Food Cluster for a year (February 2016-February 2017). He has been working as English instructor in the Çanakkale Onsekiz Mart University for a year.

As considered that tourism companies in a cluster are geographically close to each other, this can allow employees to change their work place in an easier way, which affects the knowledge distribution (Shaw and Williams 2009). This may consequently end up with economic losses or earnings; nevertheless, it can be regarded that this is mostly in favor of all companies in the cluster when taken the frequency of the employee mobility into consideration.

According to several studies, the network systems in industrial clusters are divided into two categories which are closed networks and diverse networks. Closed network is a network system in which main enterprises and their stakeholders exchange their strategical information with each other. On the other hand, diverse network is a network system in which all actor in a cluster limitlessly exchange information. Pereze and Beauchesne (2017) state in their study, in which they have analyzed 215 hospitality and tourism firms located in the World Heritage Cities of Spain, that both network systems are equally required for the success of a tourism cluster.

The below-mentioned table demonstrates that the actors of agglomerate are deeply relied on each other. If one of them perform badly, this affects other ones.



Source: Cunha, S. K. D., & Cunha, J. C. D. (2005). Tourism cluster competitiveness and sustainability: proposal for a systemic model to measure the impact of tourism on local development. *BAR-Brazilian Administration Review*, *2*(2), 47-62.

CONCLUSION

In the 21st century, technology is improving so fast that commercial organizations have difficulties to keep up with it. In this respect, knowledge has become substantially valuable for companies, which are in cooperation within clusters. Through networks of clusters, companies gain many advantages and reach necessary or innovative knowledge. The relationships and connections in networks are supposed to be well maintained in favor of companies. Flow of knowledge, inter-company relationships and the function of system should be kept alive and active within the network.

Considering the importance of network system in a cluster for an industrial company, this has great significance for tourism sector and tourism clusters. Since relationships and connections of a tourism cluster are expected to be more active and complicated, utilizing network and its advantages are unavoidable for tourism companies.

As mentioned in the study, there are many formal and informal channels through which knowledge flows within the network system in a tourism cluster. These are as follows: local buzz or training session, business meeting or online program within the network; however, one of the most common ways is through mobility of employees among the cluster companies. In this way, employees carry the knowledge informally from one tourism organization to other one. This forces companies to create something new and innovative in order to make the difference in the cluster; and then it enables actually the cluster to develop its regional competitiveness.

REFERENCES

1. Alves, J., Marques, M. J., & Saur, I. A. (2004). Role of Networking in Innovation Promotion and Cluster Modernization: “House of the Future” Case.
2. Bathelt, Harald, Anders Malmberg, and Peter Maskell. "Clusters and knowledge: local buzz, global pipelines and the process of knowledge creation." *Progress in human geography* 28.1 (2004): 31-56.
3. Chatterjee, T., & Ganesh-Kumar, A. (2016). Geographic Neighbourhood and Cluster Formation: Evidence from Indian Agriculture. *The Journal of Development Studies*, *52*(11), 1577-1592.
4. Cunha, S. K. D., & Cunha, J. C. D. (2005). Tourism cluster competitiveness and sustainability: proposal for a systemic model to measure the impact of tourism on local development. *BAR-Brazilian Administration Review*, *2*(2), 47-62.
5. Dayasindhu, N. (2002). Embeddedness, knowledge transfer, industry clusters and global competitiveness: a case study of the Indian software industry. Technovation, 22(9), 551-560.
6. Delgado, Mercedes, Michael E. Porter, and Scott Stern. "Defining clusters of related industries." *Journal of Economic Geography* 16.1 (2016): 1-38.
7. Djankov, S., & Hoekman, B. (2000). Foreign investment and productivity growth in Czech enterprises. The World Bank Economic Review, 14(1), 49-64.
8. Eraslan, İsmail Hakkı, and Dönmez, Cem Çağrı. "Endüstriyel Kümelenme Uygulamalarının Türkiye Genelinde İncelenmesi: Sanayi, Tarım ve Hizmet Sektörleri Açısından Bir Değerlendirme." *Elektronik Sosyal Bilimler Dergisi* 16.61 (2017), 325-368.
9. Gadde, L.E., Håkansson, H., 2001. Supply Network Strategies. New York: John Wiley & Sons.
10. Gereffi, Gary, and Joonkoo Lee. "Economic and social upgrading in global value chains and industrial clusters: Why governance matters." *Journal of Business Ethics* 133.1 (2016): 25-38.
11. Iordache, C., Ciochină, I., & Asandei, M. (2010). Clusters-Tourism Activity Increase Competitiveness Support. *Theoretical & Applied Economics*, *17*(5).
12. Isbasoiu, G. M. (2006). Industrial clusters and regional development: the case of Timisoara and Montebelluna.
13. Janasová, D., Bobáňová, V., & Strelcová, S. (2017). Networking of small and medium enterprises into clusters in the Slovak Republic. Procedia engineering, 192, 370-375.
14. Kachniewska, Magdalena. "Towards the definition of a tourism cluster." *Journal of Entrepreneurship, Management and Innovation* 1 (2013): 33-56.

15. Kirankabeş, M. C., & Arik, M. (2014). Industrial Clustering Approach in Regional Development: The Case of Turkey. *Journal of Applied Business and Economics*, *16*(3), 135-151.
16. Lee, A. H., Wall, G., Kovacs, J., & Kang, S. Y. (2017). Food Clusters and Creative Tourism Development: A Conceptual Framework. *Journal of Rural and Community Development*, *11*(2).
17. Liu, S. (2013, June). Knowledge transfer in creative industrial cluster: Mechanism and countermeasures. In 2012 First National Conference for Engineering Sciences (FNCES 2012).
18. Matopoulos, A., Vlachopoulou, M., & Manthou, V. (2005). Exploring clusters and their value as types of business networks in the agricultural sector. *Operational Research*, *5*(1), 9-19.
19. Porter, Michael. "On Competition, Boston." *Harvard Business Review Books* (1998).
20. Rosenkopf, L., & Almeida, P. (2003). Overcoming local search through alliances and mobility. Management science, 49(6), 751-766.
21. Sørensen, F. (2007), 'The geographies of social networks and innovation in tourism', Tourism Geographies 9(1): 22-48
22. Williams, A. M. (2012). Tourism, migration and human capital. The Routledge Handbook of Tourism Research, 251.
23. Zhou, L., Wu, W., Luo, X., 2007. Internationalization and the performance of born-global SMEs: the mediating role of social networks.

EXAMPLES OF EUROPEAN TOURISM DESTINATIONS AND IMPORTANCE OF AGRICULTURAL LANDSCAPES

Anita Silvana Ilak Peršurić[280]

DOI: https://doi.org/10.31410/eraz.2018.606

Abstract: *Landscapes contain and create value for tourism destinations worldwide and have wide influences on the perception of a destination. The landscapes with its specific geographical and climatic features are perceived as pull factors (attraction factors) to tourists. In European countries agricultural landscapes are highly valued both by local population and tourists attracting them to the destination. Agricultural production, especially vineyards, olives, orchards and animals in the landscape create an original experience of the destination.*
On the case of several European countries with and without maritime surroundings, we have chosen attractive tourism destinations with highly attractive landscapes.
The paper shows examples of Slovakia, Czech Republic as non-maritime countries opposite to Mediterranean countries as Croatia and Slovenia.
The main aim of this paper was to assess the importance of agricultural landscapes in the context of tourism. Along with the gastronomic offer and cultural heritage, the agricultural landscapes create high values for tourism destinations. Tourists perceive these features as pull factors and grade highly their value. Furthermore, these features are even more highly valued and cherished by the local population.

Key words: *Croatia, landscape, tourists, local population.*

1. INTRODUCTION

Tourism in its most general terms stands for travel outside the usual residential place, initiated or motivated by some intrinsically or extrinsically motivation factors (so called push and pull factors) which attract tourists to a certain destination. In the 80ties of the last century a theory of push and pull factors was presented by [1] and [2], [3]. According to [2] and [3] push motives were escape, relaxation, prestige, exploration and evaluation of self, regression, enhancement of kinship relationships and facilitation of social interaction. The pull factors were novelty and education.

Landscapes are a consequence of different geographical, historical and climate influence in a certain region. For example in France landscapes with castles, small villages and vineyards are highly valued and attractive to tourists [4]. The geomorphological and climate situations enhance the quality of landscapes and possibilities of agricultural production resulting in improvements of the economic and social position and status of its inhabitants [5]. The aesthetics and diversity of landscapes is also a heritage of humans influence during centuries of agricultural production and different agricultural practices and techniques.

For example in hilly regions the most common and traditional form of productive agricultural land are terraces, with small plots of land [6], [7]. In some cases terraces are newly formed in modern times for specific needs in agricultural production for example new vineyards planted

[280] The Institute of Agriculture and Tourism, K. Hugues 8, 52440 Poreč, Croatia

[8]. On the other side in more plane areas the possibilities for agriculture are larger and plots are more monotonous, larger but the sights might be more monotonous.

2. METHODOLOGY

In this paper qualitative and quantitative analysis were used. The qualitative analysis was used for comparison of case studies and examples of field research on agricultural landscapes in different countries (maritime and non-maritime).

Description of landscape features was similar to the methodology of [6] which categorize the landscape as very steep (not suitable for agriculture), steep (suitable for grasslands), moderate (limited plough land alternating with grassland), gentle (plough land with limits), plane (plough land with or without limits) and planes with possible water erosion.

Further in the description of terraced landscapes we have used the methodology of [7] which classifies traditional four types of agricultural landscapes with terraces; traditional agricultural land with dispersed settlements; traditional agricultural land with vineyards; traditional agricultural land with arable land, grassland and orchards; traditional agricultural land with arable land and grassland.

The qualitative analysis was executed through a field survey on a sample of respondents from the local (Croatian) citizens (170) and tourists visiting the Istria County (120). Respondents graded the features of rural areas of Istria County on a Likert scale (1 to 5, 5 as highest grade).

3. RESEARCH RESULTS

The landscapes in European countries follow a track of similarity depending on the geographical features, for example on steep and moderate steep land where agricultural production is possible terraces are a common way of land use.

Anita Silvana Ilak Peršurić

EMPLOYMENT: 1994-1997. Agrolaguna dd, Poreč (agricultural company, finance dpt.)

CURRENT EMPLOYMENT: from 1997., Institute for agriculture and tourism, Poreč, from 2007 to 2012. Head of department Economics and rural development

FIELD OF WORK: Rural sociology, agricultural economics (topics: rural youth, farm women, organizational and management issues in farming, rural development)

PROJECTS:
1. «Family farms as carrier of agricultural development in Istra» (01470103), financed by the Ministry of science and technology, Croatia, 1996-2002.
2. «Improving technology of viticulture-wine production on family farms», financed by the Ministry of agriculture and forestry, Croatia, 1998-2001.
3. «A strategy for rural development in Croatia» (2004-2010) financed by the Ministry of agriculture and forestry, Croatia, (Draft)
4. «Watermelon production technologies in the Mediterranean» (IV-27-10/03), financed by the Ministry of agriculture and forestry, Croatia, 2004-2005.
5. «Rocnet, Rural development and Transition to market economy», international project, 2001-2004., financed by SNSF (Swiss National Science Fond)
6. «Tempus project, AHAED» financed by EU DG culture and education, 2005-2008. JEP 19004-2004.
7. Development of a market brand ISKRO young potato 2008-2010.
8. Valorization of economic resources for sustainable development in carst regions 2008-2010.
9. Competitiveness and comparative development of Istra and Kolubara region. 2008-2010.

Picture 1. Map of researched areas in Europe

Source: [8]

In the case of Slovakia we are showing a pictures part of Hrinovske Lazi that has extensive agricultural production and potential for farm tourism in scattered villages.

Picture 2. Example of Slovakia (Hrinovske Lazi) – moderately steep landscape with grasslands and limited plough land

Source: [9]

Picture 3. Example of Slovakia (Hrinovske Lazi) agricultural production

Source: [9]

Further we are showing the case of north eastern Slovakia, the region of Poprad which is a traditional tourism area for winter sports whereas the mountainous area and planes at the bottom of the mountains attract tourists to visit the area. New health oriented activities (like in wellness facilities) are enhancing the variety of choice.

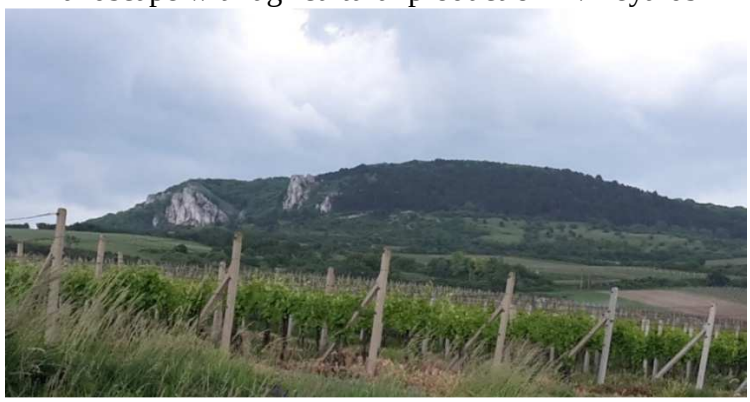
The part of Slovakia on the north-eastern part surrounding the area of mountains of Visoke Tatry is known as a tourist region with facilities for skiing and wellness tourism. Walking and cycling roads are available and a wide range of landscapes from very steep mountainous landscape to planes.

Picture 4. and 5. Example of Slovakia (region Poprad) – steep landscape (Visoke Tatry) not suitable for agricultural production and gentle landscape in the bottom of the mountains

Source: authors' research

In the region of Moravska in the Czech Republic the landscape is moderately steep up to planes very suitable for agricultural production. The region is wide known for its vineyards and several wine roads are existing in the area. Along the lakes cycling roads exist, while the quality of sights is enhanced by historical cities with castles making it an attractive region for tourism.

Picture 6. Example of Czech Republic, Moravska County- moderately steep and gentle landscape with agricultural production - vineyards



Source: authors' research

Slovenia as a country has very steep up to moderately steep landscapes, with agricultural production of majority vineyards, orchards and grassland. In the Northern part close to the Austrian border the hills are moderately steep and suitable for grassland and in some parts for vineyards (see picture 7 and 8.). Small villages and scattered individual houses are placed in the landscape, which add visual value to the space.

Picture 7. Slovenia (north east – Zgornja Kungota)

Source: authors' research

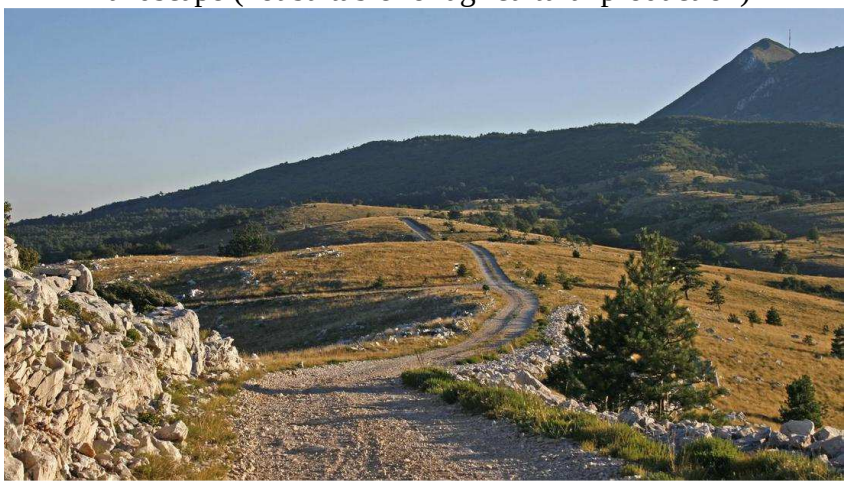
Picture 8. Slovenia (north east – Zgornja Kungota)

Source: authors' research

3.1. The case of Istria County landscape (Croatia)

In Croatia we give an example of Istria County because its diversity in geographical, pedology and ecological features and rich cultural heritage. From very steep mountainous areas of Učka through steep and moderately steep hills around towns of Motovun, Oprtalj, Buzet, Buje and downwards toward the flat landscapes in the coastal areas.

Picture 9. Example of Croatia (Istria County, Učka Mountain) – very steep and steep landscape (not suitable for agricultural production)



Source: [11]

Istria County is in Croatia the leading tourist area with highest number of incoming tourists (around 4 million in 2016.), most nights spent in tourists facilities (23 million nights) and most of the tourists generating income (in the GDP). The landscapes are crossed with walking and cycling paths, wine and olive oil roads. The sights are full of scattered and small villages and towns and family farms with agricultural production and farm and rural tourism facilities. The number of agricultural holdings in 2016 was 5.37 with 45.607 hectares of utilized agricultural land (with 8.850 ha permanent crops, 527 ha orchards and 6.651 ha cereals) [12].

Picture 10. Example of Croatia (Istria County, Valley of Mirna) - gentle landscape / traditional agricultural landscape with arable land

Source: [13]

Most areas are suitable for agricultural production whereas in more hilly areas terraces are common with forests, pastures, mowed meadows, olives and vineyards, while on flat areas grains, vegetable production and viticulture plots are common.

Picture 11. Example of Croatia (Istria County, Oprtalj) – moderately steep landscape with terraces with agricultural production – vineyards / traditional agricultural land with settlement

Source [14]

Picture 12 and 13. Example of Croatia (Istria County, Ženodraga by Višnjan) Gentle landscape with agricultural production – vineyards / traditional agricultural land with vineyards and Example of Croatia (Istria County, Bale) – Gentle landscape with agricultural production - olives / traditional agricultural land with orchards

Source: authors' research

3.2. Field survey results

On a sample of tourists, visitors in Istria and a sample of local population, we have tried to measure which features of the rural area of Istria are important.

Tourists, visitors, were mostly men (2/3), between 35 and 54 years of higher education (faculty) were mostly self-employed or employees in companies, and every fifth was in the position of manager or director of the company, and the highest income (over 4 thousand euros per month). Most of them were from Italy and Germany, and these are traditionally the most common visitors of Istria as a tourist destination. Minority was from Austria, the Netherlands and England.

The local population was represented mostly by women in their thirties, highly educated and with a middle or lower level of income.

Between the two groups there were clear differences in gender whereas local population was dominated by women, while in the sample of tourists men predominate.

The local population had a similar age structure as tourists, but also a significantly higher level of education compared to tourists.

Tourists were more often employed by self-employed and managers, while the local population was more often employed by the company, as a result of which tourists had a significantly higher level of income.

Table 1. Socio demography profile of respondents'

Socio demography Indicators		Local Population (%)	Tourists (%)
Gender	Male	33.9 %	63 %
	Female	66.1 %	37 %
Age	Up to 24	12.9 %	12 %
	25-34	24.2 %	17 %
	35-44	27.4 %	36 %
	45-54	24.2 %	20 %
	55+	11.3 %	15 %
Education	Primary	-	1 %
	Secondary	11.3 %	39 %
	Faculty / higher	88.7 %	60 %
Land of origin	Croatia	100 %	25 %
	Italy	-	16 %
	Germany	-	16 %
	Slovenia	-	6 %
	Belgium	-	4 %
	Netherlands	-	4 %
	Russia	-	4 %
	Other	-	18 %

Source: authors' research

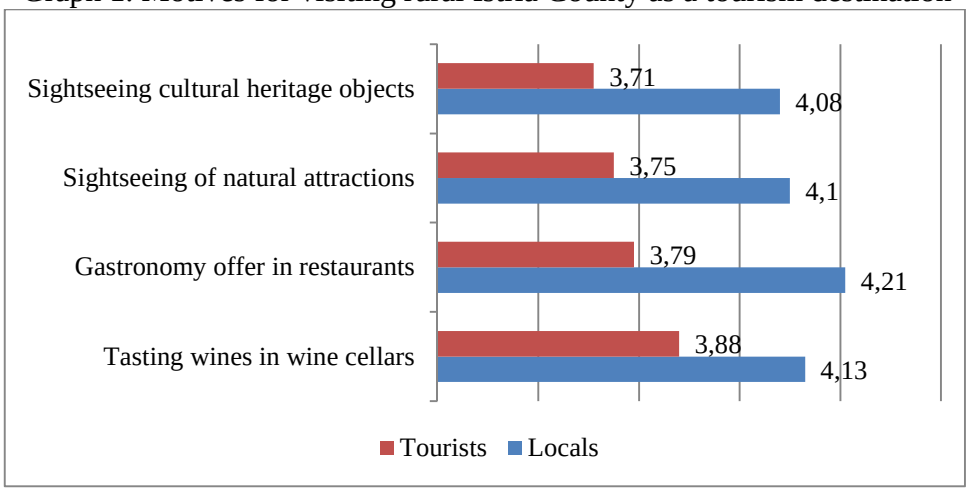
Table 2. Economic profile of respondents'

Economic indicators		Local Population (%)	Tourists (%)
Monthly Income	Up to 1.000 €	60.5 %	26 %
	1001-2000 €	29.5 %	29 %
	2001-3000 €	-	19 %
	3001-4000 €	-	6 %
	Over 4000 €	-	20 %
Employment	Entreprenuer / own business /selfemployed	12.9 %	31 %
	Employee	62.9 %	32 %
	Manager	6.5 %	20 %
	Student / pupil	12.9 %	10 %
	Retired	1.6 %	4 %
	Other	3.2 %	3 %

Source: authors' research

Main motive for visiting rural parts of Istria County was related to the gastronomy offers of the destination. Slightly less important were sightseeing of natural and cultural attractions and objects like nature parks, small cities and villages, old castles, ruined medieval castles and old ruined cities. Results showed an interesting point in research, because the local population valued much higher all the components of the rural areas grading with an average 4 (on the scale 1 to 5) in comparison to tourists.

Graph 1. Motives for visiting rural Istria County as a tourism destination



Source: authors' data processing

4. CONCLUSIONS

Romanticism and aesthetic pleasure of the landscapes and natural scenery present a value of an area a quality of living for local population and an attractive feature for incoming tourists (a push factor) for an area. The landscapes in chosen research areas have shown similarities in terms of geographical features and similar agricultural production (grassland, vineyards and orchards).

Istria County as a chosen area of Croatia offers a variety of natural landscapes in all categories of land: very steep (not suitable for agriculture), steep (suitable for grasslands), moderate (limited plough land alternating with grassland), gentle (plough land with limits), plane (plough land with or without limits) and planes with possible water erosion.

The territory of Istria County contains also all four types of agricultural landscapes with terraces; traditional agricultural land with dispersed settlements; traditional agricultural land with vineyards; traditional agricultural land with arable land, grassland and orchards and traditional agricultural land with arable land and grassland.

Through the field survey we came to conclusion that sightseeing of natural attraction in Istria is highly valued with average grade 3.75 and similar importance for cultural heritage sights 3.71. The interesting point of our survey was that local population valued more highly all features of rural areas (scoring 4.1 for natural attractions and 4.08 for cultural heritage) in comparison to tourist opinions.

REFERENCES:

[1] Crompton, J.L., McCay, S.L. (1997) Motives of visitors attending festival events. *Annals of Tourism Research* 24(2):pp425-439.
[2] Dann, G.M.S. (1977) Anomie, ego-enhancement and tourism. *Annals of Tourism Research* 4(4): pp184-194.
[3] Dann, G.M.S. (1981) Tourist motivation: An appraisal. Annals of Tourism Research 8(2): pp187-219.
[4] Schirmer, R. (2009) Les paysages du vignoble francais. https://halshs.archives-ouvertes.fr/halsh-00442195
[5] Le vignoble dans le paysage (2002) Les cahiers itineraires d'itv France. Ministere de agriculture et de la peche. Novembre 2002 (presentation)
[6] Slamova, M., Jakubec, B., Hreško, J., Belaček, B., Gallay, I. (2015) Modification of the potential production capabilities of agricultural terrace soils due to historical cutivation in the Budina cadastral area, Slovakia. *Moravian Geographical reports* 23(2):pp47-55.
[7] Špalerova, J., Dobrodovska, M., Štefunkova, D. Kenderessy, P., Iszoff, M. (2017) Terraced landscapes in Slovakia. *Acta Geographica Slovenica* 57:pp99-109.
[8] http://mapofeurope.com/europe-political-map/
[9] Pipan, P., Kokalj, Ž. (2017) Transformation of the Jeruzalem Hills cultural landscape with modern terraced vineyards. *Acta Geographica Slovenica* 57:pp149-162.
[10] https://www.google.com/search?q=slovakia,+hrinovske+lazi&client=firefox-b&tbm=isch&tbo=u&source=univ&sa=X&ved=0ahUKEwiUlZSs-_DbAhUG2KQKHaeoC-cQsAQIKw&biw=1689&bih=931#imgrc=qcip58SPYJClMM
[11] http://www.kingofucka.com/park-prirode-u269ka.html
[12] https://blog.coloursofistria.com/hr/top-pet-zimskih-lokacija-sjeverozapadna-istra/
[13] https://www.dzs.hr/Hrv.../Poljoprivreda%20-%20pregled%20po%20zupanijama.xlsx
[14] http://www.villa-belle.eu/oprtalj.html

HISTORICAL DESTINATIONS IN NORTH INDIA AND THEIR IMPACTS: AN ANALYTICAL STUDY (SPECIAL FOCUS ON DELHI)

Zeba Zarin Ansari[281]
Ajay Kumar[282]
Anton Vorina[283]

DOI: https://doi.org/10.31410/eraz.2018.616

Abstract: *India is popularly known as incredible India among tourists of India and abroad. India is explored and ruled by several invaders and traders from time to time. Some invaders ruled for a long period and some did that for a loot purpose and left India with the taste of their culture. In all over India, we can witness different monuments of different dynasties in India. Maximum monuments were built by rulers of other countries. These rulers chose to rule north India, because many battles were fought in north India, such as Delhi, Panipat, Rajasthan, Punjab, and so on in order to earn gold and to set up a new capital. From different period of time invaders from Turkey, Afghanistan, Iraq, Portugal, France and other parts of the world, including Britain, entered India. Some of them came for trade and some came for maximizing their reign. These invaders during their reign built many famous constructions, which are very popular today. Therefore, in this way Delhi was built several times and became the capital of India, which is filled with the monuments of different historical dynasty where we can see the mixed culture and traditions. Large amount of such constructions can also be seen mainly in Agra, Jaipur and in other parts of India. That is why today maximum tourist from every part of the world likes to travel in North India to experience the beauty of historical architecture. The said paper will try to find out different dimensions of historical monuments and their importance in north India. The paper mainly focus on Delhi as it is believed that Delhi has been destroyed and constructed many times, but still it is a matter of research for us that how we can preserve the beauty of these historical monuments in Delhi for future.*

INTRODUCTION

North India is a mixture of different types of people with different cultures and traditions, existence of the heart touching pilgrimage centres and the exotic architectural monuments and archaeological sites. This is one of the places in India where the tourists feel to visit several times, not only to wander in the elegance of the physical attractiveness, but feel the warmth of devotional celebrations, and visit the number of religious sites and monuments that are evidence of North India's picturesque history. The cultural heritage of North India includes Jammu and Kashmir, Uttarakhand, Himachal Pradesh, Chandigarh, Delhi, Haryana, Uttar Pradesh and Punjab. Rajasthan, Madhya Pradesh and Bihar are treated as North Indian states for their cultural and linguistic identity. [2] Most of the part of India's historical, archaeological and architectural wealth is found within the locality of North India. In Krimchi, a small village in Udhampur, **Jammu and Kashmir**, the oldest temples of India is found, known as Pandava temples. The attractive Hindu pilgrimage town

[281] Jamia Millia Islamia University, Maulana Mohammad Ali Jauhar Marg, Jamia Nagar, New Delhi, Delhi 110025, India
[282] Jawaharlal Nehru University, New Mehrauli Road, Munirka, New Delhi, Delhi 110067, India
[283] Vocational College Celje, Mariborska 2, 3000, Celje, Slovenia

called Jageshwar is situated in the Almor district of **Uttarakhand**. 124 small temples in cluster formation can be seen here. The valley of Kangra is situated in the state of **Himachal Pradesh**. Kangra is native to the Himalayan Pyramid - *Masroor* Rock Cut Temple. Other famous attractions are the Kangra fort, Taragarh palace, Indrahar Pass, and the Kareri Lake. Urban and Architectural Work of Le Corbusier are located in **Chandigarh**. A strong religious and historical place where Bhagavad Gita was addressed by Lord Krishna to Arjun is the holy land of ***Kurukshetra***, in **Haryana**. Some of the historical sites are Brahma Sarovar, Sri Krishna Museum and the Brisma Kund. The Pandav brothers founded ***Panipat***, in Haryana during the period of Mahabharata. This place is known for the battle of Panipat. Other heritage sites in Panipat are Panipat Museum, the grave of Ibrahim Lodhi, Kabuli Bagh and Kala Amb. ***Karnal*** in Haryana is a place related to the history of Mahabharata. It is called the rice bowl of India. The places of attraction are the Karnal Fort, Karnal Lake, Cantonment Church Tower and the Pukka Pul. ***Hisar*** is a historical city in Haryana which has evidence of presence of pre-historic man. Famous monuments here are the Banavali, Gumbad, Fort of Prithviraj and Devi Bhawan Mandir. ***Hansi*** in Haryana is a historical city with many buildings of archaeological interest. The oldest fort in Haryana is found in Hansi. Statues of the founders of Buddhism, Gautam Bhuddha and the Jain God, Mahabir are seen here. ***Ayodhya*** is a town next to Faizabad in **Uttar Pradesh**. It is believed to be the birth place of Lord Rama. It is a city of temples and has rich history. ***Varanasi*** in Uttar Pradesh is the oldest city of the world. It is situated on the banks of the River Ganga. The place is famous for its Ghats and for the colorful and vivid life of its people. ***Vrindavan*** is a town in Mathura, Uttar Pradesh also known as Krishna Bhumi. The temples here are devoted to Lord Krishna and Radha which is treated as one of the holy places for Hindus. Taj Mahal is located in ***Agra,*** Uttar Pradesh is a famous tourist destination in North India. The Mahabodhi Temple complex is located at ***Bodh Gaya***, **Bihar**. It was built by the Emperor Ashoka in 260 BC is a famous travel destination. Sri Harmandir Sahib is a Golden Temple located in Amritsar, Punjab, is a famous tourist spot. Dilwala temples is located in ***Mount Abu***, Rajasthan. ***Alwar*** is a majestic town located in the state of **Rajasthan**. It has places and forts with its picturesque scenic beauty. The major tourist attraction of Alwar is the Bhangarh Fort which is predicted to be haunted by the archaeological department. Khajuraho Group of Monuments is situated in the ***Chhatarpur*** district of **Madhya Pradesh**. These monuments are a group of Hindu and Jain temples. This temples are famous for seductive sculptures with Nagara - style architecture. Bhimbetka Rock shelter is situated in the ***Raisen*** district of Madhya Pradesh. This place is the belongings of the Palaeolithic Age. The Gwalior Fort, Raja Man Singh Tomar's Palace, Scindia Museum and the Gopachal Parvat lies in the historical city of ***Gwalior***, Madhya Pradesh. [3] **Delhi** is the capital of India which has a strong historical background in the Indian History. The powerful emperors from different parts of the world ruled over Delhi several times. The history of Delhi was as old as the Mahabharata. Delhi was known by different names during the historical period such as Indraprastha, Lal Kot, Siri, Dinpanah, Quila Rai Pithora, Ferozabad, Jahanpanah, Tughlakabad and Shahjahanabad. For over five centuries Delhi faced political violence. Delhi was ruled by the Mughal empire, Rajputs and the British rulers.[4] In this way Delhi was built several times and after the independence in 1947, New Delhi became the capital of India. Due to ruling of different strong emperors and invaders of different historical dynasty, Delhi became the existence of cultural heritage of North India. Therefore maximum number of tourists from different parts of the world love to visit North India to explore the beauty of historical architecture. Some of the popular tourist destinations are- Red Fort, Jama Masjid, Qutub Minar, Himayun Tomb, Lotus Temple, Iskcon Temple, India Gate, Parliament house, Rashtrapathi Bhawan, Jantar Mantar. Due to underground construction, granite quarrying, collapse of fort walls, some monuments has gone disappeared. Many historic sculptures, temples and tourist places have been damaged and the jewels of the monuments have been taken out from North India. Therefore, for the

storage of the treasures and the beautiful architectures, ASI has divided the area into different circles for the preservation of the historical monuments and archaeological sites. Whether the surveyors maintaining the monuments for the next generation, today we people will have to survey and investigate and will have to make new laws. A little struggle and effort is needed to make the extreme changes that will make the generations of the past, present and the future proud feel for the well maintenance of the cultural heritage of North India.

STUDY AREA

North India adjoins the northern parts of India. It lies on Continental India, North of Peninsular India. The geographical features of North India are the Indo - Gangetic Plain, Himalayas and the Thar Desert. The Ministry of Home Affairs in its Northern Zonal Council Administrative Divisions covered the states of Haryana, Himachal Pradesh, Jammu and Kashmir, Punjab, Rajasthan, Delhi and Chandigarh. The Ministry of Culture in its Northern Culture Zone includes Uttarakhand. The Geological Survey of India includes Uttar Pradesh and Delhi. Other states also included are Bihar and Madhya Pradesh. North India has been the historical centre of the Mughal, Delhi Sultanate and British Indian Empires. The climate of North India follows temperate zone of the earth. The pattern of the climate is cool or cold winters, hot summers and moderate monsoons. During summer, the temperature rises up to 35 degree Celsius in most of the part of Indo – Gangetic Plains, reaching as high as 50 degree Celsius in the Thar Desert and 48 degree Celsius in Delhi. During winter, the temperature falls to minus 5 degree Celsius in the plains and below freezing point in some states. In Himachal Pradesh, Jammu and Kashmir and Uttarakhand heavy to moderate snowfall can be seen. North India also faces heavy fog during winter. North India receives rain and snow precipitation due to two weather patterns – The Indian Monsoon and Western Disturbances. The traditional seasons of North India are summer, rainy, cool, autumn and winter. The vegetation of North India are deciduous and coniferous. Some of the deciduous trees are sal, teak, walnut, sheesham and poplar and the coniferous trees are cedar, fir, birch, juniper, cypress, pine, and spruce. 500 varieties of mammals, 2000 species of birds, 30,000 types of insects, wide varieties of fish, amphibians and reptiles are found in North India. The demography of North India belongs to Indo Aryan ethno linguistic branch. The various ethnic groups include Brahmins, Rajputs, Banias, Jats, Ahirs, Gurjars, Kolis, Khatris, Kambojs and the Dalits. Other minority ethno – linguistic group include Dravidian, Tibeto – Burman and Austroasiatic. The dominant religion of North India is Hinduism. Other religions practiced by the ethnic communities are Islam, Sikhism, Jainism, Zoroastrianism, Judaism, Christianity and Buddhism. Linguistically Indo – Aryan language is a dominated language of North India. The official language of North India is Hindi. The native languages of the state of North India are Urdu, Dogri, Rajasthani, Bhojpuri, Awadhi, Haryanvi, Garhwali, Kumaoni, Kinnauri, Ladakhi, Lahuli – Spiti and Korwa language. The wildlife national parks and reserves, the holy pilgrimage centres and the historical monuments and archaeological sites encompass North India. The study area will specially highlight Delhi, the capital city of India.

OBJECTIVE OF RESEARCH

1. To focus on historical places in North India specially highlighting Delhi.
2. To find out the different dimensions of the historical monuments and their importance in the concerned area.
3. To find out the impact of Tourism on historical sites.
4. To suggest the related solutions for preservation of the beauty of historical monuments of Delhi for future generations.

METHODOLOGY

The present study is based on primary and secondary data. The data have been collected from various officials and semi – officials published reports, ASI, research journals, newspaper reports, research articles, websites and works of individual scholars.

The main sources of primary data used are – Map of Delhi using Arc GIS Software. The data has also been collected from Field survey report.

The main sources of secondary data used are – District Census Hand Book 2011, Ministry of tourism Annual Report, Tourism Statistical year book of India, Census of India 2011, Archaeological Survey of India report.

ANALYSIS AND DISCUSSION

North India is influenced by the history of ancient Indus Valley Civilization. This is the reason large number of tourists attracts here. During the historical period Egypt and Mesopotamia was connected with North India for trade. The Aryans from Central Asia entered North India, invaded the region for agriculture. The Greek settled in North India after the invasion of Alexander in 326 BC. The Gupta Empire occupied North India up to Bay of Bengal in the East during the period between 4th and 6th centuries AD. Hun invaded the North West - India by defeating the Gupta Empire in 535 AD. After the Hun Dynasty the other Central Asian Tribes entered North India and settled during the 6th century AD. During 1011 to 1030, Mahmud of Ghazni, an Afghan ruler, captured North India several times in order to loot the wealth from Hindu temples of Thanesar, Mathura and Somnath. In the later part of the 12th century, Muhammad Ghori captured North India. He started his invasion through a Himalayan Gomal Pass and then he established his empire in North India. After the death of Ghori, the succeeding emperors and sultanate like Mughals rulled over Delhi and the Delhi Sultanate was formed. During this period many historical monuments were built. Later the British East India Company entered India by taking the permission from the Mughal Emperor Shah Jahan. Their intension was to establish trade in North India. With the settlement of business in trade they defeated the Mughal Empire. During the period of 1857, the last Mughal Emperor Bahadur Shah Zafar fought battle with the British company and was defeated. The Empire was ruled under the British Queen Victoria till India became independent on 15th August 1947. [7]

Historical destinations in North India with special focus on Delhi – its different dimensions and their importance

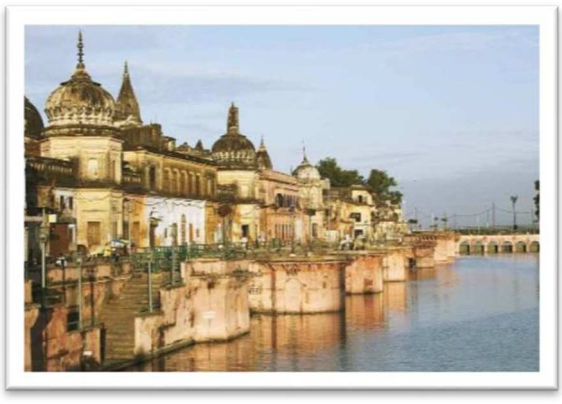
Taj Mahal, Agra

The most beautiful building in the world is Taj Mahal situated in Agra in Uttar Pradesh. It was built by the Mughal Emperor Shah Jahan, in the memory of his third wife, Mumtaz Mahal. Taj Mahal is called as the “symbol of love”.

Shah Jahan said that Taj Mahal made “the sun and the moon shed tears from their eyes”. In the Persian language, Taj Mahal is known as the Crown of Palaces. It took 17 years to complete the Taj Mahal by 1653. It is made from white marble and the tomb is designed in rectangular shape. Due to water channels and fountains in the entrance the monument became more wondrous. The wildest imagination of Taj Mahal made the visitors prepare for world wonder. It is the pure example of Mughal architecture which is now a UNESCO world heritage site. Therefore it is considered as the most beautiful building in the world. [8]

Ayodhya, Uttar Pradesh

Ayodhya is expected to be the birth place of Lord Rama. It is a city which plays an important role in the Hindu epic of Ramayana. The colour and spirituality of Ayodhya attracts the tourist from different destinations. It is situated on the bank of river Sarayu, in Uttar Pradesh. It is a capital Awadh, which is believed to be a famous Hindu religious tourist place with temples and historical sites such as Ramjanma Bhoomi, Kanak Bhawan, Hanuman Garhi, Nageshwarnath Temple, Gulab Bari, Choti Chawni. It has rich history and many legends. Recently this place is in news due to Babri Masjid conflict. The Masjid which was constructed on Ramjanma Bhumi made dispute between Hindus and Muslims.



Gulab Bari is a beautiful rose garden in Ayodhya which is surrounded around the tomb of Shuja – ud – Daulah. The garden has varieties of exotic roses which attracts the tourists. Gulab Bari is known for the Imambara and the mosque.

Choti Chawni is a beautiful structure made out of white marble. It is known as Valmiki Bhawan or Maniramdas Chawn. There are 34 heritage caves out of which 12 are to the south known for Buddhist, 17 in the centre known for Hindu and 5 in the north known for Jain. The kailasha temple in the caves increases the beauty of the structure. [9]

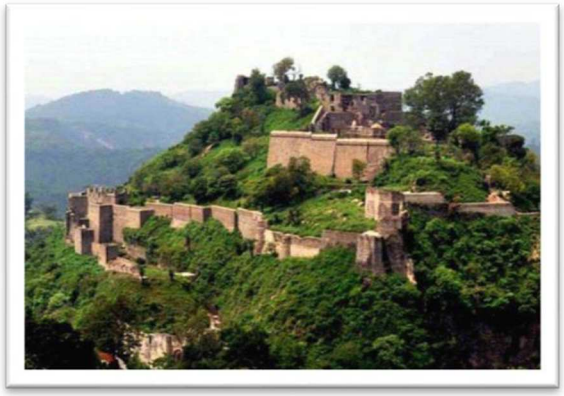
Kurukshetra, Haryana

Kurukshetra is the centre point of the Epic Mahabharata. Lord Buddha and many Sikh Gurus visited Kurukshetra to spent time. It has many devotee centres, holy shrines, and kunds which visualize the epic ages and the early Indian civilization. The ASI claims that this place exits during the pre - Harappan times. Thanesar is a historical town in Kurukshetra. According to ASI, Ashoka was the Mauryan rular of Kurukshetra. He developed a centre of learning for visitors who come from all over the world. Kurukshetra attracts the visitors because it has many temples, museums and lakes which records the history of pre – Harappan and Harappan civilizations. Brahma Sarovar, Krishna Museum, Bhadrakali Temple, Sannihit Sarovar, Sthaneshwar Mahadev Temple are some of the destinations attracts the tourists.

The archaeological evidence said that the Pandavas earned the blessings of Lord Shiva in Sthaneshwar Mahadev Temple. The tank in the site was believed to heal the properties as this tank healed Banasura's leprosy. It is an ancient capital of Harsha Vardana. The roof of the temple is designed like an amla dome with lofty pinnacles. It is an ancient statue of the Shiva Linga. It is thought to be the first idol of Shiva. [10]

Kangra Fort, Kangra

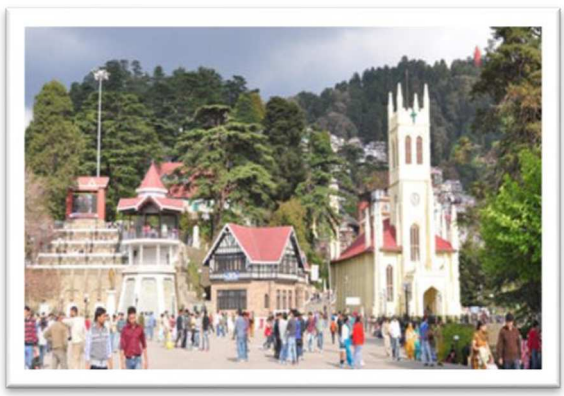
Kangra Fort is situated in the town of Kangra, in the state of Himachal Pradesh. Kangra Fort is observed to be a place which has thousands of years of grandeur, invasion, war, wealth and evolution. This fort has its origin to the ancient Trigarta Kingdom which is found in the Mahabharata epic. It is the largest fort in the Himalayas and the oldest in India. Jahangir captured the fort in 1622. Later Raja Sansar Chand – II finally invaded Jahangir and captured the fort from the Mughals in 1789. Later the British took from Raja Sansar and occupied the fort until on April 4, 1905, the fort was heavily damaged by the earthquake. The Kangra Fort is the symbol of elegance and royalty which attracts the visitors. A small courtyard is placed by two gates towards the entrance of the Kangra Fort known as Phatak. From the Ahani and Amiri Darwaza, a long and narrow passage runs to the top of the fort. This darwaza was of Nawab Ali Khan, the first governor of the Kangra from the Mughal Dynasty. After 500 feet, through the outer gate, the passage runs through the Jahangiri Darwaza from where the Muhammadan building appears. The slab of the fort is made of white marble which visualize the Persian inscription. Today the fort is in ruin now; the royal structure which used to stand there can be imagined. Therefore an exotic view can be seen from the top of the roof which mesmerizes the tourist. [11]



Shimla Tourism

The capital of Himachal Pradesh is Shimla. It has a famous hill station with rich colonial history in North India. It has famous mall road, the ridge, toy train etc. established by the British Colonials who left behind the memories for tourists like honeymooners, families and travellers. Shimla is one of the most beautiful tourist destinations in India which is situated at a height of 2200 m. It is aesthetically a well-planned city in India. As it was a summer capital of British India, the natural beauty, the atmosphere, the well-knit roads, impeccable cleanliness and efficient administration, bound the tourist to live for long and feel the nature because it makes a perfect destination for tourists in the world. Shimla has colonial style buildings, Institute of Advanced Studies, and the historic temples named the Jakhoo Temple.

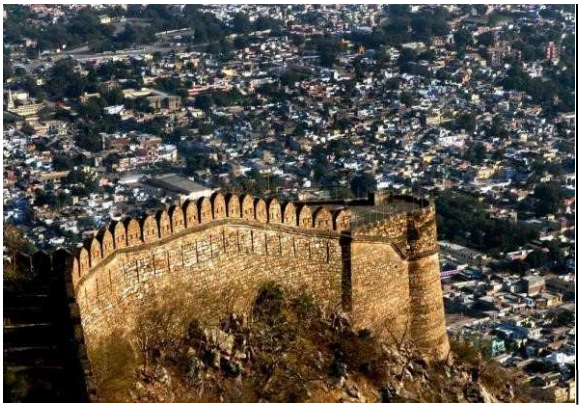
The Jakhoo Temple is set on the highest point on Jakhoo hill in Shimla. The Jakhoo temple is devoted to the Hindu monkey god – Hanuman. This temple attracts the tourists, the visitors, the Hindu pilgrims and the devotees because it has the world's largest Hanuman statue which is visible from many locations of Shimla.

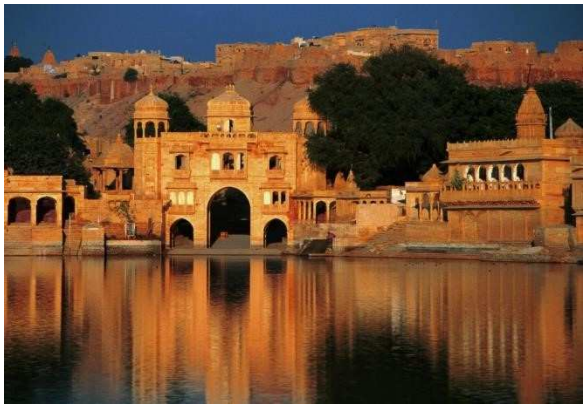


Shimla is a base with nearby tourist places like Chail, Kufri, Naldehra, Mashobra, Tattapani and Narkanda. The toy train runs from Kalka to Shimla through beautiful hills and valleys passes through more than hundred tunnels. It is one of the most beautiful narrow gauge train routes in the world which comes in UNESCO world heritage site. [12]

Bala Quila Fort

Alwar Fort is located in the Aravalli Range of Alwar town. This fort was built by Hasan Khan Mewati in the 15th century. According to the Hindus, the fort describes that it is the strength of the king.





The definition of the Baba Quila is the young fort. Laxman pole connects the fort to the Alwar city. Kachhwaha Rajput Pratap Singh captured the fort in 1775 AD. The Alwar fort is visible with a distance of 595 m from the Alwar city. The fort has 6 gates which talk of the valor and chivalry of the Rajputs. The wall is designed with ancient sculptures and scriptures. It is an architectural piece of the indo-Islamic style. The beautifully crafted wall takes the tourist to the golden era. Some of the buildings in the fort are Taj Mahal, Salim Sagar Pond, Suraj Kund and 15 temples which reflect the history of the bygone era today. The fort was used by the Mughals for attacking Ranthambore. The fort has a radio station which can be visited with the permission of the superintendent of police, Alwar.

Varanasi Tourism

Varanasi is a spiritual capital city of India located on the bank of the river Ganga. It is a pilgrimage place for Hindus where people come for salvation and purification. Varanasi is a place of marvelous architectural heritage.

The city is described as a melting place where life and death come together. Chaos and noise are seen on the ghats of Varanasi in the day time. Ganga Aarti takes place in the evening which makes the area silent. Pandits performing the rituals are the performances of the senses made by them.

Golden Temple

Golden Temple is a spiritual place in India. It is the holiest shrine also known as Sri Harmindar Sahib. Many people visit Golden Temple from all over the World to explore spiritual solace and religious fulfilment. It is located in the beautiful city of Amritsar. Golden Temple is a shrine shining in the centre of the tank which makes the visitors memorable.

The visitors believe that the tank has healing powers that can cure many diseases. This place has a mesmerizing beauty and peace where the pilgrims gather to listen to the hymns and pay respect to the Guru Granth Sahib. The structure of the golden temple is a sight of beauty and admiration. This place is incredibly peaceful. Inside the main entrance clock tower of the temple the Sikh Museum is located. The Ramgarhia Bunga is surrounded by two Islamic style minarets located at the southeast end of the tank. Golden Temple is one of the most beautiful attractions in the world.

Mahabodhi Temple

The Mahabodhi Temple is called the great awakening temple. It is one of the world heritage sites located in Bodh Gaya. It is a Buddhist temple where the Buddha achieved enlightenment.

The total area of temple is 4.8 hectares, and it is 55 meters tall. The Bodhi tree is situated to the left of the Mahabodhi temple where Lord Gautam Buddha used to meditate. This temple has a very calm and peaceful ambiance loved by the pilgrims. During the visit of the Great Emperor Ashoka to Bodh Gaya in 260 BC, he constructed a small temple by the tree which later named as Bodh tree.

Fatehpur Sikri

The Mughal Emperor Akbar founded Fatehpur Sikri in 16th Century. It is made of red sandstone. For fifteen years Fatehpur Sikri was the capital of Akbar's Empire.

Today it is a UNESCO world heritage site and also a famous tourist destination. Fatehpur Sikri is home to Jodha Bai's palace. It is a home of architectural excellence, religious beliefs, and tourist spot. Akbar built this monument to honour Sheikh Salim Chisti. Also he built a marvellous mosque along with it. He constructed three palaces for his favourite three wives, one is hindu, one is muslim and the other is christian. Fatehpur Sikri is an Indo-Islamic Masterpiece. It has an 11km long fortification wall which shows several gateways. It is a history of paradise.

Hawa Mahal

Hawa Mahal stands at the crossroads of the main road in Jaipur. It is known as the signature building of the city. It was built by Maharaja Sawai Pratap Singh in 1799. Hawa Mahal is named because the building has many small windows which allow fresh cool air to enter the palace to keep the palace comfortable during the summer months.

The main logical architecture for construction of Hawa Mahal was to permit the women of royal house to observe the festivals and other activities going on in the streets instead it was invisible from outside. It is a Rajput architectural design made of red and pink sandstone. The structure of the palace is pyramidal which resembles a crown and it has countless tiny windows. The Hawa Mahal palace has five floors; each one of them has unique decorated chambers. There is a beautiful fountain inside the main palace from where one can move to different floors. The top floor of the palace gives a beautiful view of the City Palace, Jantar Mantar, and the Siredeori Bazar. Nearby Hawa Mahal there is a small museum which has rich relics and miniature paintings.

Amber Fort

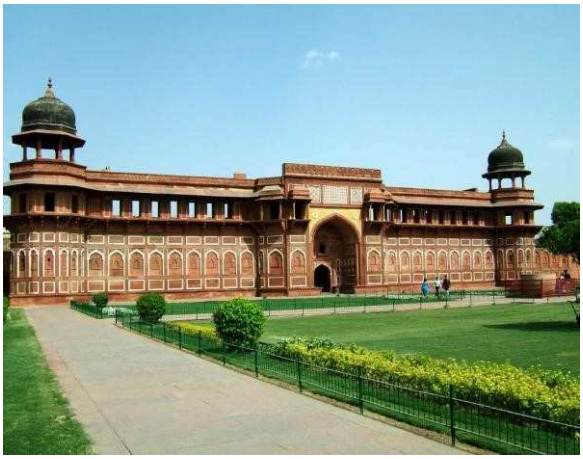
Amber Fort is situated on the top of the Aravali hill in Jaipur and it has a beautiful view from across the Maotha Lake. It is a beautiful architectural monument visited by over five thousand tourists daily. It is made of pink and yellow sandstone which gives a mesmerizing view from the bottom of the Aravali hill. Amber Fort was built by Man Singh, the most trusted general of Akbar. Amber Fort or Amer Fort is a place of photographer's paradise.

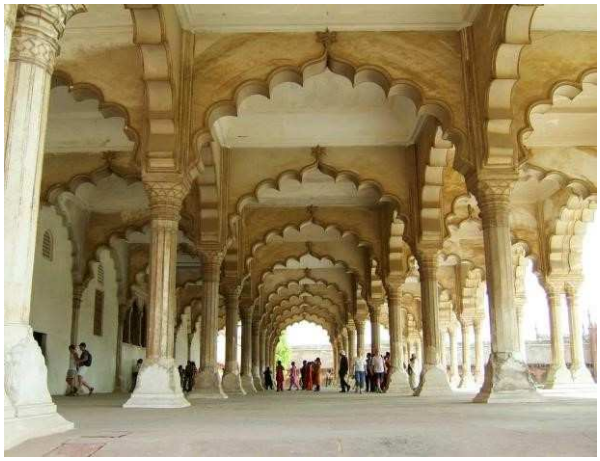
It has large ramparts, several gateways, and paved path. Amer is a small town with an area of four square kilometers; it was once a capital city of Rajasthan and today it became a famous tourist spot which attracts the visitors worldwide. The fort can be visited on an elephant back.

Amber Fort and Jaigarh Fort is located on the top of the hill called 'Cheel ka Teela'. There is an underground passage which is called an escape route used during emergencies.

Agra Fort

Agra Fort is also known as Lal Qila, Fort Rouge, or Red Fort of Agra. Agra Fort is located on the right bank of the river Yamuna in Agra, Uttar Pradesh.





It is situated at a distance of 2.5 kms from the world famous Taj Mahal. Agra Fort was built in the year 1573 by Mughal Emperor Akbar. It was the main residence of the Mughal dynasty until 1638, when the capital was shifted from Agra to New Delhi. The Agra Fort comes under UNESCO world heritage site due to its historical importance and unique construction. Agra Fort is known to be the most important and unique monument built by the Mughals. It has beautiful architecture and Mughal style of art which makes the tourist visit to the destination. The construction is made of red sandstone which stands on the opposite side of the purplish blue sky. Within the premises of the fort, the beautiful architecture of the Mughal dynasty like the Pearl Mosque, Diwan-I-Khas, Diwan-I-Aam, Moti Masjid, and Jahangiri Mahal lies.

A beautiful view of Taj Mahal can be seen from the Agra Fort.

Historical places of Delhi

Delhi is a famous historical place which is known for its modern tourist destination and places of worship of many religions. Delhi is native to UNESCO world heritage site due to home of unique architectural sites like Qutub Minar, Red Fort, Humayun's Tomb, along with famous historical places and places of tourist attractions such as Chandni Chowk, Purana Quila, Parliament House, Connaught Place, James Church, Pitampura TV Tower, Jawaharlal Nehru Stadium, Tallest Indian Flag, Lodhi Garden, Rajpath, Old Fort, Ahinsa Sthal, and Mughal Monuments in Delhi. Delhi was ruled by many powerful emperors. If we see the history of Delhi, Delhi was named as Indraprastha, the capital of the Pandavas. The soil of Delhi is filled with love, sacrifices, and bloodsheds for the country. The monuments and the historical sites of Delhi stand silent which reveals the story of the past. Delhi was not always been the capital of India but it plays a vital role in the Indian history. It has always been a gateway city of India. Delhi traces its history to Mahabharata, which was the great epic tale of wars that was fought between cousins, Kauravas and the Pandavas for the Indraprastha city. As we all know Delhi is attracted to domestic and international tourists due to abundance of treasures kept away by the ancestors. Therefore history of Delhi was written by every historian during the different era for the future generations like the history of Pandavas and the Harappan Culture (before 300 BC), Mauryan Empire (300 BC to 1st Century AD), Tomars and Chauhans (736 to 1192 AD),

Sultanate Period (1192 to 1526 AD), Mughal Era (1526 to 1857 AD), British Empire (1857 to 1947 AD), Indian Independence (1947 AD).

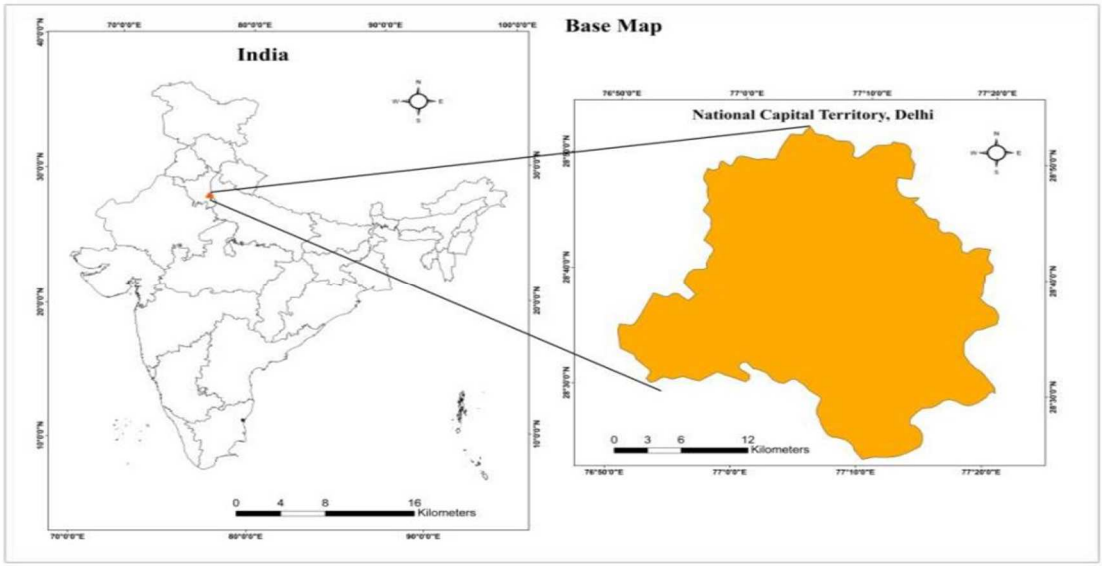
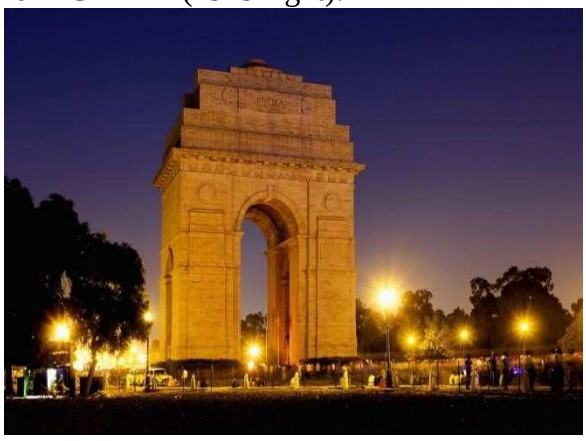


Figure: GIS base map showing the capital city of Delhi

India Gate

India Gate is a most famous historical site of Delhi as well as India situated with a leg on either side of the Rajpath. One of the tallest gate in India is the All India War Memorial in New Delhi. It is 42 metre high, an "Arc De Triomphe" like archway situated in the middle of a crossroad. India Gate was designed by Edwin Lutyens. The complete arc is situated on the base of the red Bharatpur stone and it has a huge moulding. At the top of the India Gate has a shallow domed bowl where burning oil is filled on anniversaries. The both side of the arc is written INDIA, bordered by the dates MCMXIV (1914 left) and MCMXIX (1919 right).

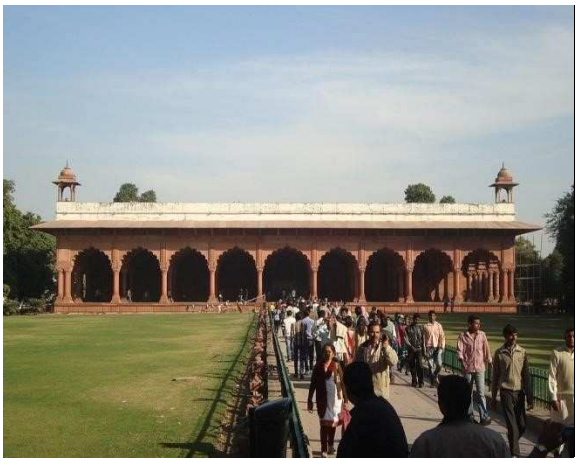


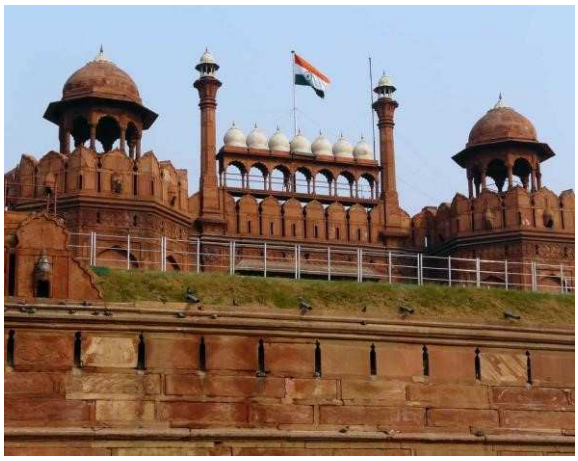
It has fountain nearby with lush green lawns famous for picnic spot for the visitors. [14]

Red Fort

Red Fort is a historical place located in the capital city of New Delhi. Red Fort was the main residence of the Mughal Dynasty. It was built by Shah Jahan in 1939. The Red Fort derives its name from the red sandstone walls. It was the political and ceremonial centre of the Mughal

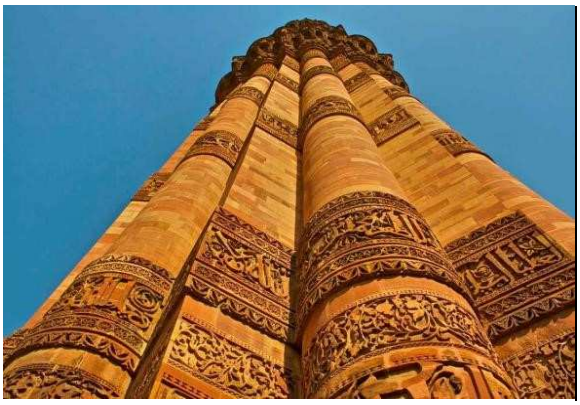
Dynasty. Today this monument is a home of number of museums. During the Independence Day the national flag are put down by the Indian Prime Minister in the Red Fort. [17]





Qutub Minar

Qutub Minar is the tallest individual building in the world and the second tallest monument in Delhi which comes under UNESCO world heritage site. It is situated in Mehrauli. It was constructed by Qutub Uddin Aibak in 1199. Iron pillar and the Alai Darwaza is situated besides the Qutub Minar. The height of the Qutub Minar is 14.3m at the base and 2.7m at the top. There are 379 stairs which takes one to the top of the monument. The qutub Minar is a five storey building which tilts a little from 65 m above the ground level. It is built of red sandstone and marble. It is an Indo-Islamic architecture where every floor has a balcony surrounded by the minaret and it is supported by corbels. Verses from Quran are engraved on the minaret with Parso-Arabic and Nagari Characters. [15]



Humayun's Tomb

Humayun's Tomb was a relaxing place of the Mughal Emperor Humayun. It is situated in the Nizamuddin East area of Delhi. It is one of the first garden tomb built by Humayun in the Indian Sub-Continent. This tomb comes under UNESCO World Heritage Site list in the year 1993. The tomb is situated in the middle of the huge ornate Mughal Garden. It is situated on the banks of the river Yamuna. This tomb is a mausoleum of his wives, son, and descendants of the later Emperor Shah Jahan and the other Mughals. The structure is a mixture of Persian

and Islamic architecture. The tomb is made up of debris of granite and red sandstone and applying white marble as a covering material. [16]

Jama Masjid

The word 'Jama Masjid' is derived from the word 'Jummah' when the Muslims pray to Allah on Fridays. It is the reminder of the Mughal architecture. It is made up of red sandstone and white marble. It is the largest mosque in India. Every year thousands of Muslims visit the Mosque to have prayer service on Eid to have special Eid Namaz on Eid. The mosque was built by 5000 artisans under the supervision of Wazir Saadullah Khan. It took six years to complete the mosque. The costing to build the mosque at that time was 1 million rupees. The mosque can be seen from the three sides of the stairs through east, north and south. It has four towers and two 40m high minarets. The construction of the mosque started in 1644 and completed in 1656. Mughal Emperor Shah Jahan built the Jama Masjid. It is located in old Delhi in Chandni Chowk. The courtyard is capable of holding 25000 devotees. [18]

Tourism impacts on historical sites

No doubt northern part of India is full of wows and woos when talk about historical destinations particularly. These destinations are indeed a milestone for the increment of foreign currency. As the present paper suggests some positive and negative impacts of tourism on these given historical sites, our research highlight areas, where clear focus needs to be required. There should be awareness in the utilization of cultural heritage for exhibiting the past and figure out the positive and negative result for the management of the monuments in North India especially in Delhi. Recently due to rapid growth of tourism in the market, it has become important to develop potentially the historical sites which are in danger due to pollution, nearby industries,

acid rain, and due to other activities taken place in the area. There should be site surveys, ethnographic observations, and repeat photography to analyze the impacts on historical sites taken place by the surrounding activities and due to natural environmental changes. Mechanical interactions may change the beauty of the monuments and may damage the archaeological record which may affect the tourism industry to a great extent. Evidence of tourism sector may alter evidence of the past histories without removing them but at the same time tourism sector has a minor effect on the monuments in relation to the process of nature. Therefore tourism never takes place at the historic sites which never changes, i.e., frozen but at sites that is going towards extinction. A tourism sector always tries to focus on the historical sites that are always accessible to the visitors. The influence of tourism industry toward the monuments may go to the lower level if there are changes in the environmental impact assessment and monitoring. Qualified guides and the authorities who are capable to handle the responsibility and who are active to take precautionary action of the monuments which are in danger for future generations are mentioned.

Government is trying to visualize the tourism industry development by diminishing the negative impacts and developing the positive impacts. Degradation of historic sites and monuments leads to overcrowding and congestion which causes negative environmental impacts. Development of tourism will take place if the natural environment will be protected, if there will be balance in the ecosystem, if conservation and preservation of historical buildings and monuments will take place, if the area's appearance will be improved by the authorities, if the industries will be built away from the sites. Therefore positive environmental impact will be visualized.

The positive impacts for the development of the tourism and the monuments are income generation, employment generation, development of supportive industries, and supports for regional development. The tourism industry has brought many economic, socio-cultural and environmental advantages towards historical buildings and monuments. If we focus towards the history of thousands of years, North India is dominated by world heritage sites which include palaces, temples, monasteries, monuments, and historical buildings etc. The heritage site has become one of the important pull factors in North India to attract the tourists from all over the world. The foreign tourists mainly attract towards the archaeological and historical sites of North India which generate the income to

Zeba Zarin Ansari

She is a researcher at the faculty of Natural Science, Jamia Millia Islamia, New Delhi. Her master degree completed with distinction at the faculty of Natural Science, Department of Geography, Jamia Millia Islamia, New Delhi, 2016. Her technical skills include knowledge of ARC GIS, ERDAS software, 3D Modelling and Satellite Imagery. Her Professional Qualification include special course on REMOTE SENSING and DIP TRAINING. Her work experience include tour advisor and travel guide in the travel company, Tezpur, Assam, 2011-2013. She has completed number of field work projects. She has participated in number of seminars/conferences and workshops. Her paper presented in the International workshop/conference include International Conference cum workshop on Sustainable Entrepreneurship Development Practices in Tourism and Hospitality Sector in the Himalayan States, Rishikesh, India, 2017. Her paper publication include 1-st International Scientific and practical conference DOBRODEEV READINGS – 2017 MOSCOW, Russia–"Ecosystem Analysis of Salinity affected areas in parts of Delhi and its impact on human health".

the government revenue. As India is a developing country, it is difficult to store money for the maintenance, restoration and development activities of the monuments and historical sites. Therefore this stored earned money can be used for preservation and conservation of sites and this money can also be used for the provision and good facilities of the domestic and international tourists of north India. We can even see more employment opportunities in the area directly or indirectly because most of the monuments are situated in the remote areas in the dry zone.

Ajay Kumar *is currently a research scholar and a teacher of optional study in Russian language in Jawaharlal Nehru University, New Delhi, India. He is pursuing PhD in Russian language, specialising in socio linguistics. He has presented research papers in Nepal and in Jawaharlal Nehru University in 2016 and 2017 respectively. He has worked as a volunteer in a number of conferences of Russian language and others. He has attended number of workshops such as workshop on sign language, workshop on translation of Indian languages into English, workshop on linguistics, etc..*

The negative impacts related to the development of the heritage sites are over-dependence on tourism, the conflicts of interests, unauthorized construction and modifications, misinterpretation through guiding and poor site management, etc. Over concentration on tourism is taking place due to earning more and more money without concentrating on the impacts. Therefore, no proper decisions and plans are taking place to make better facilities and to improve the negative impacts. The main target of the ASI (Archaeology Survey of India) should be to conserve and protect the monuments for future generations, so that the world will able to know the history and heritage of the ancestor in the coming future. The first preference of ASI should be to conserve the heritage site without compromising the safety of the treasures than the second preference of developing the tourism industry. Local people visit the monuments paying less money for entrance, on the other hand foreign tourists visit the tourist site paying more money comparatively in order to earn experience and satisfaction. Therefore due to overcrowding and bad behaviour of the locals, the foreign tourists suffer the negative impact in the area. The heritage sites of North India have become one of the best business opportunities by establishing souvenir shops, hotels, restaurants, and spa etc. Therefore, many modifications and constructions are going on in the area with a great speed without keeping the originality and affecting the historical values which will create frustration and dissatisfaction among the tourists leading to negative publicity further affecting the revenue in the tourism industry. Misinterpretation through local guiding due to lack of knowledge about the history of the monuments when the tourist tries to know more about the history dissatisfies and frustrates the foreign tourists. The unethical behaviour of the tourist should be avoided under the premises of the pilgrimage sites or the heritage sites and the monuments as it damages the tour experiences of the domestic and international tourists. Due to high tourist traffic and high expectations of visitors in the historical sites, major problems are taking place. The poor site management and the site facility management should be maintained by the site managers and the authorities by controlling the size of the number of visitors and their behaviours to conserve, preserve and protect the monuments.

Suggestions for preservation of monuments for future generation

The task is to preserve the historical monuments of North India for future generation. Up to the day, the ASI is conserving and preserving the monuments of the past as evidence. The monuments of the Mughal Dynasty, the Rajput's, and the British not only express the history of the past but also they are part of the history which keeps the tourist in touch with the history. Therefore it is the duty of ASI to preserve the monuments and guard them originally so that the monuments would exit up to the future generations, as authentic cultural heritage. Another task is not to transform the monuments into the museums; rather if possible, it should be preserved and used in the surroundings. The preservation of the historical monuments would be possible if there will be understanding among the broad sectors of the population. Therefore it is very important to broadcast professional decisions and their backgrounds to the monument owners and the public. The government will have to support and protect the monuments of different dynasties through several procedures. The monuments of Delhi must become an inspiration and motivation for the coming future generations because this is a power and wealth of our country. No one knows when the monuments will crash down. Instead of depending on law, rule or force, it's better to be self realistic which can only save the heritage of the area. The monument is a mirror which symbolizes the culture, tradition, history, art and design of our country. It also represents the architectural skills of our past history. Therefore it is the duty of the authorities to save the monuments from destroying. No new industries or factories should be built up nearby any monuments. The old plants should be shifted away from the area of heritage site so that the smoke may not destroy the architecture anymore. The drainage system for waste water, industrial effluents and disposal of garbage should be properly well master planned to save the monuments from ruining. The cultural heritage is precious to every community and society which has to be saved and transferred to the next future generations by the civil society. ASI should put a strict law and rules against public who cause damage to the treasures by inscribing their names, messages and initials. Some heritage has already been lost and some are still in danger. As we all know that all monuments are a living heritage, so it is important to understand, define, interpret and manage them for future. There should be educational methods of teaching monuments conservation in relation to local importance and communities needs in all schools and institutions. The architectural education should be exchanged among the educationist in order to maintain the architecture and conserve the urban heritage. When the younger generations and the public will appreciate and give value to the monuments, after that we can say that the architectural heritage will be possible for the survival of future. The training programs and the educational programs for all ages should be organized in all the universities and technical institutions in order to give proper attention to the concerned subject. The authorities should be responsible for the chemical conservation and preservation treatment of monuments. Protection against moisture is also required. The structure of monuments should be given strength to save from harm done by pollution, acid rains, and other chemicals throughout the years. Reinforcement should be required to strengthen the stones cement and titanium. The government should spread awareness and advertise about how to preserve the monuments for future. Many seminars, workshops and conferences should be organized to aware the students and the younger generations to store the history with the support of money, time, expertise and labour with the help of chemical and other methods. For the restoration of monuments of North India materials should be used:

1. Repointing practices;
2. Mineral grout, polymer injection, anti-staining coating and techniques;
3. Portland cement mortars and grouts;
4. Lime cement mortars and grouts;
5. Pozzolanic mortars and grouts;

6. Epoxy resin mortars and grouts.

In today's modern world, it is important to conserve the monuments for future generations as success of the founders and the ancestors. Little effort from our side can create extreme changes and store the treasure which will visualize the past to the future.

*Dr. **Anton Vorina** is a professor at Vocational College in Celje. He has finished four different faculties (Faculty of Mechanical Engineering, Faculty of Economics, Master of Quality Management and Doctor for Business). Teaching and research interests include Management of Quality, Logistics, Motivation of employee, etc. He is presently involved in research on Quality in tourism, Engagement of employee and the leadership of companies. He has been associated with projects in many companies in Slovenia about optimizing the costs and European projects for education and developing skills of employees. Research efforts have resulted into more than 80 scientific papers, he have authored four books, supervised more than 400 undergraduate theses, refereeing the books…He is inviting lecturer in Serbia, Macedonia, Croatia, India, Russia, Latvia…*

Literature Review

For the said paper, several related articles and books have been consulted and analyzed with the topic. Some of related works have given us a prudent vision while giving some valuable suggestion to improvise the condition of the monuments. We have read pros and cons of impact of monuments in North India. Some of the related literatures to the given topic are mentioned below.

1. Heritage tourism refers to leisure travel that has as its primary purpose the experiencing of places and activities that represent the past. Heritage sites provide the tangible links between past, present and future. Heritage sites are in the centre of the struggle between the potentially conflicting aspirations of conservation and tourism. Heritage management enables the critical balance to be maintained between the needs of the resource and the needs of the visitor. Through education and entertainment and the enjoyment of heritage attractions such as nature reserves, national parks, museums, historic houses and gardens, villages or towns by people of all ages and socio-economic groups with different life-styles, it is possible to develop a climate of conservation awareness. Heritage resources are not replaceable; therefore conservation is the critical point in heritage management. [27]
2. More recently, heritage has superseded conservation, where marketing of heritage as a product according to the demands of the consumer, mainly tourists, has resulted in the commercialization of heritage over conservation values. Today, the symbiosis of both tourism and heritage places has become a major objective in the management and planning of historic areas. [28]
3. South America is perceived as an affordable ecotourism destination, with emphasis on the nature, cultural and heritage attributes of the region. It is also perceived as less developed, secured and westernized than their home environment. It is found that watching the movie has not dramatically changed the destination image of South America, but rather strengthened previous perceptions. [29]
4. Microbial activity can have an important impact on the durability of building materials. It is important to understand this activity in order to select appropriate treatment strategies for the repair and restoration of buildings and monuments. The microorganisms can modify the properties of building materials such as concrete,

mortars, composites, timber, gypsum, etc., as well as the mechanisms responsible for deterioration of these materials. [30]

5. Agencies and organizations whose mission it is to protect and preserve historic and culturally important buildings, monuments, and artifacts from the ravages of weather, pollution, development, and even use by the general public must compete for needed resources with other social goals. [31]
6. Architectural preservation began as an expression of liberal conscience. It has devolved into a deeply reactionary mode of self-deception. It masks the failure of the liberal imagination to address the social justice side of the democratic equation. Arguments in favour of preservation run the gamut, from historical consciousness to urban planning, to even environmental protection. For some of its most zealous advocates, the preservation movement is so heroic that it seems to inspire single-handedly broad citizen involvement and progressive change, and to solve the problems of our decaying cities. Others, though, have a far more negative view of preservation. They accuse preservationists of being elitists who manipulate the preservation process to keep "undesirables" (i.e., the poor and minorities) out of their neighbourhoods. Furthermore, they believe that preservation drives out long-term residents from low-income neighbourhoods through gentrification. Whatever the arguments may be, it is impossible to deny preservation's past and future impact on the lives and neighbourhoods of low-income people. Furthermore, preservationists are increasingly being drawn into run-down areas to save endangered structures, providing close contact with the surrounding low-income residents. [32]

Conclusion

The concluding part of the present paper has focused on different hypothetical suggestions for the development of historical destinations of north India. In this research paper, we have drawn attention on social, economic, cultural and political impacts of historical destinations of north India. Archaeological Survey of India always has to face problems of demolishment of historical destinations as they are ancient and over the period, their constructions have weaken. Thus, ASI has always on vigilance to repair it on time. But the materials used for the restoration is not up to the mark as it was during their first construction. So priority should be given on quality constructing materials. As a social negative impact of overcrowding at monuments requires attention on fixing number of visitors in the monuments premises in order to save the monuments from scratch and demolish. As the economical factor is concerned, strict fine must be levied on the person responsible for maligning the image of a particular monument. Things should be improved with the help of governmental and nongovernmental sectors. Because a state government is responsible to improvise, sensitize and to promote tourism of given tourist area and its historical destinations.

Reference

https://www.tourmyindia.com/packages-tour-india/cultural-tour-packages/north-indiacultural-heritage-tour.html
https://www.travelogyindia.com/north-india/culture-of-north-india.html
http://www.polkacafe.com/historic-places-to-visit-in-north-india-1414.html
http://www.delhitourism.gov.in/delhitourism/aboutus/history_of_delhi.jsp
http://www.delhitourism.gov.in/delhitourism/tourist_place/index.jsp
https://www.youthkiawaaz.com/2011/03/how-to-protect-national-heritage/
https://www.travelogyindia.com/north-india/history-of-north-india.html

https://www.holidify.com/places/agra/taj-mahal-sightseeing-1020.html
https://www.holidify.com/places/ayodhya/
https://www.holidify.com/places/kurukshetra/
https://www.holidify.com/places/kurukshetra/sthaneshwar-mahadev-templesightseeing-2554.html
https://www.holidify.com/places/shimla/
http://www.walkthroughindia.com/attraction/top-25-famous-landmarks-andhistorical-monuments-of-delhi/
https://www.travelogyindia.com/delhi/history-of-delhi.html
http://www.monumentsofdelhi.com/history
http://www.delhitourism.gov.in/delhitourism/tourist_place/india_gate.jsp
https://www.holidify.com/places/delhi/qutub-minar-and-complex-sightseeing1727.html
https://www.holidify.com/places/delhi/humayuns-tomb-sightseeing-1717.html
https://www.holidify.com/places/delhi/red-fort-sightseeing-1731.html
https://www.culturalindia.net/monuments/jama-masjid.html
https://www.forskningsradet.no/prognettssf/Nyheter/Tourism_impacts_on_historical_sites/1253978334532&lang=en
https://webcache.googleusercontent.com/search?q=cache:RMsPg8FQYWEJ:https://pdfs.semanticscholar.org/9706/2c5e56f265b5ac189ed66e31733760d0b688.pdf+&cd=1&hl=en&ct=clnk&gl=in
https://www.mannheim.de/en/experiencing-culture/cultural-monumentsprotection-ofhistorical-monuments
http://webcache.googleusercontent.com/search?q=cache:EzvmodTEVDwJ:www.thehindu.com/todays-paper/tp-in-school/save-ourmonuments/article4197849.ece+&cd=3&hl=en&ct=clnk&gl=in
https://www.youthkiawaaz.com/2011/03/how-to-protect-national-heritage/
http://www.ierek.com/news/index.php/2017/06/04/cultural-heritage-conservation/

G., Ebru, P., Ige, Y., Kamil. Preservaing Cultural Heritage and Positive Impacts on Regional Development: Case of Izmir. International Journal of Emerging and Transition Economies Vol.2, Issue 2, 2009, 213-229.

N., Noha. Planning for Urban Heritage Places: Reconciling, Conservation, Tourism, and Sustainable Development. Journal of Planning Literature. Vol. 17 No. 4. May 1, 2003.

S., Amir, W., Youcheng, H., Simon. Impacts of a historical film on the destination image of South America. Journal of Vacation Marketing. Vol. 15, No 3, June 24, 2009.

C. Gaylarde, M. Ribas, Th. Warscheid. Microbial impact on building materials: an overview. Springer. June 2003, Vol. 36, Issue 5.

N., Stale, R.C., Richard. Valuing Cultural Heritage: Applying Environmental Valuation Techniques to Historic Buildings, Monuments and Artifacts. June 2002.

S., Todd. From Monuments to Urban Renewal: How different Philosophies of Historic Preservation impact the poor. Georgetown Journal on Poverty Law and Policy. Vol. 8, No 1. Winter 2001.

SUSTAINABLE TOURISM IN THE PROTECTED AREAS OF BOSNIA AND HERZEGOVINA ON THE EXAMPLE OF THE NATURE MONUMENT "VRELO BOSNE"

Emir Temimović[284]

DOI: https://doi.org/10.31410/eraz.2018.637

Abstract: *The hot springs of the Bosna River represent a wide fault zone in which where six larger and several smaller karst springs can be found. The catchment area of the Bosna springs are presented by the mountainous massifs of Igman and Bjelašnica, which are built primarily from thick limestone deposits. At the foot of these massifs, in contact with the Sarajevo field which represents the hydrogeological barrier, the specific hot spring zone is formed. Water in this area occurs in the shape of hot springs, surface watercourses and underground thermal mineral waters.*

The Bosna hot springs have been under protection since 2006 when it was pronounced the monument of nature "Vrelo Bosne". The monument of nature is located in the Sarajevo Canton and it is under the protection of "PI Protected Natural Areas of the Sarajevo Canton" and it covers an area of 603 ha. The hot springs of the Bosna river is not the only monument of nature that's under protection of the canton, there are other protected monuments of nature like the "Skakavac" waterfall and the three protected landscapes: "Bijambare", "Trebević" and "Bentbaša". This area is also the main drinkable water resource for the city of Sarajevo (Bačevo water source) and it is a famous excursion site. Since 2014, entrance to the protected area has been charged and about 139,000 visitors were recorded in that same year. Since then, the number of visitors has been rapidly increasing and in 2016 there were over 190,000 visitors registered. The exploration area meets all planned goals of protection and sustainable development of protected areas in Sarajevo Canton and it represents an extremely positive example of sustainable tourism in protected areas of Bosnia and Herzegovina.

Key words: *Bosnia and Herzegovina, Sarajevo canton, the city of Sarajevo, monument of nature, karst hydrography, protected area, sustainable tourism.*

1. INTRODUCTION

Sustainable development is of great importance for numerous human activities, especially when it comes to modern tourism. It is also of great importance for the whole society, the economy and the natural and geographical environment. Sustainable tourism today is an important factor for the general development of tourism in any country, and in particular from the aspect of general economic development and increasing the standard of population [1]. Sustainable tourism in protected areas is of special importance for the self-sustainability of all forms of protected areas because standards in this area emphasize the importance of increasing space under any form of protection. The sustainability process must involve all participants in tourism trends and processes, which include the local community, the tourists themselves, tourism agents and travel agencies. Tourism and sustainable development are interrelated and dependent, because for tourism, resource sustainability represents the cornerstone of economic

[284] University of Sarajevo, Faculty of Natural Sciences and Mathematics, Department of Geography, Zmaja od Bosne 33, 71 000 Sarajevo, Bosnia and Herzegovina

and social development [2]. The World Tourism Organization defines sustainable tourism as a resource management that contributes to economic, social and aesthetic needs, so that cultural integrity, basic ecological processes, biodiversity and systems based on life, create prosperity and well-being for the entire society, taking into account the needs of tourists and its hosts [3]. In brief, sustainable tourism meets the needs of tourists and local communities while simultaneously protecting the resources of future development. In order to be sustainable and successful in long-distance tourism, tourism must respect the basic principles of sustainable development and responsible tourism in its tourism planning. Otherwise, there may be a conflict between planned social development, which include the general development of tourism, and the development of tourism from the perspective of environmental protection.

Surfaces under some form of protection in Bosnia and Herzegovina are still significantly below the planned level of protection under the EU guidelines. Beside the three national parks (Una, Kozara and Sutjeska) there are several parks of nature, monuments of nature, protected landscapes and other spaces under some other form of protection. The Sarajevo canton as one of the ten Cantons of the Federation of Bosnia and Herzegovina is predominant in the process of separation of protected areas in Bosnia and Herzegovina, but still the share of protected areas in the total area is modest (about 2.43%).

2. RESEARCH AREA

Sarajevo Canton belongs to the central part of the mountain-valley area of the Bosnian-Herzegovinian Dinarides. As a result of complex geotectonic and geomorphological relations, several negative and positive morphostructural units have been isolated in the research area. The main morphostructures of the anticlinal type are "Igman" with "Bjelašnica", "Trebević" with "Jahorina", "Ozren" and "Treskavica". Among them there

Emir Temimovic *was born in Banja Luka in 1975. He is married and lives in Sarajevo. Currently employed as Associate Professor at the Department of Geography at the Faculty of Science, University of Sarajevo. He attended primary school in Kljuc, Bosnia and Herzegovina where he was enrolled in high school too, but that was interrupted by war in Bosnia and Herzegovina in 1992. He continued his high school education in Croatia. He graduated in 1994 in Porec, Croatia. He studied geography at the Department of Geography at the Faculty of Science, University of Zagreb, from 1995 and graduated in May 2000. His graduation thesis was "Demogeographic Characteristics of the Kljuc Municipality". He started the postgraduate studies of "Geographical basis of spatial planning and arrangement", in the academic year 2000/2001 at the Department of Geography, Faculty of Science, University of Zagreb. The title of his PhD dissertation was "Hydrogeographic characteristics of the Sana River drainage basin", and in October 2007 he defended his thesis and gained the title of Doctor of Geographical Sciences. From graduation in 2000 until October 2008 he worked as a high school teacher of geography at the Gymnasium in Kljuc. He has been working at the Department of Geography of the Faculty of Science, University of Sarajevo since October 2008, as Assistant Professor, in the field of Physical Geography, and since July 2013 as Associate Professor for Physical Geography. He is a lecturer in several courses at undergraduate and postgraduate studies at the Department of Geography of the Faculty of Science, and mentor dozen of final graduate theses and final master theses. He is also a lecturer at the course of Geography with topography at the Faculty of Political Science, University of Sarajevo. In the period from May 2011 to October 2013, he was the Head of the Department of Geography at the Faculty of Science, and a member of the Coordinating Committee of the Faculty of Science, University of Sarajevo. He was organizer and head of several field courses in Bosnia and Herzegovina and the region. He has authored over 40 scientific papers, three books, participated in projects, scientific meetings and field research.*

are the syncline types of morphostructures that are morphologically represented in the ravines and in the river valleys [4]. The largest and the most significant of them is the Sarajevo ravine (with the Sarajevo field as the lowest part), which is an integral part of the great Sarajevo-Zenica basin as the largest in the Dinarids of Bosnia and Herzegovina (region of Central Bosnia, which is one of the most heavily populated regions and most economically developed area). The hipsometric relationships of the investigated area indicate the exceptional vertical articulation (energy) of the relief with the lowest point in the Bosna valley in the village of Lješevo (440 m) and the highest peak at Bjelašnica (2068 m). Along with the complex relief and the geological relations, the explored space is characterized by complex geomorphological processes and marked georadicity. These complex processes have also influenced the hydrographic features of the Sarajevo Canton, where the backbone of the hydrographic network is made up of the "Bosna" river with many tributaries. In the far north, the catchment area of the Crna river (Krivaje basin) is especially separated, and in the far south of the exploration area there is a particular part of the river basin "Rakitnica" (the Neretva basin or the Adriatic basin). Within the Sarajevo field, as the lowest part of the Sarajevo ravine, a narrower exploration area is located in the Protected Area of the Nature Monument "Vrelo Bosne".

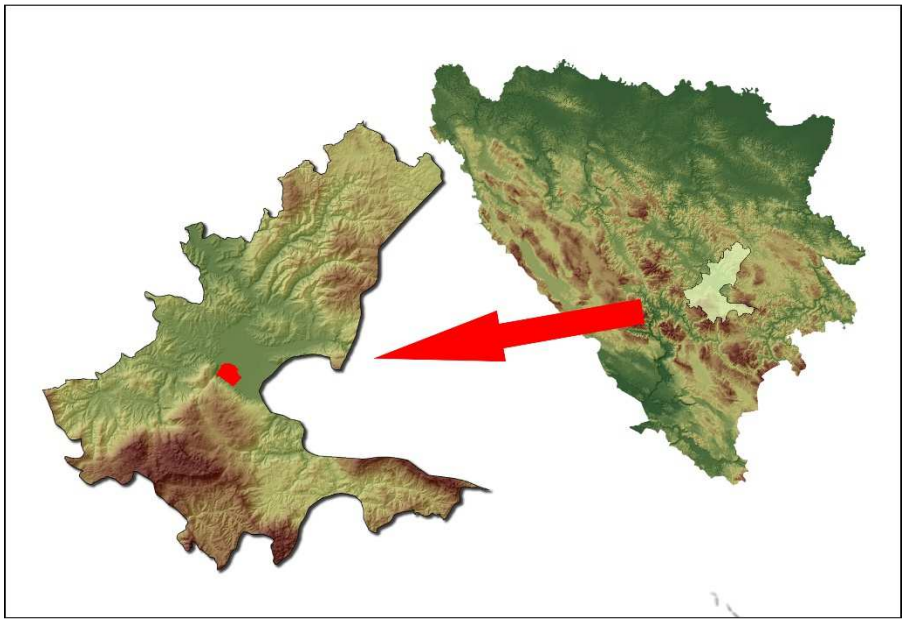


Fig.1.: Geographical location of the research area

In the Sarajevo Canton protected areas are managed by "PI Protected Natural Areas of Canton Sarajevo" and by the decision of the Cantonal Government as of 2010. On the total area of 1277 km2 there are two monuments of nature currently under protection (Vrelo Bosne and Skakavac waterfall) and three protected landscapes (Bijambare, Bentbaša and Trebević). The plan is to protect the canyons and rivers of the river Miljacka upstream from Sarajevo (a part belonging to the Canton). For many years, the plan for protection of Igman, Bjelašnica and Treskavica (parts which are territorially belong to the Sarajevo Canton) is mentioned, but there is little that has been done in that regard.

The monument of nature "Vrelo Bosne" is located in the territory of Ilidža municipality and has a total area of 603 ha. In accordance with the degree of protection, two protected zones were identified within the monument itself. The first protected zone (nucleus) includes the "Bosna" river and its surrounding environment with an area of 54.5 ha. This zone was established with the aim of conservation of its biological and hydrological diversity, protection of special natural and cultural-historical sights and preservation of social and educational values [5]. In the first

zone of protection, the central object of recognizability is the Bosna riverbank zone at the contact of the waterproofed alluvium of the Sarajevo field on one side and the massive Igman limestone block with Bjelašnica, which basically represents the zone of replenishment of the water zone. In the wilderness area, there is about thirty larger and smaller single springs / hot springs. The hot spring zone is represented by water sources of contact type with a total yield of 5 to 24 m3 / s [6]. The second protected (buffer) zone covers the broader river basin of Bosna, with an area of 548.5 ha. This protected zone has been established with the aim of preserving and protecting the biological and hydrological diversity, landscape cultural-historical, social and educational values as well as sustainable development of tourism and recreation [7]. What is also important to note that the wider area of the monument is the watertight area of the Sarajevo watercourse and where most of the population of the city of Sarajevo is supplied with water. The monument of nature "Vrelo Bosne" is today one of the main excursions for the citizens of Sarajevo and beyond. Within the protected area itself and in the immediate vicinity there are numerous natural and geographical objects that complement the tourists offer of the exploration area. These are the "Banja Ilidža" complex, the archaeological site "Vrutci", the tourist-recreational and excursion center "Stojčevac", the historical monument "Rimski Most" and the famous landscape parks "Velika i Mala aleja".

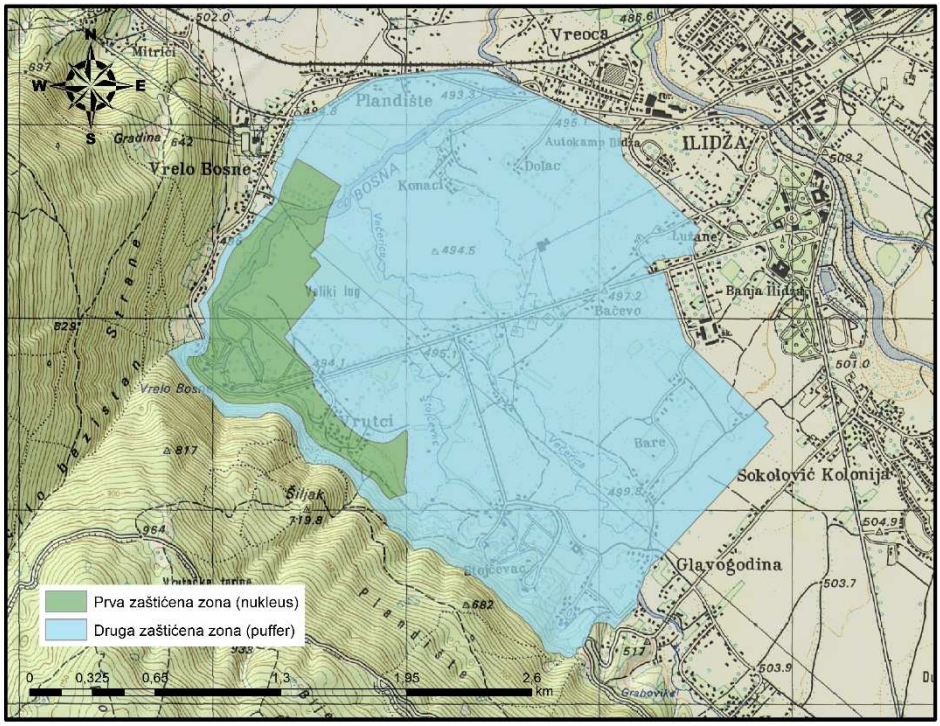


Fig. 2.: The boundaries of the monument of nature "Vrelo Bosne"

3. RESULTS

The protected areas of the Sarajevo Canton are primarily designated as areas of special purpose mainly due to their specific natural-geographical features. The largest protected area of the protected area is the Skakavac monument of nature (1431 ha), it represents the geomorphological and hydrological waterfall system of the Skakavac waterfall with its surrounding environment and it is one of the highest waterfalls in Bosnia and Herzegovina. It is located in the northern part of the Canton and in the last couple of years after its proclamation, it has become a recreational and educational area of excursions and recreation. The youngest protected area, the protected Landscape "Bentbaša" is also the area with the least of protection

in the Sarajevo Canton (161 ha), and is part of the upper valley of Miljacka upstream from the eastern edge of Sarajevo (Town Hall). It is a well-known excursion site, an old bathing resort on the Miljacka river and a recreational zone of complex geomorphological and hydrological features of this part of the exploration area. The protected landscape of "Bijambare" (497 ha) is located on the far north of the exploration area, in the northeastern part of the "Crnoriječka" plateau (between the mountains Zvijezda in the north, Ozren in the south and the Čemerske mountain in the west). The specific geomorphological phenomenon and attractiveness of this area, which have placed this area under this form of protection, are the specific karstic relief forms of the covered karst, and primarily caves, sinkholes and slopes [8]. This protected landscape is also one of the first protected areas in Bosnia and Herzegovina based on geographical diversity and geo-inheritance and it could be transformed into the country's first geopark in the future in accordance with the guidelines for the protection of these areas in the EU. The protected landscape "Trebević" (400 hectares) is part of the morphostructure of the Trebević mountain in the Sarajevo Canton with its significant features of geodiversity. For better protection, it would be necessary to put in place the entire morphostructure of Trebević (Olympic building), which would include parts in the Republic of Srpska entity.

The Protected Area Management Policy is contained in the documented plans of the Nature Conservation Plan "Vrelo Bosne". It is primarily based on the policy of preserving and enhancing the natural features of outstanding importance, preserving the quality of the environment and enabling the population living in and near the boundaries of the protected area to use natural resources in accordance with the goals of protection. The basic goals are set out in the Law on the Proclamation of the Bosna Nature Monument and are based on the protection of special natural / cultural values, the protection of biodiversity, the sustainable use of resources (especially water) and the generally sustainable development of the area in accordance with its natural values [9].

What is the situation like today? After the designation of the protected area in 2006, the procedure was started to inventory the natural and cultural values of the protected area and in general in the process of revitalization. Along with the making of the plan management, the spatial plan of the area "Vrelo Bosne" was adopted and a whole series of documents for the plan of protection and sustainable development of the space was made. Some of the documents are the newsletter of Vrelo Bosne and the news of sustainability. There are regulations of the traffic in and around the protected area, the sales and catering segment is regulated with the relocation of the stands outside the protected area, the parking lot, the improved tourist signalization, the area is connected with the surrounding facilities (especially connection with the Velika Aleja and Ilidža settlement), educational paths and significantly improved tourism marketing areas are in place and functioning. There are also significant positive changes in tourist infrastructure, which include guides, rangers, info points, propaganda material, regulated arrangement and restriction of places where people can organize picnics, souvenir sales and souvenirs, traditional gastronomy, transport of tourists (chariots and tourist vehicles), sports and children's playgrounds and many more. Since 2010, all protected areas in Canton Sarajevo are in the scope of "Cantonal Public Institutions for Protected Natural Areas of the Sarajevo Canton". The basic task of the public institution is to protect and preserve the original natural values, the diversity of the environment, the provision of undisturbed natural processes and the supervision of the implementation of conditions and measures of protection in protected areas. From 2014, an entry fee has been set for the Nature Monument "Vrelo Bosne" in the amount of 2KM (1 EUR) for adults and 1KM (0.5 EUR) for students, pupils, pensioners and large groups. It should be noted that children under the age of 6 and visitors with residence in Ilidža municipality (to which the protected area belongs) do not pay the entry fee. Ticket sales data

indicate the trend of increasing visitors from year to year. The first year of billing, the protected area was visited by 139 000 visitors, by 2015 188 000, and by 2016 190 000 visitors. Last year, the largest visit was made to 209 000 visitors with a paid card, and when children under the age of 6 were added, and Ilidža residents; it is assumed that in 2017. there were more than 250,000 people who have visited "Vrelo Bosne". Data from 2018 show 20% higher attendance in the first five months compared to 2017 [10].

The monument of nature "Vrelo Bosne" is the most visited protected area in the Sarajevo Canton. This is indicated by data from 2014 since billing has started in most protected areas in the exploration area. In the second place is the protected landscape "Bijambare". The monument of nature "Vrelo Bosne" is one of the most representative and most recognizable tourist motives in Canton Sarajevo and beyond. Current processes and tendencies indicate that this area has met most of the conditions from the aspect of sustainability with the strong synergy of the local community and other participants, and can be considered as the leader of the development of tourist areas in this part of Bosnia and Herzegovina. One of the problems encountered by this area is the apartment blockade along the boundary of the protected area. Namely, the Ilidža municipality has allowed significant construction in the area of the water protection zone of Sarajevo, which belongs to the protected area. The great pressure of investors in housing construction (especially from Arab countries), with the help of local administration, has led to significant anthropogenic pressure in this area. The archaeological site "Butmir" near the protected area was also under threat. The local community and NGOs are opposed to these pressures by concrete actions and petitions, and it is hoped that this damaging process will be halted in the future. The problem is also the disrepair of the Velika Aleja which is a link to the protected area with the Ilidža settlement and the lack of sanitary knots. From all of this, it is evident that the research space has great potential, but only with the option of continuous work on protection and self-sustainability. The perspective of tourist and sustainable development of this area should definitely go in the direction of green tourism. Green tourism is defined as a form of sustainable tourism that meets the needs of nature and the environment, the local community, entrepreneurs and tourists themselves [11]. The concept of green tourism includes programs that minimize the negative consequences of conventional tourism on the environment and increase the cultural integrity of the local community. The principles of sustainability of green tourism are reflected in its ecological, socio-cultural, technological and economic sustainability. Ecological sustainability is based on natural resources based on development, and socio-cultural sustainability is manifested in preserving the identity of culture, tradition and customs of the local environment (human resources as a cultural offer in tourism). Technological sustainability of green tourism primarily requires the use of technology in terms of its use in the use of renewable sources, reduction of pollution and recycling. Finally, economical viability provides an economically viable space while preserving natural and cultural features [12]. The exploration area, or the monument of nature "Vrelo Bosne" is the most sustainable and ecological and economical aspect of sustainability of green tourism, but there is still room for improvement. For complete ecological sustainability, the Bjelašnica and Igman morphostructures should also be protected as it represents the area of recharge of the Bosna riverbank itself. It is an extremely karstic area with specific features of karst hydrography. The application of modern technologies and applications in the research area is at a very low level and in the future the aspect of technological sustainability should be significantly increased. This includes socio-cultural sustainability and increased ecological education and awareness.

4. CONCLUSION

The protected Area The Nature Monument "Vrelo Bosne" is the most visited protected area in the Sarajevo Canton and is ranked among the three National Parks in Bosnia and Herzegovina (Una, Kozara and Sutjeska). This area has a potential tendency to guide the tourist development of Bosnia and Herzegovina in the direction of sustainable green tourism, which encompasses ecological, socio-cultural, technological and economic sustainability. The indispensable participants of this sustainable process are the preserved environment, cultural heritage, local community, tourism workers, local administration and ultimately tourists themselves. The recognizability process must be continuous and must represent the synergy of all participants in the research area.

REFERENCES

[1] Održivi turizam u deset koraka (2006) Institut za turizam, Zagreb

[2] Kožić, I., Mikulić, J. (2011) *Mogućnosti uspostave sustava pokazatelja za ocjenu I praćenje održivosti turizma u Hrvatskoj*, Privredna kretanja i ekonomska politika 127/2011., Ekonomski institut Zagreb, Zagreb, pp 57-81.

[3] UNWTO, (United Nation World Tourism Organization) (1998) Guide for local authorities on development sustainable tourism, Madrid: World Tourism Organization

[4] Drešković, N., Đug, S. (2006) *Uspostava zaštićenih područja prirode u Kantonu Sarajevo i mogućnosti njihove ekoturističke valorizacije*, Annales, Vol. 16., No. 1., pp 233-246.

[5] Zakon o proglašenju Spomenika prirode "Vrelo Bosne"- prečišćeni tekst (2010) Službene novine Kantona Sarajevo, 6/10, Sarajevo

[6] Drešković, N., Đug, S. (2006) *Uspostava zaštićenih područja prirode u Kantonu Sarajevo i mogućnosti njihove ekoturističke valorizacije*, Annales, Vol. 16., No. 1., pp 233-246.

[7] Zakon o proglašenju Spomenika prirode "Vrelo Bosne"- prečišćeni tekst (2010) Službene novine Kantona Sarajevo, 6/10, Sarajevo

[8] Temimović i sar. (2017) *Zaštićeni pejzaž/krajolik Bijambare-primjer zaštićenog područja Kantona Sarajevo u prostoru pokrivenog krša Crnorječke visoravni*, Zbornik radova međunarodnog naučno-stručnog skupa "Georaznolikost, geobaština i geoturizam u krškim područjima", Pećinski park "Grabovača", Perušić, pp 211-219.

[9] Plan upravljanja Spomenikom prirode "Vrelo Bosne" (2007.-2017.) (2007) Sarajevo, dostupno na: http://www.zppks.ba

[10] Podaci o posjećenosti Spomenika prirode "Vrelo Bosne", dostupno na: http://www.zppks.ba

[11] Azam, M., Sarker, T. (2016) *Governance of Green Tourism and Sustainable Development*: Towards Greening the Economy, dostupno na: https://www.researchgate.net/publication/228840880 Governance of Green Tourism and Sustainable Development Towards Greening the Economy

[12] Borozan, Ž., Ivanković, D. (2017) *Održivost zelenog turizma Republike Hrvatske*, Conference Proceedings Third International Scientific Conference "Knowledge Based Sustainable Economic Development, Beograd, pp 501-506.

DISTRIBUTION CHANNELS IN TOURISM IN THE MODERN APPROACH

Cuneyt MENGU[285]

DOI: https://doi.org/10.31410/eraz.2018.644

Abstract: *Distribution is an important element of the marketing mix and is the entire chain of activity that is required to get the product from where it was produced to where it is consumed. In general, a product or service cannot be reached directly to the customer, so there is a need for intermediaries or a distribution channel. Since industrial products are related to physical aspects and they are tangible, unlike the specifıcations of the tourism products which are intangible, so distribution process works in reverse. In recent years, developments in the Information and Communication Technologies (ICT) have revolutionized distribution channels. Consequently, the economic borders of the countries have abolished, resulting in sweeping changes in the management and marketing strategies of the tourism industry. From the production of tourist products and services to the marketing and destination management, and from the supply chain to marketing strategies, leaded to the emergence of new technical and operational structures in the modern (contemporary) system as well as neo-classical systems instead of traditional (classic) systems which have been essential for many years in distribution channels. Based on a comprehensive literature review, this study aims at the modern (contemporary) approach the roles of suppliers and travel organizations, their approach to the distribution channels and how they are influenced in the context of new business models.*

Key words: *Distribution systems, new business models, information and communication technologies, intermediaries, integration.*

Introduction

Distribution channels aim to assist the product that is existed in the market and this is only possible by using effective and contemporary distribution channels. It is so important that producers and suppliers should aim to reduce production costs, drive up operational efficiency and increase consumer (tourist) satisfaction at each level of the supply chain. An organization of tourism within a supply chain needs to build close relationships with both upstream and downstream partners. A tourism distribution channel is an organized service system that consists of producers/suppliers, intermediaries and final customers (tourists).

Generally, there are two ways of reaching potential customers;
1- Direct Distribution: The producer/supplier sells his product without using an intermediary.
2- Indirect Distribution: Selling products through intermediaries.

[285] CEO of Mercan Tourism&Lecturer in Istanbul University, Cumhuriyet Street No125/1 Harbiye-Sisli Istanbul / Turkey

With the developments in the ICT, apart from traditional (classic) system which is used in distribution channels, modern (contemporary) and neo-classical systems as new structures have emerged.

Traditional (Classic) Approach

Traditional (classical) travel agencies were the main players during the implementation of the "Central Reservation System (CRS)" in the 1970s and the "Global Distribution System (GDS)" in the 1980s which were initiated by the airlines providing vertical integration with all suppliers.

In the old system, the business was mainly manual, the communication was simple, slow, inflexible, more likely to fail and the staff cost was high. The operations were depending on the knowledge and skills of the staff. The opportunity to make changes for the customers was very limited. Figure Number 1 shows Tourism distribution Mechanism.

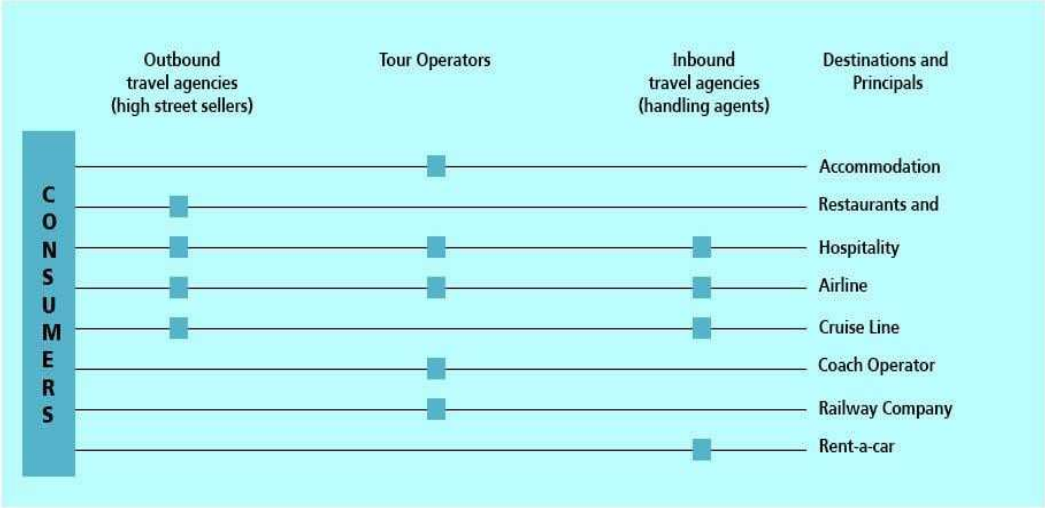


Figure 1: Tourism Distribution Mechanism
Source: Page, S., and Connell, J. (2009) Tourism, A Modern Synthesis, Cengage Learning. P.145

As it is seen from the figure above, the main producers in the distribution system are the hotels, restaurants, airlines, cruise and other hospitality services. Although travel agencies and tour operators are main players of the traditional (classic) system, other suppliers like hotels are often trying to make direct sales in order to gain more profit.

The tourism product cannot be stored. Intermediaries such as travel agencies, therefore, do not hold any stock, Intermediaries have no reason to be loyal to a particular supplier and can, therefore, be influential in the purchase – the intermediary is not partial. Thus, in time, we see that the classical approach partially renewed itself. According to Stern and El-Ansary distribution in tourism is in two ways; [286]

[286] Stern, L. W. and El-Ansary, A. (1992) Marketing Channels, Prentice Hall, Englewood Cliffs, N. J. p. 142.

Distribution in tourism is in two ways;

1- Main / Basic distribution, and
2- Reinforced (augmented) distribution.

Main / Basic distribution is the traditional (classical) intermediary activity and brings the seller and buyer together. Consequently, in reinforced (augmented) distribution, the travel agencies create additional value for the customers and they can offer services that other suppliers cannot provide. They also act as suppliers and provide direct consultation with customers by providing them with all kinds of information about products. In the context, the incorporation of tour operators, outgoing travel agencies, hotels and airlines is a typical example of vertical merging. [287] as it is shown in below figure 2. [3]

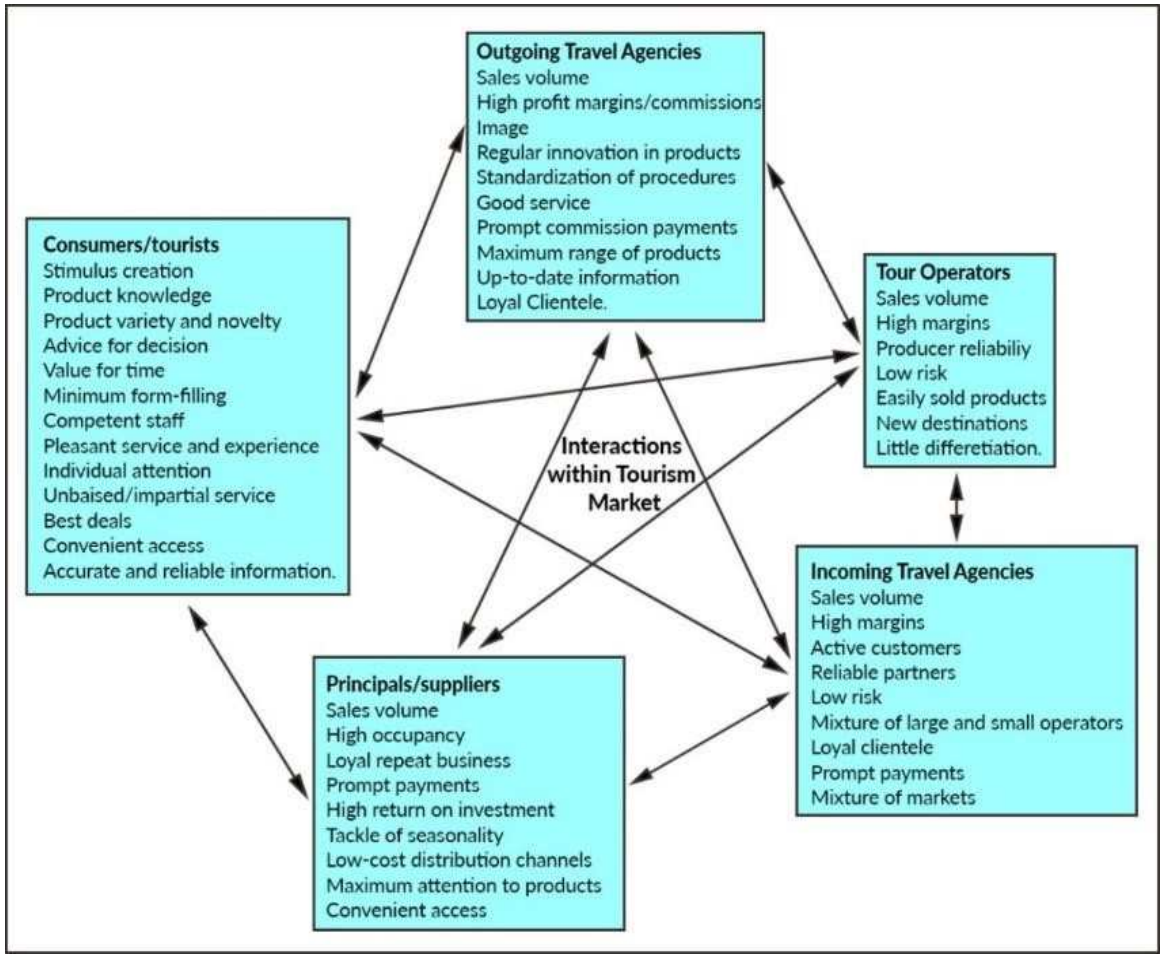


Figure 2: Tourism Distribution Channel Member's needs and requests
Source: Dimitrios Buhalis, eTourism, Prentice Hall, UK, 2003, p.181

You can see in figure 2; functions and features had emerged as a result of a complex relationship between distribution channel members.

However, it seems that traditional (classical) travel agencies will lose their assets by time, but some of the works, criteria, and principles, as shown above, are still being utilized in the tourism

[287] Buhalis, D. And Laws, E. (2001), Tourism Distribution Channels, Continuum, London. Mill, P. And Morrison, A. (1998), The Tourism System, 3rd. Edn, Kendall/Hunt, USA. [3] Dimitrios Buhalis, eTourism, Prentice Hall Financial Times, UK, 2003, p. 181.

sector. As the result of developments in the ICT, the Internet has undergone radical changes in the marketing and distribution system. So, modern (contemporary) and neo-classical agencies have gradually included in the system.

Modern (Contemporary) Approach

As a result of technological developments the tourism marketing and distribution system have revolutionized and have given a way to "Modern (Contemporary) Approach." Strategic, operational and tactical management of tourism organizations have dramatically changed and have played important role in the planning, production, marketing, operational, financial and distribution functions of the tourism industry.

Information and Communication Technologies (ICT) has revolutionized the Tourism marketing and distribution system and gave way to the modern (contemporary) approach.[288] And brought e-commerce marketing. Along with the online communications and digital transformation which optimized operational processes and created new business.

Distribution channels affect tourism industries in two ways:
A- the increase and diversity of the intermediaries in direct and indirect directions,
B- the indispensable importance of online channels. Airlines, hotels, rent-a-car companies are reaching out to their customers via their online websites, so as attraction centers are also implementing the same without an intermediary.

Li and Petrick (2008) have taken the issue further and said, "In order to be able to assimilate the role of marketing in the dominant logical paradigm of marketing, we must focus on the complex networks of operations, activities, customers, and suppliers. [289]

Goeldner and Ritchie (2009) made a different definition and said that "Distribution refers to the operation structure and system of various travel organization combinations by the producers of travel products and confirms the content of travel agreements with the consumption. [290]

Strategic, operational and tactical management of tourism organizations dramatically changed and played important role in the planning, production, marketing, operational, financial and distribution functions of the tourism industry. Thus, tourism enterprises started to manage their communications and interaction with online systems through the external world by internet, internally by intranet and with regular partners by extranet. According to our view, the modern (contemporary) approach to distribution channels have four important elements;

1-The indispensable importance of online channels.[291]
2- Diversification and increase of intermediaries.
3- Neo-classic agencies participating to the system, (Travel agencies that use the old and new elements together).

[288] Luiz Moutinho, Strategic Management in Tourism, CABI Tourism Texts, 2nd Edition, UK, 2010, p. 142.
[289] Li, X. And Petrick, J.F. (2008), “Tourism marketing in an era of paradigm shift”, Journal of Travel Research, 46, 236-244.
[290] Goeldner, C.R. and Ritchie, J.R.B. (2009), Tourism: Principles, Practices, Philosophies, John Wiley, Hoboken, NJ.
[291] Cüneyt Mengü, Seyahat İşletmelerinde Yönetim ve Operasyon Stratejileri Modern Sentez, Detay Yayıncılık, Ankara 2018, pp. 142-167.

4- the Classic system is partly continuing as well.

In the modern system, tour operators, wholesalers, retail travel agencies, as well as suppliers who are service providers are actively engaged in intermediation using the ICT tools wholly or partly.

Tourism Distribution Channels in Modern and Neo-Classical Approach

Nowadays, the clientele who are individuals, groups and organizations, provide their travel and hotel needs from online travel agencies, however, tour operators and travel agencies are not main but still important players in tourism and travel businesses. In the modern (contemporary) and neo-classical approach, suppliers (producers), intermediaries (distribution channel members) and target groups (customers) in distribution channels are listed in the following figure 3,

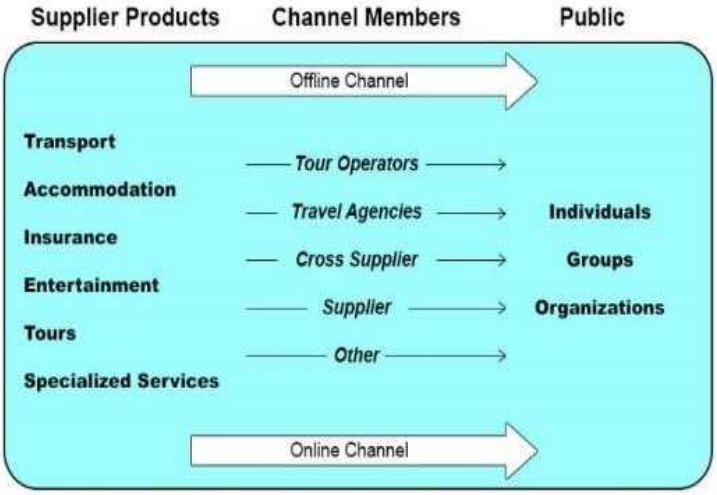


Figure 3: Tourism services, distributors, and target population
Source: Luiz Moutinho, Strategic Management in Tourism, CABI Tourism, 2nd Edition, UK, 2010, p. 143.

As it is shown in the above figure, tourist services can be provided to consumers either by direct suppliers or by tour operators and travel agencies, or even by airlines, accommodation companies called cross suppliers. Travel operators can provide the necessary services from their offices (offline) or online sales systems (online). As it is shown in figure 4, interactions could take place through an offline channel or through an online channel.

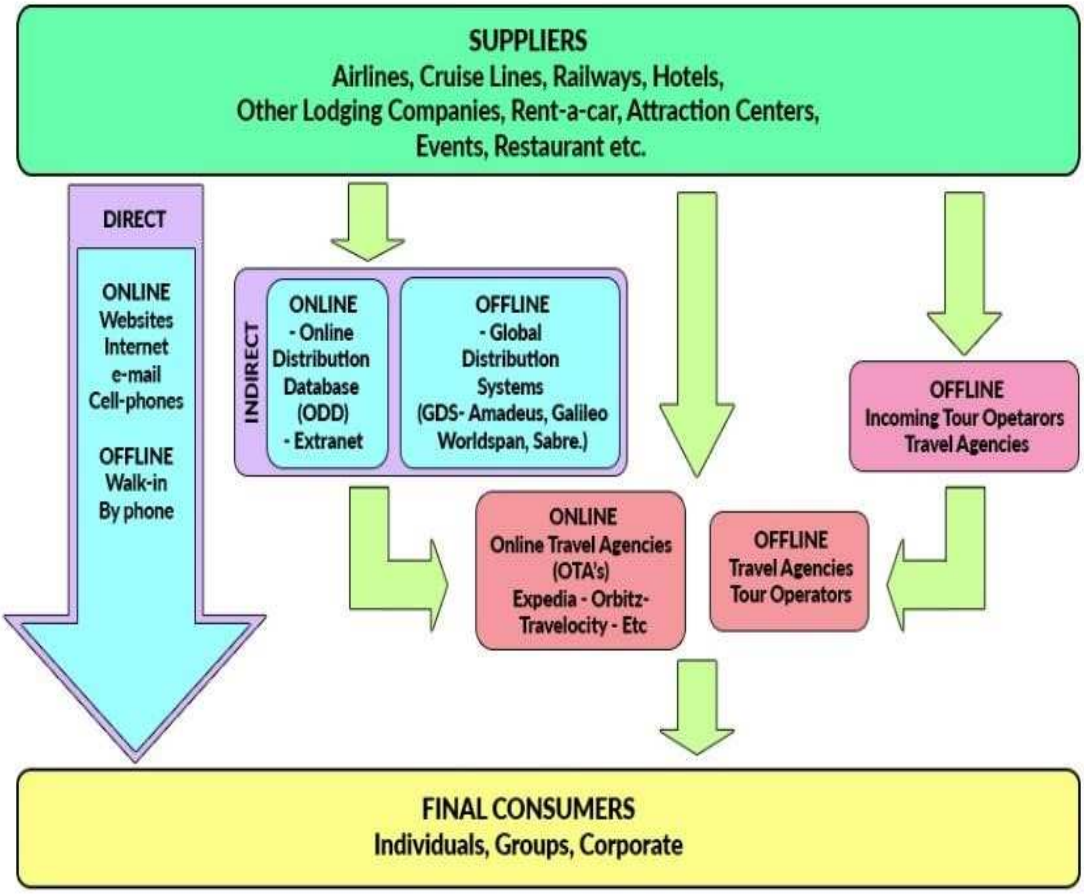


Figure 4: To reach to the final consumers as online or offline.

Figure 4 shows direct offline & online transactions between suppliers and final customers and also showing transactions between suppliers to final consumers through the intermediaries.

Intermediaries in Modern Distribution System

There are many intermediaries and suppliers in tourism distribution channels. In this channel, the upstream and downstream partners need to be in a very good relationship. In the supply chain, the upper intermediaries bring together different products and services and offer to the middle and lower partners as a package tour. In this way, the products that are turned into tour packages are delivered to the final consumers (tourists) through distribution channels.[292] In tourism, the terms "supply chain" and "distribution channel" are sometimes used interchangeably and both provide links between tourism suppliers and final consumers. However, the difference between them is the direction from the upper suppliers towards the intermediary is called "supply chain" and the direction towards the lower customers from the upper suppliers and intermediaries is called "distribution channel". [293]

[292] Chris Cooper, Essential of Tourism, Prentice Hall Financial Times, UK, 2012.

[293] Smith, S.L.J and Xia H. (2008), “Culinary Tourism Supply Chains: A preliminary Examination”, Journal of Travel Research, 46. 289-299.

There are two kinds of intermediaries in the distribution system; 1- Tour operators (tour organizers) 2- Retail travel agencies.

It is important to know the importance of intermediaries and intermediation in the tourism distribution channel. Intermediaries include tour operators who combine two or more tourism element such as hotel booking and arranging transportation and sell it to the public. So, producers and tour operators are called "principals" Because it is not easy for a principal to have a sales office in different regions, cities or countries, they work with "Travel agencies" as the second type of intermediary to access to the market. [294][295]

On the other hand, the widespread use of (ICT) is putting extreme pressure on distribution systems. This is because international Online travel agencies (OTA's) such as Expedia, Orbitz, Travelocity have entered the tourism market. In order to compete with OTA's tour operators and travel agencies not only trying to offer lower prices and are also obliged to add value to their products. [296]

Tour operators are divided into three categories as large, medium and small according to the services that they provide. [297] Today, major international holiday markets are dominated by large European tour operators.

Suppliers, Strategic Dimensions, and Options of the Modern Approach

Suppliers (producers) have to decide the most effective channel structure to fulfill the distribution task. The right decision about channel length and width should be made accurately. Channel length defines the number of channels that a supplier can reach final consumers (tourists). Multi-channel distribution is the most common application in the tourism industry.

Obviously, more channels provide more flexibility to customers and reduce the risk. Three main delivery options have been identified for suppliers as shown below;

1. **Exclusive**: The supplier should select a limited number of channels to best distribute the product and this is most appropriate for the marketing strategy plan. In exclusive distribution tourism suppliers' often give the right to distribute their products through one intermediary. For this reason, the intermediary has no other competitors and the supplier receives strong support.
2. **Intensive**: The product is brought to the highest level through all existing channels. But the main difference with the exclusive distribution channel is that the supplier is in a dominant position and intermediaries have to compete with each other in order to meet the sales targets specified by the supplier.
3. **Selective**: Distribution of the products of the supplier through a limited number of intermediaries. All three types are shown in below figure 5.[298]

[294] Smith, S.L.J and Xia H. (2008), "Culinary Tourism Supply Chains: A preliminary Examination", Journal of Travel Research,
[295] . 289-299.
[296] Tepelus, C.M. (2005), "Aiming for Sustainability in the Tour Operating Business", Journal of Cleaner Production, 13, 99-107.
[297] Cüneyt Mengü, Seyahat İşletmelerinde Yönetim ve Operasyon Stratejileri Modern Sentez, Detay Yayıncılık, Ankara 2018, pp. 142-167.
[298] Haiyan Song, Tourism Supply Chain Management, Routledge, UK, 2012, p. 113.

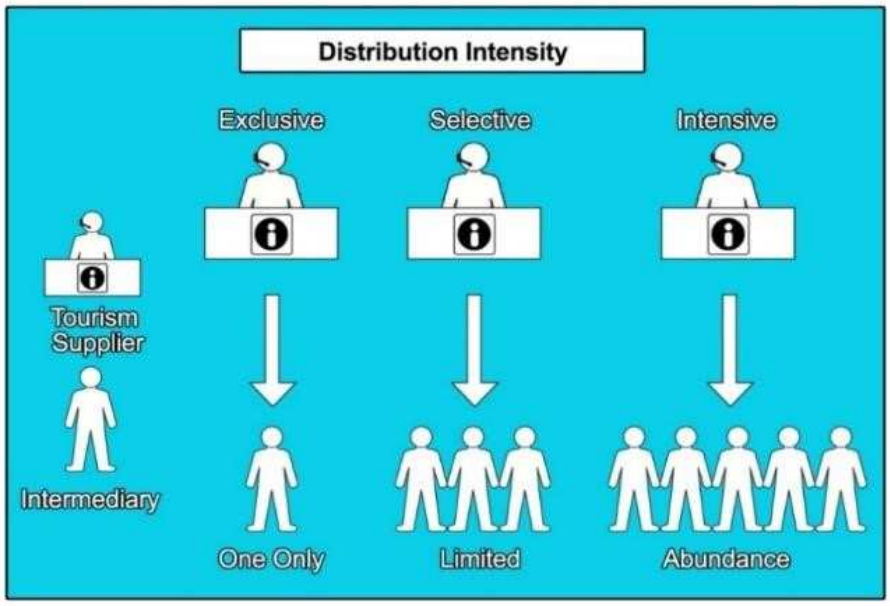


Figure 5: Distribution Intensity
Source: Haiyan Song, Tourism Supply Chain Management, Routledge, UK, 2012, p. 113.

As we can see above, there are many interdependent players in distribution channels. Naturally, within the above three distribution channels, the intermediaries prefer the most exclusive form, and all of them have their own specific tasks. This may at times give rise to ideas or compromise between channel members. In the past years, opposite behaviors were exhibited among the members who tried to gain more market share and channel power. Among the distribution channel there are two main approaches; [299] 1-Micro-economic approach, 2-Behavioral approach.

In the microeconomic approach, the operator concerns about the length of the distribution channel and how much it will cost. They want the best benefit of the operation. All options are carefully studied and financial burden and benefits are discussions around the table. The behavioral approach focuses on issues such as the behavior of the organizations in the channel, their relationships, how they compete with others, and the strengths of the channel.

Today, there are two concepts in intermediation: **a-** Existing intermediaries **b-** New intermediaries.

B2B ve B2C [300]

The relationship between the two travel operators is called business to business (B2B) and the relationship between travel operator with consumer called (B2C). Communication between businesses and consumers have become much easier with the internet use. In this sense, the most important use of the internet is in the field of tourism marketing, in regards to purchasing and procurement processes as a business to business (B2B) transactions. On the other hand,

[299] Ujma, D. (2001), "Distribution channels for tourism: theory and issues", pp. 33-52, in Buhalis, D. And Laws, E. (eds) (2001), Tourism Distribution Channels: Practices, Issues and Transformations, Continuum, London.
[300] B2B: Business to Business; İşletmeden işletmeye B2C: Business to Customer: İşletmeden müşteriye

internet users will find wide use in the business world and in the coming years will have an even more important position in commercial life. [301] In tourism, the internet serves as a bridge that fills the gap between customers and operators, and also allows for interactive communication and commercialization between travel operators. Apart from B2B and B2C, there are relations like customers to customers (C2C) business to citizens (B2C) and business to government (B2G) [302]

Cross suppliers in the distribution system

The option of direct sales through the internet create new opportunities for hotels and airlines so they usually do not prefer to use travel agencies and tour operators. Indeed, many airline companies are offering services of hotel or car rental reservations and in the same way; hotels are also offering airline bookings, guided city tours or car rentals etc. Thus, suppliers are able to sell their products directly via the Internet, distribute their products on a global

Integration Strategy in Modern System [303]

In the distribution channel, each member has a particular role and functions but all of whom dependent on their activity. İn the channel relationship each member is striving to gain market share and channel power from other. Channel power depends on the changing of the behavior of each channel members. According to Ujma (2001), [304] each channel member forms "Base of power" according to the size of the company, the limits of the owners' authority and the agreements they have made with other member firms. The companies that have the most power in the distribution channel undertake the channel leader role. Some channel members are much powerful that they are known as channel leader who formulates policy for the whole channel.

In this context, Mill and Marrison described three channels on the base of power. [305]

1-Consensus: No member has any power over the others. Each company works equally for the same goal. **2-Horizontal Integration**: Horizontal integration occurs when there is a convergence between similar types of companies in the distribution channel. For example a tour operator deals with another tour operator, it is very common in the tour operator and travel agency sector and such integration does not involve capital participation between the parties. The main supplier is a strong and leader in product range and distribution. The main benefit is; creation of purchasing power, Provide a market profile, Recognition in a wider area, More ICT access and lower cost of ownership, Higher return per transaction.
3-Vertical Integration: Vertical integration is the degree to which a company owns its upstream suppliers and its downstream buyers. For example, a tour operator can buy a hotel chain or an airline company to reduce warranty costs. On the other hand, a tour operator can

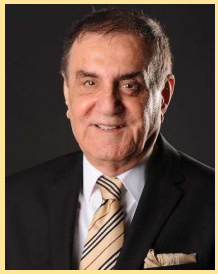
[301] Middleton & Clarke, Marketing in Travel and Tourism, Butterworth Heinemann, Third Edition, 2002, Chapter 10; p. 159.
[302] Beech & Chadwick, The Business of Tourism Management, Prentice Hall, 2006, p. 255.
[303] Cooper, Essentials of Tourism, Prentice Hall Financial Times, UK, 2012, p. 197.
[304] Ujma, D. (2001), “Distribution channels for tourism: theory and issues”, pp. 33-52, in Buhalis, D. And Laws, E. (eds) (2001), Tourism Distribution Channels: Practices, Issues and Transformations, Continuum, London.
[305] Mill, R.C. and Marrison, A.M. (1985) The Tourism System. An Introductory Text, Prentice Hall, Englewood Cliffs, NJ.

buy a chain of travel agencies to protect their sales. This is called forward integration. This type of integration is still developing in retail agencies, where the independents are predominant. [306]

Reactionary Strategies of the Others:

The integration of major suppliers in distribution channels and their vertical integration with tour operators and horizontal integration with airlines, Hotels, cruise ships made non-integrated companies vulnerable and encouraged them to find new strategies to protect themselves. İn this regard small travel operators have contractual cooperation with the independent Agencies they try to protect their competitiveness. this type of system which is called franchising and is widely used in the tourism industry and there is no management relationship between tour operators and travel agencies. The only relationship between them is entirely business. The measures companies take to protect themselves are;

1- Independent travel agencies set a consortium among themselves to minimize the risk of losing market share. This can give them an equal bargaining power against large integrations.
2- Independent agencies may adopt new strategies that are different from the existing market and offer consumer special services in destination selection.
3- Small agencies and tour operators can benefit by offering attractive packages called dynamic packages, which provide flexible opportunities and can quickly affect customers.
4- With bargaining power, they can get attractive prices from different hotels in destinations.



*DR. **CUNEYT MENGU***
He was born in Kerkuk, Iraq in 1949. He graduated from the University of Baghdad - Business Administration (BSC) in 1968, and from Al-Mustansiriyya University, Baghdad - (BSC) Law and Political Sciences in 1975.
He moved to Turkey, completed Master's Degree of Business Administration /Hacettepe University in Ankara in 1979. He worked for Turkish companies in Arab countries then established Mercan Tourism in 1985.
He was awarded the PH.D Degree from Istanbul University - Faculty of Economics in 2004.
Mercan Tourism became a leading company and gained the first position of carrying the maximum number of tourists coming from the Middle East to Turkey. Currently, Mercan is arranging a significant number of MICE organisations originated from the Arab World. Recieved many awards. Recently, has been voted as Turkey's Leading Destination Management Company by World Travel Awards 2018.
Dr. Mengu is a lecturer in Istanbul University. He has weekly column in a National Daily Newspaper and published several books and scientific papers in Tourism and Politics.
His latest book is "Management and Operation Strategies in Travel Industry – Modern Synthesis".

In future in the distribution channel tour operators will be divided into two different groups; [307]

1- Multi-national, large and vertically integrated, wide distribution, strong global network, intensive sales, but less profitable tour operators,

[306] Buhalis, D. And Laws, E. (2001), Tourism Distribution Channels, Continuum, London. Mill, P. And Morrison, A. (1998), The Tourism ystem, 3rd. Edn, Kendall/Hunt, USA.
[307] Buhalis, D. (2003), eTourism: Information Technology for Strategic Tourism Management, Pearson Education, Harlow.

2- Small, adapted to market conditions, focused on specific products and destinations, fewer sales intensive but high-profit tour operators.

Of course, for both tour operators and travel agencies, their future will be determined by how successful they are in use of technological tools.

New trends and threats in distribution [308]

Tourism is a very volatile sector and every passing day facing new dynamics and threats. In future possible trends and those threats can be listed as follows;

1- **Threat of new entrants**: When new competitors entering the market with a strong force can make the work of existing travel agencies and tour operators difficult.
2- **Bargaining Power of Suppliers**: Online distribution channels offer direct sales from the suppliers to the tourists and that reduces the business relations with the travel agencies and by that distribution will be combined with multiple channels, but It will give priority to the company's own distribution channel.
3- **Bargaining Power of Customers**: Consumers can compare the prices of products and services over the internet, make reservations, change reservations, and make purchasing transaction. Because they can see different products it gives them bargaining power.
4- **Competition in the market**: in this regard; there are two different concepts ;
   - Innovation will be very important to bring competitive advantage to travel operators
   - When the online channels focus more on the customer the role of consumers will be increased. the power of online systems is taken into consideration.

Strategies developed by neo-classical agencies

Neo-classical travel agencies effort on motivation, innovation, specialization and integration management and the products and services they offer to the tourism market that determines the customer's desire and satisfaction level both should be compatible. [309]

As a result, both the traditional (classical) travel agencies and neo-classic travel agencies should focus on the following activities;

1- **Workshops**: travel agencies organize workshops to promote their products both at home and abroad.
2- **Trade Fairs**: are the major marketing activities in today'a highly competitive marketplace nationally or internationally. Its aim is to create opportunities for contact and exchange discussion and information.
3- **Fam Trips**: It is a good opportunity for the participants to meet local counterparts and establish business contacts.
4- **Support for new products**: Support may be needed when products initially do not attract customer interest.
5- **Marketing intelligence**: Knowing who your competitors are, and what they are offering, can help you to make your products, services, and marketing stand out and improve your own business performance.

[308] Luiz Moutinho, Strategic Management in Tourism, Cabi Tourism Texts, p.p 152-153.
[309] Milan, A. and Esteban, A. (2004), Development of a multiple-item scale for measuring customer satisfaction in travel agencies services. Tourism Management 25(5), 533-546.

Conclusion

In recent years the developments in Information and Communication Technologies (ICT) have rapidly increased. In this context, distribution systems, digital transformation and the tendency towards globalization of communication systems are also showing increasing trends. Lately, besides the internet and especially website applications, the position of social media and their relationship with the channels has come to the highest level priority. In parallel with these developments, the modern approach as new technical and operational structures appeared and the scope of classical travel agencies has narrowed, so, they will not exist if they do not adapt to the new technological developments in time.

In today's life, on one hand, the consumer became more conscious, and on the other hand, the spread of the use of ICT caused severe competition and changed the business models in the tourism industry. All stakeholders should develop their businesses according to the ICT. Suppliers created new strategies, dimensions, and options and at the same time, this caused the emergence of cross-suppliers and they gained a position in the modern system.

At the time when cards are being redistributed with this new approach, distribution channels have created new power on consensus and integrations. Due to the diversity of online channels and the increase of intermediaries, neo-classic agencies have been participating in the system and developing customer-centric products for the preferences of the customers.

Every day there are new entries in the tourism market, so the tourism enterprises have to modify their systems in order to protect themselves from the new entrants and should develop new strategies.

Ideas that seemed impossible just a few decades ago are now a reality. It seems the developments in the ICT will never come to an end. It is a fact that as a result of the continued use of technical facilities and increase in tourist needs, in the future new intermediation forms, new structures and new management styles will have occurred.

References:

Beech & Chadwick, The Business of Tourism Management, Prentice Hall, 2006

Buhalis, D. (2003), eTourism: Information Technology for Strategic Tourism Management, Pearson Education, Harlow.

Buhalis, D. And Laws, E. (2001), Tourism Distribution Channels, Continuum, London.

Chris Cooper, Essentials of Tourism, Prentice Hall Financial Times, UK, 2012

Dimitrios Buhalis, eTourism, Prentice Hall Financial Times, UK, 2003

Goeldner, C.R., and Ritchie, J.R.B. (2009), Tourism: Principles, Practices, Philosophies, John Wiley, Hoboken, NJ.

Haiyan Song, Tourism Supply Chain Management, Routledge, UK, 2012

Li, X. And Petrick, J.F. (2008), "Tourism marketing in an era of a paradigm shift", Journal of Travel Research, 46, 236-244. Luiz Moutinho, Strategic Management in Tourism, CABI Tourism Texts, 2nd Edition, UK, 2010

Mengü, Cüneyt, Seyahat İşletmelerinde Yönetim ve Operasyon Stratejileri Modern Sentez, Detay Yayıncılık, Ankara 2018.

Middleton & Clarke, Marketing in Travel and Tourism, Butterworth Heinemann, Third Edition, 2002, Chapter 10

Milan, A. and Esteban, A. (2004), Development of a multiple-item scale for measuring customer satisfaction in travel agencies services. Tourism Management 25(5)

Mill, P. And Morrison, A. (1998), The Tourism System, 3rd. Edn, Kendall/Hunt, USA.

Mill, R.C., and Marrison, A.M. (1985) The Tourism System. An Introductory Text, Prentice Hall, Englewood Cliffs, NJ.

Page, S., and Connell, J. (2009) Tourism, A Modern Synthesis, Cengage Learning. P.145

Smith, S.L.J and Xia H. (2008), "Culinary Tourism Supply Chains: A preliminary Examination", Journal of Travel Research, 46.

Stern, L. W., and El-Ansary, A. (1992) Marketing Channels, Prentice Hall, Englewood Cliffs, N. J.

Tepelus, C.M. (2005), "Aiming for Sustainability in the Tour Operating Business", Journal of Cleaner Production, 13, 99-107.

Ujma, D. (2001), "Distribution channels for tourism: theory and issues", pp. 33-52, in Buhalis, D. And Laws, E. (eds) (2001), Tourism Distribution Channels: Practices, Issues, and Transformations, Continuum, London.

TO BE MACHO OR NOT TO BE THAT'S THE MATTER: BANKING AND TOURISM SECTORS

Ekrem Tufan[310]
Sezer Deniz[311]
İrem Ceylan Karagöz[312]
Erhan Eren[313]
Duygu Nedret Tüter[314]

DOI: https://doi.org/10.31410/eraz.2018.657

Abstract: *It has shown that people perceived facial expressions as the richest source of information about other's emotions. Facial expressions are significant for communications among people and it contain universal symbols of emotions and thoughts. People are easily and unconsciously tend to make inferences about strangers and a simple glance of face is sufficient to do so. The appearance of people especially the facial expressions are also important in working area. For instance, such smile intensity in photos or a simple facial gesture can help individual to be employed and earn more than average. In the sectors such as tourism and banking where people communicate face to face, macho or not macho faces employees may have an influence on the customers. In this context, we have aimed to analyze the effects of macho or not macho faces on costumers in both tourism and banking sectors.*

Key words: *Facial expression, Macho faces, Banking and Tourism sector*

INTRODUCTION

Facial expression, which plays an important role in interpersonal communication, contains significant information about people's emotions, thoughts and mental states. Charles Darwin stated in his book, "The Expression of the Emotions in Man and Animals", that some innate feelings in humans and animals emerge as facial expressions, and these expressions are perceived in the same sense all over the world thus these face expressions are universal [1], [2]. The facial expressions that form the basis of face-to-face communication among people are 55% effective in all communications; voice tone is 38%, and words have only 7% effect. They can be abbreviated as the "3 Vs" for Verbal, Vocal & Visual [3], [4]. To date, facial expressions has been demonstrated as the richest source of information about emotions of people [1]. It can be understood that facial expression is one of the most fundamental aspects of people' social interactions.

According to Ekman and Friesen [5] there are six basic emotions which reveal facial expressions of people defined as happiness, sadness, fear, anger, disgust, and surprise. Emotional facial expressions known as one kind of emotionally loaded stimuli is particularly significant in daily basis interactions for humans. Understanding emotional message conveyed by facial expressions of other people is crucial for forming interpersonal relationships and

[310] Çanakkale School of Applied Sciences, Çanakkale Onsekiz Mart University, Çanakkale, TURKEY
[311] Faculty of Tourism, Çanakkale Onsekiz Mart University, Çanakkale, TURKEY
[312] Faculty of Tourism, Balıkesir University, Balıkesir, TURKEY
[313] Faculty of Tourism, Çanakkale Onsekiz Mart University, Çanakkale, TURKEY
[314] Faculty of Tourism, Çanakkale Onsekiz Mart University, Çanakkale, TURKEY

people's career [6]. Given the significance of emotional expressions as guiding behaviour of people in everyday life, failure for processing facial expressions correctly is likely to give rise to significant reverse consequences [7].

Almost in every ancient culture, face was a window of person's true nature [8]. As Solomon Asch's statement, "we look at a person and immediately a certain impression of his character forms itself in us. A glance, a few spoken words are sufficient to tell us a story about a highly complex matter. We know that such impressions form with remarkable rapidity and with great ease. Subsequent observations may enrich or upset our view, but we can no more prevent its rapid growth than we can avoid perceiving a given visual object or hearing a melody" [9].

Ekrem Tufan
He is interested in Behavioral Finance and Behavioral Economics. He has been studying on Behavioral Economics and Tourism. He is also interested in social experiences.

Regarding stereotypes facial expression and first impression could facilitate to help construct relationship with strangers. On the other hand, this situation could create **Halo Effect** and **Stereotype Effect** biases. Halo Effect which has been first coined in the literature by Thorndike 1920 [10] is being described as:

"The halo effect can be defined as the tendency to use global evaluations to make judgments about specific traits. In other words, we use a global characteristic (such as attractive or likable) to determine specific personality traits (such as outgoing or kind). We attribute personality qualities to people we have only seen, even though we have never met them, and the qualities have nothing to do with their looks. This phenomenon happens unconsciously - we are unaware of the bias we develop simply because of a person's attractiveness…"

Stereotype Effect (or threat) could be described as follows:

"…a stereotype means that anything one does or any of one's features that conform to it make the stereotype more plausible as a self-characterization in the eyes of others, and perhaps even in one's own eyes…"

People usually think emotionally and consciously or unconsciously apply Halo Effect and/or Stereotype Effect. For example, Physically attractive is an advantage when applying for a job [11]. More attractive individual may not only have greater likelihood to be employed, but also earn on average higher wages. Attractiveness can be associated with social skills which improve worker's productivity, so employers may discriminate attractive individuals and pay them higher wages [12]. Also facial properties of politicians may play a central role in shaping voter perceptions for electing. Such as smile intensity in photos and facial cues', correlate with the election outcomes [13]. Todorov, Mandisodza, Goren and Hall [14], with their study, have shown that inferences of capability which are based completely on facial appearance predict the outcomes of U.S. congressional elections and also were linearly related to the margin of victory.

People are easily and automatically tend to make decision about others, just a single glance of face is enough for that.

Faces are the rich source of people' inferences, in spite of the certainty of these inferences is arguable [15]. When we look at a person, an individual impression of his/her character instantly is shaped in our minds [16]. In instance [17];

- Baby-face people: Impressions of childlike and sincere traits, contain high warmth, low power, and low competence, are revealed by faces that look more babyish than average, and these effects take place regardless of face age, gender, or race.
- Familiar-face: People not only prefer faces they have seen before, but they also tend to prefer novel faces that are similar to previously seen ones, a generalized mere-exposure effect.
- Unattractive face: Even people that are in normal health, if they have unfit-face people are tend to think that they have lower warmth, power and competence than people with attractive face have and especially this effect at any rate partly accounts for more positive impressions of more attractive individuals, as halo effect.
- Emotional-face: As defined either by human ratters, much more dominance and lower warmth are understand not only in angry faces, it can be also in neutral-expression faces that show more similarity to angry expressions.

Almost every day people as a customer make preferences both in tourism and banking sectors. In both sectors, people make either hotel or banking preferences with applying some conscious and unconscious information which one of them is facial expression and face morphology. Especially doorstep sales, customers meet with receptionists while in a bank with desk staffs. Macho or not macho faces staff could have an effect on the customers.

Sezer Deniz

Student of master of Tourism and a young academic researcher candidate.

DATA AND METHODOLOGY

Participants

Questionnaires were completed by Turkish citizens over internet. To control cultural factors effect on the results questionnaires were applied by Turkish citizens. The total sample of 181 participants (N=181) included 105 men (58%) and 76 women (42%).

Questionnaire, data collection and methodology

Data has been collected by an original questionnaire. The questionnaire covers 38 questions which first three questions searching answers about proficiency, working sector and feelings as Westerner or Easterner while last three questions directed socio-demographics (gender, age and education). Other questions directed facial impressions and prejudices in banking and tourism sectors. To search this, it has been applied eight men portraits between the ages of 18 and 40 as single and pair. The eight men have been chosen randomly which were volunteer to participate our social experiment. Five of eight men have full beard, while one of them has only moustache and one to them has got neither moustache nor beard.

Research Questions

The questions which it has been searched are below:

1. Are there any prejudices against macho men in banking and tourism sectors?
2. Does handsomeness have an advantage in banking and tourism sectors?
3. Does to be perceived as a macho has an effect on trustfulness?

FINDINGS AND DISCUSSION

Total Sample	Count	%
GENDER	181	100
Women	76	42
Men	105	58
AGE		
18-25	20	11,0
26-30	63	34,8
31-35	56	30,9
36-40	18	9,9
41-45	12	6,6
46-50	3	1,7
51-55	5	2,8
56-60	2	1,1
61 >	1	,6
EDUCATION		
Primary School	1	,6
Secondary School	17	9,4
High School	9	5,0
Vocational School	7	3,9
Faculty	60	33,1
Master/PhD	24	13,3

Table 1. Description of the sample

It has been showed 8 men portraits to survey participants and addressed questions such as “do you think this man has a macho face?”, “Which man is the most handsome in these paired photos?” We can claim that there is no significant difference between age, gender, education, working sector, having diploma in tourism and banking areas and perceive as macho and handsome.

We asked which one is handsome in these four paired pictures. The most difference between paired photos regarding handsomeness is shown below.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Left	7	3,9	3,9	3,9
	Right	120	66,3	66,3	70,2
	None	43	23,8	23,8	93,9
	All	11	6,1	6,1	100,0
	Total	181	100,0	100,0	

Table 2. Handsomeness

As seen Table 2 left photo has voted 7 times while right one has voted 120. There are no big handsomeness differences between other paired photos like this one.

A similar question has been asked about machismos. The most voted macho photo and results are shown below.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	141	77,9	78,3	78,3
	No	39	21,5	21,7	100,0
	Total	180	99,4	100,0	
Missing	System	1	,6		
Total		181	100,0		

Table 3. The Most Machismos

Interestingly, not to be seem as a macho does not mean that be handsome or vice versa.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	15	8,3	8,3	8,3
	No	166	91,7	91,7	100,0
	Total	181	100,0	100,0	

Table 4. The Machismos

İrem Ceylan Karagöz

Postgraduate Student of Tourism, Management Department in Balikesir University and a young academic researcher candidate.

91.7% of survey participants voted against machismos for the babe face man above while 35.9% is accepted him as handsome when they compare with the paired partner.

It has also been searched if there is a prejudice against macho men in tourism and banking sectors. To measure possible prejudice, we used paired photos and asked two questions to the survey participants: Who could be responsible customer complaints and who should be dismissed because of economics crisis? Shortly it could be reported that macho perceived men dismissed first.

The macho perceived man has had 77.9% vote in paired photo and he is also the first dismissed person by the survey participants. He also has the highest complained perception. The results are shown below Tables 5 and 6.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Left	92	50,8	50,8	50,8
	Right	13	7,2	7,2	58,0
	None	48	26,5	26,5	84,5
	All	28	15,5	15,5	100,0
	Total	181	100,0	100,0	

Table 5. To be Perceived as a Macho and Dismissed

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Left	119	65,7	65,7	65,7
	Right	9	5,0	5,0	70,7
	None	15	8,3	8,3	79,0
	All	38	21,0	21,0	100,0
	Total	181	100,0	100,0	

Table 6. To be Perceived as a Macho and Being complained Perception

Erhan Eren

He is a student of master studies in Tourism and has plans to work for a university in the near future.

Our second research question is: "Do handsome men have an advantage to get job in tourism and banking sectors?" It has been asked that "who could work for a tourism company as a cashier?", "Who could be a customer service representative in a bank?" and "Who could deserve promotion?". Unsurprisingly, survey participants have given highest scores to the most handsome perceived man's photo (66.7%) and accepted a promotion for him in highest level (68%) and accepted to give a cashier position in a hotel (70.4%) and voted for his become a customer service representative in a bank (63.1%).

The last research question is aimed to search reliability and asked exactly the same questions with above. To be perceived as a macho has a disadvantage as to be perceived a reliable person.

The results could be seen in Table 7, 8 and 9.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Left	8	4,4	4,4	4,4
	Right	102	56,4	56,4	60,8
	None	58	32,0	32,0	92,8
	All	13	7,2	7,2	100,0
	Total	181	100,0	100,0	

Table 7. Perceived to be as the Most Macho and Possibility of being Work as a Customer Service Representative in a Bank

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Left	16	8,8	8,8	8,8
	Right	82	45,3	45,3	54,1
	Nonei	71	39,2	39,2	93,4
	All	12	6,6	6,6	100,0
	Total	181	100,0	100,0	

Table 8. Perceived to be the as Most Macho and Possibility of being work for a tourism company as a cashier

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Left	10	5,5	5,5	5,5
	Right	69	38,1	38,1	43,6
	None	80	44,2	44,2	87,8
	All	22	12,2	12,2	100,0
	Total	181	100,0	100,0	

Table 9. Perceived to be as the Most Macho and Possibility of Deserve Promotion

CONCLUSION

Duygu Nedret Tüter

She is doing her tourism master and dreaming of to be an academic researcher

The facial expression is an important indicator of individual emotions, thoughts and mental states in decision-making process. A real-life decision involves some of the aims or values, some facts about the environment and some inferences taken from values and facts. Targets and values can be basic or complex, consistent or contradictory; while facts can be real or assumed based on observation or others' reports, inferences can be real or fake [18]. In the literature, it has come to the conclusion that attracting people are on average higher employment and higher wages [19]. In our study, we also found that macho faces are not related to handsomeness and as a result of the disadvantages of employment in the banking and tourism sectors, macho-style people are more likely to be preferred by the tourism sector than in the banking sector. In general, better looking individuals exhibit better communication skills, have more confidence and are more outward extroverted [20]. For this reason, there is a positive relationship between the employment of the people who do not have macho appearance and the jobs that require trust. In our study we investigated whether there are differences in the employment and promotion possibilities in banking and tourism sectors depending on physical appearance. As a result, it has been determined that there is no significant relationship between age, gender, certificate, face perception and education in banking-tourism sectors.

REFERENCES

[1] Ekman, P. (2009). Darwin's contributions to our understanding of emotional expressions. *Philosophical Transactions of the Royal Society B: Biological Sciences*, *364*(1535), 3449-3451.

[2] Bayrakdar, S., Akgün, D., & Yücedağ, İ. (2016). Yüz ifadelerinin otomatik analizi üzerine bir literatür çalışması. *Sakarya Üniversitesi Fen Bilimleri Enstitüsü Dergisi*, *20*(2), 383-398.

[3] Mehrabian, A., & Ferris, S. R. (1967). Inference of attitudes from nonverbal communication in two channels. *Journal of consulting psychology*, *31*(3), 248.

[4] Mehrabian, A. (2009). Nonverbal Communication. A division of Transaction Publishers, New Brunswick (U.S.A.) and London (U.K). 3rd edition

[5] Ekman, P., & Friesen, W. V. (1971). Constants across cultures in the face and emotion. *Journal of personality and social psychology*, *17*(2), 124.

[6] Knyazev, G. G., Bocharov, A. V., Slobodskaya, H. R., & Ryabichenko, T. I. (2008). Personality-linked biases in perception of emotional facial expressions. *Personality and individual differences*, *44*(5), 1093-1104.

[7] Persad, S. M., & Polivy, J. (1993). Differences between depressed and nondepressed individuals in the recognition of and response to facial emotional cues. *Journal of abnormal psychology*, *102*(3), 358.

[8] Todorov, A., Olivola, C. Y., Dotsch, R., & Mende-Siedlecki, P. (2014). Social attributions from faces: Determinants, consequences, accuracy, and functional significance. *Annual Review of Psychology*, *66*.

[9] Asch, S. E. (1946). Forming impressions of personality. *The Journal of Abnormal and Social Psychology*, *41*(3), 258.

[10] Thorndike, E. L. (1920). A constant error in psychological ratings. *Journal of applied psychology*, *4*(1), 25-29.

[11] Shahani-Denning, C. (2003). Physical attractiveness bias in hiring: What is beautiful is good. *Hofstra Horizon*, 14-17.

[12] Pfeifer, C. (2011). Physical attractiveness, employment and earnings. *Applied Economics Letters*, *19*(6), 505.

[13] Lin, C., Adolphs, R., & Alvarez, R. M. (2017). Cultural effects on the association between election outcomes and face-based trait inferences. *PloS one*, *12*(7), e0180837.

[14] Todorov, A., Mandisodza, A. N., Goren, A., & Hall, C. C. (2005). Inferences of competence from faces predict election outcomes. *Science*, *308*(5728), 1623-1626

[15] Todorov, A., Fiske, S., & Prentice, D. (Eds.). (2011). *Social neuroscience: Toward understanding the underpinnings of the social mind*. Oxford University Press.

[16] Mende-Siedlecki, P., Said, C. P., & Todorov, A. (2012). The social evaluation of faces: a meta-analysis of functional neuroimaging studies. *Social cognitive and affective neuroscience*, *8*(3), 285-299.

[17] Zebrowitz, L. A. (2017). First impressions from faces. *Current directions in psychological science*, *26*(3), 237-242.

[18] Simon, H. A. (1959). Theories of decision-making in economics and behavioral science. *The American economic review*, *49*(3), 253-283.

[19] Pfeifer, C. (2011). Physical attractiveness, employment and earnings. Applied Economics Letters, 19(6), 510.

[20] Sierminska, E. (2015). Does it pay to be beautiful, Institute for the study of Labor. *World Of Labor*. doi: 10.15185/izawol.161.

MASS MIGRATION - THE FASTEST GROWING CHALLENGE OF THE EUROPEAN UNION WITH SPECIAL REFERENCE TO CROATIA

Sanja Knežević[315]
Anita Kulaš Mirosavljević[316]
Lena Duspara[317]

DOI: https://doi.org/10.31410/eraz.2018.665

Abstract: *Migration has become one of the key components of population change in the European Union. Greater mobility has contributed to the increase in the number of migrants in recent decades (migration between regions, and within the EU and migration from non-EU countries). Migration flows over the past decades between and in EU member states have had a significant impact on the current population size in most member states. There are a number of reasons why people want to move to the European Union. Some come to look for a better life, better living standards, some for employment, some to go back to their home country, some to study, etc. Since the first day of July 2013, the Republic of Croatia became the 28th member of the European Union according to the experience of some European Union member states it can be assumed that in the future there will be an increased immigration inflow to the Republic of Croatia as well. Still, the Republic of Croatia is just a land of passage. Currently growing problem of immigration inflows, which so far has not taken on larger proportions is the leaving of the Croatian population from the Croatia.*
The aim of this paper is to show the migration as the fastest growing problem of the European Union. Most of the developed European countries, despite the bad and extremely unfavourable demographic indicators, still have no clear population and immigration policy. Consequences may be crucial to their future economic development. In this study is included the analysis of the collected statistical data and survey which was conducted among a representative sample of respondents, adults who have left the Republic of Croatia from 1996 to today. The survey will show the main reasons for leaving home country.

Key words: *migration, emigration, European Union, Croatia*

1. INTRODUCTION

Migration is a major problem, which was paid little attention. Migration of different communities is not a novelty or a special feature of these areas and of this time. The impact of mass migration on society, especially on the local community in the areas of acceptance is mostly negative, which is particularly visible in the EU countries.

European Union countries can see a greater number of migrants as a threat to their lifestyle, culture or national security and stability, or as a rival in the struggle for limited local resources. Then there may be an increase in racism, discrimination, xenophobia and intolerance.

[315] College of Slavonski Brod, dr.Mile Budaka 1, Slavonski Brod, Croatia
[316] College of Slavonski Brod, dr.Mile Budaka 1, Slavonski Brod, Croatia
[317] College of Slavonski Brod, dr.Mile Budaka 1, Slavonski Brod, Croatia

2. HISTORICAL DEMOGRAPHIC DEVELOPMENT OF THE EUROPEAN UNION

Sanja Knežević *was born on 08.08.1985. in Slavonski Brod. She completed her language grammar school Matija Mesic in Slavonski Brod in 2004 and she immediately enrolled in the Faculty of Economics in Osijek, where she graduated in the Financial Management course in 2008. In 2010, she enrolled in postgraduate doctoral study in Management at the Faculty of Economics in Osijek where she also received a doctoral degree on 28.06.2016.*

In 2009 she has been employed at the College of Slavonski Brod as an assistant professor at the "Management" study program. In 2013 she earned its teaching degree and position as a lecturer at the College of Slavonski Brod. In 2017, she gained a teaching degree as a senior lecturer where she is still working today.

She is computer-educated and is active in English and German.

She has participated in over 20 international conferences and symposia in the field of economics and management and has published over 50 scientific papers as author/co-author. as well as 3 books.

Demographic changes are one of the main drivers that shaped the lives of Europeans. Europeans were most moving by all other nations. By the 19th century, Europe had a slow increase in the number of inhabitants. The reason for this was discomfort and wars in the area. Migrations took place in several waves.

The emigration started already after major geographic discoveries in the 16th century. However, only in the 19th century, due to the large natural increase in the number of inhabitants of Europe and the economic crises that affected primarily the poorer layers, mass emigration from Europe took place. According to the Institute for Migration and Ethnicity in Zagreb, “the migration of Europeans across the Atlantic is the largest and most fully documented migration in human history.” [1]

In the 19th and 20th centuries, most people went to North and South America, mainly in Argentina, and in Oceania. After the first wave, which is primarily related to the Germans and Scandinavians, began the second wave that applies to immigrants from Italy, Russia (Jews) and Central Europe (Austria-Hungary). At the end of the Second World War, most of the population was forced to emigrate. Just then occurred largest migration movement in the history of humankind “when in the area of Western Europe entered about 15 million people.” [2]

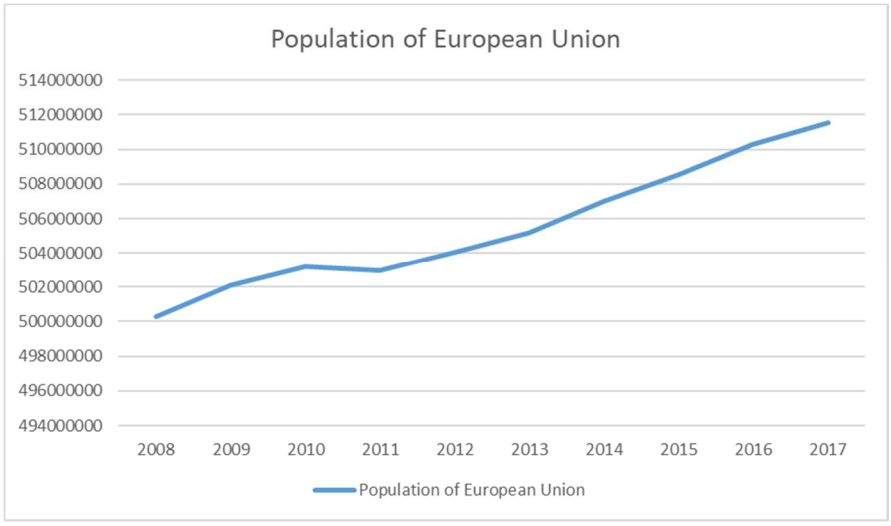
“In the late 40s and 50s and comes to overseas migration. Then, about 3 million people went from all over Europe.”[2] And residents of former European colonies migrated to Europe. After the wars, Europe needed labor, and it was brought primarily from former colonies, then from less industrialized countries such as Ireland and Finland, from Mediterranean countries such as Spain, Portugal, Greece and later from the former Yugoslavia, Tunisia, Turkey. Most of it was about temporary stay, which in time became constant.

“According to Castles in the 1970s there were about 12 million immigrants in Western Europe.” [2] Just then begins to change migration policy and the introduction of restrictive immigration measures - unskilled labor is no longer desirable. At the same time, Spain, Portugal, Italy and Greece become immigrant countries, and most of the population comes illegally.

“In 1989. year is a milestone in the history of international migration.” [2] Political changes - Fall of the Berlin Wall and the Connection of East and West “culminated in so-called mass

movements from 1989 to 1990. years. Only in 1989 more than 1.3 million people have emigrated. “[2] In mass migrations in 1989 there were two types of migration - ethnically motivated migration and forced migration, which shows the following picture. Ethnic-motivated migrations were made up of national minorities - Germans, Jews and Greeks. Forced migration has largely caused the war between the former Yugoslavia, when “more than a million people went from 1991 to 1998 in Western Europe.” [2]

In addition, Eastern European countries are facing labor migrations. Since 1997, there has been a growing trend of illegal migration. The inflow of migrants to the European Union has escalated in recent years. The wave of migration to the EU is largely due to war, poverty, and dangers due to and after Western intervention. The EU is a rescue for thousands of people fleeing from countries where there is no future. It is most common in Syria, Iraq, Libya, and parts of Africa. Accordingly, annual figures are radically larger than those of last years are. The main characteristic of the demographic picture is continuously increasing population at the level of the entire EU as shown in the graph below.



Graph 1: Population of European Union [3]

The graph shows that current demographic situation in the EU is characterized by continuing population growth.

3. DEMOGRAPHIC DEVELOPMENT OF THE EUROPEAN UNION - MIGRATION AS A GLOBAL PROBLEM

The EU is not currently responding to an increasing number of immigrants, and this humanitarian problem is becoming an increasingly political, economic and security issue. This applies primarily to countries at the entrance, or to countries that are connected to the sea, such as Greece, Italy and Spain, but more and more to Hungary as it enters the Schengen zone. The decision to lift a tall wall between Hungary and Serbia for the new wave of migration - recalls the time of "Iron Curtain, ie the Berlin Wall." The Hungarian raising the wall was aimed that a number of migrants redirected towards Croatia or through the Croatian in the Schengen area. The number of refugees coming from Serbia and just the wall at the border with Hungary is rapidly increasing the number of refugees in Croatia. In this way, Croatia has become a transit country for migrants.

In addition to trying to reach a political plan for migration, the EU is still helpless to address this problem. Migration problem should have a common European solution, as refugees will again find alternative entry into Hungary, for example through Croatia. For this reason, national solutions will fail. Although the EU believes that each EU member state must provide border control itself, one of the proposals is that the whole EU should accept part of the registered asylum seekers, according to the system of imposed national quotas.

The European Union is currently in the most difficult position since its inception. Everyday life has become a crisis of unemployment and economic stagnation. According to the European Commission, “the number of employees is growing steadily in most EU countries, and the biggest problems remain long-term unemployment and youth unemployment.” [4] In addition, the Republic of Croatia found itself in the same issue.

No one could ever even suspect that unemployment would rise so much that Greece's economy and economic problems would lead to bankruptcy. However, the economic problems are not only related to Greece but the future of the entire European Union can also be brought into question. In 2008, the financial crisis began and until today, it still lasts. The Greek crisis - the country's inability to pay its debts for itself since 2010, and its culmination, was achieved when the referendum Greek voters rejected the creditors' demands for reforms and now the key question is how to solve this problem.

Anita Kulaš Mirosavljević

She was born on 22 October 1984 in Slavonski Brod. She finished the Economic and Administration School in Slavonski Brod, direction: "Administrative Officer" in 2003. The same year she enrolled at the Faculty of Economics in Osijek, where she graduated in 2007 at the direction of Financial Management. In 2009, she enrolled in the postgraduate doctoral study at Management at the Faculty of Economics in Osijek, where she got a doctorate on 15 June 2015.

In 2008 she hired at the Polytechnic in Slavonski Brod as an assistant on professional study "Management". In 2012 she gained her teaching degree and position as a lecturer and in 2016 a professorship and a senior lecturer at the Polytechnic of Slavonski Brod, where she still works. In 2016 she became a scientific associate at the Faculty of Economics in Osijek.

Shet is computer-educated and actively serves English and passive German.

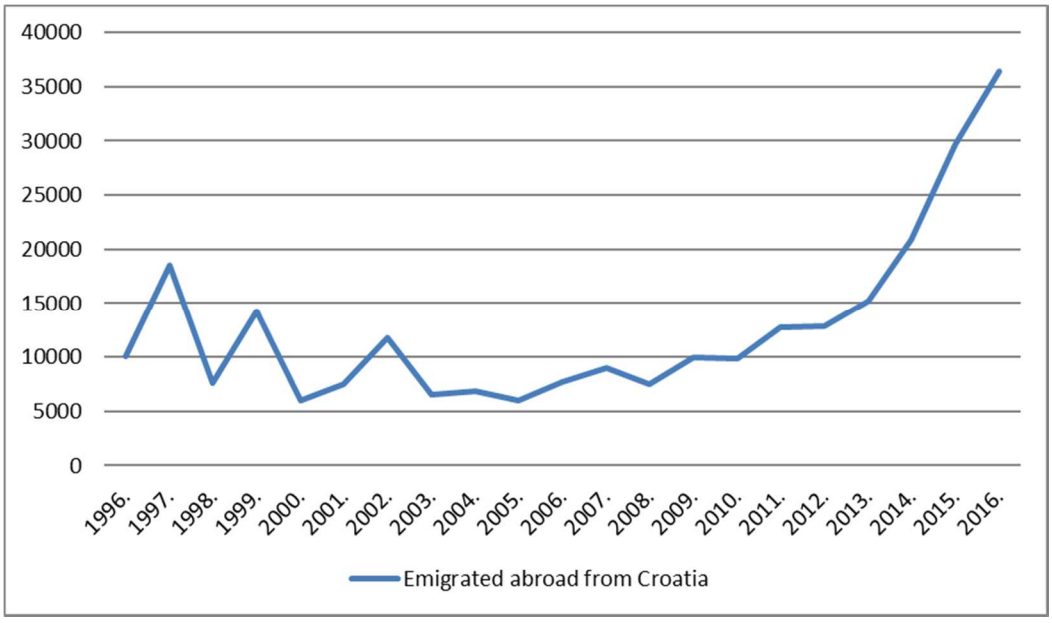
She has participated in over 15 international conferences and symposia in the field of economics and management and has published over 30 scientific papers as author/co-author.

Possible exit from the Eurozone or from the EU represents an unknown space for all EU policies. Exit would create a completely new situation for the European Union. The migration question has become one of the most important issues for the survival of the European Union.

4. THE PROBLEM OF MASS MIGRATION IN THE CASE OF THE REPUBLIC OF CROATIAN

Croatian joining the European Union announced the greater immigration wave. However, mass migrations are not expected in Croatia. The Republic of Croatia currently represents only the land of passage. Much greater problem is the emigration of the population from the Republic of Croatia in the countries of Western Europe.

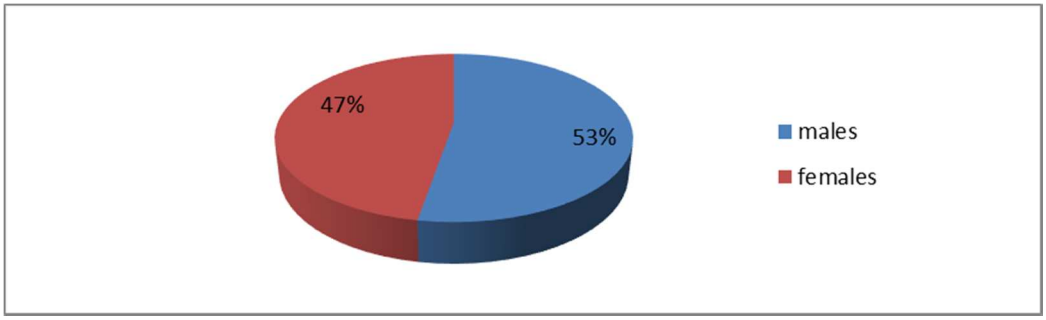
As one of the most important 'positive' factors of Croatia's accession to the European Union, there was a greater possibility of employment in Western European countries. Unfortunately, in this way, Croatia is still losing its population because it enables young people to move freely throughout Europe and have the opportunity to study and work in any country in the EU. It is a danger for every country, not just for Croatia, because it can lose skilled and educated staff for whom it has been attracting large amounts of money. The chart below shows the situation with the emigration.



Graph 2: Emigrated abroad from Croatia [5]

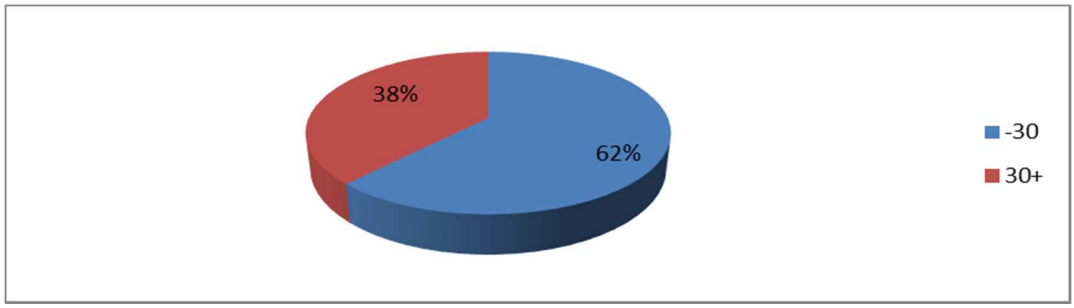
The graph shows that the Republic of Croatia has lost a great number of demographic potential in the observed period. The economic crisis, unemployment probably contributed to such bad indicators. In order to find out the reason for leaving was made a survey.

The survey was conducted through an emigrant survey to collect data on respondents' views on migration. The sample of entities is made up of 353 Croatian emigrants who have emigrated from any country in the world since 1996. The sample consists of respondents who were older than 18 at the time of emigration, except for the age limit and the time of emigration, there were no other constraints on the entity selection. The sample is suitably chosen, by selecting the emigrants the author came to know by personal acquaintance or the acquaintance of her acquaintances. However, the sample size ensures satisfactory representability. Below, it is shown the proportion of male and female respondents with the following graph.



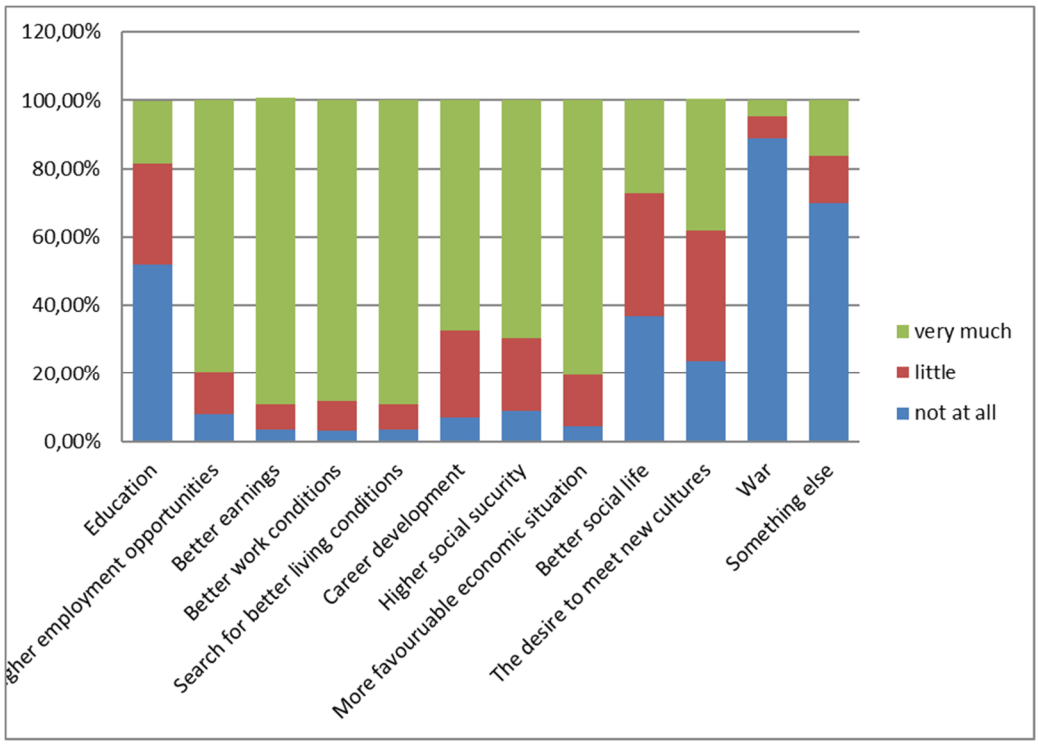
Graph 3: Respondents by gender [author]

The obtained results show that random selection resulted in a slightly higher number of males (52.7%) than women (47.3%). The age of the respondent is shown in the following graph.



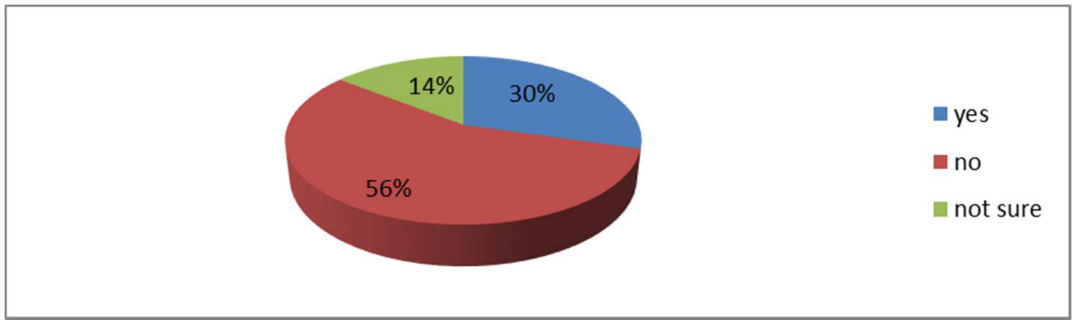
Graph 4: Respondents by age [author]

The results show that the majority of respondents (62%) almost two-thirds are between the ages of 18 and 30, which is expected while the respondents aged 30 and over have 38%. First and foremost, young people who are leaving because of existential problems are emigrating and this is a major problem for the state. The chart below shows the motives of leaving the respondents from the Republic of Croatia.



Graph 5: Motivation of leaving Croatia [author]

The obtained results show that the main reasons for leaving the Republic of Croatia are economic reasons. The most influential motive for the respondents was better earnings (89.9%), search for better living conditions (89.2%), better working conditions (88.1%), more favourable economic situation (70.5%), higher employment opportunities (79.9%), higher social security (69.7%), and career development (67.4%). On the other hand, only 4.8% of respondents have been persecuted (the war) is the motive for leaving; something else is a motive for leaving for 16.4% of respondents and education for 18.4% of respondents. What is particularly a major problem is that residents are encouraged to leave Croatia. The chart below shows the respondents' opinion should it be prevented departure from Croatia.



Graph 6: Respondents' opinion should it be prevented departure from Croatia [author]

The results show that 56% of respondents state that they should not be prevented from leaving, 30% of respondents say they should be prevented, and 14% is not sure. How much the emigration from the Republic of Croatia will continue will depend primarily on the socio-economic situation in the country and on new investments and the situation on the market of Western Europe.

5. CONCLUSION

Mass migrations are the present and the future of the European Union. The problem with immigrants in Europe is growing daily and its gravity is stronger than ever. Difficulties in accepting migrants to European Union are not only due to cultural or religious differences, but also because European countries do not have the history of immigration.

Furthermore, due to the lack of economic growth and high unemployment rates in some countries of the EU in the case of the Croatia can be seen that the population leaves country more and more. This trend has been increasing especially for the last couple of years and the prospect for the future is not good at all. The outcome of migration will depend on whether the EU is ready to assume the responsibility for the integration of the new population and how emigrants are ready to accept the foundations of the EU - democracy, human rights and so on.

Lena Duspara *was born on November 9, 1984. in Slavonski Brod. She graduated at Zagreb School of Economics and Management in Zagreb 2007. In 2008, she enrolled in postgraduate specialist study "Strategic Entrepreneurship" at the Faculty of Economics and Business in Zagreb, University of Zagreb, which ends in 2011. In 2016, finished postgraduate doctoral study Management at the Faculty of Economics in Osijek.*

She attended in 2004 the Universita Bocconi in Milan in Italy; International University in Moscow in Moscow, Russia in 2007; attended the Rennert Bilingual School of Foreign Languages in New York, USA , and in 2009 she was at the Ted Bauer School of Business, Houston University in Houston, USA.

In the period 2004-2010 worked in Sigmat d.o.o. in Slavonski Brod. In 2010 she has been employed at the College of Slavonski Brod as Assistant at the "Management" study program. In 2011 got a position as a lecturer, and in 2014 he was a senior lecturer at the College of Slavonski Brod where still works. Lena Duspara has participated in international conferences and symposia in the fields of economics and management and has published 48 scientific and professional papers as well as 3 book, 1 chapter in the book, 1 guide, 1 abstract in the abstract and one paper

REFERENCES

[1] Vitas, D. (2015) *Najveća migracija bila je smišljena i organizirana* http://www.vecernji.hr/hrvatska/najveca-migracija-bila-je-smisljena-i-organizirana-1025991, accessed 19.11.2015.

[2] Winter, Zlatković, J. (2004) *Suvremena migracijska kretanja u Europi. Migracijske i etničke teme*, 20, 2-3, pp. 161-170.

[3] Eurostat, http://ec.europa.eu/eurostat/statistics-explained/index.php/Population_and_population_change_statistics , accessed 07.06.2018.

[4] Lider (2015*) Slab rast zaposlenosti u EU, najveći problem dugoročna nezaposlenost i nezaposlenost mladih*, http://liderpress.hr/biznis-i-politika/svijet/slab-rast-zaposlenosti-u-eu-najveci-problem-dugorocna-nezaposlenost-i-nezaposlenost-mladih/ , accessed 31.07.2015.

[5] Bureau of Croatian Statistics https://www.dzs.hr/Hrv_Eng/publication/2017/07-01-02_01_2017.htm , accessed 21.06.2018.

HOW THE LIFESTYLE AND STYLE OF THINKING OF THE ROMANIANS HAS CHANGED 100 YEARS AFTER THE GREAT UNION

Marius Calin BENEA[318]

DOI: https://doi.org/10.31410/eraz.2018.673

Abstract: *It has been a century of animated industrial revolutions that have quickly succeeded in strong beliefs, national ideas, revolutions for social justice, world wars, extremist ideologies and political utopias, a constantly changing mass media, a revival unprecedented female leadership, extraterrestrial space, genetic engineers and remote surgical interventions, invasive globalizations. Sharpened by mythologies, the need for stories, love, idealism. We live longer, but not necessarily better. We give years of our life, forgetting to give years to our life. There are people who have travelled the whole world, experiencing in a lifetime the interwar bohemia, the abusive "leadership" of the communist dictatorship (this collective bullying we have not yet trained), but also the modern, innovative, disruptive digital age. Gaps between generations are widening more and more - to the difference of only one generation, women do not marry 19-20 years old, they do not make 1-2 children up to 25 years old, but they marry after 30 years or never and have children after 35 or not at all. Later maternity, divorces, "Patchwork families" single parenthood, heterosexual or homosexual consensual unions have become a different fact.*
Remote control and the mouse are the elements which dictate world transformations. The metamorphoses of knowledge suddenly passed from the Gutenberg galaxy, through the Marconi galaxy, suddenly entering the full digital vortex, artificial intelligence assistant.
Thea purpose of the article is to offer, from different perspectives, an image as close as possible to the truth, with no idealization, giving fatalities, which could give the Romanians a trance on the occasion of the centenary (the Romanians 100 years after the Great Union, 1918).

Key words: *Great Union, Romania, lifestyle, style of thinking.*

1. INTRODUCTION

In the year of the Centenary of Romania, we chose to make an analysis of the way we live, think and feel today, in these times of perpetual change and transformation.

It resulted in a lucid X-Ray, blotted out of any pathetic feelings, idyllic pictures, and false patriotic statements. A fairly true image of the reality we live in, impregnated by a culture of paradox, extremes, whims and victimization, collective nostalgia and lack of gratitude. A fairly true image of the reality we live in, impregnated by a culture of paradoxes, extremes, whims and victimization, collective nostalgia and lack of gratitude.

However, with a huge potential for creativity and the ability to regenerate from its own ash. And with a fabulous appetite for characters and stories. Nevertheless, these are general needs-valid for any corner of the world.

[318] „Politehnica” University Timișoara, Faculty of Engineering Hunedoara, str. Revoluției, Nr.5, Hunedoara, Romania

2. IN THE CENTENARY YEAR, ROMANIA NEEDS A COUNTRY DIAGNOSIS AND A NEW VISIONARY PROJECT

Romania has reached its first 100 years. An important moment, but that must be seen through the magnification of objectivity and national introspection.

The historic decision of the Great Union in 1918 was the result of negotiations conducted by the political forces of the time, who understood that, beyond their own interests, they had the responsibility to lay the foundations for a visionary political project. In other words, they thought about the future, not about the immediate gains of the political formations they were at that moment.

Taking advantage of the favorable geopolitical context, the Romanian diplomacy placed on the table of the great European powers a daring but sustainable project. Thus, Great Romania began its journey through history.

1918 is one of the most complex historical episodes in our collective memory. An event that should be celebrated by simplicity and debate, and less by festive activities without content.

The political project of the 1918 generation was focused on modernizing the country, so Romania had to come out of the rural backward state and join the developed European states. Having the monarchy locomotive, but also a politically educated class both in the Romanian countries, but also beyond their borders, the national project began to take shape.

Unfortunately, the present shows that our understanding of this political project is still limited. Communism altered most of the Romanians' memory of the Unification of 1918. And the post-decade regime failed to fully recover this lost memory, nor to assume the responsibility of a correct and objective writing of our national history.

After the tough years of communism and a difficult transition, the Centenary actually surprised an immature nation, too poorly prepared for the next 100 years.

If the communist regime stopped Romania from its development, the post-1989 governments did not manage to think of a new country project that would put Romania back on its own development.

Even though events such as NATO or EU integration have contributed significantly to Romania's post-1989 development, today's governments have failed to propose a country roadmap with a clear target in strategic areas such as education, health, infrastructure or public administration.

Political instability, as well as deep societal cleavages, have removed Romania from the goal of genuine reform, remaining the tributary of an outdated political model.

Romania needs, first and foremost, a country diagnosis. We cannot build Romania tomorrow without an objective and reasoned analysis of the priority areas where Romania has not yielded in the past 28 years. Perhaps the truth will upset many, perhaps the pride will prevent others from accepting the situation, but as in 1918, we have the responsibility to think for the future.

Today Romania is caught between a state of national pessimism and an exacerbated populism, both of which impede us to push on the acceleration of development and Europeanization.

The Centenary is the right time for a national, transparent and unpopular national pact to secure the country's roadmap for the next 100 years. Without health, education, infrastructure, competitive economy, Romania cannot go forward. The mature nations are built through vision, and Romania, as its history shows, can have this vision once again.

1918 is a lesson of history from which we should learn, but 2018 is a time when we have to assume a democratic and European direction. In a regional context dominated by nationalism and illiberalism, the chance of Romania may even be to capitalize on the European project it is part of and transform it into a regional, economic and geopolitical reference pole. Will we be able to take advantage of this historical advantage?

3. THE FIRST COMPREHENSIVE NATIONAL STUDY THAT SHOWS HOW ROMANIANS LIVE AND THINK IN 2018

- For the first time, Romania has officially a comprehensive study measuring how the Romanians' lifestyle and thoughts have changed;
- Major changes for 2018: Romanians want to see more often with their loved ones and feel the need to engage actively for a better Romania; 3 out of 10 are already involved in volunteering, and many of them are young and children;
- Company alert: 55% of Romanians say they are willing to accept a less paid job but give them more time and less stress;
- 3 out of 10 Romanians have begun to shut down their phone and facebook in the afternoon and weekends, in order to have more quality time.

Hunters, the new division of Trends of Unlock Market Research, launches the first comprehensive national study to measure trends in the lifestyle of Romanians in 2018. The data was collected for a year and shows how people have rethought about how live, these being presented in the form of 15 social and professional trends.

Alarm signal to employers

The study shows that Romanians want to gain more time personally instead of money and are no longer content with what employers usually offer. Thus, 55% of Romanians say they are willing to accept a less paid job but to give them more free time.

During this time, Romania is going through a crisis on the labor market, when more and more companies complain that they do not find human resources, despite the salaries offered.

Romanians want to do more than they like

At the same time, the strongest trend, recognized by 65% of Romanians, is the desire to slow down the alert pace of life. People want to recover their personal time, truly enjoy it, and seek to do just the things they like, including work. Romanians are no longer willing to work over the program or over the weekend and feel that the day is too short for everything they want to do.

More quality time: we start to deal with technology dependence

Romanians are increasingly looking for peace of mind outside technology and authenticity in inter-human relationships. That is why 37% of Romanians already limit their time spent on the internet or on the mobile phone, closing them in the afternoons and weekends, and 7 out of 10 feel they are affecting their technology consumption. The reason, say sociologists: the freedom that technology offers is a false, addictive, and often wasting time.

Instead, Romanians are more concerned with the simple joys that re-connect them with everything that is human: they want to meet their loved ones more often, to play more, to stay in nature - a confirmed trend of over 61% of us. Sociologists explain the phenomenon as a reversal of technology abuse and the virtual world.

Romanians get more and more involved in making a change for the better

The study shows that we feel the need to make more sense in our lives and to do more important things. 3 out of 10 Romanians volunteer actively for social or environmental causes without being constrained. Many of them are young people and children, and they choose volunteering for recycling and nature conservation. Overall, 43% of Romanians recognize the trend towards a cleaner environment and some say they feel guilty if they do nothing for it.

The study fits the trends in four areas of major change in Romania:

1. We are struggling to remain human - a validated trend of 60% of Romanians

This means we care more, we become more empathic, and we feel the need to help. That is why we are more involved and we are solidary for a better society: we connect with others, go out on the street to protest or collect donations for charitable purposes.

The desire for a better world goes even further: 66% of Romanians confirm the need to embellish the place they live in, being increasingly concerned with the aesthetic aspect of everything that surrounds them, from home, food and even to your own body.

2. The community has a more important voice than ever - a validated trend of 45% of Romanians

The Romanians have discovered what a community means and what its power is. 6 out of 10 Romanians recognize the desire to gather around a common goal to have a real impact in the world. On Facebook or on the street, people have learned to form naturally as a group, to trust each other and to collaborate more, believing that they can change their lives for the better. The Romanians have realized that the people around them are ready to get involved in a cause.

We are no longer ashamed to be Romanian

41% of Romanians believe that Romania has begun to count on the world map. According to their statements, they are no longer ashamed to be Romanian, and they believe that national identity has gained reputation and became a reason for pride. Romanians have begun to support everything that is of local value and to buy Romanian products just for this reason.

3. Traditional roles have been redefined - a confirmed trend of 59% of people

The Romanians have begun to abandon the customs and to put a price on their personal choices: they no longer live according to traditional standards, but as they wish. They marry harder, decide later to have children and choose to work in forms that make them feel free, for example as freelancers.

A strong trend, validated by 66% of Romanians, is that people began to live younger regardless of their age or social situation. Thus, more and more elderly people extend their active life by committing to even 70 years of age, enter the internet and have facebook accounts, do sports and go on holiday.

Generations are also exchanging lessons - a trend validated by 62% of Romanians. Young people teach their grandparents to use technology, and they in turn help them find out what value and depth are.

In terms of gender relations, the roles of women and men are redefining, a trend confirmed by 56% of Romanians. Today, they have become partners who can also do some activities that before seemed only for women. For example, men take paternity leave, while women are the head of the family.

Personally, 6 out of 10 Romanians say they see more and more people investing in self-improvement. The Romanians have begun to refrain from taking a faculty at the age of 40, to learn Japanese on their own initiative, to dance or to cook. Sociologists explain by increasing competitiveness to maintain a role in society and remain important to others.

4. Romanians want to slow down - the strongest trend, confirmed by 65% of Romanians

The Romanians began to be disturbed by the pressure to run unnecessarily. They want to recover peace of mind, to gain more time for themselves, giving up things that suffocate or are not strictly necessary. People are looking for an inner balance and more and more are ready to give up even higher wages, just to get it.

Consequently, limiting technology consumption to gain quality time is an important trend stemming from this need, which is confirmed by 71% of Romanians.

Another trend validated by 56% of Romanians is the limitation to the comfort zone: people plan more, look for the best deals on the market and make savings, considering that financial stability is more important than financial progress. Romanians have started to opt for safer jobs, which guarantees them a salary that covers their basic needs, but instead offers less stress.
The trends are based on an extensive qualitative and quantitative study that has been conducted continuously over a year on a representative sample for Romania and is a product of the new trend division Hunters by Unlock Market Research.

The research consists of two parts: the first examines the Romanians' perception of the trends they identify around them, and the second shows to what extent they apply them in their own lives. The full-study is available on request at Unlock Market Research.

It can be customized to certain categories and helps business, marketing, and communication professionals identify how they can address the consumers they are addressing. The complete package includes the study, customized business workshop and focus groups.

4. CONCLUSIONS

In the Centenary Year, the Romanians chose to make an analysis of how they live, think and feel today in these times of perpetual change and transformation. The study shows that the traces of the anxiety that the Romanians had in the past were becoming more and more vague. We now see figures, officially documented, that Romanians are no longer afraid, and now have a new direction in which they want to do everything to reach peace of mind. Romanians are in a period of searching for personal good and they will change the way business, communication, or politics is done in Romania.

Romania is in an alert and continuous change. We feel it around, but now we understand it in figures. Here is the first comprehensive study that measures trends in Romanian, starting from the idea that understanding rapid changes in lifestyle and consumer habits is a key component in the development of any business.

REFERENCES

[1] https://noizz.ro/big-stories/primul-studiu-national-complex-cum-traiesc-si-gandesc-romanii/1f9tde9
[2] https://www.revista-piata.ro/business/special/item/13682-adina-vlad-unlock-market-research-oamenii-nu-mai-sunt-compatibili-cu-locurile-de-munca-asa-cum-au-fost-ele-construite-pana-acum
[3] https://www.revista-piata.ro/business/special/item/13680-sfarsit-de-epoca-pe-piata-muncii-time-over-money
[4] http://www.horecainsight.ro/studiu-unlock-market-research-cum-s-schimbat-stilul-de-viata-al-romanilor-si-care-vor-fi-trendurile-2018/#_ftnref1
[5] https://www.magazinulprogresiv.ro/articole/unlock-market-research-cum-s-schimbat-modul-de-viata-si-de-gandire-al-romanilor
[6] http://www.descopera.ro/dnews/16851600-cum-s-a-schimbat-stilul-de-viata-si-de-gandire-al-romanilor-unele-modificari-sunt-majore
[7] https://romanialibera.ro/lifestyle/romanii-isi-schimba-modul-de-gandire-si-stilul-de-viata-701083

YOU ARE WHAT YOU PERCEIVE AND EAT

Ekrem Tufan[319]
Atila Yüksel[320]
Funda Eriş[321]
Aydan Taştan[322]

DOI: https://doi.org/10.31410/eraz.2018.679

Abstract: *Food industry is notorious for its ignorance of care and well-being of consumers. Since contemporary consumers lead a very fast type of life, they have scarce time to stop and think when they buy food.*
In this research we have investigated if consumers chose specific words when they buy food. As expected, people have preferred the ones with specific names, such as local, fresh and organic.

Key words: *Behavioural Economics, Behavioural Tourism, Food Preferences, Restaurant*

I. INTRODUCTION

Modern or basically Capitalistic life style force us to live faster. Usually we have no time for detailed think for daily decisions and some of them are related with food choices. If we do not reflect up when we chose our food, we can make bad and wrong decisions. Behavioral Economics search and try to explain the factors which effect our decision processes and draw a framework.

What kind of factors have an effect on our food choices? First thing come to mind is price, accessibility to market, being trendy food, advertisements, quality and culture. We can add more factors such as "…labelled health, mood, convenience, sensory appeal, natural content, price, weight control, familiarity and ethical concern…" [1]. Of course, there could be many factors which affect our food choice decision but psychological factors are the most interesting one. For example, many people try to buy the reddest and the best shaped apples in produce section of super market or greengrocer. However conscious consumers prefer bad shaped and maggoty apples. First group think that the best shaped and the reddest apples are the best and do not consider being the reddest could come from chemicals. To choose the reddest apples is not a random behaviour. Its origin comes from evolution [2]. have searched food colour and human trichromatic vision in food evaluation. The researchers report that "…evaluation of perceived calorie content and arousal in humans are biased by colour has received comparatively less attention. Arousal positively co-varied with red-brightness, while green-brightness was negatively associated with arousal and perceived calorie content…". On the other hand, it has been found evidence that high-caloric pictures compared to low-caloric pictures led to increased activity in food processing and reward related areas [3]. Food colour,

[319] Çanakkale Onsekiz Mart University, Çanakkale School of Applied Sciences, Terzioğlu Yerleşkesi, Çanakkale 17100, Turkey
[320] Adnan Menderes University, Faculty of Tourism, Kuşadası, 09400, Turkey
[321] Çanakkale Onsekiz Mart University, Faculty of Tourism, Terzioğlu Yerleşkesi, Çanakkale 17100, Turkey
[322] Çanakkale Onsekiz Mart University, Faculty of Political Science, Terzioğlu Yerleşkesi, Çanakkale 17100, Turkey

calories, availability and consumer choices were searched well in the literature [4], [5], [6] and et all.

Atila Yüksel

He has many publishings' which published by highly qualified journals such as Tourism Management. He is interested in biases in tourism, human decision making, sleep deprivation and effect on human in tourism sector.

We characterize and make judgements about the people around us with their eating habits. For example, some cultures use more various spices then the other cultures or some people are vegan. Food choice differs from not just culture to culture but also nation to nation and GDP. For example, [7](Honkanen, Verplanken, & Olsen, 2006)(Honkanen, Verplanken, & Olsen, 2006)(Honkanen, Verplanken, & Olsen, 2006)(Honkanen, Verplanken, & Olsen, 2006) report that ethical motives such as being human and animal rights supporter and political motives have positive effect on food choice while religion not. If this research repeated in a Muslim country such as Turkey, the results are likely to be different.

Some people believe that "functional foods" (For example: Enriched yogurt) are more healthy than traditional one. (Ares & Gámbaro, 2007) [8] have searched functional food choice of Uruguayan consumers and carrier. The researchers report that certain carriers perceive functional foods as healthier.

Sometimes people think fast when they buy food and do not think in dept. Advertisement sector knows it well and use. Thinking and taking decisions fast are not just because of Capitalistic life style but also nature of human. (Kahneman Daniel, 2012) who is Nobel Economy Prize Winner has explained it with System I and System II in his famous book namely Thinking Fast and Slow. Regarding the book, people think and decide fast when take decisions especially for daily routines. On the other hand, easily pronounced and/or familiar words evoke a favourable attitude [10] and [11]. Design of the dining table, colour of the restaurant, music even size of the spoons and dishes affect our dietary habit. For example, big spoons and dishes cause us to serve ourselves more because they make the food look so small [12].

People tend to think positive some words which related love such as mother love, daughter or son love and love of wife. In marketing there is a magic word which is loved by almost everybody: Free or it's derivates buy one get one. (Ariely, 2013)[13] explains this in his book with cholate example. Sometimes some believes or perceptions also affect our food choice. For example, we believe that village produced eggs are healthier, because we accept chickens are being feed naturally. We do not think chickens' life conditions who live in a hencoop in the village could be exactly same with industrial ones. So, when we see or hear some words such as "natural", "fresh" etc. we tend to accept that that goods are more precious and tend to choose them.

We wonder if there are some magical words in Turkish restaurants. The research is organized as follows: After introduction, next sections be assigned data and methodology and empirical results while last section is results.

II. DATA AND METHODOLOGY

Participants

Questionnaires were completed by Turkish citizens. Turkish citizens were chosen in order to research if Turkish culture has an effect on food choice. The participants filled out the questionnaire over the internet. The total sample of 165 participants (N=165) included 64 men (38.7%) and 101 women (61.2%). In Turkish cuisine culture veganism is not common and firstly lamb meat is preferred while second is beef. Because of that lamb meat has higher price than beef.

Questionnaire and data collection

Data has been collected by a questionnaire. The questionnaire covers Turkish food photographs and brief menu contents. The questionnaire covers seven questions which first four questions directed food choice while last three questions related with socio-demographics (gender, age and education).

Our research question is if there are some magic words at food choices? To research this, we have created a dummy restaurant menu and add food pictures and brief names with brief descriptions (contents). In names we add some specific words which could be perceived as magic words such as local names, buy one get one and organic certified. Then we asked to chose two of foods and soups in pictures from the menu. We used five pictures for both questions.

Table 1 gives brief information about the sample:

Table 1. Description of the sample

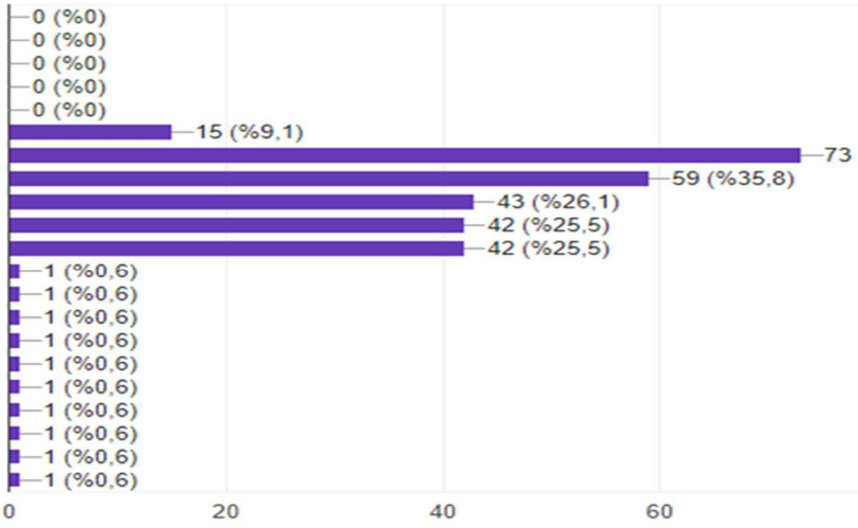
Total Sample	**Count**	**%**
GENDER		
Women	101	61.2
Men	64	38.8
AGE		
18-25	84	50.9
26-30	24	14.5
31-35	21	12.7
36-40	6	3.6
41-45	10	6.1
46-50	12	7.3
51-55	5	3.0
56-60	3	1.8
61 >	0	0
EDUCATION		
Primary School	3	1.8
Secondary School	2	1.2
High School	43	26.1
Vocational School	18	10.9
Faculty	68	41.2
Master/PhD	31	18.8

As it could be seen in Table 1, women respondents were dominated the sample (61.2%). Majority of the respondents are young (65.4%) and well educated (60.0%). Because women dominate the results, it could be expected that “health” or health evoke words be more chosen by women than men respondents.

III. EMPIRICAL RESULTS

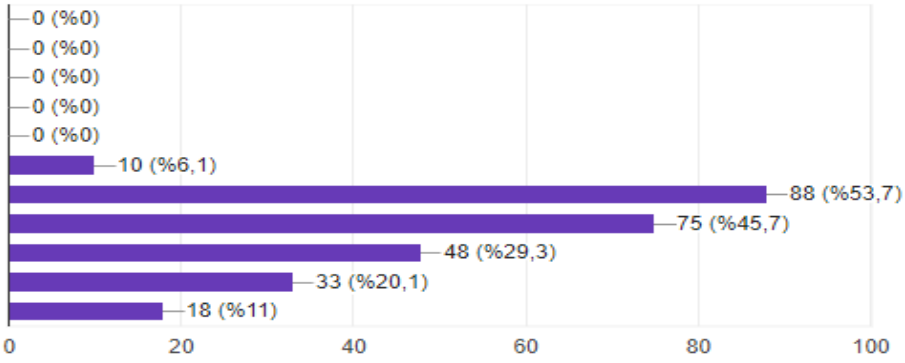
Including invalid (6) and vegetarians (15) responses we have had 165 responses. The most chosen pictures are “Organic certified farm meat” 73 (44.2) and “local meat” 59 (35.8%). Majority of the respondents 107 (64.8%) choices were affected by the foods contents (descriptions).

Graphic 1. Food Choice



We tested same situation with last two questions for soup names. The most chosen picture is “From the Ida Mountain’s Summit” 88 (53.7%). Second most chosen picture is “Aunt Bahriye Soup” 75 (45.7%).

Graphic 2. Soup Choice



The reason of preference is same with the first question: Contents of the pictures (125 respondents, 75.8%).

IV. RESULTS AND DISCUSSIONS

Funda Eriş

Student at Faculty of Tourism and a young academic researcher candidate.

We can say Turkish food sector is biased by specific words. These are: “Local”, “Organic certified” and local names such as Ida Mountain and Aunt Bahriye. The results have had similarity with [14] research which report sensory appeal, health, convenience and price are the most important factors at food choice. In our research one of magic word is “organic certified” which evokes healthy food. However, our results do not confirm [15] (Hou, Yang, & Sun, 2017)(Hou, Yang, & Sun, 2017)(Hou, Yang, & Sun, 2017)(Hou, Yang, & Sun, 2017) results which report that “…consumers exhibit more favourable attitudes and behavioural outcomes when provided with common descriptive food names with pictures…”. In our results we can claim that consumers prefer specific food names and give priority them than pictures of them.

Aydan Taştan

Student at Faculty of Tourism and a young academic researcher candidate.

On the other hand, nutrition labelling could also affect consumer behaviour such as “…beef labelled 75% lean has more favourable opinion rather than 25% fat…”[16]. This claim is also supporting our results which we found some words are more effective than others. For example, From the Ida Mountain’s Summit soup name is being most preferred soup.

REFERENCES

[1] Steptoe, A., Pollard, T. M., & Wardle, J. (1995). Development of a measure of the motives underlying the selection of food: The food choice questionnaire. *Appetite*, 25(3), 267–284. https://doi.org/10.1006/appe.1995.0061

[2] Foroni F., Giulio Pergola & Raffaella Ida Rumiati. (2016). Food color is in the eye of the beholder: the role of human trichromatic vision in food evaluation, *Scientific Reports*, 6:37034 DOI: 10.1038/srep37034, 1-6.

[3] Sabine, F. Laharnar, N. Kullman S. Veit R. Canova C. Hegner Y., Fritsche A.& Preissl H. (2010). Processing of food pictures: Influence of hunger, gender and calorie content, *Brain Research*, 1350, 156-159.

[4] Spence C. (2015). On the psychological impact of food colour, *Flavour*, 4, 21, 1-16, DOI 10.1186/s13411-015-0031-3

[5] Rumiati, R.& I., Foroni, F. (2016). We are what we eat: How food is represented in our mind/brain, *Psychon Bull Rev*, 23, 1043-1054, https://doi.org/10.3758/s13423-015-0908-2.

[6] Blechert J.; Meule A., A. Busch N. & Ohla K. (2014). Food-pics: an image database for experimental research on eating and appetite, *Front. Psychol*, 5: 617. doi: 10.3389/fpsyg.2014.00617.

[7] Honkanen, P.,Verplanken, B.and Olsen,S. O. (2006), Ethical values and motives driving organic food choice, *Journal of Consumer Behaviour*, Vol. 5 No. 5, 420-30.
[8] Ares, G., & Gámbaro, A. (2007). Influence of gender, age and motives underlying food choice on perceived healthiness and willingness to try functional foods. *Appetite*, *49* (1), 148–158. https://doi.org/10.1016/j.appet.2007.01.006
[9] Kahneman D. (2012). *Thinking Fast and Slow*, Penguin Books, 1-485, ISBN 978-0-141-03357-0
[10] Kahneman D. (2012). op. cit.
[11] Tufan E., Hamarat B., Bertecene B.,Pekoğuz S., Eryücel Ö., Engin B., Yılmaz D. C., Özcan Z. (2017). Some Cognitive Biases and Happiness, International Conference on Economics and Administration. (R. Ianole-Calin, Ed.). Bucharest: Filodiritto Editore – Proceedings, 134-140, ISBN 978-88-95922-92-8,
[12] Brian, W. (2006). Mindless Eating : Why we eat more than we think. *Bantam Books*, eISBN: 978-0-553-90403-1
[13] Ariely, D. (2015). The Irrational Bundle: Predictably Irrational, The Upside of Irrationality, and The Honest Truth About Dishonesty, *Harper Perennial*, 9-335, ISBN: 978-605-5655-39-6
[14] Steptoe, A., Pollard, T. M., & Wardle, J. (1995), op. cit.
[15] Hou, Y., Yang, W., & Sun, Y. (2017). Do pictures help? The effects of pictures and food names on menu evaluations. *International Journal of Hospitality Management*, 60, 94–103. https://doi.org/10.1016/j.ijhm.2016.10.008
[16] Cohen, D. A., & Babey, S. H. (2012). Contextual influences on eating behaviours: Heuristic processing and dietary choices. *Obesity Reviews*, 13 (9), 766–779. https://doi.org/10.1111/j.1467-789X.2012.01001.x

ONE SOLUTION OF INTERACTION WEB APPLICATION FOR USERS INTERCONNECTION

Nenad Kojić[323]
Mustafa Levent[324]
Natalija Vugdelija[325]

DOI: https://doi.org/10.31410/eraz.2018.685

Abstract: *In this paper, one solution for the user application which is intended for interactive graphical display of user location is presented. Given the increasing mobility of users, their interactivity and the need for communication, this application offers the ability to find users and visualize its location. An application can only be used if two or more users want to communicate with each other and share their locations. Particular attention is paid to the significance of personal data so the application can only be used if the user approves it for each individual use. According to its purpose, the application is available on mobile devices as well as on computers.*

Key words: *Geo location, interconnection, find people, web application*

1. INTRODUCTION

One of the key characteristics of the modern age is the intensive development of technology, its use in everyday life and the impact on the everyday activities of users. The intensive development of the telecommunication network, then the mobile networks and mobile devices, is rapidly changing the way people communicate [1]. The high level of availability of mobile carrier services, the ever more affordable price of services and the high degree of coverage of the mobile network slowly shift the focus of end-users from computers to mobile devices [1], [2].

Young generations and new generations of digital service users and devices already imply that communication in the digital world is the default form of communication [2]. For this reason, an increasing number of service users require constant changes and improvements to existing services and services that are available online using mobile applications and services [1]. Intensive communication and user mobility requires ever more advanced services that, in addition to their content, have a visual presentation. This becomes especially important when you need to find someone or find some object easier in an unknown environment [3].

There are a large number of professional papers and applications that solve the problem of finding the desired restaurant, museum or some facility easier [2], [3].

In line with all of the above, this paper presents one solution for a web application intended for mutual finding and tracking the users' location. This is of great importance in situations where an increasing number of users have increased mobility, especially situations where users are in

[323] ICT College for vocational studies, Belgrade, Serbia
[324] ICT College for vocational studies, Belgrade, Serbia
[325] ICT College for vocational studies, Belgrade, Serbia

an unknown environment. This is why the application can be especially useful to tourists, or parents who want to know the location of their children [3]. The primary goal of the application is to graphically visualize the geographical location of one or more users, provided that they want to share that location with another user or users, whereby the privacy of users is maximally respected and cannot be misused in any way.

The work is organized through four chapters: After the introduction, the second chapter defines the reasons for the development of this application as well as the technical requirements for the same and used technology. The third chapter presents the results and possibilities of the implemented application. In the end, a conclusion is given and further guidelines for future research.

Nenad Kojić *was born in Valjevo, in 1977. He received his B.Sc., M.Sc. and Ph.D. from the School of Electrical Engineering, University of Belgrade, Serbia.*

His research interests include neural network, routing algorithms, heterogeneous wireless networks, image processing, web programming and multimedia. He is an author and co-author of more than 80 scientific papers in journal and conference proceedings.

Nenad Kojić is reviewer of several electrical engineering journals.

He was involved in the European COST292 project as member of the Image Processing, Telemedicine and Multimedia (IPTM) group from the School of Electrical Engineering of the University of Belgrade.

Now, he works at the ICT College of Vocational Studies in Belgrade as a professor of web programming

2. APPLICATION FUNCTIONALITY AND TECHNOLOGIES

Starting from the primary purpose of the application and the need to be easily accessible to end users, one of the first goals is the proposed solution should be implemented as a web application. On that way it can be used both on mobile devices and desktop computers, without any restrictions. Additionally, the application is supported on Android and iOS operating systems for mobile platforms, as well as Windows and Linux for desktop devices [4].

Since the goal of the application is to visualize the location of two or more users, and how this information cannot be seen by other users, the application should work on the principle of logical channels that contain those users who want to share their locations among themselves [5]. A channel is a logical structure that defines which users can interact with each other and see the locations of other users belonging to the same channel. In this way, one user can communicate with different users in different channels, while users outside the channel cannot see each other. While using the application, it is desirable to enable geo-location in order to display the user's location to other users within the same channel, but this is not necessary. This way, a user can use the app to see the locations of all users who have enabled geo-location, even though they have not shared their own location. This gives the user possibility to use the application on a PC, or to preserve their privacy [6].

The app is implemented as a standalone application, but it can also be used as part of another web site. A part of the web page would be reserved for the graphics of this application and it would be displayed independently in that space. Then it can be run in parallel with other graphic and functional elements of the original web page [5], [6].

In order to ensure a fast response of the system to every user request, the server application is written in the PHP programming language with the MySQL database [9]. The development of

object-oriented PHP code was realized using the MVC Pattern. This pattern is a Model-View-Controller organization. This division of code into three parts ensures quick processing of user requests, optimal code writing, lower level of application complexity, and better system performance [4], [6]. For this purpose, PHP framework CodeIgniter 3.1.0 was used [7], [10].

Codeigniter is an open source framework for PHP language. It uses the MVC architecture (Model-View-Controller) that brings separation between the logical layer and the layer of presentation. In practice, this allows web pages to contain a minimum code script because php scripting is separate from the presentation:

- The model represents the data structures. A typical model contains functions that enable retrieval and data entry into the database;
- Controller serves as an agent between the model and view, processes HTTP requests and generates web pages;
- View serves to present data to the user. View is a classic web page, but in Codeigniter can be a fragment, like a header or a footer, an RSS page, or any other web page.

Levent Mustafa

In 2016 Mustafa Levent graduated from ICT College of Vocational Studies in Belgrade department of Internet technologies.
Since 2016 Mustafa Levent is a student on specialist vocational studies, at ICT College of Vocational Studies in Belgrade department of Software engineering.
He is active in local community for promoting ICT.

Codeigniter has a fairly free interpretation of MVC because models are not required. Thus, unnecessary code complexity can be avoided. Codeigniter helps us to program in the PHP programming language better and simpler. Adds modularity and code becomes more readable and simpler for updates and changes.

The advantage of this framework with respect to others is that Codeigniter:

- Free;
- It is very easy to install and configure;
- Thoroughly documented;
- It has excellent community support through a large number of forums;
- It contains a large number of libraries and functions that are useful for application development;
- Fast and easy - basically contains a small number of libraries, others are loaded as needed;
- Generate clean and 'Search engine friendly' URLs that help when listing in search engines.

As already mentioned, the primary objective of the application is to provide easy visual communication for users who want to share their location with other users in the channel, making it simple for the user to see their own and locations of others that show up on real maps, with clearly outlined locations of other users, and labels on which user is in which place. As the application is interactive, the position of each user is immediately refreshed in the application as they move, allowing the other users to find, meet, or monitor the position of the person they want. This requires that the application has access to the included geolocation services on the user's device and that it can work with the precision level that the user has with his geolocation [8]. The accuracy of the displayed locations is based on the precision of the geolocation that is

taken from the user's phone and the mistake is usually smaller than 5 meters, which is sufficient for finding people or objects.

3. REALIZATION AND USE OF THE APPLICATION

Starting from all the defined requirements, the proposed solution is programmatically implemented, and customized to be displayed in browsers and mobile devices. How device resolutions in users viewing the application in a browser can be a very different application implemented in accordance with the principles of responsive design, which involves automatically changing the resolution and size of the display of individual application elements with the goal of adjusting the overall display to the current dimension of the user device.

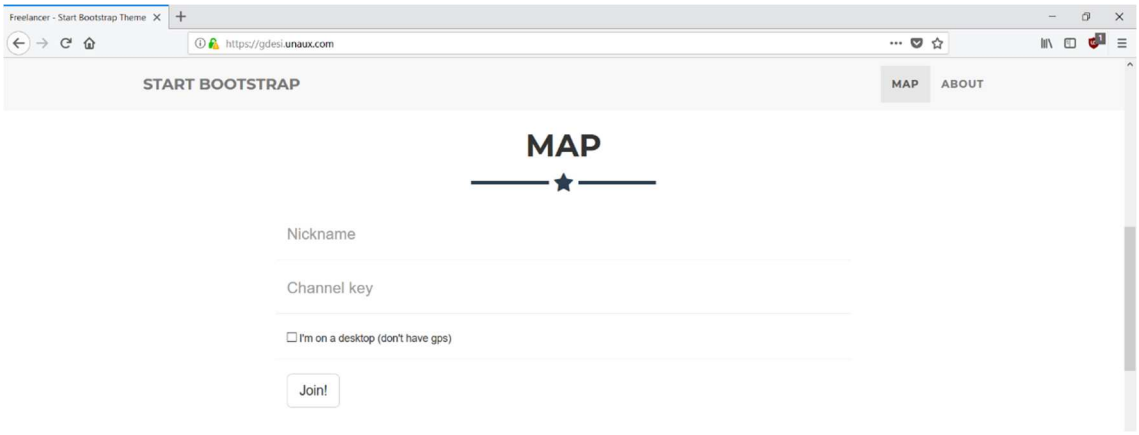


Figure 1: Initial appearance of the application

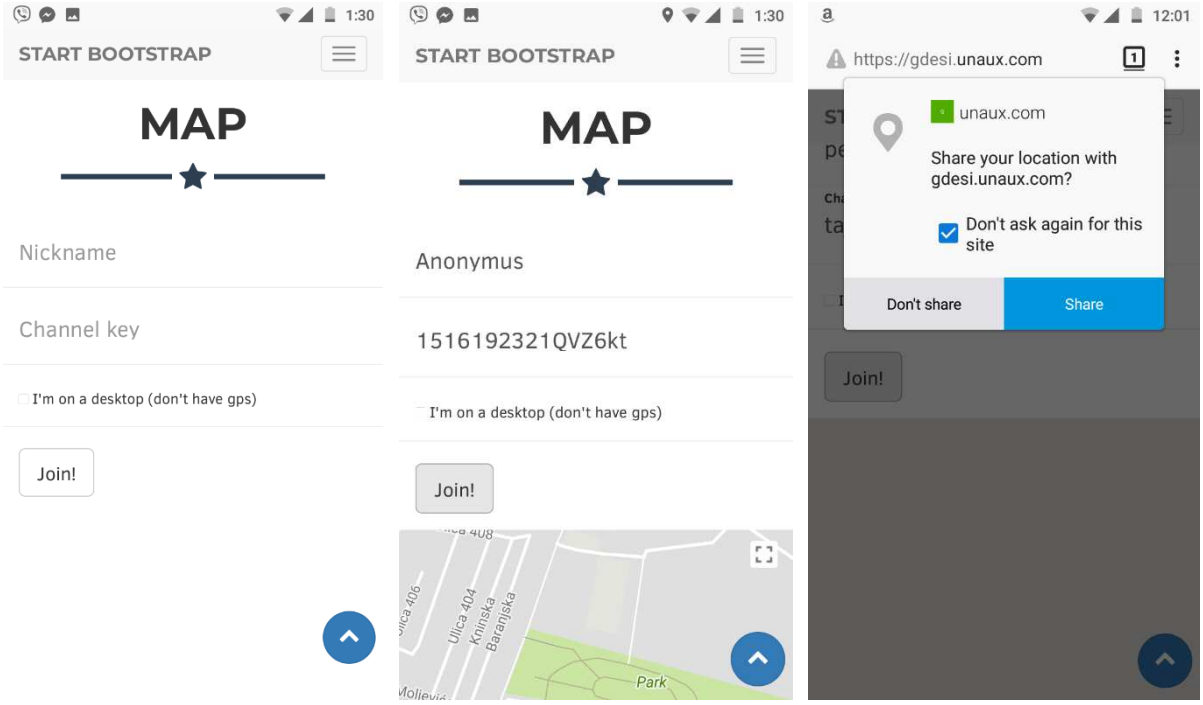


Figure 2: a) Initial display of the application on the mobile device b) Generating a channel key c) Searching for a permission to activate a geolocation

The Fig. 1 i Fig. 2a show the initial appearance of an application when it is loaded in a browser or on a mobile device. The user does not have to enter real name, if he / she does not want it, and it is enough to define nickname so that the users can differ from one another. The application does not require the authorization and authentication of users, and the application can thus be used without the fear of identity theft of users.

Natalija (Jovan) Vugdelija *was born in Belgrade, in 1966. She received her B.Sc. and M.Sc. from the School of Electrical Engineering, University of Belgrade, Serbia.*
Since 2002, Natalija Vugdelija has been employed at the ICT College of Vocational Studies in Belgrade. She is also a trainer at Mikrotik Academy in ICT College for MTCNA, MTCRE and MTCWE courses.
Her research interests include acoustics, innovation in the teaching process, implementation of ICT in learning, networks security, web technologies. She is an author and co-author more than 30 scientific papers in journal and conference proceedings.

In order to prevent the unwanted sharing of your location with unknown users, the user gets his channel key during the initial use of the application. With this number, he can send a request to any other user with whom he wants to share his location, or accept a request from another user to participate in his channel. In this way, one line can share its location with multiple users in one channel, while in another channel it can do with a completely different group of users. The Fig. 2b shows the generation of a channel key which provides protection of personal data from unwanted users.

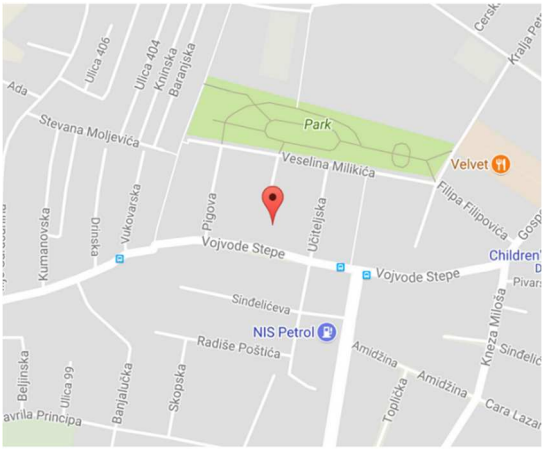


Figure 3: Displaying the user's markers within the real map of the place where it is located

After defining a nick name and receiving a channel key, the application checks if the user has a geolocation included on his device. If not, the user is notified that the geolocation is off, and that if he wants to share his location he should turn it on, Fig. 2c. The user has the right to choose whether he wants to do it or not. If the user allows the use of a geolocation, the user automatically loads the location map where it is located with the automatic setting of a signal marker that points to itself, Fig. 3. Clicking the marker displays the nick name of that user. If there are multiple users in the channel, a marker is displayed for each of them and each defines the current location of that user and his nick name, Fig 4.

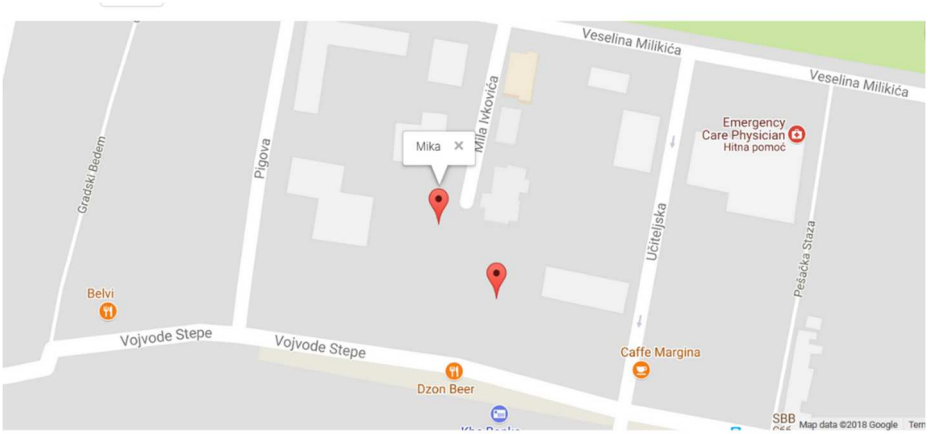


Figure 4: Display a map with two users in the same channel, which was initialized by the user Pera.

If we assume that a user with a nick name Mika is logged in to the application, after his access to the application, this user will see the screen as in Fig. 5. If a user with nick name Pera joins the same channel, then he will see his marker as well as the Mika user's marker. This would be repeated for every new user in the channel.

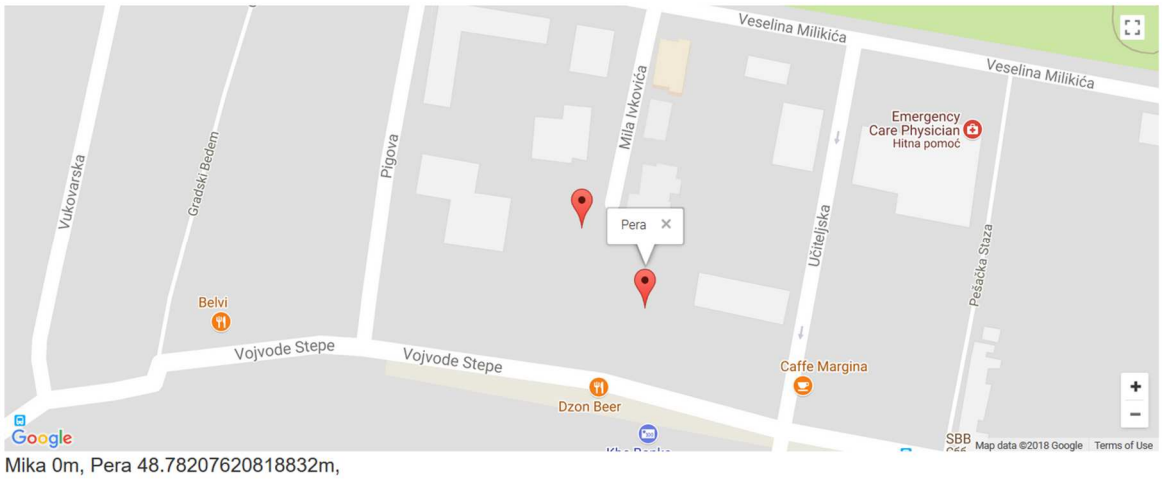


Figure 5: View the folder for the user who defined the nickname as Mika.

A special addition to the application is the automatic calculation of user interaction. This distance is calculated in relation to the airspace. This is displayed in the lower left corner of the window, just below the map. Fig. 5. Thus, the user who sees himself sees the distance to himself as 0m, while as a distance to another user sees the distance between two points in a two-dimensional space.

4. CONCLUSION

In this paper we present one solution of web oriented applications with the aim of graphically visualizing the locations of users sharing the same virtual communication channel. The application has the goals to help users find, track or feel more quickly and easily in new and unknown geographic locations. The application is adapted to work on different devices, operating systems and resolutions and has a simple user interface. In addition to interactive visual map view with user locations, the application also shows their mutual distance. Future research will focus on extending functionality in terms of recommendations for the shortest

distance based on realistic environmental constraints and the initial display of objects that may be of interest.

REFERENCES

[1] Kamalipour, Y. R., & Friedrichsen, M. (2017). Introduction: Digital Transformation in a Global World. In Digital Transformation in Journalism and News Media (pp. 1-4). Springer, Cham.
[2] Jandt, F. E. (2017). An introduction to intercultural communication: Identities in a global community. Sage Publications.
[3] Tantothai, P., Srisittimongkol, C., Rukijkanpanich, W., & Tuarob, S. (2017, May). mipMAP: A mobile application for proximate social network communication. In Student Project Conference (ICT-ISPC), 2017 6th ICT International (pp. 1-4). IEEE.
[4] Pathak, N., Sharma, G., & Singh, B. M. (2019). Trusted Operating System-Based Model-Driven Development of Secure Web Applications. In Software Engineering (pp. 421-432). Springer, Singapore.
[5] Erl, T., Merson, P., & Stoffers, R. (2017). Service-Oriented Architecture: Analysis and Design for Services and Microservices. Prentice Hall.
[6] Gupta, S., & Gupta, B. B. (2017). Detection, avoidance, and attack pattern mechanisms in modern web application vulnerabilities: present and future challenges. International Journal of Cloud Applications and Computing (IJCAC), 7(3), 1-43.
[7] Jamil, M., & Lessy, M. R. (2018, March). Web Application to Monitor Logistics Distribution of Disaster Relief Using the CodeIgniter Framework. In IOP Conference Series: Materials Science and Engineering (Vol. 325, No. 1, p. 012015). IOP Publishing.
[8] Hayes, D. R., Snow, C., & Altuwayjiri, S. (2017). Geolocation Tracking and Privacy Issues Associated with the Uber Mobile Application. In Proceedings of the Conference on Information Systems Applied Research ISSN (Vol. 2167, p. 1508).
[9] Welling, L., & Thomson, L. (2003). PHP and MySQL Web development. Sams Publishing.
[10] https://www.codeigniter.com/user_guide/

THE NECESSITY OF APPLYING THE ECONOMY OF HARM AND BENEFIT OF EXPLOITATION OF ELECTRIC VEHICLES.

Nada Kosanovic[326]
Danijela Rakic[327]

DOI: https://doi.org/10.31410/eraz.2018.692

Abstract: *Ecological benefit from electric vehicles is being taken as an understandable fact and it is not so rare, coming from the benefit, that countries approve a series of subsidies for the purchase of electric vehicles. However, more detailed analysis shows that the assessment of the environmental damage of electric vehicles is not at all simple, and that they are not as nearly "ecologically clean" as it is believed to be. When assessing the degree of damage to the exploitation of electric vehicles, specific factors related to a specific location must also be taken into account. Primarily, the method of electricity generation and flows of its distribution through a distribution network, is necessary to estimate the specific local policies for electric vehicles. The real danger of setting up local policies is to make environmental damage to maximum exports to other countries. It could potentially create interstate problems and political tensions. It is, therefore, important to evaluate the benefits and damages of electric vehicles, approaching all the complexity of the factors involved in their production and exploitation with respect.*

Key words: *ecology, economy, renewable energy, state subsidies, regulatory analysis*

It is, without a doubt, not uncommon to take the benefits of electric vehicles as self-explanatory. It is not contraversal that benefits are there, most of what is claimed in apologetic texts about e-Vehicles is quite right. The problem is not in what has been said, but in what is often held out in such "analyzes", which are harmful factors, not obvious at first glance. There is more to those factors, from ecological pollution caused by the production of parts, especially battery, through pollution caused by the exploitation of batteries, to the pollution that comes from charging batteries. Batteries are filled with "pure" electricity. But how is this energy being produced? In some countries, electricity is produced mainly by combustion of fossil fuels, which is a mode of production that has a very high impact on environmental pollution. Furthermore, as analyzes show, the use of electric vehicles may also have a negative political impact because it can happen that energy is consumed in one state, and that most of the pollution generated by that consumption is broadcasted in another country, which is possible thanks to the distributive nature of the electrical network.

The history of apologetic displays of benefits from electric vehicles, begins almost since the existance of such vehicles. One of the advocates of such vehicles wrote back in 1977: „Civilized is the word for the electric car, not only because it is environmentally clean, but also because it conveys the impression of friendliness and serenity. They offer efficient transportation, yet still they proceed with civility and show compassion for lovers, joggers, bicyclists and walkers.“ That time, it was taken as an axiom that electric vehicles do not pollute the environment. When we consider the production of electricity for battery charge, this could be true only if they are

[326] Research associate, Institute of applied science in agriculture, Belgrade, Republic of Serbia
[327] PHD student at the Faculty of Culture and Media, Department of Culture. University "Megatrend", Serbia

filled from ecologically clean electricity sources, such as solar power plants or wind farms. However, in that case, production and disposal of spent batteries will be polluting the environment.The degree of that pollution would depend on how much the recycling capacities of discharged battery cells would have been developed.

It is estimated that about half of buyers of electric vehicles decide on them because of the extensive network of subsidies. Bearing in mind that a large part of these subsidies are granted by the state, there is an impression that state policy continues to be self-explanatory and that electric vehicles are significantly less harmful than other types of vehicles and therefore it makes sense to subsidize their purchase. Subsidies, depending on the level at which they are granted, are being approved for various reasons. Manufacturers, of course, want to sell the electric cars they produce, but the state subsidies are primarily based on the fact that the use of electric cars is environmentally beneficial, but also because it wants to reduce the dependence on imported oil. Before we consider the justification of these subsidies, in the part concerning the preservation of the environment, let's take a look at what subsidies for electric vehicles exist in the United States.

State Incentive Programs

- Alabama-Low-interest loans for alternative fuel vehicle (AFV) projects.
- Arizona-State income tax deduction of 25 percent on the purchase cost of AFVs; a lower license tax than that applied to conventional vehicles-$4 for every $100 assessed value; Honda Civic Hybrid, Honda Insight and Toyota Prius may use the HOV lane; up to $75tax credit for home recharging unit installations; EV recharging-station parking is reserved for EVs; all others are fined a minimum of $350.

5. Arkansas-A 50 percent tax credit for any Arkansas taxpayer who constructs a facility in the state that will manufacture EVs, fuel cells or photovoltaic cells.

- California-Up to $5,000 in rebates on the purchase or lease cost of EVs, ZEVs (battery electric and hydrogen fuel cell), plug-ins, and AFVs until March 31, 2009, and a $1,000tax incentive for NGVs. Free meter parking for alternative fuel and hybrid electric vehicles. The vehicles must display a California Clean Air decal and then may park free for the maximum time limit indicated on the meter.
- Colorado-A credit is available to both new and converted vehicles based on computation of credit. Amounts vary according to the model and year of the auto, and the type of fuel used. It averages between $2,500 and $4,000. Percentages decreased beginning in June 2009. The credit applies to nonprofit and government agencies, the private sector, and individuals. Up to 50 percent rebate on the cost of AFVs. Credit for alternative fuel refueling stations was added in 2006 and extends through 2010. This credit may extend to 70 percent if the fuel being dispensed is from a renewable energy source.
- Florida-Between 2006 and 2010, sales and use tax exemptions for hydrogen and bio-fuel vehicles.
- Georgia-Tax incentive for the construction of alternate fuel production facilities. Facilities must use biomass such as agricultural products or animal fats.
- Kansas-Up to 50 percent tax credit on the cost of converting a vehicle to AFV that uses biomass. Up to $750 or five percent of cost for purchasing a new vehicle (original owner only).
- Kentucky-Beginning in 2008, up to $1 per gallon tax credit (total allowed, $5 million) for qualified ethanol producers. Must be corn - or cellulosic-based ethanol that meets ASTM (American Society for Testing and Materials) standard D 4806. Unused credits may not be carried forward and applied to a future tax return. However, unused ethanol

credits from one ethanol-based cap, such as corn, may be applied to another ethanol-based cap, such as cellulosic, in the same taxable year.

- Louisiana-Zero-interest loans for fleet conversions to CNG or LNG vehicles. Up to 20 per-cent for the purchase or conversion of an AFV or the building of a refueling station for AFVs.
- Maryland-A tax credit of up to $2,000 for EVs, $500 to $1,000 for hybrid electrics based on their energy efficiency, and $125 to $500 for their ability to regenerate through breaking. Hybrids are exempt from emissions testing for the first three years if they meet 50mpg EPA rating.
- Minnesota-Excludes the sale of propane or natural gas for vehicles from the motor fuel tax. Offers tax incentive (up to $0.20 per gal.) for producing ethanol; payments are limited to $3 million per producer and end in 2010.
- Montana-A 50 percent tax deduction for the purchase cost of an AFV. Up to $500 tax credit to defray costs for converting vehicles to alternative fuels. Ethanol producers and distributors have a credit of $0.20 per gallon if at least 20 percent of the ethanol is made from Montana products.
- Nebraska-Low cost loans (5 percent) toward the purchase or conversion of fleets to AFVs. Investors in Nebraska biodiesel production facilities (must be at least 51 percent owned by Nebraskans) producing B100 biodiesel may receive a tax credit for 30 percent (not to exceed $250,000) for the first three years.
- North Carolina-State and local government credit unions offer green vehicle loans for new AFVs and HEVs. The loans are offered at a one percent interest rate discount.
- New York-Rebates up to 80 percent of the cost of converting vehicles to CNG. Tax credits equal to 50 percent of the cost for installation of a refueling structure for alternative fuels (natural gas, liquefied petroleum gas, hydrogen, electricity, and any other fuel that is a least 85 percent ethanol or other alcohol.) This credit does not apply after December 31, 2010.
- Ohio-A ten percent tax credit for vehicles using ethanol. Retailers who sold E85 or biodiesel are eligible for a tax credit of $0.15 per gallon of E85 or biodiesel fuel sold using a metered pump at a fueling station in 2007, and $0.13 per gallon of E85 or biodiesel fuel sold in 2008.
- Oklahoma-A ten percent tax credit for the cost of AFV conversions and for electric vehicles or hybrids. Until 2010, tax credit of 50 percent for the cost of installing alternative fuel refueling infrastructure (CNG, LPG, LNG, methanol, electricity).
- Oregon-A 35 percent tax credit for AFV projects. Up to a total of $1,500 may be claimed if the homeowner has both an alternate fuel vehicle and a home refueling station. Up to $10,000 to install or convert fueling equipment at retail gasoline stations and fleet fueling sites to B20 or higher biodiesel blends and E85 ethanol blends.
- Rhode Island-A 50 percent tax credit was offered to businesses for constructing EV recharging stations effective January 1, 1998 through January 1, 2003. A tax credit of 25 percent of the federal credit for electric vehicles.
- Texas-A $2,000 rebate for CNG conversions. Blended diesel/biodiesel is exempt from diesel fuel tax. Austin set aside $1 million for plug-in hybrid rebates.
- Utah-A tax credit for up to 50 percent of the cost of a new EV to a maximum of $2,000per vehicle. As of 2008, hybrids were no longer exempt. In 2009, alternative fuel credit changed to 35 percent.
- Virginia-No local motor vehicle license fees for AFVs. Beginning in 2008, a tax credit of $0.01 for biodiesel producers up to $5,000 and available the first three years.
- Wisconsin-Taxis may be reimbursed for the amount of Wisconsin fuel tax paid. A minimum 100 gallons of alternative fuel must have been used in that year.

The following form of subsidies are *Federal Incentive Programs*, which were established in 2001 since *Securing America Energy Act*. was brought. The aim of this program is to reduce the dependence on imported energy sources from 56% to 45%. As summarized by Anderson and Anderson, the most important points of this program concerning electric vehicles are:

Battery Electric Vehicles (BEV)

- A 10 percent tax credit for low-speed BEVs (up to $4,000).
- A $4,000 tax credit for passenger vehicles and light-duty trucks with a driving range of at least seventy miles on one charge.

Fuel Cell Electric Vehicles (FCEV)

- A $4,000 tax credit for light-duty FCEVs.
- An additional tax credit of $1,000–$4,000 for vehicles that show a 150–300 percent increase in fuel mileage over that of fiscal year 2000.

Hybrid Electric Vehicles (HEVs)

A $250–$1,000 tax credit for HEVs less than 8,500 pounds gross vehicle weight.

An additional tax credit of $1,000–$3,500 for HEVs that show a 125–250 percent increase in fuel economy over that of fiscal year 2000.

Hydrogen research and design—Authorizes $250 million for hydrogen research for fiscal years 2002–2006.

Fuel cell research—Authorizes $84 million for a three-year research program. Fleets—Requires the federal fleet program to increase acquisitions of alternative fuel vehicles by five percent by fiscal year 2005.

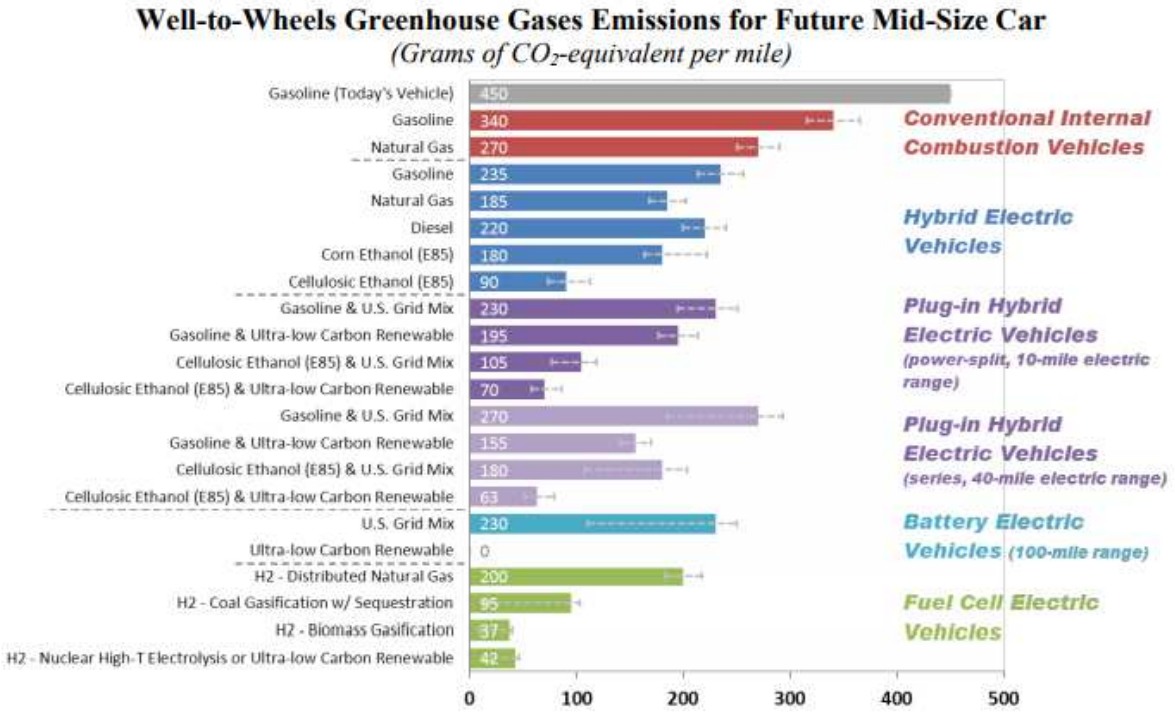
In addition to these programs, there are support programs for building a filling station for electric vehicles. They are *Utility Incentive Programs*. Some of the examples of these programs are:

- Colorado-Financial assistance for CNG fueling stations.
- Connecticut-Financial assistance for NGV purchases.
- Florida-$300 free CNG for private fleets. None in 2008.
- Illinois-Tax rebate of $1,500 on the purchase cost of a NGV. Private consulting firm offers feasibility studies for CNG refueling stations on a case-by-case basis.
- Maryland-$1,500 tax credit for hybrids. None in 2008.
- Mississippi-special rates for natural gas purchased as vehicle fuel.
- Montana-Ten percent tax credit on the purchase of an EV. None in 2008.
- North Carolina-Discounted charging rates for EVs. None in 2008.
- Oregon-A 35 percent tax buy-back credit on the purchase of an EV. None in 2008.
- Washington-A partner in the Seattle Clean Cities program offers assistance and refueling for natural gas vehicles.
- Wyoming-Ten percent tax credit on the purchase cost of an NGV. Assistance in converting vehicles to NGV and consulting services for alternate fuel comparisons.

In addition to the subsidies we have listed, there are city subsidies, and the manufacturers themselves approve various forms of subsidies to make their vehicles as attractive as possible

on the market.

When it comes to pollution produced by electric vehicles, earlier research was concentrated only on carbon dioxide (CO2). Here's how to estimate CO2 emissions from electric and other types of vehicles:



The same document provides serious reductions in pollution by electric vehicles which will be produced in the future. However, pollution by CO2 emissions is not the only type of pollution which produces electric vehicles. Furthermore, the data from the chart above are direct emission data (most types of batteries for electric vehicles emit CO2). What needs to be taken into account, whether we really want to estimate the degree of environmental pollution, are also other types of pollution, and in particular pollution generated by the production of electricity used to charge batteries on electric vehicles.

If we, hypothetically, take two states and call them state A and state B, and if in state A electric cars are filled with electricity produced from wind farms, and in state B they are charged with electricity produced in coal-fired power plants, then the same electric vehicles in state A will not produce any pollution of the external type by filling, while in state B it will produce significant pollution from external sources. In other words, pollution produced by electric vehicles depends not only on the type and technology of the vehicle, but largely depends on external factors, and the most important is exactly the way in which the electricity is being filled.

The situation in reality can be even more complexed. Although, state A does not have pollution caused by the production of electricity, in case that state A and state B are neighbors, it can happen that pollution generated by electricity production in State B has a negative impact on the environment in the State A.

We took an example with wind farms because, at first glance, it seems to be the easiest way to

establish the differences between states A and B. However, in reality, the problem is even more complicated. What kind of energy is consumed during the production of windmills and what kind of pollution is caused by their production technology? According to Anderson and Anderson: „There is much disagreement among environmental factions on how power might be generated, and whether private automobile ownership is in the public's best interest. The objections are varied. Hydroelectric power plants cover Indian ruins in Arizona, deplete salmon runs in the Pacific Northwest and generally disrupt the flow of wild rivers. The whirling blades of windmills can kill birds and bats, including protected species. Solar energy takes up too much land space. Geothermal sites are mostly in protected areas like Yellowstone and have a limited nonrenewable capacity. Coal-fired and natural gas plants are air polluters. Nuclear plants have the problem of waste product storage 29 and must over-come consumers' fear of reactor malfunctions, as occurred at Chernobyl and Three Mile Island, to be considered a viable choice."

It is obvious that a realistic estimate of the level of pollution caused by electric vehicles requires, taking into account, a large number of factors, and only when those factors are taken into account, it can be realistically estimated how justified the subsidies for electric vehicles are. That was precisely the aim of the research whose results were published under the title „Are There Environmental Benefits from Driving Electric Vehicles? The Importance of Local Factors".

As the authors themselves summarize their work: „We combine a theoretical discrete-choice model of vehicle purchases, an econometric analysis of electricity emissions, and the AP2 air pollution model to estimate the geographic variation in the environmental benefits from driving electric vehicles. The second-best electric vehicle purchase subsidy ranges from $2,785 in California to −$4,964 in North Dakota, with a mean of −$1,095. Ninety percent of local environmental externalities from driving electric vehicles in one state are exported to others, implying they may be subsidized locally, even when the environmental benefits are negative overall. Geographically differentiated subsidies can reduce deadweight loss, but only modestly. "The authors of this study emphasize that their analysis is motivated by three main reasons.

The first reason is the already mentioned fact that the previous studies of electric vehicles focused on pollution testing through CO2 emissions, thereby, as they emphasize, these studies did not have a conceptual framework for the analysis of subsidies for electric vehicles. Instead of focusing only on pollution by CO2 emissions, this study is: „We consider damages from five pollutants: CO 2 , SO 2 , NO x , PM 2.5 , and VOCs. These pollutants account for the majority of global and local air pollution damages and have been a major focus of public policy. "In spite of that, the authors also analyze the model of vehicle selection, because they believe that the choice should be motivated by the difference between environmental pollution during the lifetime of two different vehicles that are compared. Besides that, authors believe that their theoretical framework allows them to deal with different policies for different levels of jurisdiction and to assess the environmental benefits that one measure gives in comparison to the other.

The second reason is the fact that, despite that, regulators treat electric vehicles as zero-emission gases, they do not emit harmful gases themselves, or they are being broadcasted to a small extent, but it also does not mean that electricity production does not pollute the environment. Noting that almost 70% of electricity in the United States is produced by combustion of coal and natural gas, the authors also point out the significant fact that pollution cannot be easily assessed on the basis of how the country is producing electricity, because the flows of electricity

distribution are not equal to the electricity production flows. In other words, it is possible that energy from environmentally friendly sources is produced in one country, and trough transmission lines transferred to another (which produces electricity in a "dirty" way), where it is used to charge electric vehicles, and vice versa.

The third reason is the fact that there are significant physical differences between the emissions of gases produced by combustion of gasoline and emissions produced by the use of electric vehicles. These differences are due to the distributive nature of the electricity network, the level at which the harmful emissions and the specificity of the combustion chemistry. The result of these factors can be that emission of harmful substances and its rates can be spatially different in comparison to the place where the vehicles are used.

This study is, as the authors point out, the first one to systematically deal with geographical differences in the pollution of harmful gas emission from electric vehicles, and thus can contribute to solving the issue of political economy and fiscal federalism.

The study itself has shown that the evaluation of the harmful or beneficial effects of electric vehicles vary greatly from country to country: „Our first set of results documents the considerable heterogeneity in the environmental benefits of an electric vehicle relative to a gasoline vehicle. These benefits can be large and positive, large and negative, or negligible, depending on the location. For example, California has relatively large damages from gasoline vehicles and a relatively clean electric grid, which implies large positive environmental benefits of an electric vehicle. These conditions are reversed in North Dakota. The variation in the sign of the environmental benefits stems almost entirely from local air pollution. If we account only for greenhouse gases, then electric vehicles are superior to gasoline vehicles almost everywhere“.

The results of this study are particularly surprising in the part where it deals with assessment of "damage export" to other countries. It was shown that in the case of gasoline vehicles, in only 19% of cases environmental damage caused by a ride in one state, manifests itself in another. However, in case of electric vehicles, this damage is transferred to other countries in as much as 91% of cases. The authors emphasize that this fact could indicate local regulatory bodies to favor technologies that are most likely to be exported to other countries.

Since the authors took the county as the "measure unit", and the results are shown for individual districts. The following chart will show how differences in environmental harmfulness are different from the location:

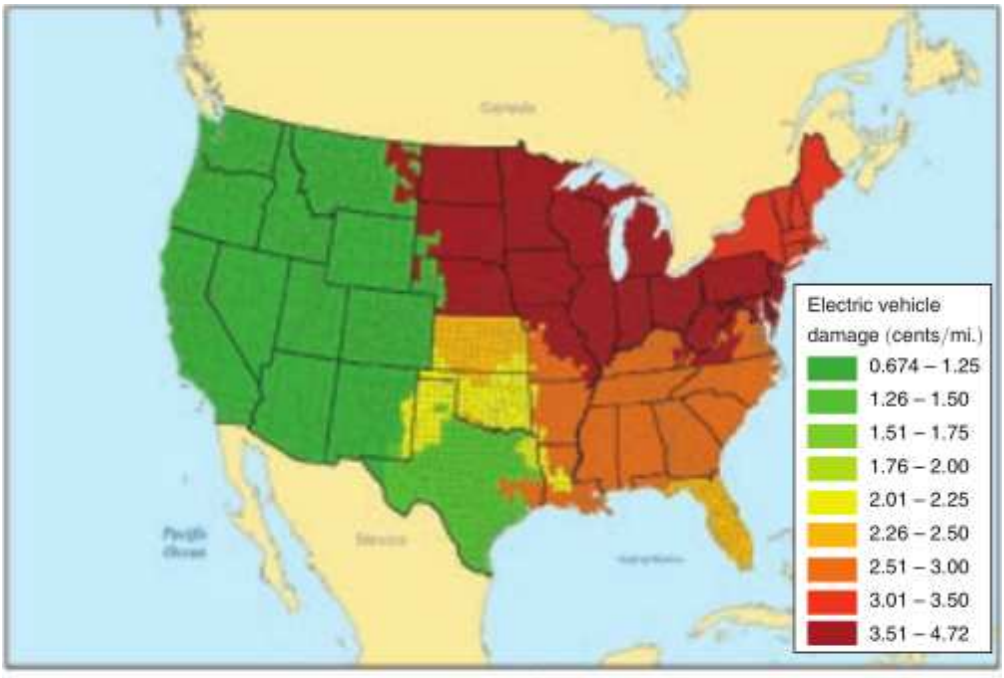


FIGURE 1. MARGINAL DAMAGES FOR GAS AND ELECTRIC VEHICLES BY COUNTY

Summarizing their results, the authors say „our main results show that the subsidy for electric vehicles is not justified by environmental benefits“. However, they emphasize that there are other potential benefits of using electric vehicles, such as the reduction in dependence on oil imports.

The conclusion from these analyzes is undoubtedly that the assessment of the ecological harmfulness of electric vehicles is not simple, and that they are not as nearly "ecologically pure" as it is often propagated. In order to make the assessment degree of damage to the exploitation of electric vehicles to make sense, a number of specific factors related to a particular location must be taken into account. First of all, these are the ways of electricity generation and flows of its distribution through a distribution network. The assessment of different policies for electric vehicles is even more complex, because they take into account other factors, such as the reduction in dependence on oil imports. The risk of local policy making so that environmental damage is maximally exported to other countries could, potentially, create interstate problems and political tensions. This shows the exceptional importance of both, studies and future complex research on this topic.

Literature

1. Anderson, C.D. and Anderson J., *Electric and hybrid cars: a history*, 2nd ed., McFarland & Company, Inc., Publishers, Jefferson, 2010.
2. *Benefits of electric vehicles*, Ergon Energy Network, https://www.ergon.com.au/network/smarter-energy/electric-vehicles/benefits-of-electric-vehicles, retr. 26.6.2018.
3. Davis L.W. and Knittel C.R., *Are Fuel Economy Standards Regressive?*, National Bureau Of Economic Research, Cambridge, MA 02138, 2016.
4. Graff Zivin, J.S. *et al*, *Spatial and Temporal Heterogeneity of Marginal Emissions: Implications for Electric Cars and Other Electricity-Shifting Policies*, National Bureau Of Economic Research, Cambridge, MA 02138, 2012.

5. Holland, S.P. *et al*, *Are There Environmental Benefits from Driving Electric Vehicles? The Importance of Local Factors*, American Economic Review 2016, 106(12).
6. *Well-to-Wheels Greenhouse Gas Emissions and Petroleum Use for Mid-Size Light-Duty Vehicles*, US Department Of Energy, 2010.

BIOLOGICAL TREATMENT AND BEST MANAGEMENT PRACTICES ON FOOD INDUSTRY WASTEWATER IN ALBANIA

Anisa Myrtaj (Rexhepi)[328]
Ilirjan Malollari[329]
Luljeta Pinguli[330]

DOI: https://doi.org/10.31410/eraz.2018.701

Abstract: *Food industrial wastewater are unique, not only in the production operations but also the sources of water they discharge. The processing food industries requires large quantities of potable water, and nearly all of this is discharged as high strength organic, nutrient (nitrogen and phosphorus), fat and microbial contaminated effluent.*
Minimization of waste waters discharges consist on keeping in control the quantity and quality of waste waters produced at a dairy, meat and fish industry in terms of their loadings and also waste water treatment and disposal in an environmentally manner.
In this investigation thorough pretreatment studies were done using inorganic coagulant and activated sludge. The coagulant treatment was followed by activated charcoal treatment, in dairy wastewaters, and activated sludge treatment in meat and fish wastewater.
Food industries has to deal with a number of environmental challenges. This includes responsible wastewater treatment and disposal to prevent land and water pollution.

Key words: *Dairy wastewater; Meat wastewater; Fish wastewater; Coagulants; Powdered activated charcoal (PAC); Activated sludge (AS); COD; BOD*

Dairy, meat and fish processing wastewaters are discharged as high organic, nutrient, fat and microbial contaminated effluent which has caused an increase in the receiving water pollution.

The food industry has to deal with a number of environmental challenges. This includes responsible wastewater treatment and disposal to prevent land and water pollution. A well designed and managed wastewater treatment system is essential to achieve regulatory requirements and help protect and maintain a sustainable environment.

By focusing on reducing water usage, optimize wastewater treatment and improved waste management, both disposal and treatment costs can be reduced.

Best management practice involves:

- Treating wastewater to a standard required for the disposal route chosen;
- Minimizing wastewater generation;

[328] University of Vlora, Faculty of Technical Sciences, Sheshi Pavaresia, Sklele, Vlore, Albania
[329] University of Tirana. Faculty of Natural Sciences. Department of Industrial Chemistry; Bulevardi "Zogu I", Tirana, Albania
[330]University of Tirana. Faculty of Natural Sciences. Department of Industrial Chemistry; Bulevardi "Zogu I", Tirana, Albania

- Monitoring and reporting the treatment system performance;
- Increasing recycling or reuse to reduce the need for water usage and hence wastewater treatment where regulations and licenses permit.

In accordance with the emission standard, food industries should practice a protocol for processing and treatment of effluents that affect the overall plant economy.

The biological wastewater treatment reactors include aerobic and anaerobic reactors which are used for the dissolution of organic compounds.

*Dr. Candidate **Anisa Myrtaj** (Rexhepi) is part of the working staff at University of Vlora, Department of Chemistry. The Department of Chemistry at the Faculty of Technical Sciences, University of Vlora, is specializes in teaching and research in the field of organic, inorganic, chemical technology, and food technology.*

Waters deriving from dairy, meat, fish industries are distinguished by high content of: BOD and COD, high levels of solids or suspended solids, grease, nutrients such as ammonia and phosphates. Food wastewaters were subjected of physical (filtration), chemical treatment with coagulant and biological treatment. Pre-treatment was done to reduce the suspended and colloidal masses by reducing the turbidity and organic matter responsible for high values of BOD and COD. Chemical treatment was done based on optimal quantities coagulant, pH and residence time.

The biological treatment was done using two types of activated sludge. The first was from the oxygenation taken and the second from the secondary decanter. The highest effectiveness we have obtained was from the oxygenation tank, so the values presented below are from this treatment. During the analyzes of the discharged waters were performed these measurements:

- pH
- COD
- BOD_5
- PO_4 (mg P-PO_4)
- NH_4 (mg N-NH_4)
- NO_3 (mg N-NO_3)
- N – total
- P – total
- SS

All the measurements were done before and after the treatment of the both samples, meat, fish and dairy. The results from the dairy industry are shown in the table below:

Parameters	***SS*** *(mg/l)*	***COD*** *(mg/l)*	***BOD_5*** *(mg/l)*	***P-Tot*** *(mg/l)*	***N-Tot*** *(mg/l)*
Case A before treatment	207.7	1500	620	2.35	0.035
Case A after treatment	45	172	67	0.36	0.028
Case B before treatment	205	1500	1500	1.01	0.43
Case B after treatment	36.7	168	120	0.73	0.03
Case C before treatment	2162	1500	1250	1.17	1.047
Case C after treatment	98.5	164	80	0.84	0.002
Case D before treatment	2522	6000	2500	28.6	1.853
Case D after treatment	83.1	256	115	13.4	0.001
Normal Value	50	250	50	2	10

Table 1: Results taken from the dairy industry

A graphical presentations of all parameters which has been monitored during study, are showed in the following figures 1-4.

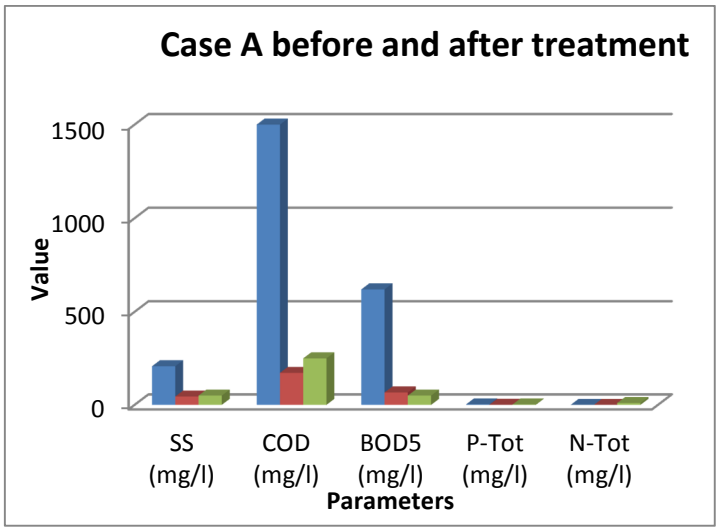


Figure 1: Results taken from case A in the dairy industry

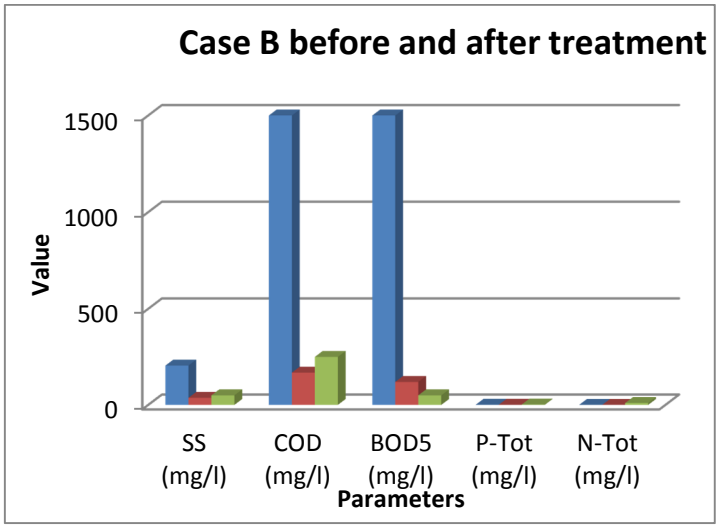


Figure 2: Results taken from case B in the dairy industry

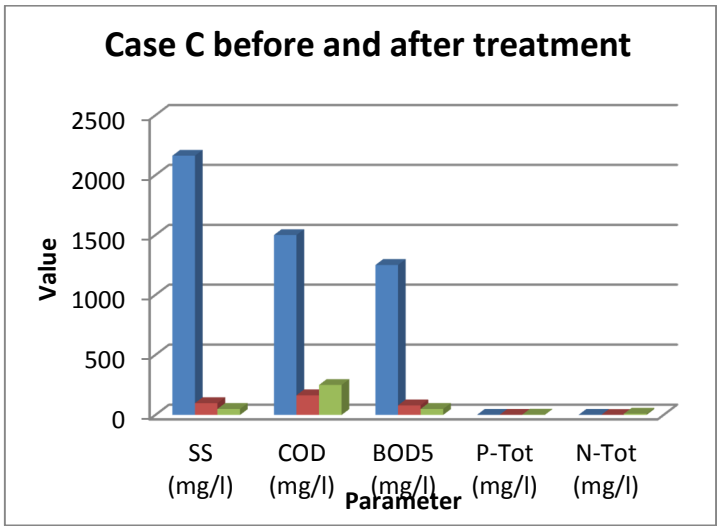


Figure 3: Results taken from case C in the dairy industry

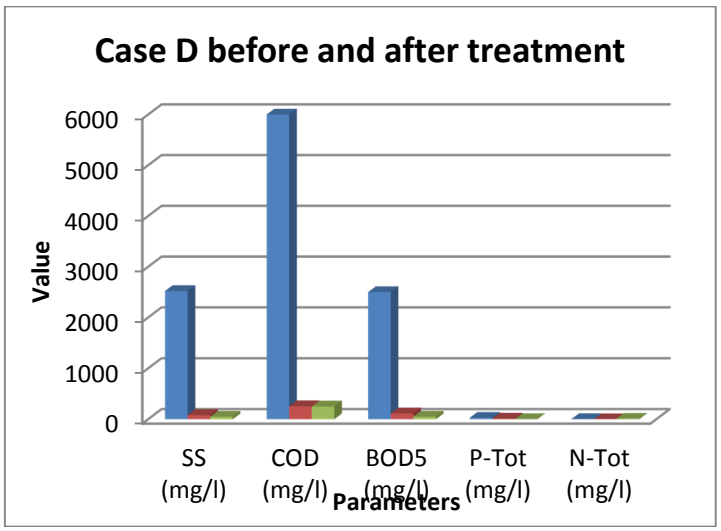


Figure 4: Results taken from case D in the dairy industry

The results from the meat and fish industry are shown in the tables below:

Parameters	*Value before treatment*	*Value after treatment*	*Normal values*
COD *(mg O/l)*	3928	328	250
BOD_5 *(mg O/l)*	2200	162	50
$N\text{-}NO_2$ *(mg/l)*	5.42	1.004	
$N\text{-}NH_4$ *(mg/l)*	30.1	2.03	
$N\text{-}NO_3$ *(mg/l)*	8.28	0.071	
$P\text{-}PO_4$ *(mg/l)*	34.8	3.76	
P-total *(mg/l)*	49.1	8.6	5
pH	7.25	7.53	6-9
SS *(mg/l)*	475	106	50

Table 2: Results taken from the meat industry

Parameters	*Value before treatment*	*Value after treatment*	*Normal values*
pH	7.3	7.1	6-9
COD *(mg/l)*	4400	194	250
BOD_5 *(mg/l)*	3900	67	50
P-Tot *(mg/l)*	43	6.8	5
N-Tot *(mg/l)*	390	11.3	10
SS *(mg/l)*	1044.6	75.5	50

Table 3: Results taken from the fish industry

The graphical presentations of all parameters which has been monitored are in the following figures 5 – 6.

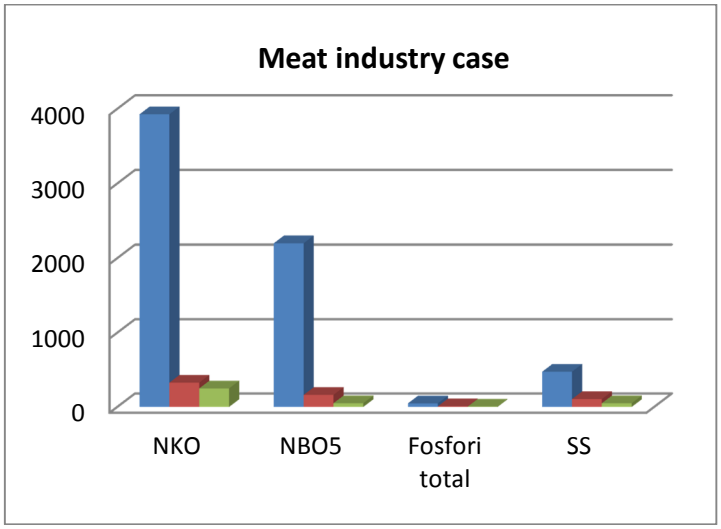


Figure 5: Results taken from meat case industry

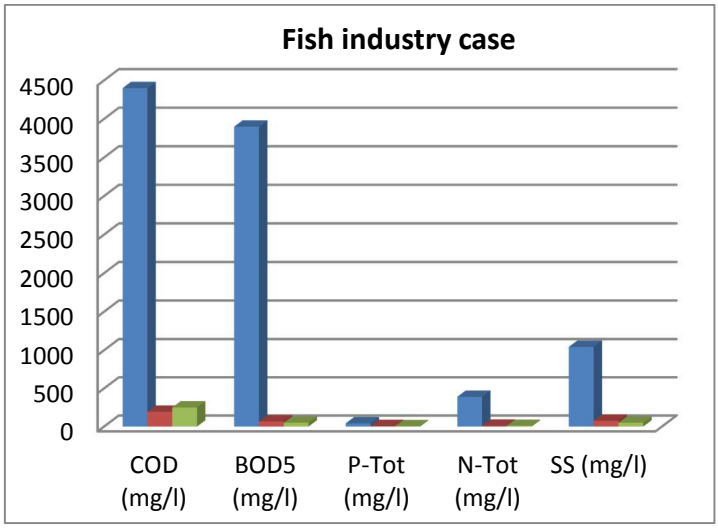


Figure 6: Results taken from fish case industry

From the analysis, the parameters of the discharge waters from the food processing industry are very high compared to the Albania norms legislation no.177.

The percentage of reduction of the parameters analyzed given below are very noticeable:

Food Industry	***% of COD reduction***	***% of BOD reduction***	***% of SS reduction***	***% of P-Tot reduction***	***% of N-Tot reduction***
Dairy A	88.5	89.2	78.3	84.7	25
Dairy B	88.8	92	82.1	27.7	93
Dairy C	89.1	93.6	95.4	28.2	99.8
Dairy D	96.7	95.4	96.7	53.1	99.9
Meat	91.6	92.6	77.8	82.5	---

We recommend food industries to implement as soon as possible wastewater treatment plants in their activities.

REFERENCES

[1] Brett, S., Guy, J., Morse, GK. 1997. *Phosphorus Removal and Recovery Technologies*. Selper Publications, London.

[2] Cooper, RN., Russell, JM. (1991). *Meat industry processing waste: characteristics and treatment*. Ency. Food Sci. and Tech. John Wiley, New York.

[3] Cooper, RN., Russell, JM., Adam, JL. 1982b. *Recovery and utilization of protein from slaughterhouse effluents by chemical precipitation*. Upgrading Wastes for Feeds and Foo d, Butterworths, London.

[4] Stephenson, P. (1978). *A method of physico-chemical treatment of organic wastewaters*. Proc. of the 9th EPA Nat. Sym. of Food Pro cessing Wastes, Denver, Colorado.

[5] McGrath, JW., Quinn, JP. (2004). *Biological phosphorus removal in Phosphorus in Environmental Technologies – Principles and Applications*. Valsami-Jones, E (ed).Integrated Environmental Technology Series. IWA Publishing, London.

[6] Harper W J , *Whey as a Fertiliser and Waste Management in Dairy Factories, Waste Management Control* , February 1994

[7] *Handbook for Dairy Food Plants*, US EPA Publication No, 600/2-84-043

[8] Baisali Sarkar, P.P. Chakrabarti, A. Vijaykumar, Vijay Kale, November 2005. *Wastewater treatment in dairy industries — possibility of reuse.*

[9] *Standard methods for the examination of water and wastewater 13th edition* 1971 APHA. AWWA. WPCF

[10] *Biological Treatment Processes,* Volume 8 Handbook of environmental engineering Edited by Lawrence K. Wang, PhD, PE, DEE; Norman C. Pereira, PhD; Yung-Tse Hung, PhD, PE, DEE; Nazih K. Shammas, PhD. ISBN 978-1-58829-163-9 e-ISBN 978-1-60327-156-1 DOI: 10.1007/978-1-60327-156-1; 2009 Humana Press, a part of Springer Science+Business Media, LLC (pp207-236; 266-270)

[11] *Advanced Biological Treatment Processes,* Volume 9 **Wang**, Lawrence K., **Shammas**, Nazih K., **Hung**, Yung-Tse ISBN 978-1-60327-170-7 Humana Press, a part of Springer Science+Business Media, LLC

[12] *Advanced Biological Treatment Processes For Industrial Wastewater* Francisco J. Cervantes, Spyros G. Pavlostathis and Adrianus C. van Haandel Published by IWA Publishing London, UK 2006 ; ISBN-10: 1843391147; ISBN-13: 9781843391142. (pp 243-255)

MONITORING OF ENVIRONMENTAL CONDITIONS IN THE REPUBLIC OF SERBIA AND APPLICATION OF THE POLLUTER PAYS PRINCIPLE

Milan Počuča[331]
Jelena Matijašević-Obradović[332]

DOI: https://doi.org/10.31410/eraz.2018.708

Abstract: *Monitoring of environmental conditions and quality is one of the basic tasks in the field of environmental protection. A significant issue in this field is the issue of responsibility for environmental pollution. A special economic instrument in this is environmental pollution charge, based on the Polluter Pays Principle. The goal of monitoring as an important factor in environmental protection policy planning and principles relating to the prevention and accountability of polluters for the emergence (and remedying) of environmental damage, is the improvement of the quality of the environment.*

Key words: *environmental protection, monitoring of the environmental conditions and quality, polluter pays principle*

1. INTRODUCTION

Sustainable management of natural values and environmental protection in the Republic of Serbia are realized primarily in accordance with the Environmental Protection Act [1]. According to Article 3 of this Act, environment is a set of natural and created values whose complex interrelations make up the environment, that is, the living space and conditions, while the quality of the environment is the condition of the environment, which is expressed by physical, chemical, biological, aesthetic and other indicators.

Modern society has faced great ecological problems in the last two decades. Namely, "as the effect of global warming is happening around the globe, so is the world's population facing probably one of the most important social and scientific phenomena" [2]. Bearing in mind the provisions of the Environmental Protection Act that environmental pollution involves the introduction of polluting substances or energy into the environment caused by human activity or natural processes that have or may have harmful effects on the quality of the environment and human health, and that endangered environment is a certain part of the space where pollution or pollution risk exceed the capacity of the environment, it is possible to accept the position of modern scientific thought that "environmental protection means a set of different procedures and measures that prevent the endangering of the environment in order to preserve the biological balance" 3].

According to Rajs, "the realization of the environmental monitoring program is one of the basic tasks in the field of environmental protection, as the results of monitoring are the basis for the

[331] Faculty of Law for Commerce and Judiciary, University Business Academy, Geri Karolja Street no. 1, Novi Sad, Serbia
[332] Faculty of Law for Commerce and Judiciary, University Business Academy, Geri Karolja Street no. 1, Novi Sad, Serbia

assessment of the overall conditions of the environment" [2]. The basic goal of all activities undertaken in the field of environmental monitoring and assessment of the overall conditions of the environment is the improvement of the quality of the environment. Continuous monitoring of the state of the environment, and all relevant issues in this field, are defined in the Environmental Protection Act, Art 69-77 [1].

In addition to the systematic monitoring of the conditions of the environment, and the measures and activities undertaken with the aim of reducing the negative impacts and raising the level of environmental quality (which are the key monitoring elements stipulated by the law), the question of responsibility for environmental pollution is raised. Thus, a special economic instrument in the field of environmental protection, stipulated by the Environmental Protection Act, is the environmental pollution fee, based on a special principle of environmental protection called "Polluter Pays". It is a special type of liability of polluters based on objective responsibility for contamination of certain or all of the elements and values that are encompassed by the term environment, legally based on international regulations, primarily the Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment, adopted in Lugano in 1993 [4], as well as the Environmental Liability Directive in 2004 [5].

The specific character of the Polluter Pays Principle is precisely what concerns the future damage that arises or may arise from undertaking activities by the pollutant. The environmental pollution fee, as a special economic instrument in the field of environmental protection, is defined by the Environmental Protection Act, Art 85-88 [1].

2. MONITORING OF ENVIRONMENTAL CONDITIONS – RELEVANT LEGAL PROVISIONS AND VIEWS OF MODERN SCIENTIFIC THOUGHT

Monitoring of the environmental conditions and quality encompasses a series of actions aimed at obtaining reliable data on environmental conditions and pollution. In other words, monitoring of the conditions and quality of the environment includes the measurement of the presence of pollutants, processing of results and reporting. According to Stevanović Čarapina et al., "Various sets of instruments and indicators for evaluation have been developed" [6] in the framework of the monitoring process of environmental conditions and quality.

According to the current normative definition, continuous monitoring and monitoring of the conditions of the environment (monitoring) is done by systematic monitoring of the indicator values, i.e. by monitoring of the negative impact on the environment, environmental condition, measures and activities undertaken with the aim of reducing the negative impact and raising the level of the quality of life (Article 70 of the Environmental Protection Act). The law stipulates that monitoring is provided by the Republic of Serbia, the autonomous province and the local self-government units within its jurisdiction as defined by law, and is an integral part of the unique environmental information system managed by the Environmental Protection Agency, which is established and managed to effectively identify, classify, process, monitor and record the natural values and environmental management in the Republic of Serbia (Art 69 and 74 of the Environmental Protection Act).

Monitoring consists of time and/or spatially distributed measurements that, in addition to information on the numerical value of a certain size at a given location and moment, contain also information on its spatial and temporal variations and values [7]. The processes related to the monitoring and evaluation of the quality of the environment, according to Kanjevac

Milovanović et al., are "planning of environmental protection measures, environmental monitoring, support to institutions and organizations for environmental protection, training of environmental society, regulation of environmental protection, strict control of activities that are harmful to the environment, establishment of infrastructure and prevention of negative impacts on environmental protection" [8].

The Act also stipulates the obligation of the polluter, if the prescribed conditions are fulfilled, to monitor, through the competent body, authorized organizations or independently, the following: 1) monitor the indicators of emissions, i.e. indicators of impact of their activities on the environment, indicators of efficiency of the applied measures for prevention of the emergence or reduction of pollution levels; 2) provide meteorological measurements for large industrial complexes or objects of special interest for the Republic of Serbia, autonomous province or local self-government unit (Article 72 of the Environmental Protection Act). All collected data obtained by monitoring the conditions of the environment are submitted to the Environmental Protection Agency (Article 73 of the Environmental Protection Act).

In order to monitor qualitative and quantitative changes in the environment and take environmental protection measures, national and local pollutant source registers are kept in accordance with the Environmental Protection Act. The National Environmental Register of Environmental Pollutants is managed by the Environmental Protection Agency (Article 75 of the Environmental Protection Act).

3. THE POLLUTER PAYS PRINCIPLE

Article 85 of the Environmental Protection Act stipulates that the polluter shall pay compensation for environmental pollution and that liable shall be any person who causes pollution of the environment by emissions, i.e. waste or products, uses or puts into circulation raw materials, semi-finished products or products containing substances harmful to the environment [1]. Bearing in mind that the principle refers to future damage, it is therefore a principle that is formulated and normatively regulated in order to prevent excessive pollution of the environment. According to Zindović, "the Polluter Pays Principle is funded through two attributes, namely: *ratione personae*, because it is known in advance who shall pay and *ratione temporis*, because payment refers only to future damage" [9].

By analyzing the importance of prevention in the field of environmental protection and the specificity of the protective facility, Cvetić states that "the essence of the principle of prevention and precaution is actually that every person, all their associations and the society as a whole, should adjust their activities to the requirement in order to cause minimal changes in the environment and reduce damage risk to the minimum" [10]. In this context, Nikolić states that by applying this principle, "in accordance with the general rules of the compensation law, protected goods are brought into an appropriate conditions at the expense of the responsible person" [11].

The Environmental Protection Act, in addition to determining that the polluter shall pay the environmental pollution fee, and determining who shall be considered a payer of this obligation, in Article 85 also regulates the criteria for determining the compensation itself, which consists of: 1) type, quantity or features of emissions from a particular source; 2) type, quantity or features of emissions of produced or disposed waste; 3) content of substances harmful to the environment in raw material, semi-finished product and product. The same article stipulates for

the Government to determine in more detail the type of pollution, criteria for fee calculation and payers, amount and method of charging and payment of fees [1].

Article 86 of the Environmental Protection Act stipulates that the payer has the right to a refund of the already paid environmental pollution fee, i.e. the exemption or reduction of the payment of fees, if they use the funds for the implementation of measures for adjustment to the prescribed limit values or implement other measures that contribute to the reduction of environmental pollution below the prescribed level. The Government shall determine in more detail the criteria and conditions for the return, exemption or reduction of payable fees [1]. In the following article the Act regulates the possibility of determining fees for environmental protection and improvement, in the sense that the local self-government unit can, within the scope of its rights and duties, prescribe fees for environmental protection and improvement.

Economic instruments prescribed by the Environmental Protection Act, in addition to environmental pollution fees, include fees for the use of natural values, budget funds and international financial assistance, economic incentives, as well as the Green Fund of the Republic of Serbia.

As Popov states, the Polluter Pays Principle falls within the group of fundamental principles on which European environmental policy is based, and having in mind that the polluter is responsible for the elimination of the resulting environmental damage, we are here talking about the reactive principle of prescribing costs for the elimination of environmental damage [12]. Considering certain aspects of environmental damage and the implications that occur or may occur in practice, Drenovak-Ivanović states that "environmental damage cannot be reduced to the damage suffered by a particular person. In accordance with the existing rules that apply to the compensation for environmental

*Phd **Milan Počuča** full professor,vicedean for science, quality and development,Low Faculty Univerity Bussines Academy, Novi Sad, Serbia*

1981-1986 - Graduated from the Faculty of Law, University of Zagreb.
2005 - Completed specialist studies, awarded the title of specialist in the field of Insurance Law
26 Jan 2006 - Awarded the title of Master of Laws
29 Nov 2007 - Defended his doctoral dissertation and was awarded the title of Doctor of Laws
14 Feb 2008 - Awarded the academic title of assistant professor in Civil Law and Commercial Law specific scientific area, as per decision of the Senate of the University Business Academy in Novi Sad.
14 Feb 2013 - Awarded the academic title of associate professor in Civil Law and Commercial Law specific scientific area, as per the decision of the Senate of the University Business Academy in Novi Sad.
23 Feb 2017 - Awarded the academic title of full professor in Civil Law and Commercial Law specific scientific area, as per the decision of the Senate of the University Business Academy in Novi Sad.

He is employed on a contract of indefinite duration for a full-time job at the Faculty of Law, University Business Academy in Novi Sad.
Author and co-author of four textbooks, seven monographs and more than 100 scientific and professional papers published in leading international and national journals and conferences.
Participated in one European, several provincial and municipal scientific projects.
All his papers can be viewed in the scientist dossier kept at the Provincial Secretariat for Science and Technological Development of the AP of Vojvodina under scientist dossier no. 2747. The total competence index is more than 300 points, with A-1 scientific researcher status.

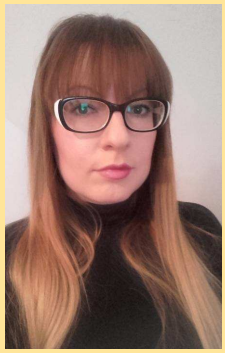
damage in the wider and broader sense in our law, it is necessary to: first, identify one, and often all the carriers of the activities that led to the pollution; then, determine the resulting damage in qualitative and quantitative terms; and finally determine the causal link between the damage and the polluter" [13].

Analyzing the features of the Polluter Pays Principle, relevant legal provisions and responsibility for environmental pollution, in principle, Stojanović and Zindović conclude that in this domain "the important circumstance is that in the predetermined obligation, the legislator does not prohibit the polluter to further perform their activities, nor to stop pollution in the future, nor the obligation to bring the natural resource to its original state. It turns out that the legislator consciously allows the implementation of a certain level of environmental pollution, i.e. that a certain level of pollution is tolerable" [14]. In this regard, and in the context that the Polluter Pays Principle includes both elements of subsequent action and elements of preventive approach, Pajtić states that this principle starts from the principle of fairness, that is, "a founded assumption that the person who caused risks to the environment should bears the costs of precautionary measures, as well as expenditure arising from prevention, as well as elimination of the consequences of damage caused by the activity of the polluter" [15].

4. CONCLUSION

The field of environmental protection is very complex, primarily because the quality of the environment is determined by the conditions of the environment, which is determined by different indicators (physical, chemical, biological, aesthetic, etc). Analyzing the segment of the monitoring of the conditions and quality of the environment, the paper emphasizes that the results of monitoring are primarily used for defining recommendations and measures that should be implemented in order to improve the conditions of the environment. In this way, the environmental monitoring segment has been identified as an important factor in the environmental policy planning. It is also an important factor when designing development and strategic documents, indicating, i.a., the need for implementation and application at the national level of those principles on which environmental protection is based in European and world contexts.

***Jelena Matijašević-Obradović**, is Associate Professor at Faculty of Law for Commerce and Judiciary in Novi Sad, University Business academy in Novi Sad, The Republic of Serbia.*



2008. - Master thesis „Money Laundering“; Faculty of Law, University in Novi Sad, Department of Internal Affairs.
2011. – PhD dissertation „Criminal Law regulation of the Computer crime“, Faculty of Law for Commerce and Judiciary in Novi Sad;
2012.-2016. - Assistant Professor;
2013. - Dean's advisor for teaching and extra-curricular matters;
2016. - Associate Professor.

Manager and Chief Coordinator of the following specialized courses: „Legal and Economic aspects of ICT Abuse“, „Operational and Investigative Forensics in Criminal Proceedings“ and „Operational work of the Inspector of the Criminal Police Department in combating general and economic crime“.

Participant as a researcher on Republic and Provincial projects.

Published over 150 scientific articles. Author of two monographs - "Criminal Law regulation of the Computer crime", "Economic crime" and a book -"Criminal law, general part".
Competency index: 352.

In addition to complexity, environmental protection is a very important field, as it represents an important segment of the European integration process, and consequently, one of the priority tasks of Serbia in that process.

In the context of the views of certain authors that "the concept of environmental protection transforms over time into the concept of sustainable development" [12], it is certainly necessary to confirm the conclusion that the goal of all instruments in the field of environmental protection and, accordingly, the basic principles (in the first place of the Polluter Pays Principle) is actually to enable "the realization of sustainable economic development and build effective legal principles in terms of prevention and responsibility for the emergence (and remedying) of environmental damage" [14].

REFERENCES

[1] Environmental Protection Act, "Official Gazette of the Republic of Serbia", no. 135/2004, 36/2009, 36/2009 - second act, 72/2009 - second act, 43/2011 - const. court decision and 14/2016.

[2] Rajs, V. (2015) *Methods of environmental monitoring parameters based on smart measurement systems*, PhD thesis, Faculty of Technical Sciences, University of Novi Sad, Novi Sad, p. 9.

[3] Milošević, M. (2007) Environmental damage liability, *Legal Life*, 56(9), 445-454, p. 445.

[4] Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment, Lugano, 21/06/1993

[5] Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage, OJ L 143.

[6] Stevanović Čarapina, H., Žugić Drakulić, N., Mihajlov, A., Čarapina Radovanović, I. (2014) MFA and LCA as analytical instruments in the field of environment, *Limes plus*, 11(1), 27-41, p. 28.

[7] Mihajlov, A. (2009) Basics of analytical instruments in the field of environment, Faculty of Environmental Protection, Educons University, Sremska Kamenica, p. 21.

[8] Kanjevac Milovanović, K., Milivojević, J., Kokić Arsić, A. (2006) Methods for evaluation and monitoring of the quality of the environment. In: Quality Festival, First National Conference on Quality of Life, Association for Quality and Standardization of Serbia, Kragujevac, 109-112, p. 109.

[9] Zindović, I. (2012) Forms of legal responsibility in the context of environmental protection, *European Legislation*, 11(41), 270-285, p. 277.

[10] Cvetić, R. (2013) Environmental Protection – shifting the focus to protective facility, *Proceedings of the Faculty of Law in Novi Sad*, 47(4), 117-129, p. 124.

[11] Nikolić, D. (2011). Environmental law as a scientific and educational discipline, *Proceedings of the Faculty of Law in Novi Sad*, 45(3), 299-311, p. 305.

[12] Popov, D. (2013) Principles of environmental protection in the documents of the United Nations, the European Union and the Environmental Protection Act of the Republic of Serbia, *Proceedings of the Faculty of Law in Novi Sad*, 47(2), 131-146, p. 133-137.

[13] Drenovak-Ivanović, M. (2015) Serbian Environmental Legislation: from the first systemic law to the implementation of the standards of environmental liability. In: Environmental protection in legislation and practice (ed. Mirjana Drenovak-Ivanović), OSCE Mission in Serbia, Belgrade, 9-14, p. 12.

[14] Stojanović, P., Zindović, I. (2015) Legal responsibility for environmental development and protection, *Annals of the Faculty of Law in Belgrade*, 63(1), 41-57, p. 50-57.

[15] Pajtić, B. (2015) Civil liability for environmental pollution, *Proceedings of the Faculty of Law in Novi Sad*, 49(4), 1669-1679, p. 1671.

EFFICIENT USE OF ENERGY AN IMPORTANT APPROACH IN MINIMIZING ENVIRONMENT AND OPERATIONAL COSTS IN ALBANIAN BREWERIES

Luljeta Pinguli[333]
Ilirjan Malollari[334]
Lorina Lici[335]
Jonilda Llupa[336]

DOI: https://doi.org/10.31410/eraz.2018.715

Abstract: *The objective of this paper is to provide information for identification of energy efficiency opportunities available for breweries. Breweries are relatively large scale plants and highly energy consuming industry. There are different ways to reduce energy consumption in the brewing industry. The overall specific consumption of energy used in a brewery, vary with the mix of package types, processes and equipment employed, the brewery's size, age, and the overall level of efficient energy utilization. Energy consumption is equal to 5% of the production costs of beer, making energy efficiency improvement an important way to reduce costs. Efficient use of energy consists on conservation and recovery.*
Energy conservation, reduce the amount of pollution generated from production processes (e.g., CO_2, NO_X, SO_2, ash, etc.) and reduce the energy requirements for waste handling and treatment. These measures give significant results in lowering the operational brewery costs. There are several methods of energy recovery proposed in this paper that can be considered by breweries to reduce energy consumption
In the brewing industry, 80% of the energy used is for process heating. It is pointed out, that most of the electrical consumption in a brewery is used for powering refrigeration plants. The areas of action which will produce immediate results include: condensate return systems, recycling of cooling water, effective control of boiler efficiencies and the latest developments in electrical power consumption. Longer range possibilities directly affecting the process are also considered, including water and heat recovery in pasteurizers, flash pasteurization techniques, heat recovery from brew house and reduced wort boiling times.

Key words: *Energy, recovery, conservation, efficiency, environment, operational costs.*

1. INTRODUCTION

Breweries are large energy users. There are different forms of energy used in a brewery such as thermal energy, electricity and fuel. Beer production process is divided in to three main processes, brewing, fermentation and packaging. Brewing consist on wort production and requires high heat consumption, particularly the wort kettle consumes one third (1/3) of steam consumption of entire plant. Fermentation process consumes large cooling energy by refrigeration system. This process consumes 60 to 70% of entire cooling capacity.

[333] University of Tirana. Faculty of Natural Sciences. Department of Industrial Chemistry; Tirana, Albania
[334] University of Tirana. Faculty of Natural Sciences. Department of Industrial Chemistry; Tirana, Albania
[335] Department of Energy Resources Engineering, Faculty of Geology and Mining, Polytechnic University of Tirana, Albania
[336] PhD student at, Lab of Food Chemistry, Department of Chemistry, University of Ioannina, Greece

Packaging process consumes a lot of heat energy (steam) and electricity too. In the Brewing Industry, 80% of the energy used is for process heating. It is pointed out, that most of the electrical consumption in a brewery is used for powering refrigeration plants. In order to control energy consumption it is very important to perform periodical energy audits in order to ensure continual improvement through parameter monitoring.

Luljeta Pinguli *works as Lecturer of Chemical Engineering, at Department of Industrial Chemistry, Faculty of Natural Sciences, University of Tirana, Albania.*

Since 2012 she is an Associated Professor at University of Tirana. Research field: Biochemical Engineering (Kinetics of Enzymatic and fermentative processes, enzymatic and microbial reactors, environment biochemical engineering etc..), Process controlling and plant automatics.

Heat consumption is influenced by process and production characteristics such as packing method, pasteurization technique, type of equipment, by-product treatment, etc. Heat consumption in a well run brewery is 150-200 MJ/hl. Electricity consumption, in a well run brewery, is about 8-12 kWh/hl, depending on process and production characteristics. Some breweries consume up to twice as much due to inefficient production.

Energy conservation, reduce the amount of pollution created in the production or use of energy (e.g., CO_2, NO_X, SO_2, ash, etc.). On the other hand pollution prevention measures reduce the energy requirements for waste handling and treatment, as a result a reduction in energy consumption is an important consideration in lowering the operational cost.

Energy recovery consist on reuse of energy on various operational processes; thus reducing the requirements for new resources and the amount of energy being discharged as waste. Resources recovery is based continuous maintenance, effective management and good housekeeping.

There are several methods of energy recovery that can be considered by breweries to reduce energy consumption; however, most are expensive and should only be considered once measures for reducing energy consumption have been made first.

2. MONITORING AND REPORTING

Monitoring of parameters listed in this document were carried out at least once per month, or more frequently. Measurements were carried out at “Stefani & Co” brewery (Albania). Monitoring data were analyzed and reviewed at regular intervals and compared with the operating standards. Our energy efficiency case study is compared with references to technical literature.

Energy input at “Stefani & Co” brewery is supplied in the form of oil, gas, steam, high temperature water and electricity. Meanwhile energy is discharged from the brewery in the form of hot flue gas, and steam; as warm wastewater; as moisture with the trubs and the spent grain.

Resources recovery is based on three main procedures.

To reduce energy consumption we implemented the following conservation strategy, based in terms of electricity, thermal energy and fuel.

Electricity conservation strategy	***Thermal Energy conservation strategy***	***Fuel conservation strategy***
- use of more efficient equipment when replacing old equipment - use of fluorescent lights and/or lower wattage lamps; - implementation of good housekeeping measures such as turning off equipment and lights when not in use; - installation of timers and thermostats to control heating and cooling; and, - Preventative maintenance of operational processes and pipes to improve efficiency and minimize losses. - installation of computerized controllers to better regulate motor output;	- perform strictly the preventative maintenance to reduce leakages and avoid steam trap bypass. - improve or increase insulation on heating or cooling lines, pipes, valves or flanges, refrigeration systems, bottle washers and pasteurizers. - Use of more efficient equipment, - ensure a systematic maintenance of process operations to ensure their efficiency; - use a hot water tank of appropriate size to optimize hot water production; - perform a hot water balance of the entire facility to determine when, where and how hot water is being utilized, and identify areas where reductions in consumption can be made.	- reducing the consumption of fuel (e.g., oil and natural gas, etc.) through minor adjustments to operating processes - implementing the preventative maintenance program - implement the preventative maintenance of steam pipes which represent a significant opportunity to reduce resource consumption and increase cost savings for a facility.

Energy recovery consists on reuse of energy on various operational processes; thus reducing the requirements for new resources and the amount of energy being discharged as waste. There are several methods of energy recovery that can be considered by breweries to reduce energy consumption; however, most are expensive and should only be considered once measures for reducing energy consumption have been made first. The recovery of vapors condensate in "Stefani & Co" brewery represent a major saving in energy consumption. (the loss of 1 m^3 of vapors condensate at 85^0C is equivalent to the consumption of approximately 8.7 kg of oil). Utilization of CO_2 energy during transformation from liquid in gaseous form, is also a well known procedure in water cooling for compressors towers.

Energy consumption at the brewery for the period 2015 – 2017 has the following figures.

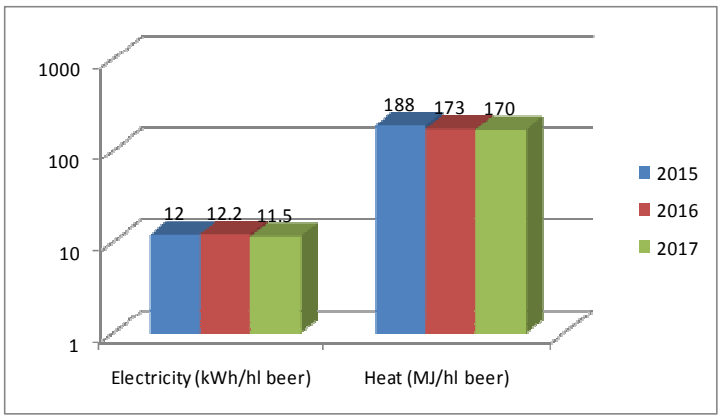


Figure 1. Energy consumption in terms of thermal and electricity at "Stefani & Co" brewery

The vast majority of thermal energy is used in brewing operations and pasteurization, while electricity consumption is more evenly divided among fermentation, beer conditioning and space and utilities. 60% of thermal energy is used in brewing. The specific electricity consumption for "Stefani & Co" is rather high compared with international benchmarks and could be subject to a separate assessment. Indicatively, the electricity costs for the site is 19,5 mill LEK/yr (140 000€/yr). Compared to good performers within the sector, the specific consumption could be reduced by almost 40%.

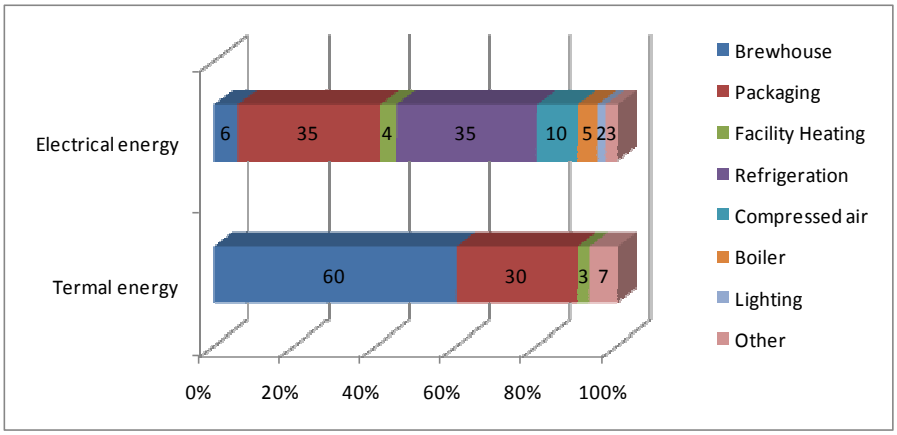


Figure 2. Energy consuming percentage for different processes in brewery for 2017

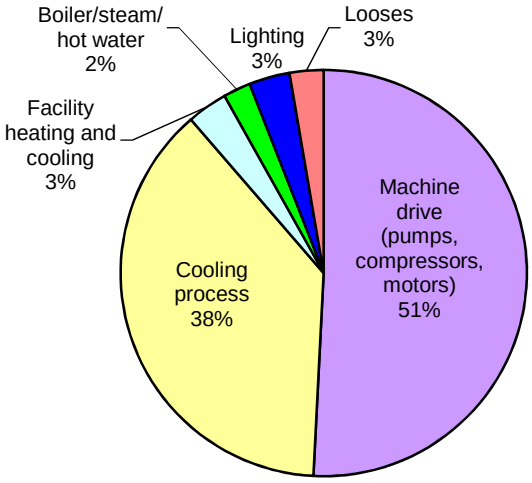


Figure 3. Electric energy defragmentation in the brewery for 2017

For a well run brewery optimal figures of thermal energy are in the range of 100 – 200 MJ/hl. The consumption is decreased as a result of conservation techniques implemented to the brewery [7]. The most important measures undertaken in the facility consist on improving energy balance in the main heat consuming processes.

1. Optimizing wort producing process through automatization and control of the process. Proper insulation and good maintenance level.
2. Shortening boiling time with 30 minutes (from 90 min boiling time is 60 min).
3. Minimizing evaporation rate (ER) in the wort cattle (1% of ER result in around 2 MJ/hl wort reduction). Evaporation rate is reduced also through controlling inlet and outlet extract of the wort. At 2015, evaporation rate was around 9% at 2017 was decreased around 5.6%. Continuous control of wort extract in the boiler enables to stop the boiling when the objective is reached.
4. Applying steam condensate recovery. At the brewery the vapors are used to boil the wort. The heat in the vapor condensate is recovered by producing hot water which is used to pre-heat the wort. In the mashing process, waste heat can be captured from the mash or from the hot water tank [3]. This heat can be used for either mashing or for other processes. Hot water of 95-98°C generated from heat recovery can be used to partially heat the mash thereby reducing steam or hot water generation requirements at the facility. The heat from the vapor is used to pre-heat the incoming wort, while the heat from the vapor condensate is used to produce hot water for cleaning or other applications in the brewery. Savings were estimated to be 3 % of steam consumption.
5. Flash pasteurization of beer instead of tunnel pasteurization reduce energy consumption. Flash pasteurization is used for in-line heat treatment of beer prior to filling the kegs [8]. Flash pasteurization rapidly heats the beer for a short period of time to a high temperature and then rapidly cools the product. As opposed to conventional tunnel pasteurization, flash pasteurization requires less space, steam, electricity and coolant. The optimum heat recovery is 94-96%, by plate systems Operation and maintenance cost estimates for flash pasteurization systems are 70% cheaper compered to tunnel pasteurizers.
6. As most breweries, “Stefani and Co” has a process integration system for recovery of waste heat from process, used for heating water. The site has an installed chiller capacity of 700kW

Ilirjan Xh. MALOLLARI

Works as Head of Chemical Engineering Group, Department of Industrial Chemistry, Faculty of Natural Sciences, University of Tirana, Albania.

Malollari received his MSc in Industrial Chemistry in 1981 from University of Tirana, Albania, and his PhD in 1993 on Chemical Engineering Design University of Tirana, Albania, and in 1997 was awarded Associated Professor Title, in 2002 was awarded Professor Title, and in 2009 has got title Academician Associated and Member of Assemble of Albanian Academy of Science. Malollari is a member of the following organizations: President of Albanian Chemists Society; Head of National Bureau of the Balkan Environmental Association. (B.EN.A);Member of the MESAEP (Mediterranean Scientific Association of Environmental Protection); Member of the International Committee of Fray International Symposium, USA; Member of the Environmental Protection Society of Albania; Member of the Albanian Society for Clean Energies; Member of IUPAC (Union of Pure and Applied Chemistry);Member of FECS (Federation of European Chemical Societies); Member of the Committee of International Conference of South Eastern Countries Chemical Societies, Observing Partner of European Technology Platform for Advanced Materials and Technologies; FP7 National Contact Point; Chairman of the Advisory Board of the Albanian Accreditation Directorate (DA), since 2009;

(electric) applying ammonia as refrigerant. The majority of the site demand for thermal heat is below 80°C. Heat recovery from chillers could provide the site with approximately 1 000 kW of heat at 65°C which would reduce the costs for cooling water and gas correspondingly. The energy recovered could by used for CIP, keg wash, box wash and pasteurization.

MSc. ***Lorina Malollari*** *She has finished studies at direction of Chemical Engineering, Department of Industrial Chemistry, Faculty of Natural Sciences, University of Tirana, Albania. She is lecturer at Polytechnic University of Tirana, Albania. She works for the sources of energy and efficiency department.*

For a well run brewery optimal figures of electricity consumption are in the range of 7 - 12 kWh/hl. The site has a distribution of -5°C glycol system based on R22. The chillers have a capacity of 550kW electric and use a dry cooler as condenser which reduces the performance and increase the specific energy consumption. The electricity consumption of this system should be monitored with respect to Coefficient of Performance (COP) and "Stefani and Co" could consider applying a evaporative cooling tower or heat recovery system in order to improve the COP. The glycol chiller system is likely to be the largest single consumer for the site and the performance is thus important to monitor. The NH_3 chillers (160kW) apply an evaporative cooling tower and we recommend motoring of the COP as well. If the facility has the opportunity to use direct expansion of ammonia instead of glycol, operational costs will be reduced around 18% and also running costs will be lower.

The most important measures undertaken in the facility for electric energy conservation consist on:

1. Optimizing and better control of the processes.
2. Improving efficiency of equipment's through better production planning and non-stop running of equipment. Especially packaging lines and cooling plant which are the biggest consumers of the plant.
3. Lowering condensing temperature or use a higher evaporating temperature in the cooling plant. The increase of evaporating temperature with 1^0C reduce the electricity consumption for cooling plant with 3 %. Decrease of 1^0C (this is a function of outside conditions) reduce the electricity consumption for the cooling plant with about 2%.

Stefani has also two lines of ADS G62 PET blow moulding machines. Both machines are supplied with 40 barG compressed air from a SIAD Tempo 610 compressor (118 kW). Many suppliers of compressors offer after sales services where recovered air at e.g. 25bar can be returned to the compressors and thus reduce the specific electricity consumption. Similarly, the PET blow mould machines could be investigated for recovery of air at 25 bar for use as pre-blow (typically 17 bar) or for supply air to the air compressor.

Breweries also, require significant amounts of energy in the forms of heat and electricity for beer packaging. Energy intensity, or specific energy consumption, reflects the amount of energy required per unit of output or activity. The variation in intensities is partly influenced by the type of product being produced. For example, draught beer has much lower energy requirements than other types of beer since it is not tunnel pasteurized. Intensities will also vary depending on the amount of production.

Packaging line	Energy Intensity	Notes
Keg	32	Low value as result of high volume of production and no tunnel pasteurization
Bottle	212	High value. Small beer volume. Tunnel pasteurization. Washing bottle machine.
Can	100	Tunnel pasteurization.
PET	135	High value due to blowing machine for PET bottles.

Table 1. Energy intensity for packaging lines

In this paragraph we provide a summary of energy data's for the period 2015-2017, as well as references to technical literature. Energy efficiency is an important way to reduce production costs.

Parameter	2015	2017	Optimal interval
Total energy consumption in MJ/Hl	238.6	211.2	180 - 190
Heat in MJ/Hl	188	170	100 - 150
Electricity in kWh/hl	12	11.5	7 - 12
Percentage of energy on beer production cost	4.2%	3.8%	3 - 4%

Table 2. Comparison of energy values with reference values

Sector	2015	2017	Optimal interval
Packaging	4.59	3.89	1.5 -3.5
Refrigeration	4.48	3.75	3 - 4
Compressed air	1.35	1.31	0.8 – 1.1
Brewhouse	1.08	0.95	0.5 - 1
Lighting	0.81	0.76	0.5 – 0.6
Facility heating	0.65	0.65	< 0.6
Boiler	0.40	0.39	0.4 -0.5
Utilities	0.70	0.41	0.5 – 0.6

Table 3. Specific electric consumption in kWh/Hl beer produced compared to the reference values

Sector	2015	2017	Optimal interval
Brewhouse	120.5	105.0	65 - 100
Packaging	50.3	46.2	20 - 45
Facility heating	3.5	1.9	1 – 1.5
Utilities	13.8	11.2	10 - 15

Table 4. Specific thermal energy consumption in MJ/Hl beer produced compared to the reference values

3. CONCLUSIONS

While there are many issues at the brewery, there have been several years of continual improvement. Key issues highlighted by energy audit consist mainly on reduction of water use

throughout the process, control of energy leakages, optimization of equipment running, installation of proper measuring devices (water, electric energy) to take corrective and preventive actions properly, etc.

Process optimization and ensuring the most productive technology is in place are key to realizing energy savings in a plant's operation. Energy monitoring and process control systems play important role in energy management and in reducing energy use.

In the Brewing Industry, 80% of the energy used is for process heating. Consequently to effect savings in this area, processing methods must be changed while still maintaining product quality. The areas of action which will produce immediate results include: condensate return systems, recycling of cooling water, effective control of boiler efficiencies and the latest developments in electrical power consumption. Other possibilities considered are water and heat recovery in pasteurizers, flash pasteurization techniques, heat recovery from brewhouse and reduced wort boiling times.

*PhD **Jonilda Llupa***

She has finished University of Tirana, Faculty of Natural Sciences, Food Chemistry and Technology.
She is works for PhD studies at, Lab of Food Chemistry, Department of Chemistry, University of Ioannina, Greece

Although energy figures after undertaking saving and recovery measures started to drop they are still high compared to European breweries. Inherent inefficiencies of smaller scale operations cause high specific energy use relative to output as European breweries. Despite of this fact, there exists a variety of opportunities to reduce energy consumption while maintaining or enhancing the product quality and productivity of the plant.

Energy consumption from 5,2% of production beer cost, decreased at 4.7% in the end of this study. The efficient use of energy has become a major factor in the profitability of a brewery. Furthermore, the cost of energy is predicted to increase at an even greater rate in the future in Albania.

4. REFERENCES

[1] ISO (International Organisation for Standartisation) 2004a. ISO 14001: 2004. Environmental Management Systems – Requirements with guidance for use. Geneva: ISO. (Accessed on 09-05-2006).
[2] Ganapathy, V. (1994). Understand Steam Generator Performance. Chemical Engineering Progress 90 (12): pp. 42-48.
[3] Hackensellner, T. (2000). Efficient energy Use in the Brewhouse, The Huppman Group, Kitzingen, Germany.
[4] Kidger, P. (2001). Personal communication on CHP and other brewery efficiency measures.
[5] Vollhals, B. (1994). Energy Saving in the Brewhouse. MBAA Tech. Quart. 31: pp. 1-4.
[6] The brewers of Europe. 2002. Guidance Note for estabilishing BAT in the Brewing Industry. October 2002. Brussels. Belgium.
[7] EC (European Commission). 2006. Integrated Pollution Prevention and Control.Reference Document on Best Available Techniques in the Food, Drink and Milk

Industries. Seville: EC. http://eippcb.jrc.es/pages/FActivities.htm (accessed on 20-10-2005).
[8] European Brewery Convection. (1999); Manual of Good Practice. Beer Filtration, Stabilization and Sterilization, 156.
[9] European Brewery Convection. (2000); Manual of Good Practice. Fermentation & Maturation, 187.

DEVELOPMENT AND APPLICATION OF POTENTIAL ALTERNATIVE ENERGY SOURCES

Goca D. Jovanović[337]
Slavko Božilović[338]

DOI: https://doi.org/10.31410/eraz.2018.724

Abstract: *This paper presents the potentials of alternative energy sources, their uses, opportunities and perspectives for further development of their application. In addition, the paper will analyze the potentials of renewable energy sources such as solar energy, wind energy, hydro energy, biomass and geothermal energy. The use of the potential of renewable energy sources and energy efficiency results in significant energy security and are one of the necessary components of possible ways of achieving sustainable development. The concept of sustainable development is to balance the three key factors of sustainable development: the sustainable development of the economy and economy, the sustainable development of society based on social balance and environmental protection, along with the rational disposal of natural resources. The goal and purpose of the work is to raise environmental awareness as well as the importance of contributing to the application of renewable energy sources on a global scale.*

Key words: *alternative energy sources, solar energy, wind energy, hydro energy, biomass, geothermal energy*

1. INTRODUCTION

Consequences caused by continuous pollution of air, water and soil by waste materials that a person rejects in the process of increasing urbanization and industrialization. In addition to problems related to the reduction of environmental pollution, there is also the problem of creating economic envy.

After a long period of use of fossil fuels, today's global image is changing, and renewable sources are increasingly considered one of the key sources of energy for the future development of the Earth. Renewable energy sources are considered sources of energy that are preserved in nature and are renewed in part or in whole. Energy sources can be classified as: solar energy, wind energy, geothermal energy, biomass energy, water energy, tidal and tidal energy, internal heat of the sea and ocean, gas energy from landfills or wastewater treatment plants.

Changing the way of using renewable and non-renewable energy sources can significantly affect the growth of social wealth and the preservation of the environment. It is necessary that the ecological knowledge become an integral part of the matrix of general and basic knowledge. If people resort to the use of renewable energy sources, the possibility of further global warming of the Earth would be significantly reduced. Preservation of the environment is of crucial importance for the survival of people, plant and animal life on the planet.

[337]City Administration of Pančevo City, Serbia
[338]University "Union - Nikola Tesla" Belgrade, Serbia

2. ENERGY POTENTIAL AND EFFICIENCY BY SOLAR ENERGY

Solar energy is the energy of solar radiation that we observe in the form of light and heat that we receive from the largest source of energy on Earth, the Sun. When the sun's rays reach the earth's atmosphere, the amount of sunlight on a surface on Earth depends on several factors: season, time of irradiation, characteristics of receiving area, location, inclination of the surface in relation to the horizontal plane and weather conditions.

Today's technologies of solar energy use include the most diverse applications, from solar lighting, the operation of audiovisual and refrigeration devices, the operation of signaling devices on roads, airports and lighthouses, operation of telecommunication devices and systems, pumping water, power supply to boats, boats, drive. Modern society has recognized numerous advantages of solar energy potential: reducing dependence on fossil fuels, improving air quality and reducing greenhouse gas emissions, while the production and installation of solar systems stimulates the creation of new jobs.

3. ENERGY POTENTIAL AND EFFICIENCY OF ENERGY WIND

Wind energy has been used for centuries and the use of this energy has been focused primarily on electricity generation today. The power that the Earth receives from radiation from the Sun is 1.74 x 1017W, of which 1-2% turns into wind power. The movement of air masses in the atmosphere occurs due to uneven warming of the Earth's surface at different latitudes because the air is heated indirectly over the ground. [1][2] Good sides of the exploitation of the wind potential, it is emphasized: high reliability of operation of the plant, no investment costs of propellant and pollution does not occur in the natural environment. Wind power also has a bad side: high investment construction costs and wind speed variability.

The construction of wind farms represents a significant contribution to the preservation of the quality of the environment. Electricity produced from wind farms reduces the share of production from thermal power plants. In this way, it reduces emissions of harmful substances into the environment, reduces the consumption of non-renewable energy sources and reduces the amount of waste generated.

4. ENERGY POTENTIAL AND EFFICIENCY OF WATER ENERGY

Water energy is the most important renewable source of energy, and at the same time it is the only one that is economically competitive with fossil fuels and nuclear energy. It is a conventional renewable energy source that has been used for centuries to get mechanical, and for more than a hundred years and electricity. The installed capacity of small hydropower plants in the EU is around 12.5 GW, which represents 9% of the total power of all hydropower plants, and 2% of the total power of all EU energy capacities. [3] The technology of using marine energy potentials offers the possibility of clear and precise control of energy production, which is reliable, which, by itself, is much higher than the production of electricity from wind, solar or biomass. [4]

The good sides of the exploitation of small hydropower plants are: elasticity and reliability in work, domestic industry, low investment maintenance costs and increased tourist attractiveness of the environment. The poor side of the exploitation of small hydropower plants is: significant impact on the ecology of the site where they are built, the disruption of the reproductive cycle

of fish, the reduction of forests around the hydroelectric power plant can cause landslides, which can cause a change in the flow of running water.

5. ENERGY POTENTIAL AND EFFICIENCY OF BIOMASS ENERGYE

The use of biomass or fuel and waste materials derived from biomass as a source of energy requires minimal investments that can be quickly and repeatedly returned. One of the most important factors determining the potential role of biomass in the energy industry is the strong competition that exists between the value of biomass and land needed for its breeding, which is not the case with other renewable sources. The advantage and efficiency of the use of biomass as a source of energy are abundant potentials, not only for the purpose of planted plant culture, but also waste materials in the agricultural and food industry. The barrier that occurs with the increased use of biomass potential is insufficient availability and experience of using equipment, as well as an insufficiently developed biomass market.

The main aspect in using biomass potentials should be the sustainability of use. Sustainability first of all means that the amount of biomass used to generate various types of energy is always smaller or equal to the increase in the amount of biomass. When it comes to agricultural crops, the sustainability of the use of biomass should involve the planned and regular return of a certain amount of organic matter of biomass to about 30% in the soil in the form of harvesting, as this ensures balance and results in higher fertility of the soil. The sustainability of the use of forest biomass involves long-term planning in terms of afforestation and exploitation of forest biomass.

6. ENERGY POTENTIAL AND EFFICIENCY OF GEOTERMAL RESOURCES

Geothermal energy is somewhat readily available or is itself exposed to the surface of the earth in hot water or steam, and somewhere at a great depth and inaccessible. The most practical areas for the exploitation of geothermal energy are those where the hot mass is located near the surface of the earth. The structure of the Earth's interior is such that temperature depending on the layer structure increases from 10ºC to 30ºC every kilometer closer to the core. The almost immutable temperature of the Earth's crust layer can be used to a large extent for the indirect heating or cooling of residential and commercial buildings.

The greatest advantage of geothermal energy is that it is clean, safe for the environment and the energy supplies available to us are practically inexhaustible. Geothermal energy is reliable because it does not depend on meteorological conditions as opposed to hydroelectric power plants, which depends on the amount of water available, wind power plants vary greatly and cannot be known when it will be, solar system, which cannot work at night and depend on meteorological conditions. Electricity from geothermal sources can be produced 24 hours a day. Geothermal power plants have very low production costs. They only require energy to run water pumps, and this energy produces the power plant itself. The biggest disadvantage is that there are not many locations that are suitable for exploiting the potential of geothermal energy and suitable for the construction of geothermal power plants.

7. CONCLUSION

In the time ahead, it seems that the solution for the efficient and necessary supply of energy, and consequently of the significant substitution of exhaustive and polluting energy resources, lies in the diversification of the use of various and especially renewable energy sources. Any

smallest or seemingly most significant source of energy should not be discarded. In addition, forms of energy that do not significantly pollute the environment will have the advantage in development and application.

Renewable energy sources are increasingly gaining importance as a replacement for fossil fuels, and their development and their use are growing over time. Their participation as an inexhaustible source of energy, according to experts' predictions, could already be 50% of the total amount of energy needed by 2050, with the tendency to gradually replace fossil fuels. Until that happens, the world will fight for a long time to deal with the problem of providing the necessary energy. Transition to renewable energy sources will be neither quick nor easy, and especially not cheap, and fossil fuels will be a long-standing backbone of the energy world, an important factor in energy policy.

Goca Jovanović *is PhD student at the University "Union - Nikola Tesla" in Belgrade. She published the results of previous research, in the form of a large number of articles, at scientific meetings and published in corresponding proceedings of the papers and journals. She participated in several scientific and professional projects. She speaks English and French.*

Investments in the field of renewable energy sources are large, starting from research, adoption of necessary legal acts and measures, to the construction of large energy facilities, but also to household appliances for own consumption. Regardless of the large investments, they are certainly justified because in the course of more or less years, the funds invested are returned, and afterwards they bring benefits to both the investor and the whole country. The biggest investments are in exploiting the potential of wind and solar energy, sources available to all, as well as the potential of biomass energy that can be considered renewable only if it is being used for a planned purpose.

REFERENCES

[1] Volker, Q. (2005). Understanding renewable energy systems. Carl Hanser Verlag GmbH & Co KG.
[2] Manwell, J. F. McGowan, J.G. Rogers, A. L. (2002). Wind energy explained. John Wiley & Sons Ltd.
[3] San Bruno, G., Fried, L. (2008). Focus on Small Hydro. Renewable energy focus. november/december pp.55.
[4] P. L. Fraenkel (2001). Power from marine currents, Proc.Instn.Mech.Engrs.,Vol 216, Part A: J. Power and Energy.

THE RAPESEED CULTURE EVOLUTION IN ROMANIA IN THE CONTEXT OF CLIMATE CHANGE

Camelia Slave[339]
Diana Vască Zamfir[340]

DOI: https://doi.org/10.31410/eraz.2018.728

Abstract: *Plant production varies from year to year, being significantly influenced by fluctuations in climate and climate conditions in particular by the extreme weather events. Climatic variability influences all sectors of the economy, but the most vulnerable remains agriculture and the impact on it is more important today. Climate change is more pronounced every year. The complex effects of climate change on agriculture underlie the necessity of the decision-making process on risk reduction in order to maintain adequate harvest standards and to promote sustainable agriculture. Thus, variability and climate change must be addressed through the prism of daily agricultural activities, with the help of mitigation strategies and adaptation measures.*
The complex effects of climate change on agriculture underlie the necessity of the process decision-making on risk reduction in order to maintain adequate harvest standards and promote sustainable agriculture. Thus, variability and climate change must be addressed through the prism of daily agricultural activities, with the help of mitigation strategies and adaptation measures.
The article presents the evolution and the areas of rapeseed culture in Romania. Rapeseed is the plant most widely used in Europe for its energy value. Because climate change has taken place over the last period of time, this agriculture culture is beginning to occupy an important place in oil plant production in Romania.

Key words: *agriculture, climate changes, rapeseed, maps, study area*

1. INTRODUCTION

IPCC (Intergovernmental Pannel on Climate Change) was established in 1988 by The World Meteorological Organization (WMO) and by The United Nations Environment Program. The role of the IPCC is to evaluate in an objective and transparent manner the relevant scientific, technical and socio-economic information in order to understand the scientific basis of the climate change risk due by human activity, the potential effects induced by climate change and the options for adaptation and diminution effects. [9]

Climate Change (IPCC) means a statistically significant variation in either the climate average or its variability, which persists for a longer period of time; is due to internal processes, external pressures (forcing) or major anthropogenic changes in the composition of the atmosphere and land use.

[339] University of Agronomic Sciences and Veterinary Medicine of Bucharest, 59 Mărăști Blvd, Bucharest, Romania
[340] University of Agronomic Sciences and Veterinary Medicine of Bucharest, 59 Mărăști Blvd, Bucharest, Romania

Global atmospheric concentrations of greenhouse gases (mainly carbon dioxide, methane and nitrous oxide) have increased significantly since 1750. The main cause of these increases was human activity, with the effect of global warming.

The period of eleven years - 1995-2006 - are among the warmest years since the global recordings temperature began (1850). The linear warming trend over the last 50 years (0.13°C (0.10°C - 0.16°C) per decade) is almost double that of the last 100 years. The total temperature increase in the period 1850-1899 and in the period 2001-2005 is 0.76°C [0.57°C - 0.95°C].

The year 2007 and 2012 were the most drought-prone with severe effects on agriculture. From 1901 until now there have been 3 or 4 years of extremely dry or extreme rainfall in every decade, the highest number of droughts years (five) being recorded in the decade 2001-2010.
Mankind is heading for the least favorable scenario estimated by the International Panel on Climate Change (IPCC), leading to a significant possibility of overtaking 4°C by the end of this century. In order to limit the global carbon budget which permit heating only with 2°C, the global economy needs to increase decarburization to 6.2% per year by 2100, which would ensure that virtually the global energy system had zero carbon emissions by the end of the century. [9],

Slave Camelia *graduated from the Faculty of Land Reclamation and Environmental Protection of the University of Agricultural Sciences and Veterinary Medicine - Bucharest.*

In 2002 she supported PhD thesis at University of Agricultural Sciences and Veterinary Medicine Bucharest and at this university she does her didactic activity. PhD is in agricultural sciences. In 2010 she graduated a second PhD in civil engineering at the Bucharest Technical University of Civil Engineering. She has completed master studies at the University of Bucharest, Faculty of Geography - Geographic Information Systems
She teaches at the Faculty of Management, Economic Engineering in Agriculture and Rural Development and the Faculty of horticulture.
The study subjects are topography, geographic information systems and remote sensing, with applications in agriculture.
She has published over 35 scientific papers at conferences.

In the context of global warming, the climate regime changes in Romania are modulated by regional conditions.

Romania provides a progressive increase in air temperature average during the XXI century, in all seasons. Increases in temperatures will be more pronounced in the summer and winter season. IPCC estimates indicate that, at least according to global estimates, the climate will warm in this century, and rainfall in the region of which Romania is part will change, so that winters will become more humid and summers dry.

Climate change has a different impact in different sectors of activity, and at different levels, adaptation measures will also vary depending on local parameters.

The meteorological and hydrological negative events such as drought and floods are the manifestations with the most significant impact on the agricultural sector and the cause of significant different crops from one year to another.

Climate risks such as droughts can last for several weeks or months, affecting the results of all annual agricultural production. In Romania, agriculture is the sector contributing year-on-year to GDP by about 6-7%. The agricultural years 2007 and 2012 have been considered the poorest of Romanian agriculture in the last decade. Production per hectare has fallen by 50%, especially for non-irrigated land.

According to centralized data by the Ministry of Agriculture and Rural Development (2012), the drought in the agricultural year 2011 -2012 caused damages on an area of 5.883.466 ha at national level. The most affected crops were maize, wheat, barley, potatoes, sunflower and rapeseeds. (eg production for rapeseed has fallen by up to 80.2%).[9]

"Although many aspects of climate change are associated with different levels of uncertainty (causes, effects, forecasts, etc.), climate change is unquestionable and requires urgent action. It is therefore imperative for Romania to take appropriate measures to mitigate the impact of climate change on its territory and to protect the population from the negative effects of climate change, " mentioned Government Resolution 529/2013 regarding climate change.

The origin of rapeseed is considered to be from the northern Mediterranean area, but it is cultivated on almost all continents. The first documentary attestation is 4000 years ago, and 2000 – 2.500 years were cultivated in ancient Greece and Rome. [5]

In India, China and Korea were introduced 2000 years ago. It is cultivated since the 13th century in Europe, in the northern Alps, and on a wider scale from the 16th century in the Netherlands. Variety cultivation begins in the 19th century, while the first commercial crop emerges immediately after World War II in Canada. Approximately 35 million hectares of rapeseed are grown around the world, of which almost one third is cultivated in Europe. The total area has increased over the past 10 years by about 10 million hectares, especially in North America, but also in Europe and China. [5]

The chemical composition of rapeseed, depending on variety and vegetation conditions, is characterized by 45-50% lipids, 19-20% crude protein and 17-18% extractive non-azote.

World rapeseed agriculture crop.
In 1998, rapeseed was cultivated on 25 million hectares, with 37% more than 1989 -1991, and 114% over 1979-1981. Sunflower occupies a larger area of 3.7 million hectares. In 1994, rapeseeds was on second position in world oil production, with a 161% increase over 1977. The largest rapeseed areas are found in China - 7 million ha, India 5 million ha, followed by Canada with 3.1 million ha. [10]

The rapseed agriculture crop situation in the European Union.
In Europe, rapeseed is grown on nearly 4 million ha, with the largest growers being France with 1.2 million ha, Germany with 1 million ha, Poland with 460.000 ha and England with 530.000 ha. The rapeseed area in Europe is in the northern half of the continent, where high yields are produced. The average yield per hectare in Europe is approaching 30q/ha compared to 13q/ha world average.

Evolution of cultivated areas and average production per hectare achieved in Romania is presented in the table 1 [7]. In Romania rapeseed has been cultivated since the century XIX, and in 1913 it occupies over 80.000 ha; between the two world wars (in year1930) cultivated over 77.000 ha; then the surface fell to 14.000 ha in 1950 and 18.000 ha in 1960. Later the

rapeseeds has narrowed even more so that during the 1968-In 1973, this plant disappeared from culture. In recent years it has reintroduced and expanded rapeseeds areas thus occupied 68.000 ha in 2000 and in 2009, 2010 and 2011a vertiginous growth of surfaces is observed.

Specification	**SM**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
Surface	10^3 ha	364,9	365,0	419,9	537,3	392,7	105,3	276,6	406,7	383	471
Average production	Kg/ha	991	1844	1357	1755	1882	1496	2408	2604	2530	2836
Total production	10^3 tons	361,5	673,0	569,6	943,0	739,0	157,5	666,1	1059,1	959	1336

Table 1: Data on surface and production evolution in Romania [8]
Source: 2007 - 2015 - INS data - Romanian Statistical Yearbook; 2016 - INS data - Plant production in the main crops

MATERIALS AND METHODS

Environmental support of agricultural production

The growth and development of plants, ultimately their production, is determined by the provision of living conditions (ecological support) as close as possible to those of the natural environment in which they were formed. These factors are called ecological because they are directly related to cultivated plants and act on larger or smaller agricultural territories.

Ecological conditions may be direct influences (climate and soil) or indirect (altitude, incline, and field exposure). The influence of ecological conditions, expressed by the natural climate and soil factors, through their relations with cultivated plants, is stronger than in any other branch of material production.

The various ecological conditions, the complexity and the proportionality of the reliefs make Romania a country with a wide diversity of agricultural landscapes, in which numerous plant cultivation systems and methods are applied. The knowledge and differentiation of the ecological conditions on the territory is of major importance in the scientific organization of agricultural production, in its technical and economic foundation at national, zonal and agricultural level. The ecological function of natural factors is essential to establish favorability for the ecosystem in general and for each crop, expressed in production capacity.

Rapeseed is a cultivated plant especially in areas with a temperate continental climate, characterized by winters with higher temperatures and cool and humid summers.

These conditions are fulfilled in the Moldavian Plain, the Moldavian Plateau, the Transylvanian Plateau and the Western Hills. (figure 1) [5],

The rapeseed is grown on deep permeable soils and medium texture with high content of organic matter and calcium. Such soils are; chernozems, cambic chernozems, gray soils and alluvial soils. These types of soils meet in the above-mentioned geographic regions.

In these areas the amount of rainfall is between 450 - 650 mm per year. The rapeseed is being pretentious to water due to the high sweating coefficient. In Table 2 are presented the agricultural areas where the rapeseed is cultivated and the sum of the annual temperatures and the annual amount of rainfall

The following maps presented the most favourable areas for rapeseed crop. Maps used geographic data to extract the elements needed for the analysis and are based on the following datasets.

- Corine Land Cover - European Environment Agency, 2010, Corine Land Cover 2000 seamless vector data - version13 (02/2010), [Available online] URL: http://www.eea.europa.eu/data-and- maps / data # c12 = Corine land + cover +version + 13. (used to make land use map).
- General vector datasets Romania (2009), [Available online] URL: http: //earth.unibuc.ro/download/romania-seturi-vectoriale

The maps were made using ArcMap10.1.

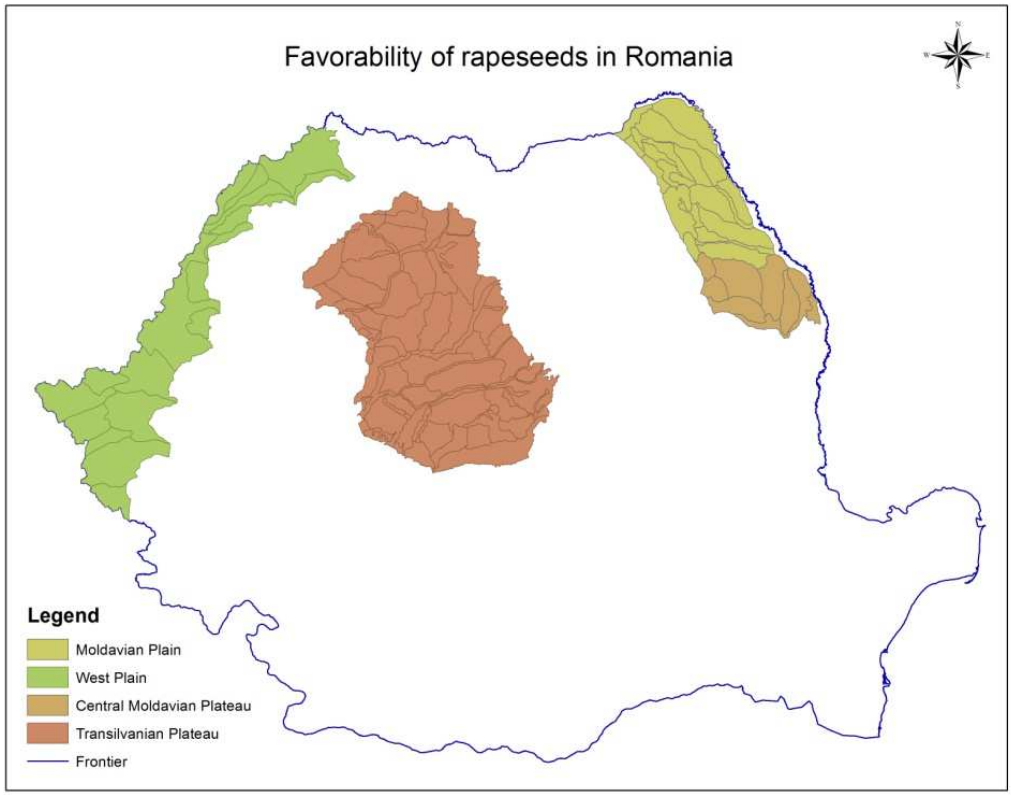


Figure 1 The favourability map of rapeseed in Romania

Land cover is an image reflecting at the same time land use (housing, agriculture, industrial activities, transport, forestry, tourism, nature protection…) and ecosystems (from biomes to species' habitats). It has accordingly a particular role in economic environmental analysis. This role has been enhanced by the development of GIS tools and datasets which allow producing statistics at different scales and then capture the interactions (long trends, hotspots) across landscapes shaped by geography and history. [2]

LAND COVER: is the observed (bio)physical cover on the earth's surface LAND USE: is considered as the arrangements, activities and inputs people undertake in a certain land type to produce, change or maintain it.

The classification system includes 44 distinct classes CLC2000 grouped into three hierarchical levels. Satellite database which led to the realization CLC2000, known as IMAGE2000 was composed of LANDSAT ETM + image type [2]
In the figure 2 is presented the map of CLC2000 for the study area.

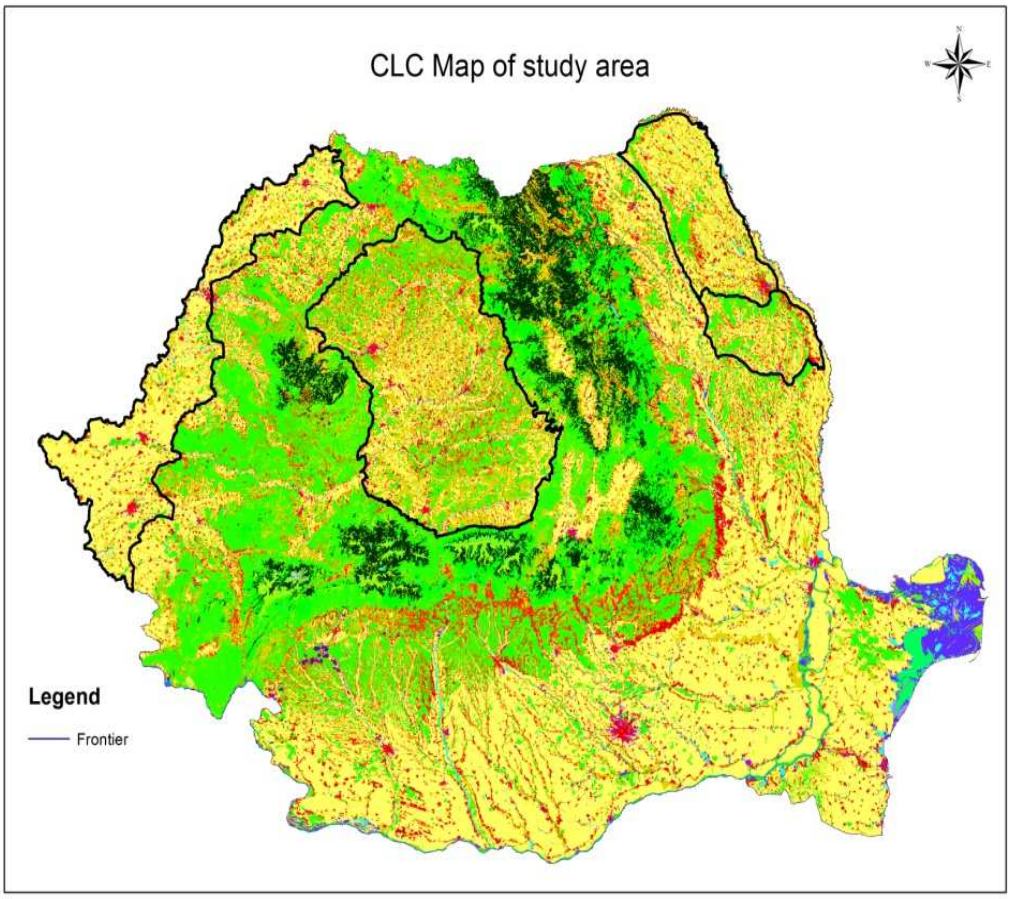


Figure 2 CLC map of study area

Area	Sum of temperature degrees (^{0}C)	Rainfall amount (mm)
1. South area include	3800 - 4200	
1.1 Dobrogea		350 - 400
1.2 Meadow and Danube Delta		450 - 500
1.3 Romanian Plain		550 -650
2. West Plain	3800 -4200	550 - 600
3. Moldova and Transilvania Hills	3200 – 3400 in plain 3400 – 3500 in plateau	450 – 550 in Jijia Plain and Bârladului Plateau 550 – 600 in Transilvaniei Plain
4. West and Est Foothills	2400 – 2800 2800 – 3200	650 – 800 600 - 800
5. Someşan Plateau Târnavelor Plateau Subcarpathians eastern Western piemonths	2800 - 3400	600 - 700
	2600 - 3400	600 -700
6. Curvature hills	T average 9 -11 ^{0}C	550 -650

Table 2 Temperatures and precipitation in the main agricultural areas

CONCLUSIONS

1. Romania still has notable results in the country and country ranges for crops and for the production of certain crops, such as sunflower (the first place in the EU) or rapeseed. According to specialists, rapeseed cultivation has developed at a rapid pace in Romania in recent years, the area currently cultivated being the highest recorded in our country since 2010. Romania managed in 2016 to surpass Ukraine in the ranking of the most big rapeseeds producers from the Black Sea, thus entering the ranking of the top 10 producers worldwide. [3]
2. Franz Fischler, European Commissioner for Agriculture 2001-2007, made the following recommendation for Romanian agriculture: Modernization of farms and processing sector "You need investment in human resources, encouraging innovation, supporting modern processing technologies, initiating diversification, improving business start-up conditions for young farmers and increasing the efficiency of the entire food chain. Ensuring participation for farmers in disadvantaged areas and the introduction of risk management are also crucial elements to modernize farms. "
3. Exploiting the agricultural potential by encouraging alternative crops of rapeseed, in order to provide an alternative fuel source for tractors and self-propelled agricultural machines, is a current energy goal with broad development prospects. Growing plants like rapeseed or corn that can later be transformed into fuel is beneficial to the economy and for those who do agriculture on the environment has a beneficial effect given the fact that part of the classically highly toxic fuels environment. [4],
4. Today's agriculture must be seen as a highly technical economic field, subject to unpredictable climate fluctuations generated by climate change with its derivatives - global warming and desertification. At the same time, it should be understood that agriculture is practiced for "existence", and not for "subsistence". Farming of "existence" is bringing production, benefits and profit, and "subsistence" agriculture generates lack of culture, prejudice and loss.
5. Researchers from Utrecht University have shown that in Romania agriculture is framed, the size of agricultural farms is between 1.8 and 3 ha. Almost one million ha of arable land are completely unused. Cultivating a surface area of 10% of the unused area of rape required for biodiesel production would bring important incomes to the national economy and would have a positive influence on environmental protection and pollution reduction. [6]
6. Adopting measures to promote smart agriculture that means:
   • Correctly assessing the agricultural potential from all points of view, starting from:
   - sol,
   - climate,
   - the political and economic environment,
   - the existence of irrigation water,
   - possible climatic accidents,
   - crops and markets,
   - available by labor force, etc.
   • Existing and developing technology solutions for:
   - Performance fertilization,
   - plant health and plant protection measures,
   - measures to reduce abiotic stress, mainly caused by climate change.
   • Decision support systems for certain technological links or for production directions.
7. Large scale production of biofuels requires enormous areas of land for the cultivation of energy crops such as rapeseeds. If the targets put forward by the European Union are

to be met it will be necessary to either reduce the land allocated to other crops or to grow energy crops on land which is not currently used for crop production. [1]

REFERENCES

[1] Bjarne M., L., (2008)– *Rapeseed Biodiesel and climate change mitigation in the EU,* Geobiospere Science Centre , Sweden, pp 1
[2] Weber J.,L., (2009) -*Land Cover Classification for Land Cover Accounting* Canbera, pp 1 -2 https://unstats.un.org/unsd/envaccounting/londongroup/meeting14/LG14_9a.pdf
[3] https://www.libertatea.ro/stiri/magazin/ce-culturi-agricole-
[4] http://multilingual.bionetsyst.com/images/docs/6400677781335502327.pdf
[5] https://www.bayercropscience.ro/img/.../Ghidul%20culturii%20de%20rapita.pdf
[6] http://agrointel.ro/45046/lupta-impotriva-schimbarilor-climatice-si-a-poluarii-
[7] http://www.fao.org/faostat/en/#data/QC
[8] National Institute of Statistics (INS) - www.insse.ro
[9] http://www.fonduri-ue.ro/images/files/studii-analize/48145/Strategy%20RO%20FINAL%20version.pdf
[10] https://www.ocl-journal.org/articles/ocl/pdf/2014/01/ocl130035.pdf

THE COMPARISON OF REQUIREMENTS FOR A DISCLOSURE OF NON-FINANCIAL INFORMATION ACCORDING TO LEGAL REGULATIONS IN SLOVAKIA AND EU DIRECTIVES

Renáta Pakšiová[341]

DOI: https://doi.org/10.31410/eraz.2018.736

Abstract: *The EU are interested on environmental, social and economic sustainability issues. The user of the information need an overall view of all the available aspects of the assessment of activities in an environment, therefore setting up reporting methods for both financial and non-financial information is important. Slovakia is setting up the legal framework for reporting in line with a true and fair view of the business entity. The aim of this paper is the comparison of requirements on the reporting and disclosure of non-financial information according to regulations in Slovakia and the EU.*

Key words: *Non-Financial information, Legal regulation, Annual Report, Corporate Social Responsibility*

1. INTRODUCTION

Currently, standardisation of reporting and disclosing financial and non-financial business information is a very actual topic. Interested parties and business entity information users are not only interested in the financial situation of the entity, but also in the overall picture of its impact on social and natural environment it operates within. Mostly it is the undertakings generating the highest share on the gross domestic product of a given country, thus forming its economic environment, that have the biggest impact on societal, natural and social environment of the whole country. Therefore, in the present the societal pressure on the corporate responsibility of these undertakings is increasing. Their impact is directly connected with the economic, social, and environmental sustainability, thus requires business operation focused on a balanced sustainable growth in all the aspects mentioned above. [15] This requires an active management and integration of stakeholders' interest into the corporate strategy and operations. [13] Stakeholder management is basically a management of relationships. Cooperation leads to the effectiveness of information reported. It may also ignite the need for further training. [8] The European Union gave its clear position towards the support of socially responsible undertakings, among others, in its EU Horizon 2020 programme priorities for 2018-2020, as well as in its specification of cross-sectional priorities – climate action and sustainable development; gender equality and the social sciences and humanities – SSH. [6], [5] Companies operating in the EU should disclose certain information about their finances and how they operate in reports for transparency purposes, partially while using the platform e-Justice portal [10]. EU law requires large companies to disclose certain information on the way they operate and manage social and environmental challenges. This helps investors, consumers, policy makers and other stakeholders to evaluate the non-financial performance of large companies and encourages these companies to develop a responsible approach to business [4].

[341] University of Economics in Bratislava, Faculty of Economic Informatics, Dolnozemská cesta 1, 852 35 Bratislava, Slovakia

Directive 2013/34/EU on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings, amended by Directive 2014/95/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups, amending Directive 2013/34/EU [4], [2], [1], also contributes to the enhancement of control mechanisms of corporate social responsibility.

Associate Professor, Ing. Mgr. ***Renáta Pakšiová****, PhD., works at the Department of Accounting and Auditing of the Faculty of Economic Informatics of the University of Economics in Bratislava. Her research is oriented on the analysis of information provided by accounting, mostly in financial reports, and on the importance of critical analysis of profit creation and quantification for decision-making on its allocation. In the accounting theory, her most investigated topics include sustainability and maintenance of business property of companies for the support of their sustainable development. She focuses on research of reporting of business entities in terms of both, financial and non-financial information in the context of national and international laws. She also concerns with the corporate social responsibility and reporting of information in this area.*

2. THE REQUIREMENTS FOR A DISCLOSURE OF NON-FINANCIAL INFORMATION ACCORDING TO LEGAL REGULATIONS IN SLOVAKIA AND EU DIRECTIVES

The development of a legal framework for reporting of non-financial information in the Slovak Republic as one of the EU Member States should be in line with EU requirements and a legislative framework applicable in the European Union. The purpose of this paper is to identify compliance or non-compliance of the non-financial information disclosure requirements set out in the EU Directives with the legal acts on accounting in the Slovak Republic effective as of January 1, 2018. Topicality of such comparison stems from the fact, that many Slovak undertakings or groups operate in EU countries outside Slovak Republic, or on the contrary, from the capital participation of foreign corporations in Slovak undertakings. [9].

Reporting of financial and non-financial information in Slovakia is set out in the Act No. 431/2002 Coll. on accounting as amended. The third section of the Act on accounting, §20 Annual Report deals with mandatory information it contains and disclosing of information in the Annual Report and other reports due to social responsibility of these accounting units. As of January 1, 2017 all provisions of the Act on accounting dealing with disclosing of non-financial information are effective. In this year it is a highly actual topic, because some of the provisions are being applied in the Annual Report of undertakings and groups for the first time.

Entities required to disclose extended non-financial information

According to the EU legislation and the Act on accounting applicable in the Slovak Republic the reporting of non-financial information is obligatory for some public interest entities [14]. The following Table 1 contains the comparison of their definitions [1], [2], [11], [12].

Directive 2014/95/EU amending directive 2013/34/EU	***Act No. 130/2015 Coll., amending Act No. 431/2002 Coll. on Accounting***
Large undertakings which are public-interest entities exceeding on their balance sheet dates the criterion of the average number of 500 employees during the financial year shall include in the management report a non-financial statement containing information to the extent necessary for an understanding of the undertaking's development, performance, position and impact of its activity, relating to, as a minimum, environmental, social and employee matters, respect for human rights, anti-corruption and bribery matters	A public-interest entity, with the exception of an accounting unit the National Bank of Slovakia with the average calculated number of employees for the accounting period exceeding 500 employees, will also provide in its annual report non-financial information regarding the development, performance, position and effect of the accounting unit activity on the environmental, social and employment issues, information regarding the respecting of human rights and information concerning the fight against bribery and corruption (hereinafter referred to as the "social responsibility area").
'public-interest entities' means undertakings within the scope of Article 1 which are: a) governed by the law of a Member State and whose transferable securities are admitted to trading on a regulated market of any Member State within the meaning of point (14) of Article 4(1) of Directive 2004/39/EC of the European Parliament and of the Council of 21 April 2004 on markets in financial instruments b) credit institutions as defined in point of Article 4 of Directive 2006/48/EC of the European Parliament and of the Council of 14 June 2006 relating to the taking up and pursuit of the business of credit institutions, other than those referred to in Article 2 of that Directive; c) insurance undertakings within the meaning of Article 2 of Council Directive 91/674/EEC of 19 December 1991 on the annual accounts of insurance undertakings, or	a **public interest entity** is considered an accounting unit that has issued securities admitted to trading on a regulated market in any Member State of the European Union ("Member State"), bank, branch of a foreign bank, the Export-Import Bank of the Slovak Republic, insurance company, a branch office of a foreign insurance company, reinsurance company, a branch office of a foreign reinsurance company, health insurance company, asset management company, a branch office of a foreign asset management company, pension asset management company, supplementary pension asset management company, stock exchange, central securities depository, securities trader, payment institution, electronic money institution, collective investment entity, pension fund, a branch office of a foreign financial institution and an accounting unit:
d) designated by Member States as public-interest entities, for instance undertakings that are of significant public relevance because of the nature of their business, their size or the number of their employees;	an accounting entity is a company that has met, in at least two successive accounting periods, no fewer than two of the following requirements: a) its total assets exceeded EUR 170 000 000; while total assets being defined as total assets ascertained from the balance sheet before adjustments, b) its net turnover exceeded EUR 170 000 000,

	c) the average calculated number of employees exceeded 2,000 in a particular accounting period.

Table 1: Entities reporting non-financial information
Source: Own processing according to [1], [2], [11], [12].

For the purposes of the Act on accounting, the net turnover includes revenues from product, goods and service sales after discount deduction. The net turnover also includes other revenues after discount deduction of the same accounting unit the scope of which is to gain other revenues than revenues from product, goods and service sales.

The following Table 2 contains the comparison of the basic provisions on reporting of non-financial information in the Slovak Republic and EU.

Directive 2014/95/EU amending directive 2013/34/EU	***Act No. 130/2015 Coll., amending Act No. 431/2002 Coll. on Accounting***
Report form and information nature	*Report form and information nature*
… shall include in the management report a non-financial statement containing information to the extent necessary for an understanding of the undertaking's development, performance, position and impact of its activity, relating to, as a minimum, environmental, social and employee matters, respect for human rights, anti-corruption and bribery matters, including:	.... will also provide in its annual report non-financial information regarding the development, performance, position and effect of the accounting unit activity on the environmental, social and employment issues, information regarding the respecting of human rights and information concerning the fight against bribery and corruption (hereinafter referred to as the "social responsibility area") whereas it will provide at least.
a) a brief description of the undertaking's business model; b) a description of the policies pursued by the undertaking in relation to those matters, including due diligence processes implemented; c) the outcome of those policies; d) the principal risks related to those matters linked to the undertaking's operations including, where relevant and proportionate, its business relationships, products or services which are likely to cause adverse impacts in those areas, and how the undertaking manages those risks; e) non-financial key performance indicators relevant to the particular business.	a) a brief description of the business model; b) a description and the results of the policy applied by the accounting unit in the social responsibility area; c) a description of the main risks related to the accounting unit impact on the social responsibility area, which ensue from the accounting unit activity that could have adverse consequences, and when appropriate, also a description of the business relations, products or services provided by the accounting unit and a description of the way in which the accounting unit manages the above risks; d) significant non-financial information regarding the accounting unit activity according to the individual activities;
Connection with financial information	*Connection with financial information*
The non-financial statement referred to in the first subparagraph shall also, where appropriate, include references to, and	will provide a reference to the sums shown in the financial statements and an explanation of such sums as regards their impact on the social responsibility area, if appropriate.

additional explanations of, amounts reported in the annual financial statements.	
Reporting frameworks	*Reporting frameworks*
In requiring the disclosure of a non-financial information, Member States shall provide that undertakings may rely on national, Union-based or international frameworks, and if they do so, undertakings shall specify which frameworks they have relied upon.	As regards information provided according this act, a public-interest entity can use the European Union framework or another international framework governing non-financial information as a base if it accurately specifies which framework was used.
Exemptions	*Exemptions*
An undertaking which is a subsidiary undertaking shall be exempted from the obligation set out in paragraph 1 if that undertaking and its subsidiary undertakings are included in the consolidated management report or the separate report of another undertaking, drawn up in accordance with Article 29 and this Article.	A public-interest entity which is a subsidiary accounting unit is not obliged to provide the information according this act, provided that the information about such a subject and its subsidiary accounting units is comprised in the annual report or in a similar report issued by the parent accounting unit.
Completeness of information	*Completeness of information*
Where the undertaking does not pursue policies in relation to one or more of those matters, the non-financial statement shall provide a clear and reasoned explanation for not doing so. Member States may allow information relating to impending developments or matters in the course of negotiation to be omitted in exceptional cases where, in the duly justified opinion of the members of the administrative, management and supervisory bodies, acting within the competences assigned to them by national law and having collective responsibility for that opinion, the disclosure of such information would be seriously prejudicial to the commercial position of the undertaking, provided that such omission does not prevent a fair and balanced understanding of the undertaking's development, performance, position and impact of its activity.	If a public-interest entity does not publish information according this act, in its annual report it will provide the reasons due to which it did not publish such information.
Diversity Policy	*Diversity Policy*
A description of the diversity policy applied in relation to the undertaking's administrative, management and supervisory bodies with regard to aspects such as, for instance, age, gender, or educational and professional backgrounds, the objectives of that diversity policy, how it has been implemented and the results in the reporting	An accounting unit which emitted securities accepted for trading on a regulated market of any Member State will also provide a description of the diversity policy applied in its administrative bodies, governing bodies and supervisory bodies, mainly in relation to the age, sex, education and professional experience of the members of such

period. If no such policy is applied, the statement shall contain an explanation as to why this is the case; Member States may exempt undertakings referred to in paragraph 1 which have only issued securities other than shares admitted to trading on a regulated market within the meaning of point (14) of Article 4(1) of Directive 2004/39/EC from the application of points (a), (b), (e), (f) and (g) of paragraph 1 of this Article, unless such undertakings have issued shares which are traded in a multilateral trading facility within the meaning of point of Article 4 of Directive 2004/39/EC.	organizations, the targets of such policy, the way of its application, and the results attained for the reporting period in its annual report, provided that on the date of the compilation of the financial statements it has fulfilled at least two of the following conditions: a) The overall sum of assets exceeded EUR 20,000,000 while the sum of assets for this purpose means the sum ascertained from the balance in evaluation adjusted by the correction items b) The net turnover exceeded EUR 40,000,000; c) The average recounted number of employees exceeded 250. An accounting unit not providing a description of the diversity policy in its annual report shall specify the reasons due to which it decided not to apply such a diversity policy in its annual report.
Annual Report or non-financial statement	*Annual Report or non-financial statement*
Undertakings fulfilling the obligation set out in paragraph 1 shall be deemed to have fulfilled the obligation relating to the analysis of non-financial information set out in the third subparagraph of Article 19(1). Where an undertaking prepares a separate report corresponding to the same financial year whether or not relying on national, Union-based or international frameworks and covering the information required for the nonfinancial statement as provided for in paragraph 1, Member States may exempt that undertaking from the obligation to prepare the non-financial statement laid down in paragraph 1, provided that such separate report: (a) is published together with the management report in accordance with Article 30; or (b) is made publicly available within a reasonable period of time, not exceeding six months after the balance sheet date, on the undertaking's website, and is referred to in the management report.	By providing the information according to accounting act the accounting unit has fulfilled its obligation to provide non-financial information regarding the impact of the accounting unit activity on the environment and employment.

Table 2: Report form and information nature
Source: Own processing according to [1], [2], [11], [12].

The most of An accounting entity required to have its financial statements audited and a branch of a foreign broker shall be required to issue an annual report. Basic content of the Annual report was already regulated in the separate paragraph of the Act on accounting. Both, current

and past EU Directives do not mention the term “Annual Report”, however in terms of content, the Annual Report is covered by the terms “Management Report” (Table 3).

Directive 2014/95/EU amending directive 2013/34/EU	***Act No. 130/2015 Coll., amending Act No. 431/2002 Coll. on Accounting***
Management Report, non-financial report	*Annual Report*
The management report shall include a fair review of the development and performance of the undertaking's business and of its position, together with a description of the principal risks and uncertainties that it faces. The review shall be a balanced and comprehensive analysis of the development and performance of the undertaking's business and of its position, consistent with the size and complexity of the business. To the extent necessary for an understanding of the undertaking's development, performance or position, the analysis shall include both financial and, where appropriate, non- financial key performance indicators relevant to the particular business, including information relating to environmental and employee matters. In providing the analysis, the management report shall, where appropriate, include references to, and additional explanations of, amounts reported in the annual financial statements. The management report shall also give an indication of: (a) the undertaking's likely future development; (b) activities in the field of research and development; (c) the information concerning acquisitions of own shares prescribed by Article 24(2) of Directive 2012/30/EU; (d) the existence of branches of the undertaking; and (e) in relation to the undertaking's use of financial instruments and where material for the assessment of its assets, liabilities, financial position and profit or loss: (I) the undertaking's financial risk management objectives and policies, including its policy for hedging each major type of forecasted transaction for which hedge accounting is used; and	The annual report shall contain, unless laid down otherwise by a separate regulation, the financial statements for the relevant accounting period, including the auditors´ report thereon and especially information on: (a) the development of the accounting entity, its current position and material risks and uncertainties to which the accounting entity is exposed; such information shall be provided in the form of a balanced and comprehensive analysis of the situation and development forecast and shall contain important financial and non-financial indicators, including information on the impact of the accounting entity's activities on the environment and employment, with a reference to the respective information presented in the financial statements, (b) the events of special importance that occurred after the end of the accounting period for which the annual report is prepared, (c) the expected future development of the accounting entity's activities, (d) the costs associated with research and development activities, (e) the acquisition of the accounting entity's treasury shares, temporary certificates, ownership interests and shares, and temporary certificates and ownership interests of a parent accounting entity, (f) the proposal for the distribution of profits or settlement of losses, (g) the information required by special regulations, and (h) whether the accounting entity has a branch abroad.

(II) the undertaking's exposure to price risk, credit risk, liquidity risk and cash flow risk.	
Audit of non-financial information	*Audit of non-financial information*
Member States may require that the information in the non-financial statement referred to in paragraph 1 or in the separate report referred to in paragraph 4 be verified by an independent assurance services provider. Member States shall ensure that the statutory auditor or audit firm checks whether the non-financial statement referred to in paragraph 1 or the separate report referred to in paragraph 4 has been provided. The statutory auditor or audit firm shall express an opinion in accordance with the second subparagraph of Article 34(1) regarding information prepared under points (c) and (d) of paragraph 1 of this Article and shall check that the information referred to in points (a), (b), (e), (f) and (g) of paragraph 1 of this article has been provided.'; Member States shall ensure that the statutory auditor or audit firm checks whether the consolidated non-financial statement referred to in paragraph 1 or the separate report referred to in paragraph 4 has been provided.	The annual report of the accounting unit according this act must provide a true and fair view and must be verified by an auditor within one year from the termination of the accounting period. The auditor must a) provide its opinion regarding compliance of the annual report with the financial statements, with the exception of the annual report according to a special regulation; b) provide its opinion regarding the information provided in paragraph 6 letter d) and paragraph 7 letters c) to e), g) and h); c) provide its opinion whether the annual report comprises information according to a special regulation; d) provide its opinion whether the annual report comprises information according to this Act; e) specify whether any significant misstatement was found in the annual report based on the findings obtained about the accounting unit and specify the character of each misstatement ascertained

Table 3: Reporting form of non-financial information and its auditing
Source: Own processing according to [1], [2], [11], [12].

Guidance on reporting dealing with non-financial information reporting methodology including non-financial general and sectoral key indicators of behaviour, aimed at facilitinang relevant, useful and comparable non-financial information disclosure for the undertakings had been prepared by the European Commission and was published in the Official Journal of EU on July 5, 2017 as Guidelines on non-financial reporting (methodology for reporting non-financial information). [3]

Despite efforts to globally unify the starting points of non-financial reporting standardisation (e.g. Global Reporting Initiative – GRI), the degree of standardisation and law enforcement remains low and formally insufficient. It still does not have the level of financial information reporting standardisation. However, it can be assumed these issues will remain a priority in the upcoming period in the Slovak Republic and EU. Indeed, business entities endorsing socially responsible business cannot be only a marketing tool of the undertaking, but a primary philosophy of making business. No regulations regarding implementation or reporting and disclosing of activities in line with the principles of sustainability can replace a subjective attitude of an entrepreneur towards making business, profit and future.

3. CONCLUSION

Realising the limitations of non-renewable natural and social resources [7] makes the non-financial situation of an entrepreneur as important for the society as their financial situation. Deeply rooted society-wide attitude to the business entity, initially established for the purpose of making profit, is being re-evaluated. Interested parties are no longer interested only in the present financial situation of the undertaking, but also in its overall picture in all available aspects of evaluation within the societal environment of its operation in the context of long-term sustainability. Thus, setting up the standardised ways of reporting financial and non-financial information remains an important topic not only in the present, but also in the future.

In the present there are many international frameworks regulating disclosing of non-financial information, however they are all based on optionality, such as GRI Global Reporting Initiative, EMAS (Eco-Management and Audit Scheme); Global Compact UN initiative, main principles for entrepreneurship and human rights for implementing UN framework *„protect, respect and remedy"*; OECD Guideline for transnational corporations; ISO Standard 26000; ILO trilateral statement on the principles for transnational corporations and social policy.

Legal provisions of EU countries included a full-scale non-financial information reporting provisions only when required by Directive 2013/34/EU as amended by Directive 2014/95/EU *amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups*.

Based on the comparison of EU Directives on disclosure of non-financial information requirements with the Slovak Republic Acts on the same matter it can be noted that all the requirements have been applied to the extent of alternatives offered in the Directives. Non-financial information reporting is required in the Slovak Republic as legally based on the Act on accounting for the Annual Reports of the public interest entities, however separate non-financial statement is not required. According to EU, large public interest entities (quoted companies, banks, insurance companies and other companies, specified as such in EU Member States) with more than 500 employees should disclose relevant and useful information on its operations, policies, as well as main risks and results, at least regarding the environment, social and employment aspects, respecting of human rights, anti-corruption and bribery issues and diversity in its Board of Directors. Slovak Republic used one of the possibilities given in the Directive and set out size criteria for trade companies considered public interest entities. In the Slovak Republic criteria for public interest entities, with the exception of security papers issuers and financial institutions, are set out on a very high level, i.e. on total property value and net turnover up to EUR 170,000,000 and on an average calculated employee number in a single accounting period up to 2,000, with the fulfilment of at least two criteria required during two consecutive periods. This leads to the conclusion that given the size of undertakings operating in the Slovak Republic, the number of undertakings fulfilling the criteria will only be approximately a few tens.

Acknowledgments

This article is an output of the project of the Scientific Grant Agency of the Ministry of Culture of the Slovak Republic and Slovak Academy of Sciences (VEGA) no. 1/0512/16 (2016-2018) "*Retention and Development of Business Property of Company as a Relevant Tool for Sustainable Development*".

REFERENCES

[1] Eur-lex. (2013) *Directive 2013/34/EU* [online]. [cit. 2017-08-25]. Available at: http://eur-lex.europa.eu/legal-content/CS/TXT/PDF/?uri=CELEX:32013L0034&from=EN

[2] Eur-lex. (2014) *Directive 2014/95/EU* [online]. [cit.2017-10-25]. Available at: http://eur-lex.europa.eu/legal-content/SK/TXT/PDF/?uri=CELEX:32014L0095&from=EN

[3] Europa, EU. (2017) *Communication from the Commission — Guidelines on non-financial reporting (methodology for reporting non-financial information) C/2017/4234* [online]. [cit. 2018-06-21]. Available at: https://publications.europa.eu/en/publication-detail/-/publication/845ab879-6182-11e7-9dbe-01aa75ed71a1

[4] European Commission. (2018) *Non-financial reporting*. [online]. [cit. 2018-06-21]. Available at: https://ec.europa.eu/info/business-economy-euro/company-reporting-and-auditing/company-reporting/non-financial-reporting_en

[5] European Commission. (2018) *Europe 2020 strategy* [online]. [cit. 2018-06-21]. Available at: https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/eu-economic-governance-monitoring-prevention-correction/european-semester/framework/europe-2020-strategy_en

[6] European Commission. (2018) *The European Commission's priorities* [online]. [cit. 2018-02-16]. Available at: https://ec.europa.eu/commission/index_en

[7] European Commission. (2018) *Green Economy* [online]. [cit. 2018-06-21]. Available at: https://ec.europa.eu/info/sites/info/files/european-semester_thematic-factsheet_resource-efficiency_en_0.pdf

[8] Friedman, A., Miles, S. (2002). *Developing stakeholder theory, Journal of management studies*, vol. 39, iss. 1, pp. 1-21.

[9] Lovciová, K. (2017) Particular features of the consolidated annual report. In *Účtovníctvo a audítorstvo v procese svetovej harmonizácie*, UNIZA, Bratislava, Ekonóm, pp. 113-117.

[10] MacGregor Pelikánová, R., MacGregor, R. (2017). *European e-Justice Portal – Reality of Electronic One-Stop-Shop for Publication of Financial Statements in the EU, 5th International Scientific Conference on IFRS - Global Rules and Local Use* Location: Anglo Amer Univ, Prague, pp. 98-111.

[11] MF SR. (2018) *MF SR Acts 2015. Act No. 130/2015 Coll., amending and supplementing Act No. 431/2002 Coll. on Accounting.* [online]. [cit. 2018-02-25]. Available at: http://www.mfsr.sk/en/Components/CategoryDocuments/s_LoadDocument.aspx?categoryId=482&documentId=691.

[12] MF SR. (2018) *Act No. 431/2002 Coll. as amended*. [online]. [cit. 2018-06-21]. Available at: http://www.finance.gov.sk/en/Default.aspx?CatID=438

[13] Moratis, L., Brandt, S. (2017). *Corporate stakeholder responsiveness? Exploring the state and quality of GRI-based stakeholder engagement dislosures of European firms.*, Corporate Social Responsibility and Environmental Management. vol. 24, iss. 4, pp. 312-325. [online] [cit. 2018-02-22]. Available at: https://doi.org/10.1002/csr.1408

[14] Ondrušová, L., Kňažková, V. (2017). *Subjekty verejného záujmu v kontexte právnej úpravy účtovníctva*, Ekonomika a informatika: vedecký časopis FHI EU v Bratislave a SSHI, Ekonomická univerzita v Bratislave, roč. 15, č. 2, pp 81-90 [online]. [cit. 2018-06-21]. Available at: file:///C:/Users/Paksiova/Downloads/109-438-1-PB.pdf

[15] Pakšiová, R., Lovciová, K. Orisková, D., (2017). *Vykazovanie udržateľného rozvoja podniku v Slovenskej republike v nadväznosti na transpozíciu Smernice EPaR 2013/34/EÚ, Marketing manažment, obchod, finančné a sociálne aspekty podnikania. Medzinárodná vedecká konferencia*. Ekonóm, Bratislava.

CRIMINAL OFFENSES AGAINST SECURITY OF COMPUTER DATA IN THE REPUBLIC OF SRPSKA ACCORDING TO THE CRIMINAL LAW OF 2017

Miodrag N. Simović[342]
Dragan Jovašević[343]
Vladimir M. Simović[344]

DOI: https://doi.org/10.31410/eraz.2018.746

Abstract: *In 2003, new criminal legislation came into force in Bosnia and Herzegovina. It is established on the basis of international standards, legal traditions, domestic and foreign legal theories and court practices, but also according to the needs of criminal policy. Of the four criminal laws (Bosnia and Herzegovina, the Federation of BiH, the Brčko District of Bosnia and Herzegovina and the Republic of Srpska) with numerous novelties, in 2017, the Republic of Srpska passed a completely new Criminal Code. This Code, starting with international obligations, in the first place the Convention on Cybercrime (Budapest) (2003), establishes a system of criminal offenses against the security of computer data, with a system of criminal responsibility and sanctions for natural and legal parties as well as the perpetrators of these criminal offenses. The concept, elements, characteristics and forms of computer crimes in the new legislation of the Republic of Srpska are discussed in this paper.*

Key words: *computer, abuse, criminal offense, responsibility, punishment, Republic of Srpska*.

1. Introduction

Chapter XXXII of the Criminal Code of the Republic of Srpska[345] under title „Criminal offences against security of computer data“ stipulates several criminal offences of this kind called computer, information or high-tech criminal offences.

Object of protection of these crimes is security of computer (information) data and systems, that is of computer network (Jovašević, Ikanović, 2012: 185-194). Today, it is common that the concept of computer crime includes these criminal offences. Aside from that, these criminal offences may also be called hi-tech crimes. This concept understands commission of criminal offences which have computers, computer networks, computer data, computer systems, and their products in material or electronic form, as objects or means of commission of criminal offences. This is a crime which very quickly and easily changes its shapes and forms of expression, boundaries between the states, and the type of damaged person (Jovašević, Mitrović, Ikanović, 2018: 722-733).

[342] Judge of the Constitutional Court of Bosnia and Herzegovina, Full Professor of the Faculty of Law of Banja Luka, Corresponding Member of the Academy of Sciences and Art of Bosnia and Herzegovina, Foreign Member of the Russian Academy of Natural Sciences and Active Member of the European Academy of Sciences and Arts, Bosnia and Herzegovina
[343] Full Professor of the Faculty of Law, Niš, *Serbia*
[344] Prosecutor of the Prosecutor's Office of Bosnia and Herzegovina and Associate Professor at the Faculty of Security and Protection Independent University in Banja Luka and Faculty of Law University „Vitez“ Vitez, Bosnia and Herzegovina
[345] „Službeni glasnik Republike Srpske“ broj 64/2017.

2. Damaging computer data and programmes

This is the first computer crime stipulated under Article 407 of the Criminal Code. It consists of unauthorized deletion, alteration, damage, concealement or otherwise making unusable a computer data or programme (Petrović, Jovašević, 2005: 278-285).

Object of protection is security of computer data or computer programme, and object of attack is: a) computer data or b) computer programme.

Execution has multiple alternative determinations.

The perpetrator of the crime may be any person, and the guilt requires intent.

A fine or sentence of imprisonment from six months to one year is prescribed for this crime. The perpetrator shall be obligatory imposed a security measure of seizure of equipment and devices used for commission of the criminal offence.

The first aggravated form of this crime, for which a sentence of six months to three years of imprisonment is prescribed, exists if the action taken in the execution of the crime caused damage amounting to over KM 10,000. The second aggravated form of this crime, for which a sentence of one to five years of imprisonment is prescribed, exists if the action taken in the execution of the crime caused material damage to another natural or legal person, amounting over KM 50,000 which amount is established according to market conditions are a time of commission of the criminal offence in question.

3. Computer sabotage

This crime is stipulated under Article 408 of the Criminal Code. It is committed by whoever enters, destroys, deletes, alters, damages, conceals or otherwise makes unusable computer data or programme or damages or destroys a computer or other device for electronic processing and transfer of data, with intent to prevent or considerably disrupt the procedure of electronic processing and transfer of data important for republic authorities, public services, institutions, economic enterprises or other entities (Petrović, Jovašević, Ferhatović, 2016: 428-438).

The action of execution is alternatively determined (Turković *et al*., 2013: 341-347).

Capacity of damaged person constitutes an element of criminal offence (Đorđević, 2011: 177-182). It is required that a perpetrator, at a time of taking the action, has certain intention – to prevent (completely and permanently) or considerably disrupt (makes it more difficult) the procedure of electronic processing and transfer of data. It is not significant whether this intention in the specific case has been achieved, but that it exists at a time the perpetrator is taking the action of execution.

A sentence of imprisonment for a term of six months to five years is prescribed for this offence.

4. Generating and introducing computer viruses

This crime is stipulated under Article 409 of the Criminal Code and consists of generating a computer viruse with intention of its introduction into somebody else's computer, computer or telecommunication network (Babić, Marković, 2007: 206-207).

This crime is executed when generating – making previously non-existing computer virus which is capable, sufficient or which may cause certain changes or damages in use and usability of computers, computer or telecommunication network in its entirety or part of it (Pavišić, Grozdanić, Veić, 2007: 554-562). It is importatnt that the execution of this crime is taken with intention (as subjective element) – intention to introduce such generated computer virus into somebody else's computer, computer or telecommunication network. The perpetrator has to have the intention at a time the action was taken, notwithstanding whether the intention has been achieved in the specific case.

Perpetrator of the crime may be any person. As to the guilt a direct intent characterized by mentioned intention is necessary.

A fine or sentence of imprisonment for a term of up to six months is prescribed. In addition to the sentence, the perpetrator is obligatory imposed a security measure of seizure of equipment or device used to commit the crime.

More aggravated form of this crime, for which a fine or sentence of imprisonment for a term of two years is prescribed, exists if a computer virus is introduced, indirectly or directly, into somebody else's computer or computer network, which, thereby causes damage (material or non-material). Accordingly, the consequence of a criminal offence appears in form of violation – damage caused to another natural or legal person, and even the whole state.

5. Computer fraud

This crime is stipulated under Article 410 of the Criminal Code. It consists of entering incorrect data, failure to enter correct data or otherwise concealing or falsely representing data, thereby affecting the results of electronic processing and transfer of data with intent to acquire for himself or another person unlawful material gain and thus causing material damage to another person (Mrvić Petrović, 2005: 321-325).

Object of protection is security of computer systems from entering incorrect and false data and trust in those systems (Đorđević, Đorđević, 2016: 191-194).

Perpetrator of the crime may be any person, and as to the guilt a direct intent characterized by mentioned intention is necessary. A fine or sentence of imprisonment for a term of up to three years is prescribed for this crime.

Less aggravated form of crime, for which a fine or sentence of imprisonment for a term of up to six months is prescribed, exists when a perpetrator committed a crime – concealing or false presentation of data in the computer or computer network in a legally prescribed manner with intention to cause damage to another person, that is to cause damage to another natural or legal person (Lazarević, Vučković, Vučković, 2004: 816-824). Malicious intention of the perpetrator to cause material or non-material damage to another person is a privileged circumstance.

The first more aggravated form, for which a sentence of imprisonment for a term of one to eight years is prescribed, exists when material gain (for perpetrator or another person) is acquired by action taken to commit a crime in the amount of over BAM 10,000. The amount of acquired material gain is a qualifying circumstance. It has to be in cause-and-effect connection with action taken to commit a crime.

The second form of more aggravated crime, for which a sentence of imprisonment for a term of two to ten years is prescribed, exists if a perpetrator acquired illegal material gain by action taken to commit a crime in the amount over BAM 30,000.

6. Unauthorized access to protected computers, computer networks, telecommunication network and electronic data processing

The criminal offence set out in Article 411 of the Criminal Code consists of access to a computer or computer network without authorization, or access to electronic data processing without authorization by breaching of protection measures, or in making, obtaining, sale or giving for use the instructions or means intended to enter into a computer system (Selinšek, 2007: 424-427).

Object of protection is security of a computer or computer network, or system of electronic data processing protected by a special technical and other protection measures (Simić, Trešnjev, 2010: 210-214).

Perpetrator of the crime may be any person having specific knowledge in the field of protection of computers or computer systems. As to the guilt a direct intent is necessary.

A fine or a sentence of imprisonment for a term of up to six months is prescribed for this crime.

The first more aggravated form of this crime, for which a fine or a sentence of imprisonment for a term of up to two years is prescribed, exists in case of recording or use of a computer data, obtained by accessing somebody else's computer or computer network, or somebody else's system of electronic data processing without authorization, given that it was done by breaching of protection measures. The second more aggravated form of this crime, for which a sentence of imprisonment for a term of up to three years is prescribed, exists if a accessing to somebody else's computer or computer network, or somebody else's system of electronic data processing without authorization by breaching protection measures: a) result in breach – suspension (disabling) or considerately disruption (making more difficult) the functioning of electronic processing and transfer of data or network, and b) results in other serious consequences. These consequences are a result of negligence of a perpetrator and are in cause-and-effect connection with taken action to commit a crime.

7. Preventing or restricting access to public computer network

This crime is stipulated under Article 412 of the Criminal Code. Object of protection is public computer network and free access to it by individually undefined number of persons. Motive of this incrimination is prevention of monopoly for using of public computer network (Petrović, Jovašević, Ferhatović, 2016: 428-437).

It is important that this action, in any of mentioned forms, is taken without authorization (by unauthorized person, without complying with requirements and assumptions and out of the proceedings prescribed under the law or other provisions regulating this field) in relation to public computer network (Jovašević, Ikanović, 2012: 185-197).

Perpetrator of the crime may be any person, and as to the guilt, a direct intent is necessary.

A fine or sentence of imprisonment for a term of up to one year is prescribed for this crime.

More aggravated form of this crime, for which a sentence of imprisonment for a term of up to three years is prescribed, exists if the crime is committed by: a) a particular person - an official, and b) in a specific manner - in discharge of his or her duty. Capacity of a perpetrator and manner of its commission constitute qualifying circumstances.

8. Unauthorized use of computer or computer network

This crime is stipulated under Article 413 of the Criminal Code. The crime consists of use of a computer services or computer networks without authorization and with intent to acquire unlawful material gain for himself or another person (Jovašević, Mitrović, Ikanović, 2017: 357-367).

Object of protection is legality and conscientiousness in use of computer system – services or network from all forms of abuse and negligence.

A perpetrator of crime may be any person, and as to the guilt a direct intent characterized by mentioned intention is necessary.

A fine or sentence of imprisonment for a term of up to six months is prescribed for this crime. Prosecution for this crime is conducted upon a proposal.

9. Conclusion

The Criminal Code recognizes several criminal offences, established on the basis of obligations Bosnia and Herzegovina undertook by signing and ratifying of Budapest Convention on Computer Crime. These are criminal offences against safety of computer data, and the title itself of Head XXXII of the Code points out to the object of protection of these criminal offences. As objects of attack various legal goods appear, as well as the commission consists of various actions. Any person may appear as a perpetrator of these crimes, but in the practice these are persons having specific, special knowledge in computers or field of information technologies. These criminal offences, as a rule, are committed with intent, and in some cases, they are expressed as direct intent – due to existence of a certain intention (greedy or malicious) of the perpetrator at a time the crime was committed.

LITERATURE

Babić, M., Marković, I. (2007) *Krivično pravo, Posebni dio*, Banja Luka, str.206-207.
Đorđević, Đ. (2011) *Krivično pravo, Posebni deo*, Beograd, str. 177-182.
Đorđević, M., Đorđević, Đ. (2016) *Krivično pravo*, Beograd, str.191-194.
Jovašević, D. (2003) *Krivični zakon Republike Srbije sa sudskom praksom*, Beograd, str.351-361.
Jovašević, D. (2011) *Leksikon krivičnog prava*, Beograd, str. 419-421.
Jovašević, D. (2017) *Krivično pravo, Posebni deo*, Beograd, str.211-216.
Jovašević, D., Ikanović, V. (2012) *Krivično pravo Republike Srpske, Posebni deo*, Banja Luka, str. 185-194.
Jovašević, D., Mitrović, LJ., Ikanović, V. (2017) *Krivično pravo Republike Srpske, Posebni dio*, Banja Luka, str. 357-367.
Jovašević, D., Mitrović, LJ., Ikanović, V. (2018) *Komentar Krivičnog zakonika Republike Srpske*, Banja Luka, str. 722-733.
Kokolj, M., Jovašević, D. (2011) *Krivično pravo Republike Srpske, Opšti i posebni deo,*

Bijeljina, 357-369.
Lazarević, LJ., Vučković, B., Vučković, V. (2004) *Komentar Krivičnog zakonika Crne Gore*, Cetinje, str. 816-824.
Mrvić Petrović, N. (2005) *Krivično pravo*, Beograd, str. 321-325.
Pavišić, B., Grozdanić, V., Veić, P. (2007) *Komentar Kaznenog zakona*, Zagreb, str. 554-562.
Petrović, B., Jovašević, D. (2005) *Krivično pravo 2, Posebni dio.* Sarajevo, str. 278-285.
Petrović, B., Jovašević, D., Ferhatović, A. (2016) *Krivično pravo 2*, Sarajevo, str. 428-438.
Selinšek, LJ. (2007) *Kazensko pravo, Splošni del in osnove psoebnega dela*, Ljubljana, str. 424-427.
Simić, I., Trešnjev, A. (2010) *Krivični zakonik sa kraćim komentarom*, Beograd, str. 210-214.
Turković, K. *et al.* (2013) *Komentar Kaznenog zakona*, Zagreb, str. 341-347.

LEGAL FRAMEWORK FOR RESISTANCE OF SPORTS FAN VIOLENCE (FOOTBALL) - EVENTS IN MONTENEGRO

Željko Spalević[346]
Ljubiša Konatar[347]
Žaklina Spalević[348]

DOI: https://doi.org/10.31410/eraz.2018.752

Abstract: *In this paper we devoted special attention to the analysis of legal frameworks in order to prevent and combat violence and hooliganism at football events. Montenegro has recognized the phenomenon of violence and hooliganism at football events that pose a serious social problem. The competent entities, by establishing preventive mechanisms, try to reach the level of the countries of the European Union in this field. The legal and normative regulation of the suppression of fan violence, with the adoption of appropriate laws and regulations, on the basis of which the responsible actors would take adequate measures, is a challenge that awaits the willingness of everyone to accept and implement it. The aim of the paper is to point out the implementation of the legal framework, which primarily depends on the institutions of the system, as well as omissions which exist in combating violence in sports in Montenegro, especially violence in football matches. In this paper, the authors try to point out the importance of continuous analysis of current and proposed legal solutions and estimates the degree of their operational usefulness, taking into account the complexity of security challenges that accompany violence at football events. It was intended to show through past events, on the basis of events, the consequences that sports events and football can play as the most widespread form of sport. Finally, the importance of proactive approach in establishing a legal framework, protective functions and prevention in order to protect the safety of citizens as a vital value of society is emphasized.*

Key words: *sports, violence in sports, football, safety, prevention.*

1. INTRODUCTION

Sports and sports events[349] have taken a place in modern man's culture, however, violence that follows it becomes a planetary problem, and is most prominent in those manifestations that are in emotional focus and where a large number of viewers are gathered. Although the latest statistical indicators point to positive tendencies related to the safety of football events, we must point out that Montenegro, according to the parameters, expresses a serious intention to improve modern legal and institutional mechanisms in order to effectively counter this complex social problem.

In today's time, the most numerous and most popular sporting events are football matches. Football stadiums and football are the subject of special attention of spectators, but if we look

[346] Assistant Professor, University of Donja Gorica, Montenegro
[347] MSc Terrorism, Organized Crime and Security, Montenegro
[348]Assistant Professor, University Singidunum, Serbia
[349] Sports events are organized sports meetings and competitions that have an important sociological role in people. According to the positive Law on the Prevention of Violence and Misbehavior at Sports Events, Article 5 - Sports Event is a sports event (festival, meeting, sightseeing, games, etc.) and sports competition.

at the past, sporting fights have attracted human attention since ancient times, so violence on sports grounds is not a new phenomenon. More recently, due to changed social circumstances, the behavior of fans has changed considerably so that the spread of positive energy and the support of the club at the sports event do not fall prey to the priority of the fan groups. Thus, at sports courts, messages of religious, national, social or political content can often be heard, which are not the reasons for holding these events. However, the situation points to a visible identity crisis, especially among young people. Therefore, even if the primary role of sports events is recreation and entertainment, they were still subject to political abuse, mainly as a rule through the popularization of parties and politicians in power. Finally, this problem cannot be completely solved but can be reduced to a socially acceptable level, which is the aim of applying repressive and preventive measures and coordinated action of legislative, executive and judicial authorities.

Regarding the role of the police in the prevention and suppression of violence at sports events, it can be seen in the context of the ambivalent and delicate role of the police to respect and protect, in accordance with the law, and to limit the rights of people to freedom of assembly.[350] Police activities related to the maintenance of public order and peace and ensuring public gathering of citizens are of high security risk. Sports events today are used as a means of political manipulation by events from 14.10.2014. at a soccer match between the Serbian and Albanian national team, played in Belgrade, and which was interrupted by the incident caused by the Albanian side at 41 minutes. On that day, at the Partizan stadium, a drone-driven remote-controlled flight with flags and symbols clean "big Albania".[351] This is a typical example of the abuse of a sports event in order to send political messages and transfer political tensions between the two countries to sport. Therefore, fans during their stay at sports events act with the goal of presenting the group, neglecting the team they are cheering for, thus losing the atmosphere of fan-based enjoyment and support to their own club.

2. ASPECTS AND ASSUMPTION OF VIOLENCE IN SPORTS EVENTS

The most common victims of violence at football events are the villains themselves, then the authorities and ultimately the citizens. This area of violence has not been sufficiently explored in Montenegro, and a detailed analysis of the records maintained by the official control authorities would be of great importance for gaining knowledge of the scale and characteristics of this phenomenon. For the purpose of objective consideration of the developmental and consequential dimensions, the following is a review of the historical dimension of this phenomenon.

Violence at sports events has been recorded even in texts from the period of ancient Greece and the Roman Empire. In the book King Sport, published in 1981 in a chapter devoted to the violent behavior of fans, Dezomond Moris cited an example of old Rome that happened many incidents during a raid of chariots between big fan groups split into "green" and "blue". The worst incident occurred in the year 512, when a massive raid took place that took several days and took over 30,000 lives.[352]

As a relevant and serious example of the beginning of violence in football matches, an example is taken from July 16, 1916. year in Buenos Aires - Argentina, before the match of the South

[350] Milidragović, D., Milić, N., Direct threat to life as a special condition for the use of firearms, Safety, Volume 53, No.2, 2011, p.198.
[351] Otašević, B, Violence at sports events, Official Gazette, Belgrade, 2015, p. 91.
[352] Same p.13

African championship Agrentina - Uruguay between the fans and the police. The match was delayed because 40,000 fans entered the stadium with a capacity of 20,000 seats[353]. As a special example of football fan clashes, an example from June 1969 for the 1970 World Cup qualifiers in Mexico between the Salvador and Honduras teams, where in three matches, more fans were killed and more than a dozen were injured. As a result, this game with all the unpleasant events soon caused the so-called Football or 100 Hour War.

In modern Europe, events with tragic consequences were taking place. A drastic example is the event of May 28, 1985. year-old from Brussels from the Heysel stadium when Juventus and Liverpool fans clashed at the European Cup championship match. On that occasion, 39 Juventus fans were killed and hundreds were injured.

In Montenegro, first violence was registered in 1984 when a group of unknown football strikers in the tunnel of the football club Buducnost in Podgorica, on their way to the dressing room, beat Judge Dobrivoje Sreckovic, dissatisfied with his trial at the Buducnost - Hajduk match.[354]

The aim of the attack or dissatisfaction of the Montenegrin fans are often aimed members of the police, who often register conflicts. Such an event occurred in Podgorica on 09.05.2012. year after the football match Buducnost - Petrovac when there was a violation of public order and peace on a larger scale, in which there was a conflict between fans of the football club Buducnost and the police. On that occasion, dozens of supporters and police officers were injured, with more material damage to citizens' property.

The frequent target of the attack is the opposing sports team, so before the football match for the European League match between Buducnost and Genoa in Podgorica on July 21, 2016, there was a conflict between the fans of these two clubs where there were injuries of several faces and material damage to property of citizens.

Ljubisa Konatar

He is currently a PhD student and senior assistant at the University of Modern Sciences CKM Mostar, security studies (criminal-police course). He completed post-graduate master studies in Terrorism, organized crime and security at the University of Belgrade, specialized studies in Terrorism and organized crime at the Faculty of Political Sciences of the University of Belgrade and basic studies, area of business and civil security at the Faculty of Business Management in Bar.

In the period from 1996-2010, he performed various managerial duties in police units of the Ministry of Interior of Montenegro. Now he is on duty as a manager of services in the field of corporate security at the company "13 Jul Plantaže" a.d. Podgorica.

Scientific and expert papers:

1. Željko Spalević, Žaklina Spalević, Ljubiša Konatar, Education of security officers and detectives, International Scientific Conference EMAN, Ljubljana, 2018.

2. Kemal Brkic, Ljubisa Konatar, Sandi Dizdarevic, Intelligence Services in the Fight Against Terrorism, VI International Scientific Meeting, European University Kallos Tuzla, Brcko, 2018.

In addition to the above, several more works are under preparation. He is a participant in several scientific and professional conferences and gatherings in the country and abroad.

When there is a focus on watching violence at sporting events of the national football team,

[353] Same p.14

[354] http://www.monitor.co.me/index.php?option=com_content&view=article&id=5914:navijai-vlast-huligani-kako-smo-postali-varvari&catid=4086:broj-1276&Itemid=5377, Accessed 27.07.2017.

there are no exceptions. Especially the responsibility of the host and club associations for the order and safety is foreseen before, during and after the end of the football game. In combating violence and violent behavior in football matches of particular importance are: Disciplinary Regulations, the Association of European Football Associations (UEFA) and the International Federation of Football Associations (FIFA).

An interesting example is the football match that took place in Podgorica on March 27, 2015 in qualifying for the European Championship, between Montenegro and Russia. The match was interrupted for throwing objects into the field, injuring Russian players and a two-side fan clash. Due to this and similar behavior of the fans, the Football Association of Montenegro paid more than 120 thousand Euros fines in the matches for the EURO 2012 and the 2014 World Cup.[355] " Unsportional behavior continued in 2017 during the qualifications for the World Championship in Russia in 2018 when the FIFA Disciplinary Commission fined FS Montenegro for "unsportsmanlike and discriminatory behavior of fans" and for the use of pyrotechnics in matches with Poland, Romania and Denmark [356] These were just some examples of football violence in Montenegro, but it should be emphasized that there are no specific methodologies for recording and monitoring violence at football events, which leads to the conclusion that violence and misconduct are much more present than indicated by the data.

3. LEGAL FRAMEWORK FOR PREVENTING VIOLENCE TO SPORTS

In order to reduce violence at football events, a large number of European countries, through various preventive programs, undertake a variety of multisystem approaches to preventive action on factors that generate violence. Thus, after the events at the Heisel Stadium in Belgium in 1985, the Council of Europe in Strasbourg passed the European Convention on the Violence and Misbehavior of Viewers at Sports Events, especially in football matches.[357] This convention[358] has been ratified in our country, so Member States have an obligation to prosecute appropriate criminal offenses and offenses in this field. In the mentioned convention, it is especially pointed to the need to establish a special body where possible, which will coordinate the policies and activities of ministries and public services that will act to prevent violence.[359] Thus, this Convention is considered an international source of criminal law in the field of sports and is responsible for creating mechanisms for criminal legal protection of sports and sports events. Many authors have written about this convention, and due to the rationality of space in this paper, we will not be considered. At the state level, a precise normative framework of regulations was established in Montenegro that regulates and criminalizes prohibited behavior at sports events. The entities that are obliged to create and develop a strategy to combat this complex phenomenon are the ministry responsible for sport, internal affairs, justice, public administration, labor, employment and social policy and education, judicial authorities, sports organizations, local self-governments as well as other social subjects.

---

355 http://www.monitor.co.me/index.php?option=com_content&view=article&id=5914:navijai-vlast-huligani-kako-smo-postali-varvari&catid=4086:broj-1276&Itemid=5377, Accessed 27.07.2017.

356 http://kodex.me/clanak/141390/fifa-kaznila-fudbalski-savez-crne-gore-moraju-da-plate-15-000-franaka, Accessed 03.08.2018 and i https://fosmedia.me/sport/fudbal/fsof Montenegro-kaznjen-sa-39000-eura, Accessed 03.08.2018

357 On 19 August 1985, the Council of Europe adopted a convention in Strasbourg that represented the reaction of European states to the tragedy that took place at the Belgian stadium Heisel.

358 Law on Ratification of the European Convention on Violence and Misbehavior of Viewers at Sports Events, Especially in Football Matches ("Official Gazette of SFRY" International Agreements, No. 9/1990).

359 Spread in: Šuput, D., "The legal framework that regulates the fight against violence at sporting events in European countries", Foreign Legal Life, Volume 54, No.1, 2010, p. 238.

When it comes to international sporting events, then we must especially emphasize the need to encourage international police cooperation.[360] More precisely, international police cooperation is of particular importance in ensuring full security of international sports events, where the leading role belongs to the preventive and repressive activities of the host country's police forces. As a preventive activity before the sporting event, the key moment is the collection of data in order to develop a security assessment and analysis of domestic and foreign fan groups. From the examples presented so far, it is indisputable that violence at sporting events is a complex security phenomenon. Independent repressive measures of various subjects often do not give the expected results, but in cooperation with legal measures can significantly improve safety on sports grounds.

By adopting laws that directly or indirectly regulate the field of safety in sport, conditions have been created to approach more effectively the fight against violence at sports events. These are primarily the Law on Sports, the Law on Internal Affairs, the Law on Public Order and Peace, the Law on Public Gatherings, the Law on the Prevention of Violence and Misbehavior at Sports Events, the Law on Protection and Rescue, the Law on Protection of Persons and Property, The Law on Misdemeanors and the Criminal Code on which the following will be more word.

The Constitution of Montenegro[361] is the highest legal act in the country that regulates all important social and legal issues. In the field of combating violence and misbehavior at sports events, the most important provision of Article 52, which guarantees the freedom of peaceful assembly, without authorization, with prior notification to the competent authority. Freedom of assembly may be temporarily restricted by a decision of a competent authority to prevent disorder or committing a criminal offense, endangering health, morals, or for the safety of people and property. In addition, Article 55 of the Constitution prohibits the activities of political and other organizations that are aimed at violating guaranteed freedoms and rights or provoking national, racial, religious and other hatred and intolerance.

The Law on Sports[362] stipulates that sport is organized physical or other activity, that is, activity performed according to established rules for the preservation, improvement and development of psycho-physical abilities and sports knowledge, satisfying the needs for movement and play, sports expression and creativity and achieving sports results at all levels (Article 1 of the Law). The law specifically defines provisions and principles related to sports and the functioning of sports entities. Regarding the field of combating violence and misbehavior at sporting events in this law, the provisions that regulate general and special sports rules are of special importance.[363] Sport represents an activity of public interest that involves participating in sports competitions and organizing sports events. The establishment of sports activities provides conditions for performing sports competitions and sports events.

The Law on Internal Affairs[364] stipulates that internal affairs are such tasks that the protection of the safety and property of citizens, as well as other jobs that realize the rights and freedoms

[360] The Treaty of Lisbon (2009) on the functioning of the European Union includes the title: Space of Freedom, Security and Justice. which, among other chapters, includes a chapter - Police Cooperation.
[361] Constitution of Montenegro, Official Gazette of Montenegro, No. 1/2007.
[362] Law on Sports, Official Gazette of Montenegro, No. 36/11 and 36/13.
[363] Sports subjects are obliged to respect and apply the sporting rules of national and international sports federations, COK and the International Olympic Committee. Sports activities and activities are regulated by the sports rules adopted by the National Sports Federation or Sport Organization, Article 8 of the Law on Sports of Montenegro.
[364] Law on Internal Affairs, Official Gazette of Montenegro, No. 39/13.

of citizens, are realized. One of the internal affairs is also police affairs performed by the police, and part of the police affairs are:[365] protection of citizens' safety and the constitutionally established freedoms and rights, protection of property, prevention of the commission and detection of criminal offenses and offenses, finding of perpetrators of criminal offenses and violations and their bringing to the competent authorities, maintenance of public order and peace, ensuring public gathering of citizens of high security risk.

The subject of the Law on Public Order and Peace[366] includes offenses that threaten and disturb public order and peace. Normally violations are found that violate public order and peace in a public place and prescribe penalties and protective measures for these offenses. Public order and peace (Article 2) represents a harmonized state of mutual relations between citizens, created by their behavior in a public place and by the actions of bodies and organizations that exercise public authority in order to secure the public conditions for the realization of the Constitution of protected rights and freedoms. This law has envisaged a whole range of offenses in which the zone of prohibited conduct is regulated in order to protect against violation of public order and peace and prescribe penalties and protective measures for these violations. Particular emphasis should be placed here on offenses that directly or indirectly regulate violence in sports events that disturb peace, cause anxiety or endanger general security.

According to the Law on Public Gatherings and Public Events,[367] a public event is a gathering organized for the purpose of realizing a future economic activity and for which special security measures are required (Article 4). The organizer ensures order and peace at a public event through the manager of the public event. In order to maintain a public event and to maintain law and order, emergency assistance and fire brigade are engaged and a regular service is organized or a registered company for security services is engaged (agency for physical security). For this purpose, the organizer may also hire the police, but he will bear the costs according to the previously signed contract with the police. On the other hand, the Police may limit the holding of a public event due to the violation of human rights and freedoms, the protection of persons and property, violation of public order and peace, Public events include popular events of a sporting character, or sports events that sometimes happen and have no events.

The Law on the Prevention of Violence and Misbehavior at Sports Events[368] is an attempt by the state to deal with the actors of violence at sports events. According to the Council of Europe Convention on the Prevention of Violence and Misbehavior at Sports Events, in particular football matches, Member States undertake to take the necessary measures for the implementation of the Convention in the framework of their constitutional powers. His specialty is reflected in the approach to this complex phenomenon that regulates measures for the prevention of violence and misbehavior at sports events and obligations of the organizers of sports events (sports club, sports association, Montenegrin Olympic Committee ...) and the competent authorities in the implementation of these measures. The law determines as a general obligation of the organizer to ensure safety at sporting events and take measures to prevent violence and misbehavior. It is precisely stated what is meant by violence and misconduct on sports events. This law determines the measures that ensure the safety of spectators, competitors and other participants in sports events, which creates preconditions and conditions that prevent,

[365] Same, Article 10
[366] Law on Public Order and Peace, Official Gazette of Montenegro, No. 64/11.
[367] Law on public gatherings and public events, Official Gazette of Montenegro, No. 52/16
[368] Law on the Prevention of Violence and Misbehavior at Sports Events, Official Gazette of Montenegro, No. 51/17

suppress and sanction misconduct, riots and violence before, during and after the sporting event. The organizer of a sports event is obliged to undertake the following groups of measures: measures taken at sporting events, measures taken at sports events of increased risk and measures related to sports facilities.

The taking of measures at sports events (Article 6) begins with the obligation of the organizer of a sports event to conclude a contract with the company registered for the activity of protection ("security agency") for performing security and maintenance tasks. If the organizer estimates that it cannot be ensured safe keeping of the event, he may request the police to engage.

When we talk about violence at sports events, the organizational unit of the police dealing with it and are directly involved in the suppression of this type of violence is of particular importance. In the case when the police is engaged, the obligation-the duty of the organizer is to establish cooperation with the Center or security department of the Ministry of Internal Affairs (MUP) in order to implement measures related to maintenance of public order and peace. In addition to engaging the police, it is also the duty of the organizer to ensure the presence of a medical team, a fire brigade, a communal police, and others.

In order to respond to various forms of violence at sports events, proactive (preventive) and reactive (repressive) treatment systems are being developed towards the actors of violence. Thus, preventive measures at sports events (Article 9) undertaken by the organizer in order to reduce the risk of outbreaks of violence and misconduct:

- Measures to encourage the organization and good behavior of fans and sports clubs,
- achieving cooperation with their supporters to assist in maintaining the order,
- informing their fans (meetings with fans, issuing newsletters, calling through the media on fair and sports winding and other activities),
- coordinating activities with sports organizations and organizations of fans during roaming.

During the implementation of special measures, the MIA is significantly involved in the following activities: inspection of sports facilities in the sense of eliminating deficiencies that significantly contributed to organizational failings at previous events, ban on arrival at the place of play and entry into the sports facility for persons and support groups returnees in violence, welcome, takeover and escorting of support groups at border crossings (selection and control of persons, inspection of vehicles, ban on entry of persons under the influence of alcohol) upon entering and leaving the country. In the course of control at the border crossing, depending on the assessment, the police can prohibit a part of the fan group from entering the country, especially if it estimates that the planned police forces will not be able to "control" the fan group.

The second group of measures consists of measures taken at sporting events of increased risk and relate to domestic and international sporting events with a high competitive significance, a sporting event where the presence of a large number of domestic and visiting fans is expected and all other sports events where there are circumstances that can come to the violation of order (Article 10). These are: a domestic and international sports event of a more competitive nature, a sporting event where the presence of a large number of spectators or fans of visiting clubs is expected, and a second sport event when special circumstances indicate that violence or misbehavior may occur at this sport event. The competent sports federation, at the beginning of the year but also during the year, determines which national and international sporting events are considered sporting events of increased risk and provides the police with a notification.

At sports events of increased risk, preventive measures are also undertaken (Article 11) where the organizer of a sports event is obliged to:

- about the circumstances in which the event is held or the risk of the outbreak of violence and misconduct - immediately notified or at the latest within 24 hours before the start of the sporting event: the police, the competent sports association, the competent sports organization and competitors participating in the sports event,
- to establish cooperation with the police for the purpose of acting on orders concerning the provision of public order and peace at a sports event;
- cooperate with representatives of clubs of fans in order to exchange information between them.
- appoint a responsible person to cooperate with the police.

In addition to the above mentioned preventive measures, in the event of increased risk (Article 12), the organizer shall, through the responsible person, take the following measures:

- separating groups of visiting fans by selling tickets at separate and special points of sale,
- ticket sales only for seating places, but so much so that the safety of participants in the sport event is not jeopardized,
- cooperation with sport organizations participating in a sports event in connection with the sale of tickets for their fans,
- determining the specific entrances, exits and part of the theater for groups of visiting fans,
- encourage viewers to behave correctly through media and alert viewers, through media or pronouncements, to correct behavior.

When organizing high-risk sports events, the organizer is obliged to ensure that tickets can only be purchased with a personal document, including tickets purchased through fan clubs. Tickets for these events on the day of the event can only be purchased outside the sports facility at a location designated by the police. Interesting is the legal provision prohibiting the sale of alcohol in the vicinity of the facility and in the object of the sports event itself - three hours before and after, as well as during the sporting event.

Prior to the sporting events of increased risk, the visiting sports club (Article 16) is obliged to:

- not later than three days prior to the organizing departure of his fans for a sports event, inform the organizer of the sport event about all the elements essential for the reception of the club and its fans (day and time of departure, an estimate of the number of supporters, the mode of transport, place of residence or assembly, names of fans' leaders, etc.);
- to cooperate with the organization of their fans and participate in the organization of their arrival at a sports event;
- ensure the distribution of tickets for its fans received from the sports event organizer;
- take measures to ensure that this club and its fans are not the cause of violence and disorder at a sports event.

The third group of measures consists of measures related to sports facilities (Article 17) or the conditions that a sports facility should fulfill the organizer of a sports event is obliged to ensure that the sport event is held in a sports facility with adequate fences to prevent the entry of spectators into the sports field and fencing for separating opponents groups of fans. In addition to this, the organizer must provide: a special room that enables the police to visually monitor the sporting competition and efficiently conduct protection tasks, technical equipment for monitoring and recording the behavior of spectators in a sports facility, public announcement,

lightening for sporting events held in the evening, electricity and safe parking for the means of transport of guest clubs and private vehicles of the visiting club fans. If the sports facility has a parking space, the sports event organizer is obliged to ensure that the parking area of the buses is separated from the parking area for private cars. On the other hand, if a sports facility has no parking space or that space is insufficient, the sports event organizer is obliged to ask the municipality to approve the use of certain public space for parking buses and private cars.

The organizer of the sports event is obliged to ensure that the sports facility in which the sports event of the increased risk is maintained also has: a retarder at the entrances, adequate fences in front of a sports object for directing and separating opponents groups of fans, a reader of tickets, visibly marked entrances and exits to all parts of the theater , heavily fixed seats and an emergency room. Therefore, in relation to the first aid, the organizer of a sports event should provide the presence of an ambulance.

In addition to this service, if necessary, the presence of a fire brigade, utility service and various inspections is ensured (Article 7). A sports event in a facility can only be held if there is an Evacuation Plan that is regulated by the Protection and Rescue Act[369]. Evacuation is organized and controlled by moving people to prevent the risk effects that can lead to large human casualties and material losses.[370]

For violation of the provisions of this Law for natural and legal persons (Articles 28 and 29), fines of EUR 100,00 to 15,000 are foreseen and for certain preres individuals (Articles 30 and 31) can be sanctioned with a prison term of up to 60 days[371]. With the fine, it is possible to pronounce the so-called. protective measure. In relation to the mentioned protective measures, there are several types of protective measures (Article 32):

- banning the presence of certain sports events in the territory of CMA Gore, with the obligation to report to the police,
- ban on the presence of certain sporting events on the territory of Montenegro with the obligation to stay in the premises of the police,
- prohibition of going to certain sports events abroad where of Montenegro teams or sports clubs participate, with the obligation to report to the police premises and the obligation to hand in a travel document.

Safeguards prohibiting the presence of certain sporting events in the territory of CMA Gore, with the obligation to report to the police, may be applied for a duration that cannot be shorter than one year nor for more than two years. The final decision that issued the protective measure of the police is also submitted to the national sports federation, which is obliged to inform the organizer of the sport event, that is, the sports club, the club and the fans association. From the previous we can conclude that the said law provided a wide range of mechanisms of legal protection against violence and misbehavior at sports events.

The Law on Protection and Rescue[372] stipulates that protection and rescue includes a set of measures and actions that are undertaken with the aim of detecting and preventing the emergence of hazards as well as mitigating and eliminating the consequences of natural disasters, technical and technological accidents, various contamination, terrorism, epidemics

[369] Official Gazette of Montenegro, No. 013/07, 005/08, 086/09, 032/11, 054/16.
[370] Ibidem, Article 75
[371] More on: Law on Prevention of Violence and Misbehavior at Sports Events, "Official Gazette of Montenegro", Art. 28-32, No. 51/17
[372] Law on Protection and Rescue, Official Gazette of Montenegro, No. 54/2016

and other accidents that may jeopardize or threaten the population, material goods and the environment (Article 1). What is particularly relevant for sports events are entrepreneurial plans.

Thus, it is prescribed (Article 33) that protection and rescue is carried out on the basis of protection and rescue plans. Plans of protection and rescue interesting for sports events are the so-called. entrepreneurial plans that specify different specific measures for each facility in particular, and the implementation of which is given by the MIA.

According to the Law on Protection of Persons and Property[373], as we pointed out in the previous section, the obligation of the organizer of a sports event is to conclude a contract for the provision of maintenance and maintenance of the order at a sports event prior to the start of the event with the security agency. The aforementioned law (Article 2) closely regulates, among other things, protection activities which include the prevention of threats to the safety of persons and property and the prevention of unlawful actions directed at persons and property that are protected. In addition to this (Article 8), protection activities include: protection of property and facilities from destruction, damage and theft, maintenance of order at public gatherings, protection of persons from endangering their lives, physical and psychological integrity, privacy and personal rights as well as other forms of endangering their safety. When performing physical security and maintenance tasks at a sports event, security officers shall take measures prohibiting access to alcoholics, including persons who have been imposed a ban on the presence of sports events[374]. In addition to the organizer, the security agency is obliged to inform the MIA and the police about the sport event, in writing, no later than 48 hours prior to the start of the work of protection, which is submitted by the elaborate (plan) of physical protection and the project of technical protection.

The Law on Misdemeanors [375](Article 1) regulates the conditions for prescribing violations and misdemeanor sanctions, misdemeanor liability, misdemeanor procedure and procedure for the execution of criminal sanctions. Also, this Law (Article 7) regulates that funds collected from fines imposed for a misdemeanor are the state budget revenues, except for funds collected from fines for offenses that violate regulations, over which application they are supervised by the local authority, which represent the income of local self-government (eg fines imposed by the Communal Police). What is particularly relevant to sports events is the misdemeanor liability of a legal entity (organizer of a sports event, physical security agency) for misdemeanors if the offense was committed by an act or omission.

By means of the Criminal Code of Montenegro[376], the state gives a decisive answer to every negative phenomenon in society and, by its actions, minimizes the harmful effects to the least possible (acceptable) measure. In essence, in order to combat the criminal behavior of this Code, we have identified two groups of acts characteristic of violence at sports events: crimes against life and bodies and crimes against public order and peace. The most common crimes at sports events are: participation in the fight, endangering dangerous weapons in fighting and quarreling, violent behavior and violent behavior at a sports event or a public gathering. The

[373] Official Gazette of Montenegro, No. 1/2014.
[374] During the takeover of a new official operation, companies engaged in securitization activities are formally prevented from applying this action because they do not have access to citizen records.
[375] Law on Misdemeanors, Official Gazette of Montenegro, No. 1/11, 6/11 and 39/11.
[376] The Criminal Code of Montenegro ("Official Gazette of the Republic of Montenegro", No. 70/2003, 13/2004 - and 47/2006 and "Official Gazette of Montenegro", No. 40/2008, 25/2010, 32/2011, 64/2011 - other law, 40/2013, 56/2013 - correction, 14/2015, 42/2015, 58/2015 - other law and 44/2017)

common denominator of the aforementioned criminal offenses is the provision of the necessary level of protection of human life and health in sporting events.

4. CONCLUSION

In the previous period, Montenegro has adopted a large number of regulations that regulate the fight against violence at sports events. In addition to this, with special attention it implemented the provisions of the European Convention on the Prevention of Violence and Misbehavior at Sports Events. The success of the state in suppressing this phenomenon will primarily depend on the synchronized application of preventive-repressive measures and the serious intention to include all parts of society in the resolution and prevention.

There is no doubt that violence at soccer matches in the coming time will develop and harmonize, so proactive preventive and repressive participation of all state bodies, but others, such as non-governmental organizations and other social entities (families, schools, media, etc.) is necessary. Almost all parts of the society must be involved in this struggle, primarily families, schools, police, and ultimately the prosecution and the judiciary, with the efficient resolution of court proceedings against hooligans without selective access to "privileged" individuals. Finally, the prevention of violence in football matches besides the legal framework must include the activities of the entities of the society in order to prevent violence of any kind. Their contribution to achieving these goals would be measured by a measure that is equal to all of them and would be rewarded according to the same principle, the equality of all before law and justice, above all, as the ancient Romans said "fiat iustitia pereat mundus" - let justice be, even if the world collapsed.

European experience highlights the importance of communication with fans, as a model for reducing security risks, with an emphasized need for international police cooperation. Of special importance should be equipping, training of police officers as well as the specialization of specially trained police units for effective police interventions, which are a condition for preventing serious consequences in sports events. The prosecution and the courts are expected to slow down the implementation of initiated misdemeanor and criminal proceedings with effective and rational mechanisms applicable in practice.

LITERATURE

[1] Otašević, B, Violence at sports events, Official Gazette, Belgrade, 2015,
[2] Milidragović, D., Milić, N., Direct threat to life as a special condition for the use of firearms, Safety, 2005, 53, No.2, 2011,
[3] Constitution of Montenegro, Official Gazette of Montenegro, No. 1/2007,
[4] Criminal Code of Montenegro ("Official Gazette of the Republic of Montenegro", No. 70/2003, 13/2004 - cont. And 47/2006 and "Official Gazette of Montenegro", No. 40/2008, 25/2010, 32 / 2011, 64/2011 - other law, 40/2013, 56/2013 - correction., 14/2015, 42/2015, 58/2015 - other law and 44/2017),
[5] The Law on the Ratification of the European Convention on Violence and Misbehavior of Viewers at Sports Meetings, Especially in Football Matches ("Official Gazette of SFRY", International Agreements, No. 9/1990),
[6] Law on the Prevention of Violence and Misbehavior at Sports Events "Official Gazette of Montenegro, No. 51/2017",
[7] Law on Sports, Official Gazette of Montenegro, No. 36/11 and 36/13,
[8] Law on Internal Affairs, Official Gazette of Montenegro, No. 39/2013,

[9] Law on public gatherings and public events, "Official Gazette of Montenegro", No. 52/2016,
[10] Law on Protection and Rescue, Official Gazette of Montenegro, No. 55/2017,
[11] Law on Protection of Persons and Property, Official Gazette of Montenegro, No. 01/2014,
[12] Law on Misdemeanors, Official Gazette of Montenegro, No. 1/11, 6/11 and 39/11,
[13] Law on Police, Official Gazette of Montenegro, No. 28/2005.

MEDIA TRIAL VS. FAIR TRIAL: ARE THE NEW MEDIA RESHAPING ADMINISTRATION OF JUSTICE?

Tulishree Pradhan[377]
Shuvro Prosun Sarker[378]

DOI: https://doi.org/10.31410/eraz.2018.764

Abstract: *Print and digital media have played a vital role in opinion building but it is often contested for having an impact on the fair trial process. This paper has put an effort to signify that the judiciary and the media are not the loggerheads contradictory to each other in the democracy; instead both complement each other. It analyses different paths through which media trials are affecting judicial decisions. Considering a wide variety of different media trial cases all across the world and its impact on judiciary, this paper emphasizes on the public interest in the fair administration of justice.*

Key Words: *media trial, fair trial, prejudice, subjudice, free press, law of contempt.*

1. INTRODUCTION

Media law issues frequently dominate the news. A libel or privacy action by a politician or celebrity, an investigation into an alleged broadcasting scam, and the use of the Internet for downloading terrorist material or pornography are all stories which attract national, and increasingly international, publicity. This article is focused on the relationship of media freedom to the conduct of legal proceedings: prejudicial media publicity. In most jurisdictions the press and the broadcasting media may not publish material likely to prejudice the outcome of future or contemporaneous legal proceedings. The danger is that the jury would be unable to reach a fair conclusion on the evidence if it had been exposed to an article or broadcast, which, say, mentioned a defendant's criminal record or suggested that he was guilty of the offence. It is a contempt of court in England and other commonwealth jurisdictions to publish material of that kind. Yet there are doubts about the effectiveness of contempt of court law, particularly with the emergence of new technologies that are harder to control than the traditional mass media-the press and licensed broadcasters. Further, contempt law may sometimes limit media freedom excessively.

Among the most important impacts of press and media freedom is the power of print media and digital media to report legal proceedings comprehensively. Contemporaneous accounts of these proceedings, particularly of criminal trials, are of enormous public interest. It is now often claimed that open justice is not satisfied unless the broadcasting media have rights to film and transmit coverage of legal proceedings. After all, the public depends largely on television and radio for news and reporting of current affairs, so it is said, they have a right to see and hear how trials are conducted.

In the United States Supreme Court, Justice Hand of once said, "The hand that rules the press, the radio, the screen and the spread magazine, rules the country", this implies the uplifted role

[377] KIIT School of Law, Campus-16, Patia, Bhubaneswar, Odisha, India
[378] WB National University of Juridical Sciences, Kolkata, India

of media in the present tech-savvy globalized world. This paper also emphasizes United States constitutional and statutory frameworks regulating communication media as well as the powerful systems of global media control emanating from private ordering and through the design of technological architecture. For example, the privacy policies of social media companies and the data retention practices of search engines create an ever-changing landscape of communication rights and responsibilities determining individual civil liberties online. Hence, it is critically analyzed how these legal and policy frameworks both shape, and are shaped by democratic culture, markets, and political and technological change.

In Singapore, in order to determine the contempt of court laws the courts relay upon whether statements are 'fair criticism' and there is a 'real risk' of scandalising the judiciary is present or not. This actually affords a middle way in saving free speech by not undermining public interest and buoyancy in the administration of justice.

The British approaches to resolving the conflict between the right to freedom of the press and the right to a fair trial from its origins to the present day. In particular, they focus on the provisions, defences, and penalties established in the Contempt of Court Act, 1981. This article also considers the Act's success and failures in application, as well as its future implications for freedom of the press in Britain.

In the British House of Lords, a Bill was moved by Lord Pannick to abolish the practise of scandalising the judiciary, considering it as a type of contempt of court. The countries which apply English case law mostly follow the law of England. Hence, Lord Antony Lester [1], had a view that any change in the United Kindom's law will send an important message across the common law world. The fact is, if we look closely at Singapore Laws, we will find the existence of this law, which is retained even in our Indian

*Ms. **Tulishree Pradhan** completed Int. BA. LLB. Hons. Course from Utkal University, India. Then she went to Symbiosis Law School, Pune, India for LL.M… After successful completion of LL.M, in 2014, She joined KIIT School of law as a Faculty. Since 2014, she is working as an assistant professor because of her keen interest in law and interest in academia domain. She has presented & published many research papers in International as well as National conferences and reputed Journals. Her participation in the 7th Annual International Conference on Comparative Law, University of Warsaw, POLAND in the year 2017 and 6th RSEP Multidisciplinary Conference in Lisbon at NOVA School of Business & Economics in the year 2018 are the new ones. She often gets invitation from various national and international institutions/organizations to judge their competitions such as; Moot Court, Debate etc. and also to become a panelist in the conference /seminar. Recently, she was invited as a resource person for the Conference on Environment and Sustainable Development conducted by Chanderprabhu Jain College of Higher studies & School of Law, Narela in association with Guru Gobind Singh Indraprastha University, Delhi. Subjects like Administrative Law, Environmental Law, Affirmative Action and Media Law are her interest areas and also she teaches these subjects. In addition, she has also got the recognition for handling the environmental issues from the IBA-CLE Chair, National Law School of India University, Bangalore and M. K. Nambyar Academy for Continuing Legal Education. During her college days she was associated with many Non-Governmental Organizations, which is now helping her to prove herself in the real world. As an intern she has worked in many commissions and tribunals by which she believes her professional confidence is boosted. Recenty, she has been awarded with the prestigious Bharat Vikas Award for her outstanding contribution to the society by Institute of Self Reliance (ISR).*

books, especially after a high-profile case of 'Alan Shadrake' [2], which has led to a significant judgment on the law of contempt.

It chronicles the history of the free press/fair trial conflict in the United States, focusing primarily on the effect of pre-trial publicity on the defendant's Sixth Amendment right to a fair trial. The article covers the examination of the conventional methods used by trial courts to counter-act the problem of pre-trial publicity, and concludes that each is either ineffective or of questionable constitutionality. It argues that United States should enact a statute similar to the Contempt of Court Act, 1981 in order to protect an accused's Sixth Amendment right to a fair trial by an impartial jury. Finally, it suggests a possible formulation of such a statute and concludes that the Unites States can enact it without running afoul of the First Amendment.

2. RIGHT TO KNOW:

What is Democracy? Perhaps the best answer would be *the rule; of the people, by the people and for the people,* which is having three strong pillars and i.e. the executive, the legislature, the judiciary. But today perhaps, Indian democracy has become somewhat unstable on its three-pillars; hence, the fourth pillar **media** is giving stability which is enshrined under Article 19(1)(a) of the Indian Constitution [3]. A conscious keeper role is the exact role of the democracy. Like a watchdog media observes and at times correct the functionaries of the society. We can rely on the fact that in several issues the extraordinary media revolution has come out with positive impacts on the general public. Ethical and informative journalism is appreciated everywhere. The state judiciary also gets benefit from the courageous and ethical journalism. The judiciary is vested with the power to take *suo motu* cognizance of different case matters even relying on media covered reports. The news highlighting serious violations of human rights are also covered by the media and these are taken as grounds for *suo motu* cognizance by the judiciary. Many times the effluent and powerful people of our country who have committed any crime go scot-free because of the criminal justice system of our country which has many lacunae. The survey report says the conviction rate in India is abysmally down with 4%. Particularly in these type of situations where legal remedy is delayed or denied, media plays a vital role in not only stimulating the opinion of public but also tracking well-lit injustices by bringing them into the frontline which would have been overlooked otherwise. However, we have to consider always the two sides of a coin. The necessity of media professionalism and accountability in; reporting, covering and publishing the issues cannot be compromised with the increased role, importance and demand of it. Even in a Democratic Republic, "*freedom"*, howsoever invaluable cannot be considered in all circumstances absolute, unlimited and unqualified.

3. REASONABLE RESTRICTIONS:

The Constitution of India has drawn reasonable boundaries within which the freedom of media has to be exercised. Great power comes with great responsibility. Hence, in India the right to freedom of speech and expression enshrined under Article 19(1)(a) of the constitution is not immune but correlative with the duty to not harm or overstep any law.

What leads disorder and anarchy? When liberty is left unbridle and the institution abuses its powers it leads to disorder and anarchy and we all are standing today on this threshold. In order to increase the TRP ratings, the television channels are willingly sensationalize the news and information with a view to earn competitive advantage over the others. Take for example the Sting Operations which have become a trend now. Though digital technology cannot be denied

but it has its limits. Hence, it is very important to have precarious balance between the fundamental rights and one's privacy. Now Media Trials also have become more of a daily occurrence. This practice was started to show the truth about the cases to the public at large has now become an interfering practice severely with the administration of justice. These aforesaid practices are frequented or often done by media. Therefore, for this reason we must highlight the enormous need of 'responsible journalism'.

4. THE CONTEMPORARY ROLE OF MEDIA:

Let us now discuss about the treatment by media towards victims. Both print media and digital media, have a history of insensitive treatment towards victims. Often it has been noticed that media covers victim's blood on the site, it shows images of dead bodies and in the time of funerals also the TV cameras are on and they are trying to interview grieving parents. Do the public really is in the urge to see all this? Does the facts uncovered by media are really the truth? Are we going to understand the story or the larger issues by hearing the glory details of a brutal murder? Probably not, but these are shown us inundated with daily.

The statistical data actually shows 50-50 supporting media and against media by the victims, while some victims express a painful and draining experience with the media, other victims report a favourable involvement with media. The sensitivity the victim receives actually varies from case to case and that can only be narrated by the victim who deals with the media at that time. Example of some common objections from victims regarding media are:

i)	Blaming the victim for the crime,
ii)	Printing information that would negatively impact the victim's credibility,
iii)	Inappropriate/ aggressive questioning,
iv)	Discussion of gruesome details,
v)	Interviews at inappropriate times, such as funerals,
vi)	Footage/photographing child victims,
vii)	Glorifying the violent act or the offender and,
viii)	Naming the victim and proving access to them.

Table 1: Common Objections

The public has right to know but it is nowhere described that to what extent they can excel this right? Are they really supposed to know tits and bits of a murder victim's last moment alive? Are these media coverage really meant for the right of the public (right to know) or just a media strategy to sensationalize the news? Even if it is public right to know, still the question remains the same that is, how it is going to serve the purpose of mankind or better the understanding of the public of the crime that has been committed? Hence here it can be suggested that there should be some rights given to the victims while they come with the contact of media. Right to grieve in private is such a right of the victims which should be given to them while they deal with media. The legislators allow Media to regulate themselves, but many also raise the issue that the media has done very little for their own regulations. In fact, there is no hard and fast procedure designed to train formally the reporters and photographers while dealing with victims in an appropriate manner. The rights of the victims would be given in such a way that it is not going to interfere with the ability of media to get the necessary information about a news story. The truth and the interest of the public in the very matter should not suffer due to these rights. Media could do very simple things to make things smooth for the victims and their families, such as:

a) Fair presentation/coverage of both side stories,
b) Avoid Inappropriate/gruesome photos,
c) To deal with the victim(s) carefully; with respect and dignity,
d) While they are grieving, leave the families alone. E.g. funerals,
e) Respect their privacy and wishes,
f) Just to create news don't humiliate or paint the victim in a bad light,
g) Avoid glorifying/ sensationalizing violence,
h) Graphic details are not required always,
i) Victim(s) blood or body bag is not necessary to be shown

Table 2: Media efforts

It is fortunate that there is a ban on publication of victim's identity in the criminal trial process to ensure the protection of their Identity. This is undoubtedly a welcoming step particularly for the victims those who have faced sexual assault also child victims as witnesses. The media cannot publish the details and privy to the information which are put under the ban by the fair trial system, particularly the details such as victim's identification or child witness. But the vital question before us is, can the media report anything unless and until there is a protection norm for the news reporting to ban it.

For the newsworthiness (either positive or negative) of the story media cited details and personal information about the victim and offender. However to sell their stories, media houses highlight the graphic details of a crime scene so that they could sensitize the news for the viewers or readers. The media is more interested to publish, when the crime is brutal, or if there are multiple victims or offenders involved with the intention to skew and twist for the public attention. In fact the most common crimes are often highlighted and reported. It creates a negative impact when the people feel crime incidents are increased and violent than they really are, which leads to a public sense of disorder. Media sensationalized the stories in such a way that the public believes they have a greater risk of being the sufferers than the actuality.

To protect victims of a crime, particularly media is restricted to report in details, like the names of the victims, child witnesses and sexually assaulted adult victims. The offender's identity may also lead to the identification of the victim, therefore the criminal's name should not be reported either. Ban on news report has both positive and negative impacts, especially in sexual assault cases where publication of the names of the victims could cause discouragement for the other victims to come forward out of fear of being identified openly. Perhaps we need to understand that by keeping the names of the victim's secret, it only adds shame to the victim's experience which is wrong indeed. Instead of hiding it or putting it under the veil we need to campaign on "nothing to hide". Because the offence is heinous and there is nothing bad or wrong about the publication of the names of such crime victims. In reality, many sexual victims want their names to be published, because they need justice and make the offenders held guilty not the victims. Sexual assault is such a delinquency in which victim may be perceived as guilty as the criminal by the misuse of media. One study found that the way the media publishes or covers criminal incidents affects the viewer's feelings of empathy or blame towards the victim. Even sometimes reporting details about what a victim was wearing during the incident judges the character of the victim and it implies the instigation for the crime against them. There is another absurd example can be mentioned here where a woman was abused by her husband for several years and finally murdered by him, promotes blame on the victim because she couldn't earlier leave the obnoxious situation.

5. PREJUDICIAL MEDIA PUBLICITY:

There is a central question of media law: should the law intervene to stop, or to punish as a contempt of court, the publication of material in the media which is likely to prejudice the fair disposition of pending or contemporaneous legal proceedings? The argument for legal intervention is that a jury may not reach a fair verdict if its members read or view a publication that reveals, say, that someone facing an imminent trial has a criminal record or a general bad character, or which otherwise is likely to prejudice them against the defendant. Courts in the United States cannot stop, or impose penalties for, this sort of publication, because any court order would infringe press freedom and freedom of speech; but the courts in Commonwealth jurisdictions can use their contempt powers, of varying degrees of strictness, to limit media freedom in this context, in order to safeguard the right to a fair trial[4]. That right is particularly important to defendants in criminal trials who may face the loss of their liberty on conviction, and like the right to freedom of speech and of the press, it may be guaranteed by the constitution or, as in the UK, by the constitution or, as in the UK, by the statutory incorporation of the European Convention on Human Rights.

The first two concepts compare the approaches in the United States and England to this problem. Stephen Krause argues that the UK Contempt of court Act 1981 is effective in limiting the discrimination of prejudicial publicity by the news media and that allow the media greater freedom for court reporting. He finds that the alternative measures developed by courts in the United States to safeguard fair trial rights are either effective or themselves of doubtful constitutionality. For example a trial court may postpone the start of the trial to reduce the prejudice stemming from jury exposure to prejudicial publicity; the difficulty is that a short delay will fail to remove the risk of prejudice, while the substantial delay of months or years would infringe the defendant's Sixth Amendment right to a 'speedy trial'. Research shows that instructions to the jury to take into account only the evidence given in court when considering its verdict may not be effective, while more extreme measures, such as insulating the jury from the media once it has been selected are resented;

*Dr. **Sarker** is presently working as a Research Associate (Law) at the Centre for Regulatory Studies, Governance and Public Policy, The WB National University of Juridical Sciences, Kolkata, India since January, 2017. He has worked as an Assistant Professor at School of Law, KIIT University, Bhubaneswar, India from August, 2014 to January, 2017 (Was on study leave from June 2015 to January, 2017 for PhD Studies). He has also worked under the direct guidance of the Prof. Ranabir Samaddar, a renowned social scientist from India, as Research Assistant from October, 2013 to June, 2014.*

Recent Publications:
Book: Refugee Law in India: The Road From Ambiguity to Protection, Shuvro Prosun Sarker, Palgrave Macmillan (Imprint of Springer), Singapore, 2017, ISBN: 9789811048067.

Journal Articles

- *Clinical Legal Education and Its Asian Characteristics, (Co-author with Bruce Avery Lasky), Vol. 5, Issue 1, Asian Journal of Legal Education, SAGE, India, 2018. ISSN: 23210058.*
- *The Emergence of sic uteretuoutalienum non-ledes Principle in Environmental Law and Its Endorsement by International and National Courts: An Assessment, (Co-author with T.R. Subramanya), Kathmandu School of Law Review, Nepal, 2017, ISSN: 20912110.*
- *Role of Panchayati Raj Institutions in the Protection of Environment, (Co-author with T.R. Subramanya), Vol. 2, Issue 1, NUJS Journal of Regulatory Studies, India, 2017, ISSN(O): 24564605.*

moreover, they do not erase the impact of material its members may have read or seen before selection. While Krause's interest in UK contempt law is to be applauded, his view that it works effectively to curb the publication of prejudicial publicity is more controversial. Further, it is very doubtful whether a comparable law in the United States would be compatible with the press freedom guaranteed by the First Amendment.

6. IS THE MEDIA A 'FERAL BEAST'?

Former British Prime Minister Tony Blair did not cloak the expression of his disillusionment when he famously called the media 'a feral beast'. The comparison to an unruly pack of hungry animals was part of a speech delivered by Blair in June 2007 to highlight the problems of the media in today's world of 'impact' journalism. According to him, the state of the media—in particular its relationship with politics—has reached a point where corrective redress is warranted.

In April 2008, the Russian Parliament urgently passed the first reading of a special law that would empower courts to shut down media houses that published stories considered libellous and/ or unsubstantiated. The move came in the wake of a tabloid story alleging that President Vladimir Putin was going to divorce his wife of 25 years to marry an attractive young gymnast in her twenties. The story was picked up by the media all over the world and widely publicized before it was denied by the publication itself, *Moskovsky Korrespondent*, whose owner then announced that the tabloid would be suspending publication due to financial problems. An embarrassed Putin blamed journalists who, 'with their snotty noses and erotic fantasies, prowl into others' lives.' Russia's lawmakers voted to give courts powers to close a news outlet that 'disseminates deliberately false information damaging individual honour and dignity' of personalities.

The world over and in India, concerns are frequently expressed that, given market pressures to maximize profit, the media is not really as free and independent as it purports to be. Business imperatives of increasing revenue have taken (and continue to take) their toll on editorial freedom and journalistic excellence via the demands of advertises and the drive to increase circulation figures. At worst, the media is entirely controlled, albeit indirectly, by market pressures and, consequently, the imperative of public service has fallen by the wayside and neo-authoritarianism is the media model of the moment. Consequently, the media risks compromising its role as society's watchdog, and becoming beholden to advertisers and owners of media organizations [5].

In 1690, Benjamin Harris started a publication, Publick Occurrences both Foreign and Domestick, which was not only the first newspaper published in the US but, arguably, the first tabloid of its kind. The shot-lived newspaper carried articles on incidents of kidnapping, suicide, and fire; stories similar to events covered by many tabloids even today. One article, however, turned out to be famous (or notorious, depending on a person's perspective). The article accused the King of France of sleeping with his son's wife. The colonial government in the US shut down Harris' paper after just one issue had been published. This decision was in tune with restrictions imposed on the press earlier in Europe. The British government had banned all newspapers from 1632 to 1641. For many years thereafter, no publication was allowed to print any information that could even mildly upset the King of England. Such societies exist even today, where writing about the head of states—monarch or otherwise—or the government is banned.

7. CONCLUSION:

This article essentially offers two perspectives. The major legal principles are stated together with a number of pertinent quotations from major cases. An experienced researcher eye is then cast over those principles in an endeavour to explain just what could or should not be attempted without risking a breach of the law. The text is aimed at both trainee journalists and those studying media law at undergraduate level, but we hope that it may prove to be of interest to a wider media audience as a reference article. A healthy democracy requires both an acceptance of the rule of law a thriving and responsible fourth estate. Lawyers and journalists may not always agree but at least we can keep the dialogue open, ongoing and friendly!

REFERENCES

[1] Lord Anthony Lester is a British barrister and politician, sitting in the House of Lords as a Liberal Democrat.
[2] Alan Shadrake (born mid-1934) is a British author and former journalist, who was convicted in Singapore in 2010 of contempt of court for scandalising the Singapore judicial system, through his published views on the country's criminal justice system. Following a failed appeal, he served 5½ weeks in prison.
[3] Divan, M. G., (2006) *Facets of Media Law*, Lalbagh, Lucknow-226001, pp. 50-51.
[4] Bhatia, G., (2016) *Offend, Shock or Disturb*, Oxford University Press, New Delhi-110001, India, pp. 239-240.
[5] Thakurta, P. G., (2012) Media Ethics, Oxford University Press, New Delhi—110001, India, pp. 512-513.

BUSINESS COMPANIES IN KOSOVO

Majlinda Belegu[379]

DOI: https://doi.org/10.31410/eraz.2018.772

Abstract: *The positive law in Kosovo regulates the business law with a series of laws. One of the most important laws used by this discipline is the Law on Obligation Relations, which determines the basic and specific conditions on establishing agreements and contracts in the business law. The business law uses the Law on Business Organizations which regulates business companies within Kosovo territories.*
Paper covers an analysis of business companies which act in Kosovo. The ways of establishing, the ways of registering, their work and the ways of their bankruptcy. Some companies even pass to the other or are transferred from one to the other. All this depends on their budget, but not only. Analysis of legal norms will be done by using the method of analysis. Comparison method will serve in order to compare legal norms and custom norms with some norms from some countries from the region. The methods of historical and systemic analysis will be used during the study. These methods will explain legislation regulative of business companies during the entire history in the territories of Kosovo and in some countries of region. Through methods of analysis and other methods the way of establishing of these companies will be explained. Registration, way of registration and basic conditions of existing of companies will be explained. During the analysis efforts will be made in order to get answers in some questions. Which are basic conditions for registering of business companies? Should all business companies fulfill similar conditions? Which are main ways of quenching of these companies? Are all companies with the same number of employees? From this it also could be analyzed if a business company in Kosovo could be established according to the law-then it will be established as the individual business company ore collective business company.
The last part of the paper explains the way of company quenching according to the Law on Business Companies.

Key words: *law, business company, norms, registration, establishment*

1. Introduction

Judicial subjects are generally divided into physic and the judicial persons. Physic persons appear by birth and their physic capacity they gain by birth whereas the ability to act according to the Kosovo law they gain in the age of 18.

Judicial subject their ability to act gain by registering in the register whereas their registration is done according to the law an business organizations. Business organizations are judicial persons but there are cases when a physic person could appear as a judicial person and that only one physic person-this only in the cases when person is registered as individual entrepreneur.
With this paper through the method of analysis there the judicial norms are analysed which regulate business organizations in Kosovo. By making analysis with the countries from the region paper uses the method of comparison. Through this method there are analyzed norms and the various authors. Systemic method is used in order to interpret norms of the law from an

[379] College AAB, Pristina

article to the other one. The main goal of the paper is the analysis of judicial norms on the law on business organizations in Kosovo. Paper will explain types of business organizations from the process of establishing, registration, functioning up to extinction of these organizations. Norms and the theories on individual associations, collective, with the limited responsibility, share business companies, commanded societies and quite at the end public and the social companies. Within the paper corporations as types of business organizations which are regulated with the law on business organizations.

2. Common rules of the business organizations

Business organizations in Kosovo could be established after adoption of their statute or their establishing act. Establishing act or statutes are regulated after the contract between physic persons (one or some) or by signing contract by two or more judicial persons.

Business companies in Kosovo are judicial persons which are established from physic persons of judicial persons but that have duties and rights. For the rights and the obligations of business organizations the association is responsible as single judicial person, but not with the wealth of founders and its members.

Relevant attributes which should be fulfilled by judicial persons are: name or business designation, residence of the judicial person, activates of the judicial person, capital and nationality.[380]

Business organization is a judicial person of law which has its name under which it develops its activities. Despite name business organizations have their residence as well. Name has some characteristics and on it in addition to the letters there could be put other signs. Judicial person has its total name and written. The name of every association or other organization that develops economic activity is its/their firm which should express especially the goal of this activity.[381]

Residence of the business organization is the main place where important decisions are taken about the business organization, place from where the association is managed and led, but also the place where all decisions regarding the budget of the business organization.

Residence of the business organization is determined by the establishing act and it is registered at the Agency for Business Registrations.[382] Based on the main residence (headquarter) the nationality of the business organizations is determined. According to the positive legislation in Albania residence is called center and this legislation regulates with its disposals: judicial person has its residence where there is the leading organ, except when with the statute or with the establishing act it is regulated differently.[383]

Activities of the business organization are works and the acts which society exercises in order of realization of the profit.[384] According to this works which are done by the society are: production, circulation of goods, services, etc. Activities are defined by the founder with the statute and the founding act and this doesn't mean that this cannot be expanded, completed with the other activities or changed.

[380] Mazllum Baraliu, Business Law, Universitety of Prishtina, Prishtina, 2010, pg.117.
[381] Albanian Civil Code, updated 2014, Article 27.
[382] Armand Krasniqi, Business Law, Dukagjini, Pejë, 2014, pg.185.
[383] Albanian Civil Code, updated 2014, Article 28.
[384] Armand Krasniqi, Business Law, Dukagjini, Pejë, pg. 191.

3. Types of the business organizations

Business organizations are classified according some criteria. According to the criteria of form there are: associations of partnerity or copartnership, comandite asociations, associations with the limited responsibility and joint stock companies.

According to the complexity of the organization the organizations are classified on simple and composite.

Depending on that if they develop their activities on the determined period of time they are divided in permanent and temporary organizations.

Majlinda Belegu
Institutuion: Law Faculty, College AAB, Prishtina, Kosovo
Profesion: Prof. Ass. Dr
Working experience:
1) University "Hasan Prishtina" - Teaching asisstent – 2011-2012
2) University "Haxhi Zeka" Peje, Kosovo – Vice Dean of Faculty of Law- Lecturer - 2012-2015
3) College "Universum" –Lecturer – 2016-2017
4) College "AAB – Prof.ass. Dr. actualy working

Based on the form they are divided into: copartnership and comandite associations, joint stock companies and associations with the limited responsibilities. Associations based on the sphere where they act they may be industrial, agricultural, hostel, etc.

A trading society in Kosovo could be established in Kosovo as the individual business, general copartnership, limited copartnership, society with the limited responsibility and the joint stock companies.[385]

Business society could be created for whatever goal and it could develop whatever activity which cannot be forbidden with the law in Kosovo.[386]

Business societies could be established by persons which have gained the ability to act, persons that have reached age of 18.

4. Registration of trading societies (business)

Positive legislation emphasis that trading societies could be founded by physic and judicial persons. Some could be founded by two or more physic or judicial persons. For some societies their founding needs a determined number of physic or judicial persons.

Agency for Registration of Businesses in Kosovo (ARBK) is the responsible organ for registration of business organizations in Kosovo. Judicial person has the ability to gain rights and to be obliged with the duties from the moment of registration, when the law foresees that they should be registered from the moment of registrations. [387] The residence of ARBK is in Prishtina.[388]

This institution acts in the entire territory of Kosovo and it possesses branches in all Kosovo municipalities.

[385] Kosovo Law on Business Organizations, Law nr.06/L-016, Official Gazette, Approved 24.05.2018, article 5.
[386] Kosovo Law on Business Organizations, Law nr.06/L-016, article 6, paragraph 2.
[387] Albanian Civil Code, updated 2014, article 29.
[388] Kosovo Law on Business Organizations, Law nr.06/L-016, Approved 24.05.2018, article 7, paragraph 2.

ARBK register trading societies and trading names as well as it is authorized to exercise other functions determined by this law or another functions which are determined for ARBK with the other laws. ARBK prepares and publishes forms, authorizations and procedures in order to facilitate registration of trading societies.[389] Trading societies are registered in register and this register according to the law it is kept in a physic and electronic formation. Application for registration is done by business organization by filling in the form and adding to it the needed documents.

5. Authorized representative

In addition to the statute or founding act, name or the residence, business organization should have also the authorized representative. With the representation a person (representative) exercises within the authorisations given by the law, from or from the court in the name and in the favour of a physic or judicial person (represented).[390] Each trading society should at least have on authorized representative.[391] Authorised representative can represent the bussines organization in all activities and transactions undertaken for the business organization. Authorize representative doesn't represent the joint stock company only if with the statute of the founding act is foreseen no representation from the authorized person.

Authorized representative of trading companies are: owner of the business---individual businesses, for copartnership---general copartners, corporations-managing directors, for public and social enetrprisses the authorized representative is appointed in accordance with the applicable law.

Authorized representative in most cases is also the representative in the process of bankruptcy and liquidation of the associations.[392]

6. Individual Business

Business organizations could be created by one or more physic persons but also by judicial persons. Individual business is one of the sole businesses which is created by a sole physic person whereas it has characteristics of the judicial subjet. Accodring to the law individual business is not a judicial person. Apart from this, he may sign contracts, he may own property, he may raise the suit in court and he may be sued, in the name of his business or in the name of his owner.[393] Physic person is responsible for all rights and the duties of the society. Authorised representative of society is physic which has created the business and who runs the society. It is extinguished with the death of the entrepreneur, with the fulfillment of the goal for what it was created, by passing the time, with the liquidations and bankruptcy.

7. General copartnership

General copartnership is trading company which is established as soon as it is registered in the ARBK. It is established from two or more physic persons in order to develop determined activities with the common name. Obligations of the society are solidar with the entire wealth

[389] Kosovo Law on Business Organizations, Law nr.06/L-016, Official Gazette, Approved dt. 24.05.2018, article 9, paragraphs 1 and 2.
[390] Albanian Civil Code, 1994, updated 2014, article 64.
[391] Kosovo Law on Business Organizations, Law nr.06/L-016, article 24, paragraph 1.
[392] Kosovo Law on Business Organizations, Law nr.06/L-016, Approved dt. 24.05.2018, article 24.
[393] Kosovo Law on Business Organizations, Law nr.06/L-016, Approved dt. 24.05.2018, article 48, paragraph 4.

if they did not differently contract with the creditor. Memorandum or contract is the founding act. Agreements are regulated with the contract, memo or with good mutual understanding.

Copartners may have also contracts. Copartnership is not a judicial person even though it has all attributes of judicial persons. It may sign contracts, may raise suit and may be sued like judicial or physic persons. Civil Code of Albania regulates societies of persons with the evident condition -copartners should be physic persons.[394]

Copartners regulate their relationships with the memorandum of founding of the society and with the contract of copartners.

Types of contributions are monetary and with the other wealth, work or services which are either conducted or ensured for the general copartnership.[395]

It is important to be said that with the agreement of copartnership is determined that all copartners have the right in a equal separation of all profit, loses and alocations.

Each member of the society of copartnership has the right and obligation to lead with the works of the society. It is important to be said that none of members can give up from the managing rights. Decisions in the copartnership society are taken by the majority votes of the partners in the copartnership society. Authorised representative is elected by majority of votes and the consent is needed on decision making. Authorization may be revoked with the competent court decision based on the suit of the copartner of the copartnership society. Partner of the collective society has the right on created expenses done during the work of the society. Profit and loses of the collective society are disbursed in equal parts between its members.[396]

Copartnership society according to the law is extinguished: after the term of expiry, with the decision of all copartners, by the death of one of the general copartners, by the willingness of all copartners to extinguish the society, by withdraw or expelling of any of copartners, with the court decision and in the other cases regulated by the founding act.

8. Societies with the limited responsibility

Society with the limited responsibility is judicial person which is judicially separated from joint-stock. This society is holder of right and the obligations.[397] Shares of the society are personal property of the shareholder, can be transferred partially depending on the statute disposal.[398] Statute of this society foresees that each share holder should prove through certificates issued by the society with the limited responsibility. But this is not obligatory for the society with the limited responsibility. This society requires a minimal capital quite smaller than for the shareholder society, respectively 10.000 EUR.[399]

This society is founded after registered in ARBK. It as share association may take the responsibility for the rights and obligations. Society with the limited responsibility has the rights and the duties to: raise suit or to be sued, to sign contracts, to borrow money, to take debts, to

[394] Francesco Galgano, Trade Law, Sipërmarrësi- Shoqëritë, Luarasi, Tiranë 2009.
[395] Kosovo Law on Business Organizations, Law nr.06/L-016, article 54.
[396] Armand Krasniqi, Business Law, Dukagjini, Pejë, pg, 202.
[397] Kosovo Law on Business Organizations, Law nr.06/L-016, article 75, paragraph 1.
[398] Kosovo Law on Business Organizations, Law nr.06/L-016, article, 75, paragraph 3.
[399] Francesco Galgano, Trade Law, Sipërmarrësi- Shoqëritë, Luarasi, Tiranë 2009. pg. 952.

win, to possess, to put into the rent, to enter into the mortgage relations, to elect and to change managers, workers and the agents of the society and to do their compensation. The duration of existence of society with the limited responsibility is not determined.

Society with the limited responsibility could be founded from one or more persons but the number of these physic or judicial persons is not determined. Contribution of one joint-stock is monetary, property, work or executed services.[400]

A physic or judicial person ends on being part of the society with the limited responsibility in case of death or in case of extinguishing of judicial or physic person, in case of vullnetary withdrawal of physic/judicial person as it is determined by the law on bankruptcy, if physic/judicial person does not hold shares in the society with the limited responsibility and in the other cases determined by the statute.[401]

Share holder in whatever time may withdraw from the position in the society with the limited responsibility by informing in written all share holders of the society. If it happens that withdrawal damages society then the share holder should compensate members of the society with the limited responsibility. Society with the limited responsibility is extinguished by reaching the term of expire determined by founding act, by the decision od the council of the members, by statutory changes that lead towards the extinguishing; by bankruptcy, by the court decision with what it is concluded that the registration of the society was unlawful and it is ordered its delete form the register, appearance of other events foreseen with the founding act and with the contract of members of the society.[402]

9. Joint stock company

Joint stock company is business organization that acts in Kosovo. This society is founded from one or more physic/judicial persons with the capacities of shareholders. Capital of shareholder society is determined and divided into shares. Shareholder society is judicial person which possesses all attributes of judicial person. Shares in the shareholder society are the property of shareholder.[403] Initial founding capital of the society should be in the sum of 10.000 EUR or of a bigger sum if that is required as regulated with the article 145 of LSHT.[404] Share is a specific form of commercial paper by which the deposit is proved and to the depositary is given the right to take part in the governance of the society where he has his deposits.[405]

Shareholder society is responsible for all obligations with its property. Shareholders society describes all of its responsibilities and the responsibilities of shareholders by the founding act and by the founding contract. This business organization is founded with the founding contract. There are cases when it is founded from a person and in such cases it is founded with the founding act. Acts should be drafted in written and all signatures of shareholders should be verified. Shareholder society has no expiration date, its term timely is not limited with the exception if it is determined with the statute.

[400] Kosovo Law on Business Organizations, Law nr.06/L-016, article 85.
[401] Kosovo Law on Business Organizations, Law nr.06/L-016, article 99.
[402] Armand Krasniqi, Business Law, Dukagjini, Pejë, 2014, pg. 214.
[403] Kosovo Law on Buisness Organizations, Law nr.06/L-016 article 118, paragraph 3.
[404] Kosovo Law on Buisness Organizations, Law nr.06/L-016, article 119.
[405] Riza Smaka, Buisness Law, Universiteti Mbretëror Iliria, Prishtinë, 2008, pg. 96.

Shareholder society may emit usual and privilege shares, founding shares, shares with the restrictive rights of votes, shares with no voting rights, stocks shares and shares of founding capital.[406] There could not be emitted shares according bearer. Minimal quota of the basic capital of the shareholder society is 25.000 EUR.

Organs of the shareholder company according to the law are: Council of the shareholders, Board of Directors (Executive Board, Director) and other officials who exercise duties which have to do with the internal auditing or auditing commission.

Shareholder society is extinguished by passing the time for what it was created, by the decision of the council which is taken with the qualified majority of votes, by court decision, by the decision of the council of bankruptcy, liquidations, etc.

10. Commandite society

Is a society which is created from two or more physic/judicial persons in the capacities of copartners in order to exercise the determined activities under the common name of business where at least one person is responsible for the obligations of the society in unlimited way-complementary whereas at least one of them up to the level of quota contracted by comanditor.[407]

This society is established with the registration in ARBK and with the founding memorandum and with the agreement of comandites and the complementaries the contract is signed. Contract may be changed by agreement of all complementors and the comandites of the society. With the contract of copartners the activities of the organization are specified as well as the leadership. This contract is drafted and signed from all copartners of the business organization. In case of the conflict between the founding memorandum and the contract, the memorandum will be applied. Complementaries lead the society and its work. Complementaries may represent comandite society but it can be represented by one only of them. Comandites cannot represent society and they can do so only if they got authorized.

Comandite society is extinguished with the agreement, with achieving the goal for what it was created, by transfer to the other business organization e.g.share holder company, with the bankruptcy, with the liquidation, etc.

11. Social enterprise

Is an enterprise that works with the social capital. This capital is divided in shares or in parts with nominal values and it is registered in the register.

12. Public enterprises

Is an enterprise that conducts activities of the general interest. This society is created by the state. Its activities depend on the law determination. All these enterprises are of the general public interest.

[406] Northy & Leigh's, Inroduction to Company Law. Second edition, L.H, Buterworths, London 1981, Nature of shares, pg.231.
[407] Kosovo Law on Buisness Organizations, Law nr.06/L-016, article 66.

Conclusions

Business organizations in Kosovo are regulated with the Law on Business organizations. Business organizations according to the law are classified into several types: individual societies, copartner society, society with the limited responsibility, share holders society, comandite socies, public business organizations, social business societies and corporate companies which are not covered with this paper.

All these societies are obliged to fulfill attributes of judicial persons as are: name, statute (founding act), activities, residence and the capital.

All business organizations could be registered if they fulfill above mentioned conditions but after they apply in the electronic way and afterwards they submit physically document to the ARBK. This agency in detailed way analysis documents and after the analysis register business organization if it fulfils requested conditions.

Individual business society is society which is registered from a person and even though it is founded by a person it has the characteristics of the judicial person. All responsibilities of representation are taken by an individual as the owner of the society. It is extinguished like all other business organizations.

Society with the limited responsibility is founded by two or more judicial or physic persons. It is composed form the number which depends from the separation from shareholder business. This society is founded after the registration at ARBK and it is the judicial person.
Copartner organization is society which is registered at ARBK and this society like all societies is founded after the registration. It is important to be said that this society has attributes of the judicial person, but legally it is not a judicial person. Each copartner has parts of the capital but parts of the capital are not registered for every member in quotas. Each copartner has the right to represent society and has no right to give up representation.

Share holder company is founded from two or more persons (judicial/physic) and it is registered after the registration at ARBK. It has leading organs as Council of shareholders, Board of Directors, Director, etc. Each share holder has determined quota in percentage or in shares. Authorized representative of society is elected by the majority of votes form the total number of members. Value of the capital should be over 10.000 EUR according to the positive law otherwise it will be registered as comandite society or as the society with the limited responsibility.

Comandite society is society registered at ARBK. It is registered after fulfilling the registration conditions. Because it has two types of shareholders it is considered comandite. Shareholders in this society are divided into complementaries and comandites. The first are those which are responsible for the obligations of the society. Whereas the second, are responsible only if they are given responsibility from the council of complementariness.

Business organizations are extinguished based on the law on business organizations. They are extinguished by passing the term of expire, by fulfilling the goal for what they were founded, by the death of one of the founders, by the liquidation, and by bankruptcy. There are other ways of extinguishing which are specific depending on the type of business society.

Literature

[1]. Baraliu, Mazllum. E Drejta Biznesore, Universiteti i Prishtinës, Prishtinë, 2010.
[2]. Francesco Galgano, E Drejta Tregtare, Sipërmarrësi- Shoqëritë, Luarasi, Tiranë 2009.
[3]. International Finance Corporation (IFC), World Bank Group, Qeverisja e Korporatave, Manual, Tiranë, 2009.
[4]. Kodi Civil Shqiptar, i vitit 1994, i azhurnuar me 2014. Fletorja Zyrtare e Republikës së Shqipërisë.
[5]. Krasniqi, Armand. E Drejta Biznesore, Dukagjini, Pejë, 2014.
[6]. Ligji për shoqëritë tregtare. Ligji nr.06/L-016, Aprovuar me 24.05.2018.
[7]. Northy & Leigh's, Inroduction to Company Law. Second edition, L.H, Buterworths, London 1981, Nature of shares, pg.231.
[8]. Smaka, Riza. E Drejta Biznesore, Universiteti Mbretëror Iliria, Prishtinë, 2008.

EQUALITY AND CHALLENGES IN EMPLOYMENT RELATIONSHIP BASED ON KOSOVO LEGAL RESOURCES

Bashkim Rrahmani[408]

DOI: https://doi.org/10.31410/eraz.2018.781

Abstract: *The employment relationships in Kosovo are regulated by many legal acts beginning with the Kosovo Constitution. Kosovo Constitution serves as the main resource of the employment law and then there is a considerable number of legal acts which could be used as the resources of the employment law. As the resource of the employment law there are a series of international legal acts that are directly applicable in Kosovo. Based on these resources there is a legal system in place which regulates the rights and the obligations that derive from the employment relationship. Among these resources Kosovo Labor Law is the main legal act applicable for employers and employees in the public and the private sector. Implementation of Labor Law and other legal resources in sense of employment relationships has not been an easy process in ensuring equal opportunities and in avoiding discrimination during the entire process: from hiring up to contract termination, as well as the protection of employees during the time they are working and especially in cases of contract termination. Author of this paper by using a combined methodology and with the methods of systemic analysis, method of comparison, etc., will stress out all forms of violation of laws in this field and will come up with the recommendations which could be used by employers and employees and those responsible to protect the rights of employees. The paper and especially findings, conclusions and the recommendation could be used as a resource for further academic debates.*

Key words: *employers, employees, constitution, law, contract, termination*

1. Introduction

Kosovo passed through various periods in sense of establishing the system of labor relations. This paper does not cover the period before 1999, whereas it is known that in 1999 Kosovo was put under the international civil administration. UNMIK executed its power based on the UN Security Council Resolution 1244. UNMIK laws were regulations and the main regulation regarding the labor relations was the Regulation No.2001/27 titled Regulation on Essential Labor Law in Kosovo.

Section 9, regulates the employment relationships, explaining at the beginning who the parties of an employment relationships are. According to this the first party is,

> An employer means a natural or legal person who provides an employee with work, and pays him/her a salary/wage for the work or services performed. An employer performs its obligations, and may exercise its rights, in accordance with the applicable law, labor contract, and, where applicable, collective agreement.[409]

The second which enters into the employment relationships based on the contract, as

[408] College AAB, Pristina

[409] Section 9.2, Regulation on Essential Labor Law in Kosovo, No.2001/27

> An employee means a natural person employed to perform work or services for an employer, under the latter's authority and control. An employee performs his/her obligations, and may exercise his/her rights, in accordance with the applicable law, labour contract, and, where applicable, collective agreement.[410]

This regulation regulates basically the entire area of the modern labor law from the beginning giving the minimal age when a person can start to work; labor contract, form of the contract, the rights of creating unions, medical leave, leave without pay, etc. In general, the regulation covered the entire field of the labor law but it is a matter of question if practically it was applied with the success. There were also many issues it did not cover and thus did not regulate. To this it will not also be mentioned the issue of employees within the international organizations was regulated or how the regulation was applied for them. Nonetheless, it was necessary to say that there was a regulation/law on that time. Of course, in various issues it was far from the standards regulated by the laws in the other countries of Europe. However, formally covered the important issues it the time and the UNMIK regulations were parts of the so called applicable law in Kosovo. Therefore, labor law in form and in definitions was similar to the law and laws of developed countries and the developed democracies, but of course in the practical sense of being applied and in protecting employees issues are quite different. Let us see how labor law is defined in EU and when we conclude that formally the labor law in Kosovo was similar to the EU labor law for this we cannot be criticized.

Labor law defines your rights and obligations as workers and employers. EU labor law covers 2 main areas:

- **working conditions**: working hours, part-time & fixed-term work, posting of workers and;
- **informing & consulting:** workers about collective redundancies, transfers of companies, etc.[411] From the main areas that EU labor law covers, the legislation on the UNMIK time as given above and under the current circumstances the areas covered are similar. Problems on the equality are more of application of laws, policies, etc., nature, rather than the lack of legislation.

2. Kosovo labor law and its application

Kosovo Parliament 2010 adopted the Law on Labor by which the main areas of employment were covered. The Law contains 100 articles divided into twelve chapters. It is important to be said that even though this is the basic law to regulate the labor law, there are several laws which should be always analyzed when the labor law is discussed. Thus Law on the Civil Service of the Republic of Kosovo, Law on the Protection from Discrimination, Law on Gender Equality, EU legislation and naturally Kosovo Constitution contain additionally create a general basis for a sound labor law in Kosovo. Let us see how issues are regulated with the Kosovo Labor Law and its interaction with the other laws.

From the Chapter one it is important to take the following:

> 1. Provisions of this Law shall be applicable for employees and employers in the private and public sector in Republic of Kosovo. 2. Provisions of this Law shall be applicable for employees and employers, whose employment is regulated through a special Law, if the special Law does not provide for a solution for certain issues deriving from employment relationship. 3. Provisions of this Law shall be applicable for foreign

[410] Section 9.3, Regulation on Essential Labor Law in Kosovo, No.2001/27
[411] http://ec.europa.eu/social/main.jsp?catId=157&langId=en (accessed 17.05.2018)

> citizenship employees and persons without citizenship, who are employed to employers within territory of Republic of Kosovo, unless otherwise provided by Law. 4. Provisions of this Law shall not be applicable to employment relationships within international missions, diplomatic and consular missions of foreign states, International Military Presence established in the Republic of Kosovo under the Comprehensive Proposal for the Status Settlement and international governmental organizations.[412]

This article gives exact data about what this law covers and it explains issues about its application when we have to deal with the special laws, for foreign citizens working in Kosovo etc. Kosovo Labor Law forbids discrimination in "recruitment, training, promotion of employment, terms and conditions of employment, disciplinary measures, cancellation of the contract of employment or other matters arising out of the employment relationship and regulated by Law and other Laws into force".[413] Provisions of this law, in regard to discrimination orient to the direct application of the special law, which in this case is Law on the Protection from Discrimination. This Law talking about the protection from discrimination with its purpose creates a framework for prevention and combating discrimination in all possible basis, thus consequently in the labor law. In this regard it serves as the special law. Whereas,

> This law is in accordance with Council Directive 2000/43/EC of 29 June 2000 on implementing the principle of equal treatment between persons regardless of racial or ethnic origin of the Council of the European Union, Council Directive 2000/78/EC of 27 November 2000 on establishing a general framework for equal treatment in employment and occupation of the Council of the European Union, Council Directive 2004/113/EC of 13 December 2004 on implementing the principle of equal treatment between men and women in the access to and supply of goods and services of the Council of the European Union, Directive 2006/54/EC of the European Parliament and of the Council of 5 July 2006 on implementation of the principle of equal opportunities and equal treatment of men and women related to employment and occupation (amended) of the European Parliament and the Council of the European Union.[414]

Talking to the special laws, it is important to stress out very similar disposal taken from the Law on Gender Equality, which is important to be cited, and which says,

> This Law is in accordance with the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW); Directive on establishing a general framework for equal treatment in employment and occupation (Directive 2000/78/EC); Directive on the implementation of the principle of equal opportunities and equal treatment of men and women in matters of employment and occupation (Directive 2006/54/EC); The Directive on the progressive implementation of the principle of equal treatment for men and women on issues of social security (Council Directive 79/7/EEC, of 19 December 1978); Directive on the application of the principle of equal treatment between men and women engaged in an activity in a self-employed capacity and repealing Council Directive 86/613/EEC (Directive 2010/41/EU, of 7 July 2010); Directive on the implementing the principle of equal treatment between men and women in the access to and supply of goods and services (Directive 2004/113/EC).[415]

[412] Article 2, Kosovo Law on Labor
[413] Article 5, Kosovo Law on Labor
[414] Article 1, paragraph 2, Law on the Protection from Discrimination
[415] Paragraph 3, Article 1, Kosovo Law on Gender Equality

It was already said that there is a sound set of laws that regulate the areas of labor law and it is also said that the biggest challenge is the application of these laws. In order to give some more details on labor laws, for the needs of this paper some more disposals of this law should be mentioned. Not necessarily to be cited. In the Chapter two, titled Establishing Employment Relations, it is important to especially mention that the employment relationship cannot be concluded with a person bellow fifteen (15) years of age. Further, in this chapter there are disposals that regulate the issue of public competition for the public sector and the employment of foreigners.[416] The law specifies the types of contracts which may be concluded on employment, and they are: contracts for an infinite period; contracts for a fixed period of time and contracts for specific tasks and duties.[417]

Chapter three of the law, titled Systematization of Employees in Working Posts regulates issues of commissioning of employees in working posts; temporary reassignment; and reassigning an employee with consent. Chapter four/working hours, where full time working hours shall be forty (40) hours per week, whereas for an employee under 18 years of age shall not exceed 30 hours per week.[418] To this chapter belong also the issues of part-time working hours; reduced working hours; extended working hours; division and modification of working hours; prohibition and extension of working; and night shifts.

Chapter five/breaks and absences from work regulate issues of break during working hours; adopting the break to the labor process; daily rest; weekly rest; annual leave; annual leave for education sector employees; annual leave on the day of official holidays; first time annual leave; part of annual leave in proportion with the time spent at work; the schedule for the use of annual leave; compensation if the annual leave is not used; paid absence from work; unpaid absence from work; and temporary suspension of rights and duties deriving from employment relationships.

Bashkim Rrahmani *is an expert in Kosovo and a lecturer of EU, International Law, Constitutional Law,etc. Now he works as the Prof. Ass. for the Coellege AAB in Prishtina. Prior to this he has worked as the lecturer at the Haxhi Zeka University and Universum College (both Kosovo). Before this he was an Executive Director of the Foundation for Democratic Initiative (2001-2011), one of the most active civil society organizations in Kosovo. During 1994-2000, he acted as an Education as well as a Labour Inspector. Around this period he also regularly visited Washington as well as Kosovo, Macedonia and Albania in the position of Field Representative. Where he reported the political, economic and social situation of the three countries for the Krieble Institute of the Free Congress Foundation. He is an author of a number of scientific publications, and he has participated in dozens of international scientific conferences. Since 2008, he is a national trainer of trainers in Acquis Communautaire and from 2011, a national certified & licensed mediator.*

Chapter six/occupational protection and safety regulate issues of general occupational protection; commissioning of an employee for hazardous tasks; protection of youth, women and persons with disabilities; protection of motherhood; maternity leave; the rights of child's father; maternity leave in the case of the death of the infant; absence from work due to special care for the child; prohibition on termination of contract, where it is important to be given as follows:" During pregnancy, maternity leave and absence from work due to special care for the child, the employer shall not terminate the contract with the

[416] See articles 7,8,9 of the Kosovo Law on Labor
[417] Article 10, Paragraph 2, Kosovo Law on Labor
[418] Article 20, Kosovo Law on Labor

employee and/or make a transfer to another post, except in cases of termination of the contract according to Article 76 of this Law"[419], and notice on temporary incompetency for labor.

Chapter seven/salary and benefits of employees covers salary, salary compensation and other income; allowances; minimum salary; compensation of salary; compensation of sick leave; compensation for occupational injuries; absence from work due to insecurity and health protection; compensation of expenses for official visits; compensation of damage by the employee; proportional compensation of damage; compensation of damage to the employer; and compensation according to other applicable version.

Chapter eight/termination of employment relationships covers the issues of termination of employment contact on legal basis; termination of employment contract with the agreement; unilateral termination of the contract by the employee; termination of employment contract by the employer; notification period for termination of employment contract; procedure to the termination of contract; temporary suspension from work; compensation of salary during the temporary suspension; duration of temporary suspension; collective dismissals; and retirement.

Chapter nine/procedures for the exercise of rights deriving from employment relationships cover the issues of protection of employees' rights; protection of the employee by the court; court decision on termination of employment contract; protection of rights through mediation; protection of employee by the labor inspectorate; disciplinary measures; employee's responsibility; disciplinary measures for the violation of labor duties; imposition of measures; and timeline for submission.

Chapter ten/organizations of employees and employers covers the issues of freedom of trade-union organization; the right to strike; collective contract; and labor card.

Chapter eleven/punitive provisions covers issues of fines and funds collected from fines.

The last chapter twelve/provisional and final provisions covers the issues of supervision; harmonization of employer's acts; exercising the rights and provisions in force; public services of employment; issue of sub – legal acts; abrogation of legal acts; and entry into force of this law.

3. Equality and challenges

Equality means "the right of different groups of people to have a similar social position and receive the same treatment: equality between the sexes; racial equality; the government department responsible for equalities…"[420]. As it was seen, law on labor and other special laws applied in the area of labor law provide sound legal basis for the equality. But in practice the violation of the norms of equality are seen in various forms. Kosovo has a very high unemployment rate and getting a job is already similar to winning a jack pot. Thus conclusion of contract and termination of contracts are perhaps issues where the disposal of law are violated quite a lot. Regarding the private sector, a considerable number of employees have no labor contracts, and this present violation of laws and continual insecurity by increasing the fear of employees of being dismissed from the job without procedures and with no possibilities for

[419] Article 53, Kosovo Law on Labor
[420] https://dictionary.cambridge.org/us/dictionary/english/equality (accessed on 29.06.2018)

appeal.[421] Employees in the private sector enter into the working relations factually but formally, there is no legal formal act signed. This is considered one of the main reasons why employees in the private sector do not denounce and do not witness openly the violations of their rights from the employers.[422] However, there are also employees of the public sector that rarely decide to denounce employer for the violation of their rights. Here we may find other additional reasons why they do not undertake acts of appealing or why they do not enter into the processes of realizing their rights when their rights were violated. They hardly decide to initiate the procedures in court, when they were for example expelled from their job as a result of misuse of power of the employer (director or any other person responsible to hire and fire). They do not do this because the procedures in court last for ages and none will be pleased with the final court decision no matter how satisfactory that decision might be.[423] It may be subject of the other paper to explain why procedures take so long, even in the cases of labor law when laws itself require development of emergency procedures or the procedures to be treated with the priority.

The issue of employees in the public sector needs much more analysis when we discuss about labor law. State actually is the biggest employer where various analysis show that the employment in the public sector is quite politically colored, meaning that politics has a very big impact in the hiring processes. Moreover, EU Commission goes with,

> Kosovo is at an early stage of preparation on social policy and employment. There has been some progress during the reporting period. The Employment Agency is now functional, public employment services have been improved and further alignment on health and safety at work has been achieved. At the same time, fatal incidents at work are increasing and the General Collective Agreement is still not implemented.[424]

EU Commission with the last report as well as with all previous reports gives the findings and gives the recommendations for improvement. For the needs of this paper it is very important to give the following taken from the last Progress Report that goes,

> High inactivity and low employment remain among key challenges. The overall activity rate stood at 37.6 % in 2015 and the employment rate was extremely low at 25 %. In addition to that, the unemployment rate is still very high at 31 % in 2017. It continues to be higher for women (37 %) than for men (29 %). The overall employment rate is 30 %, but only 13 % of women are in formal employment, compared to 47 % of men. Only 29 % of the employed have permanent work contracts, whereas 71 % work on short-term contracts. Unemployment is most prevalent among young people (15-24 years), with 51 % unemployed. The rates of unemployment are even higher in the Roma and Ashkali communities. The members of these communities usually work in the informal

[421] http://www.ombudspersonkosovo.org/sq/lajme/INFORMATE-LIDHUR-ME-TE-DREJTAT-NGA-MARREDHENIA-E-PUNES-1407 (accessed on 17.05.2018)

[422] http://www.ombudspersonkosovo.org/sq/lajme/INFORMATE-LIDHUR-ME-TE-DREJTAT-NGA-MARREDHENIA-E-PUNES-1407 (17.05.2018)

[423] A person XX (known for the author) was dismissed from her position at the institution of high education within a day without any procedure, without any reason…etc., and there are already four years this person couldn't get the final court decision. It is hard to foresee if there are still more years until this person will get the final court decision, whereas it is very clear that based on the labor law this person will win the case. But is that decision going to be satisfactory after so many years?

[424] Kosovo 2018 Report, https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/20180417-kosovo-report.pdf, pg.59 (accessed on 29.06.2017)

> sector, holding unsecured, unqualified and low status jobs. Only a small number is registered as unemployed.[425]

Above it was said that there is a sound legal basis for a sound employment relationships, which obviously needs to be subject of changes. Requests for changes come from both, international and local factors. Problems are identified by various subjects and they can be classified easily. Thus, Ombudsperson of Kosovo has mentioned as follows: problems of labor relations as: lack of contracts, non-respect of daily, weekly, annual leave, birth leave, security in working place, discrimination regarding salaries, etc., appear basically as a consequence of high level of tax evasion (informal economy, tax evasion) with the purpose of profit by employer.[426]

The issue of labor law can be subject of various analysis with various approaches and all of them when analyzing and while finding short comings should not justify shortcomings with the slogan that we are talking about new state where shortcomings and weaknesses are common for these stages of state development.

Conclusions

The labor law in Kosovo has passed through an evaluation process and before anything is said, it is useful to conclude that the issue of laws and their implementation should be analyzed. The position of the employees differs a lot in both sectors: public and the private. In the public sector the form of discrimination is more difficult to be stressed out since formally employer pays attention to the formal procedures which are violated behind the scene. Actually formal procedures in these cases are respected but overall the process is behind the curtains. The current Labor Law should be changed especially respecting the EU suggestions. Courts should treat labor cases with high priority, because it is for ages know that “justice delayed is justice denied”. The competences of labor inspectorates should be broadened and inspectors should be given more authority so they can intervene more quickly and take measures against especially officials who misuse power particularly when treating the rights of employees. Measures and penalties against these officials which misuse power should be stronger and they should be regulated strictly by the laws. The misuse of their power, for example when an employee was expelled can be classified at least of two channels talking about consequences. First, employee’s rights were violated and all he/she faces is achievement of the delayed justice. Second, when he/she achieves delayed/denied justice, compensation is done from tax-payers whereas nothing happens to the official who has created such a situation. Therefore measures against the misuse of power should be precisely regulated. Mechanisms of collective contracts should be put in place and respected when signed by employers.

Literature

[1]. Bujupi, Hava. E Drejta e Punës, Universiteti I Prishtinës, Prishtinë, 2014.
[2]. Çela, Kudret. E Drejta e Punës, ILAR, Tiranë, 2012.
[3]. http://www.ombudspersonkosovo.org/sq/lajme/INFORMATE-LIDHUR-ME-TE-DREJTAT-NGA-MARREDHENIA-E-PUNES-1407 (accessed, 17.05.2018)
[4]. Kosovo 2018 Report, https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/20180417-kosovo-report.pdf (accessed 29.06.2018)

[425] Kosovo 2018 Report, https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/20180417-kosovo-report.pdf, pg.59-60 (accessed on 29.06.2017)
[426] http://www.ombudspersonkosovo.org/sq/lajme/INFORMATE-LIDHUR-ME-TE-DREJTAT-NGA-MARREDHENIA-E-PUNES-1407 (17.05.2018)

[5]. Kosovo Constitution, available at: http://www.kryeministri-ks.net/repository/docs/Constitution1Kosovo.pdf (as of 29.06.2018),
[6]. Kosovo Law on Gender Equality, available at: http://www.assembly-kosova.org/common/docs/ligjet/05-L-020%20a.pdf (as of 29.06.2018)
[7]. Kosovo Law on Labour , available at: http://www.assembly-kosova.org/common/docs/ligjet/2010-212-eng.pdf (as of 29.06.2018)
[8]. Kosovo Law on the Protection from Discrimination, available at: https://www.kuvendikosoves.org/common/docs/ligjet/05-L-021%20a.pdf (as of 29.06.2018)
[9]. Law on the Civil Service of the Republic of Kosovo 2010
[10]. Ligji i Punës: gjashtë muaj pas hyrjes në fuqi - GAP Analizë Politikash - Qershor 2011
[11]. Regulation on Essential Labour Law in Kosovo 2001/27

GROUNDS AND PROCEDURE OF CHALLENGE OF ARBITRATORS IN INTERNATIONAL ARBITRATION

Mohammed Zaheeruddin[427]

DOI: https://doi.org/10.31410/eraz.2018.789

Abstract: *Arbitration is an efficient method of settlement of disputes between the parties in a speedy manner. The other advantages are that parties to the dispute by agreement choose the arbitrators, arbitration procedure and applicable arbitration rules. The basic requirement in international arbitration is that an arbitrator must be independent and impartial throughout the arbitral proceedings. According to the UNCITRAL Model Law on Arbitration when a person approached in connection with his possible appointment as an arbitrator, he shall disclose any circumstances likely to give rise to justifiable doubts as to his impartiality or independence. A party to the arbitration may challenge the arbitrator. However, the arbitrator may be challenged only if circumstances exist that give rise to justifiable doubts as to his impartiality or independence, or if he does not possess qualifications agreed to by the parties. According to the arbitration rules, the challenge shall specify the grounds for the challenge and include corroborating materials to substantiate the challenge. Subject to the applicable arbitration rules, the parties are free to agree on a procedure for challenging an arbitrator. The object of this paper is to examine the grounds for challenge of arbitrators and challenging procedure under different international and institutional arbitration rules with the help of decided cases.*

Key words: *International Arbitration, impartiality and independence, UNCITRAL Arbitration Rules, UNCITRAL Model Law*.

1. Introduction

Fair and just processes for resolving disputes are indispensable in our society.[428] Arbitration is efficient and speedy method of settlement of commercial disputes between the parties. International arbitration has developed extensively in the course of the twentieth century via the passage of a series of international conventions that have sought to provide a framework within which this system can operate effectively.[429]

Arbitrators are expected to act like judges who will provide justice to all parties and guarantee them a fair hearing and a just award.[430] All legal arbiters are bound to apply the law as they understand it to the facts of individual cases as they find them. They must do so without fear or favour, affection or ill-will, that is, without partiality or prejudice.[431] In case of existence of any partiality by arbitrator, a party may challenge the arbitrator.

[427] College of Law, United Arab Emirates University (UAEU), Al Ain, United Arab Emirates

[428] Canon I of the Code of Ethics for Arbitrators in Commercial Disputes (2004) the Code sponsored by the American Arbitration Association (AAA) and the American Bar Association (ABA).

[429] Dr. Ranee K.L. Panjabi, *Economic Globalization: The Challenge for Arbitrators*, 28 Vand. J. Transnat'l L. 173 (1995).

[430]Deng Ruiping a1 and Duan Xiaosong aa1, *Promoting Impartiality of International Commercial Arbitrators though Chinese Criminal Law: Arbitration by "Perversion of Law"*, 10 BYU Int'l L. & Mgmt. Rev. 109 (2014).

[431] Locabail(UK) Ltd v. Bayfield Prop. Ltd [2000] Q.B. 451.

The basic requirement in international arbitration is that an arbitrator must be independent and impartial, throughout the arbitral proceedings. A party to the arbitration may challenge the arbitrator only if circumstances exist that give rise to justifiable doubts as to his impartiality or independence or if he does not possess qualifications agreed by the parties. The object of this paper is to examine the grounds for challenge of arbitrators and challenging procedure under different international and institutional arbitration rules with the help of decided cases.

2. Requirement of Independent and Impartial arbitrator:

Every arbitrator shall be impartial and independent of the parties at the time of accepting an appointment to serve and shall remain so until the final award has been rendered or the proceedings have otherwise finally terminated.[432] Every arbitration law requires either expressly or implicitly that an arbitrator be impartial and independent.[433]

The dominant purpose of appointing an arbitrator or arbitrators is the impartial resolution of the dispute between the parties in accordance with the terms of the agreement and, although the contract between the parties and the arbitrators would be a contract for the provision of personal services, they were not personal services under the direction of the parties.[434] Considering the finality and weight of an arbitral award, notions of fairness dictate that the unbiased arbitrators who issue the award should decide the dispute on the basis of the evidence presented, unbiased by personal interests. Nevertheless, issues relating to conflicts of interest increasingly plague international arbitration.[435]

While different arbitral institutions employ different language in their rules, the rules of all the major institutions generally impose the same requirements for arbitrator independence and impartiality.[436] To allow arbitrators to fulfill their duty to disclose, many arbitral rules provide a process for the arbitrator to make these disclosures.[437] Most rules now request the arbitrators to disclose "the existence of interests or relationships that are likely to affect their impartiality or that might reasonably create an appearance that they are biased against one party or favorable to another." This duty of disclosure is imposed upon the arbitrators throughout the entire course of the proceedings, until the award has been rendered.[438] The fundamental rule of the arbitration process is that arbitrators must be independent and impartial. This principle can be found in all most all the international and national arbitration rules.[439]

---

[432] General Principle 1, IBA Guidelines on Conflicts of Interest in International Arbitration, 2014].

[433] Tibor Varady, John J. Barcelo III, Arthur T. von Mehren, International Commercial Arbitration, A Transnational Perspective, Second Edition, Thomson West, 2003, page 381.

[434] Jivraj v. Hashwani [2011] UKSC 40.

[435] Lindsay Melworm, *Baised? Prove it: Addressing Arbitrator Bias and the Merits of Implementing Broad Disclosure Standards*, 22 Cardozo J. Int'l & Comp. L. 431 (2014).

[436] Advance Waivers of Arbitrator conflicts of interest in International commercial Arbitration Seated in New York, Report of the International Commercial Disputes Committee of the New York City Bar Association, 27 Am. Rev. Int'l Arb. 21 (2016)].

[437] Edward C. Dawson, *Speak Now or Hold your Peace: Pre-arbitration Express Waivers of Evident-Partiality Challenges*, 65 Am. U.L. Rev. 307 (2013)]

[438] Chiara Giovannucci Orlandi, *Ethics for International Arbitrators*, 67 UMKC L. Rev. 93, (1998).

[439] The ICC Arbitration Rules, Article 11; The Center for Arbitration and Mediation of the Chamber of Commerce Brazil-Canada (CAM-CCBC) Rules, Article 4.6; The Belgian Centre for Arbitration and Mediation Rules (CEPANI), Article 14; The China International Economic and Trade Arbitration Commission (CIETAC), Article 24; The LCIA Rules, Article 5.3; The Singapore International Arbitration Centre's Arbitration Rules (SIAC), Rule 13.1; The Stockholm Chamber of Commerce Arbitration Rules, Article 18; The Vienna International Arbitration Centre's (VIAC) Arbitration Rules, Article 16; the World Intellectual Property Organization's (WIPO) Arbitration Rules, Article 22; The Russian Arbitration rules, Article 11; The American Arbitration Association (AAA)

The UNCITRAL Model Law provides that when a person is approached in connection with his possible appointment as an arbitrator, he shall disclose any circumstances likely to give rise to justifiable doubts as to his impartiality or independence. An arbitrator, throughout the arbitral proceedings, shall without delay disclose any such circumstances to the parties unless they have already been informed of them by him.[440] The similar provision is found in the UNCITRAL Arbitration Rules, 2013.[441]

The 2014 IBA Guidelines, which are often used as guidance in international arbitrations regarding arbitrator conflicts and disclosure obligations, contain provisions regarding the impartiality and independence of an arbitrator that are similar to those of the major arbitral institutions.[442] Although the IBA Guidelines do not have the force of law, a number of courts have relied upon them in decisions regarding removal of arbitrators.[443]

3. Grounds and procedure for challenge of arbitrator:

It has been recognized that arbitration rulings must be subject to some judicial review to ensure that the arbitral proceeding has operated within the state's legal framework. This supports a conclusion that the judicial authority should act as a watchdog in supervising arbitrators and providing a remedy when necessary.[444] Most of the national legal systems of the world allow the parties to challenge the arbitrators, except for a few common law countries.[445] Arbitral institutions frequently have their own procedure for challenging arbitrators appointed by them or under their auspices.[446] The following paragraphs deal with the grounds for challenge and its procedure under the different arbitration rules:

UNCITRAL Model Law

According to the UNCITRAL Model Law, an arbitrator from the time of his appointment shall disclose any such circumstances likely to give rise to justifiable doubts as to his impartiality or independence.[447] An arbitrator may be challenged only if circumstances exist that give rise to justifiable doubts as to his impartiality or independence, or if he does not possess qualifications agreed to by the parties. A party may challenge an arbitrator appointed by him, or in whose appointment he has participated, only for reasons of which he becomes aware after the appointment has been made.[448]

Arbitration Rules and Mediation Procedures, 2013, Rule 18 (a)(i); The U.S., FAA, Section 10, The English Arbitration Act, 1996, Chapter 24; The Singapore International Arbitration Centre (SIAC) Rules, 2016 Rule 13.1.

[440] Article12 (1).

[441] Article11.

[442] Advance Waivers of Arbitrator conflicts of interest in International commercial Arbitration Seated in New York, Report of the International Commercial Disputes Committee of the New York City Bar Association, 27 Am. Rev. Int'l Arb. 21 (2016).

[443] Gary B. Born, *International Arbitration Cases and Materials*, 2nd edition,2015, Kluwer Law International BV, the Netherlands, page 140.

[444] Deng Ruiping a1 and Duan Xiaosong aa1, *Promoting Impartiality of International Commercial Arbitrators though Chinese Criminal Law: Arbitration by "Perversion of Law"*, 10 BYU Int'l L. & Mgmt. Rev. 109 (2014).

[445] Chiara Giovannucci Orlandi, *Ethics for International Arbitrators*, 67 UMKC L. Rev. 93, (1998).

[446] Tibor Varady, John J. Barcelo III, Arthur T. von Mehren, *International Commercial Arbitration, A Transnational Perspective*, Second Edition, Thomson West, 2003, page 381.

[447] Article 12 (1).

[448] Article 12 (2).

Article 13 of the Model Law deals with procedure for challenge. The parties are free to agree on a procedure for challenging an arbitrator, subject to the provisions of Article 13 (3).[449] A party who intends to challenge send a written statement of the reasons for the challenge to the arbitral tribunal. Unless the challenged arbitrator withdraws from his office or the other party agrees to the challenge, the arbitral tribunal shall decide on the challenge.[450]

If a challenge under any procedure agreed upon by the parties or under the procedure of Article 13 (2) is not successful, the challenging party may request, within 30 days after having received notice of the decision rejecting the challenge, the court or other authority specified in article 6 to decide on the challenge, which decision shall be subject to no appeal; while such a request is pending, the arbitral tribunal, including the challenged arbitrator, may continue the arbitral proceedings and make an award.[451]

The UNCITRAL Arbitration Rules:

According to the UNCITRAL Arbitration Rules, 2013, any arbitrator may be challenged if circumstances exist that give rise to justifiable doubts as to the arbitrator's Impartiality or independence.[452] A party may challenge the arbitrator appointed by it only for reasons of which it becomes aware after the appointment has been made.[453] Under the UNCITRAL Arbitration Rules the challenge procedure is as follows:[454]

A party that intends to challenge an arbitrator shall send notice of its challenge within 15 days after it has been notified of the appointment of the challenged arbitrator, or within 15 days after the disclosure of circumstances likely to give rise to justifiable doubts or if the circumstances exist that give rise to justifiable doubts (Articles 11 and 12) became known to that party.[455] The notice of challenge shall be communicated to all other parties, to the arbitrator who is challenged and to the other arbitrators. The notice of challenge shall state the reasons for the challenge. When an arbitrator has been challenged by a party, all parties may agree to the challenge.

The arbitrator may also, after the challenge, withdraw from his or her office. In neither case does this imply acceptance of the validity of the grounds for the challenge.[456] If, within 15 days from the date of the notice of challenge, all parties do not agree to the challenge or the challenged Arbitrator does not withdraw, the party making the challenge may elect to pursue it. In that case, within 30 days from the date of the notice of challenge, it shall seek a decision on the challenge by the appointing authority.[457]

The ICC Arbitration Rules:

The International Chamber of Commerce (ICC) Arbitration Rules Article 14 provides that whether for an alleged lack of impartiality or independence, or otherwise, shall be made by the

[449] Article 13 (1).
[450] Article 13 (2).
[451] Article 13 (3).
[452] Article 12 (1).
[453] Article 12.
[454] Article 13.
[455] Article 13 (1).
[456] Article 13 (3).
[457] Article 13 (4).

submission to the Secretariat of a written statement specifying the facts and circumstances on which the challenge is based.

The CAM-CCBC Arbitration Rules:

According to the Center for Arbitration and Mediation of the Chamber of Commerce Brazil-Canada (CAM-CCBC) Rules, the parties can challenge the arbitrators for lack of independence or impartiality or for other justified reason within fifteen days from awareness of the fact. The challenge will be decided by a Special Committee composed of three members of the List of Arbitrators appointed by the President of the CAM/CCBC.[458]

CEPANI Arbitration Rules, 2013:

According to Belgian Centre for Arbitration and Mediation Rules, a challenge for reasons of any alleged lack of independence or for any other reason, shall be communicated to the secretariat in writing and shall contain the facts and circumstances on which it is based. The Challenge Committee shall decide without any recourse on the challenge of an arbitrator. The reasons for the decision shall not be communicated.[459]

CIETAC Arbitration Rules, 2015:

According to Article 32 of the China International Economic and Trade Arbitration Commission, a party having justifiable doubts as to the impartiality or independence of an arbitrator may challenge that arbitrator with supporting evidence, within 15 days from the date becoming aware of reasons for challenge. The challenged arbitrator may withdraw voluntarily, otherwise, the Chairman of CIETAC shall make a final decision on the challenge with or without stating the reasons. An arbitrator who has been challenged shall continue to serve on the arbitral tribunal until a final decision on the challenge has been made by the Chairman of CIETAC.

The London Court of International Arbitration (LCIA) Rules, 2014:

LCIA Rules provide that the LCIA Court may revoke any arbitrator's appointment upon its own initiative, at the written request of all other members of the Arbitral Tribunal or upon a written challenge by any party if: circumstances exist that give rise to justifiable doubts as to that arbitrator's impartiality or independence.[460]

If all other parties agree in writing to the challenge within 14 days of receipt of the written statement, the LCIA Court shall revoke that arbitrator's appointment (without reasons).[461] In other circumstances, the LCIA Court shall decide the challenge and, if upheld, shall revoke that arbitrator's appointment.[462]

[458] Article 5.4.
[459] Article 16.
[460] Article 10.1 (iii).
[461] Article 10.5.
[462] Article 10.6.

The SIAC Rules, 2016:

According to Singapore International Arbitration Centre's Arbitration Rules (SIAC), any arbitrator may be challenges on the grounds of impartiality or independence.[463] If the other party does not agree to the challenge, or the arbitrator does not withdraw voluntarily, the court shall decide the challenge and the decision is not subject to appeal.[464]

The Stockholm Chamber of Commerce Arbitration Rules, 2017:

The Stockholm Chamber of Commerce Arbitration Rules provide that a party may challenge any arbitrator if circumstances exist that give rise to justifiable doubts as to the arbitrator's impartiality or independence or if the arbitrator does not possess the qualifications agreed by the parties. A party wishing to challenge an arbitrator shall submit a written statement to the Secretariat stating the reasons for the challenge. If the other party agrees to the challenge, the arbitrator shall resign. In all other cases, the Board shall take the final decision on the challenge.[465]

The VIAC Arbitration Rules, 2013:

According to Article 20 of the Vienna International Arbitration Centre's (VIAC) Arbitration Rules, an arbitrator may be challenged only if circumstances exist that give rise to justifiable doubts as to his impartiality or independence, or if he does not fulfil the qualifications agreed by the parties. The challenge shall specify the ground for the challenge and include corroborating materials to substantiate the challenge. If the challenged arbitrator does not resign, the Board shall rule on the challenge.

The WIPO Arbitration Rules, 2014:

According to World Intellectual Property Organization's (WIPO) Arbitration Rules, any arbitrator may be challenged by a party if circumstances exist that give rise to justifiable doubt as to the arbitrator's impartiality or independence.[466] The other party may agree to the challenge or the arbitrator may voluntarily withdraw.[467] If the other party does not agree to the challenge and the challenged arbitrator does not withdraw, the decision on the challenge shall be made by the Center in accordance with its internal procedures.[468]

The Russian Arbitration Rules, 2010:

Russian Arbitration Rules provide that the any arbitrator may be challenged if circumstances exist that give rise to justifiable doubts as to the arbitrator's impartiality or independence.[469] The all parties may agree to the challenge or if the challenged arbitrator does not withdraw, the party making the challenge may elect to pursue it. In that case, within 30 days from the date of the notice of challenge, it shall seek a decision on the challenge by the appointing Authority.[470]

[463] Rule 14.
[464] Rule 16.
[465] Article 19.
[466] Article 24.
[467] Article 28.
[468] Article 29.
[469] Article 12.
[470] Article 13.

The English Arbitration Act, 1996:

According to English Arbitration Act, 1996, a party to arbitral proceedings may apply to the court to remove an arbitrator on the ground that circumstances exist that give rise to justifiable doubts as to his impartiality.[471] The arbitral tribunal may continue the arbitral proceedings and make an award while an application to the court under this section is pending. The arbitrator concerned is entitled to appear and be heard by the court before it makes any order under this section. The leave of the court is required for any appeal from a decision of the court under this section.[472]

The American Arbitration Association (AAA) Commercial Arbitration Rules and Mediation Procedures, 2013:

The AAA Arbitration Rules provide that any arbitrator be disqualified for: (i). partiality or lack of independence, (ii). inability or refusal to perform his or her duties with diligence and in good faith, and (iii). any grounds for disqualification provided by applicable law.[473] The AAA shall determine whether the arbitrator should be disqualified under the grounds set out above, and shall inform the parties of its decision, which decision shall be conclusive.[474]

The China International Economic and Trade Arbitration Commission (CIETAC) Arbitration Rules, 2015:

A party having justifiable doubts as to the impartiality or independence of an arbitrator may challenge that arbitrator in writing and shall state the facts and reasons on which the challenge is based with supporting evidence.[475] The challenged arbitrator may withdraw. In other circumstances, the Chairman of CIETAC shall make a final decision on the challenge with or without stating the reasons.[476]

4. Judicial decisions on Challenge of arbitrators:

Despite the growing attractiveness of the arbitral process, arbitration is not without its shortcomings.[477] Challenge can be raised against any arbitrator, including arbitrators who have been selected by an appointing authority, by agreement between the parties, by another party, or (less commonly) by the challenging party itself.[478] The procedure for challenge of an arbitrator appears either in the law of the country where the arbitration takes place, or in any rules of arbitration that have been adopted by the parties.[479]

There are certain institutional arbitration rules under which the arbitral institution decides exclusively on a challenge. Most arbitration acts provide a system by which the parties may

[471] Chapter 24.
[472] Chapter 24.
[473] Rule 18.
[474] Rule 18 (c).
[475] Article 32 (2).
[476] Article 32 (6).
[477] Lindsay Melworm, *Baised? Prove it: Addressing Arbitrator Bias and the Merits of Implementing Broad Disclosure Standards*, 22 Cardozo J. Int'l & Comp. L. 431 (2014).
[478] Gary B. Born, *International Arbitration Cases and Materials*, 2nd edition,2015, Kluwer Law International BV, the Netherlands, page 146.
[479] Allan Redfern and Martin Hunter, *Law and Practice of International Commercial Arbitration*, 4th edition 2004, Sweet & Maxwell, London, page 247.

agree on a challenge procedure, which includes a third person (usually an arbitral institution) who decides on the challenge.[480] For example, the UNCITRAL Model Law rules provide that the challenging party may request the court or other authority to decide on the challenge.[481] These provisions establish a largely stand-alone mechanism whereby objections to arbitrators may be resolved expeditiously by a contractually-agreed appointing authority, without recourse to national courts, under prescribed contractual standards of impartiality.[482]

Article 13 of UNCITRAL Model Law sets out a twofold procedure governing challenges to arbitrators. In a preliminary phase, challenges are handled within the arbitral proceeding, according to either a procedure agreed to by the parties or the default procedure set out in paragraph (2) of Article 13. Challenges that have not been successful at that preliminary phase may subsequently be brought to a court or competent authority, whose decision on the matter is final.[483] While the parties are free to agree on a challenge procedure applicable in the arbitral proceeding, it is clear from paragraph (1) that court intervention pursuant to paragraph (3) is mandatory. [484] Court control over the impartiality and independence of an arbitrator is indispensable.[485] A court intervening pursuant to paragraph (3) Article 13 of Model Law does not merely review the previous decision of the arbitral tribunal or institution on the challenge, it also reviews the challenge fully and makes an independent decision as to whether it should be allowed.[486]

The following judicial decisions explains the situations of challenge of arbitrators and vacature of the arbitral award on the grounds of partiality or bias by the arbitrators.

Courts, led by the U.S. Supreme Court, have steadily reduced other avenues to challenge arbitral awards.[487] The U.S. Federal Arbitration Act ("FAA") is silent about removing arbitrators while the proceedings are pending. Instead, it mandates the vacatur of an arbitral award where an arbitrator is biased or has engaged in certain misconduct.[488]

In *Morelite Construction Corporation v. N.Y.C. District Council Carpenters' Benefit Funds and Others*,[489] the U.S. Court of Appeals, Second Circuit held that an arbitrator is disqualified only when a reasonable person, considering all of the circumstances, "would have to conclude" that an arbitrator was partial to one side.

In *Commonwealth Coatings Corp v. Continental Casualty Co*,[490] an arbitration was held, but the facts concerning the close business connections between the third arbitrator and the prime contractor were unknown to petitioner and were never revealed to it by this arbitrator, by the prime contractor, or by anyone else until after an award had been made.

[480] Tibor Varady, John J. Barcelo III, Arthur T. von Mehren, *International Commercial Arbitration, A Transnational Perspective*, Second Edition, Thomson West, 2003, page 385].
[481] Article 13.
[482] Gary B. Born, *International Commercial Arbitration*, Volume I, Wolters Kluwer, 2009, page 1532.
[483] UNCITRAL 2012 *Digest of Case Law on the Model Law on International Commercial Arbitration*, page 68.
[484] UNCITRAL 2012 *Digest of Case Law on the Model Law on International Commercial Arbitration*, page 69.
[485] Tibor Varady, John J. Barcelo III, Arthur T. von Mehren, *International Commercial Arbitration, A Transnational Perspective*, Second Edition, Thomson West, 2003, page 388.
[486] UNCITRAL 2012 *Digest of Case Law on the Model Law on International Commercial Arbitration*, page 69].
[487] Edward C. Dawson, *Speak Now or Hold your Peace: Pre-arbitration Express Waivers of Evident-Partiality Challenges*, 65 Am. U.L. Rev. 307 (2013).
[488] Yulia Andreeva, *How Challenging is the Challenge, or can U.S. Courts Remove Arbitrators before an Arbitration has come to an End?* 19 Am. Rev. Int'l Arb. 127 (2008).
[489] 748 F.2d 79, (2d Cir. 1984).
[490] 393 US 145 (1968), available at https://www.law.cornell.edu/supremecourt/text/393/145.

The petitioner challenged the award on this ground, among others, but the District Court refused to set aside the award. The Court of Appeals affirmed. The Supreme Court set aside the award for failure to disclose business connections with one of the parties, even though the award was unanimous and no claim is made of actual partiality, unfairness, bias, or fraud.

In *ANR Coal Co. v. Cogentrix of North Corolina, Inc.*,[491] the magistrate judge in this case vacated an arbitration award, finding that the arbitrator's failure to reveal certain matters violated his "duty to disclose." Because an arbitrator's failure to disclose, in and of itself, provides no basis to vacate an award, and because the facts here do not demonstrate evident partiality by the arbitrator, the U.S. Court of Appeals for the Fourth Circuit reversed the magistrate judge's vacatur of the arbitration award and remanded the case with instructions to reinstate the award.

In *Scandinavian Reinsurance Co. Ltd. v. St. Paul Fire & Marine Ins. Co.*,[492] the primary question presented on this appeal is whether the failure of two arbitrators to disclose their concurrent service as arbitrators in another, arguably similar, arbitration constitutes "evident partiality" within the meaning of the Federal Arbitration Act (the "FAA"), 9 U.S.C. § 10(a)(2). The U.S. Court of Appeals, Second Circuit Court reversed the district court decision and conclude that Scandinavian has not met its burden of establishing that Dassenko and Gentile's service in the Platinum Arbitration was indicative of bias in these proceedings so as to constitute a nontrivial conflict of interest, therefore, does not require vacatur.

There is no federal law in the United States dealing with court challenges to arbitrators for bias or other misconduct while the arbitral proceedings are pending. Although § 10 of the FAA sets forth narrow grounds on which

Mohammed Zaheeruddin
Academic profile:

- *PhD in Law, awarded 1999, entitled 'Working Conditions of Labour with Special Reference to Cement Industry in Nalgonda District, Andhra Pradesh, India'; Osmania University, Hyderabad, Andhra Pradesh, India.*
- *Passed National Eligibility Test (NET) in 1995 to qualify for lectureships in universities and colleges; accredited by University Grants Commission (UGC), India.*
- *Passed certificate program 'General Course on Intellectual Property' from World Intellectual Property Organization (WIPO) Academy, November 2008, Geneva.*
- *LLM in labour law, 1993, Osmania University, Hyderabad, Andhra Pradesh, India.*
- *Bachelor of Law, 1990, SK University, Andhra Pradesh, India.*
- *BSc; Botany, Zoology and Chemistry, 1996, Osmania University, Andhra Pradesh, India.*

Teaching experience:

- *23 years of experience in teaching undergraduate and post-graduate courses in law. From February 1993 to September 2006 has been worked in the rank of Assistant Professor and from 1st October 2006 to till date working as an Associate Professor (in UAEU from August 21, 2007).*
- *February 1993 to September 1997: lecturer in law at Vijaya Law College, affiliated to Osmania University, AP, India.*
- *October 1, 1997 to August 18, 2007: Faculty of Law, Osmania University, Hyderabad, AP, India.*
- *Since August 21, 2007 to present: Associate Professor in Private Law Department, College of Law, United Arab Emirates University, Al Ain, UAE.*

[491] 173 F.3d 493, 500 (4th Cir.1999).
[492] 668 F.3d 60, 64 (2d Cir. 2012).

an arbitral award may be vacated, on the face of the statute, none of these grounds can be used to forestall the arbitration itself.[493]

The UKs court in *AT & T Corporation v. Saudi Cable Co (SCC),*[494] explained the circumstances under which court may intervene with the award. The AT&T requested for arbitration with ICC claiming that it validly terminated the contract with SCC. Both the parties nominated their arbitrators and the ICC confirmed Mr. Fortier as a third arbitrator and Chairman of the tribunal. The grounds of the challenge were that, at all relevant times before 29th November 1998, AT&T was unaware that Mr Fortier was a non-executive director of a competitor company of AT&T. The Court of Appeal held that any benefit which could indirectly accrue to Nortel as a result of the outcome of the arbitration would be of such minimal benefit to Mr Fortier that it would be unreasonable to conclude that it could influence him. Mr. Fortier's nondisclosure did not constitute a real danger of bias such that the court should intervene in AT&T's favor.

In Desbois v. Industries A.C. Davie Inc., Court of Appeal of Quebec, Canada, 26 April 1990,[495] the case involved a dispute relating to a shipbuilding contract. As the Quebec government had subsidized the shipbuilder, a minister of the Quebec government signed the contract to guarantee the performance of the shipbuilder's obligation. The contract also contained a clause providing that disputes would be resolved by arbitration and that the minister would act as arbitrator. After having stated that the impartiality and independence of the tribunal were fundamental features of arbitration, the court held that a clause providing that disputes relating to a contract will be arbitrated by a party to that contract is inconsistent with the requirements of impartiality and independence, and is therefore null as contrary to public policy.[496]

The existence or absence of independence and impartiality on the part of an arbitrator in the challenge of an award proceeding is a question over which French Courts enjoy full reviewing power.[497] In *d Tecso v. Neoelectra Group* of 10 March 2011, the Court of appeal annulled award for lack of independence and impartiality of one of the co-arbitrators. The co-arbitrator nominated by the defendant had been of counsel between 1989 and 2000 with the same law firm as defendant's counsel in the arbitration and had given only vague information regarding his activity with said law firm after 2000. The Court of appeal found that this attitude gave rise to reasonable doubts regarding the co-arbitrator's independence and impartiality.[498]

In *state of Qatar v. Creighton Ltd (Cayman Islands),*[499] the ICC arbitrators issue awards in favour of Creighton directing Qatar to pay Creighton damages. Creighton sought enforcement of the awards in France and United States. Qatar sought to have the awards set aside in France on the grounds of impartiality and illegality of the arbitrator appointed by Creighton. It was found that the arbitrator appointed by Creighton had assisted Creighton before arbitration and subsequently appointed as arbitrator for Creighton. The Court of Appeal found that the

[493] Yulia Andreeva, *How Challenging is the Challenge, or can U.S. Courts Remove Arbitrators before an Arbitration has come to an End?* 19 Am. Rev. Int'l Arb. 127 (2008).
[494] [2000] EWCA Civ. 154].
[495] [1990] CanLII 3619 (QC CA), available on the Internet at http://canlii.ca/t/1pjlg.
[496] UNCITRAL 2012 Digest of Case Law on the Model Law on International Commercial Arbitration, page 65.
[497]Judge Dominique Hascher, *Salient Issues in International Commercial Arbitration: Independence and Impartiality of Arbitrators: 3 Issues*, 27 Am. U. Int'l L. Rev. 789 (2012).
[498] French Case Law, Annual Report, available at http://www.cabinet-castellane-avocats.fr/pdf/2011-10-01-french-case-law-annual-report.pdf].
[499] 25 Yearbook Comm. Arb'n 451), Cour de Cassation (Supreme Court of France) 16 March 1999.

arbitrator's behavior during the proceedings did not reflect any previous connections with Creighton, therefore, did not affect his impartiality.

5. Burden of Proof:

A party seeking vacatur of an arbitration award on grounds of evident partiality has the burden of proof, and, to meet this burden, he or she must demonstrate that a reasonable person would conclude that an arbitrator was partial to the other party to the arbitration.[500]

The burden of proving evident partiality "rests upon the party asserting bias."[501] The burden of proving facts which would establish a reasonable impression of partiality rests squarely on the party challenging the award. The court in this case concluded that an award would be vacated where there was "a reasonable impression of partiality."[502] To be specific, the party who alleges that an arbitration award was procured by corruption, fraud, or other undue means must: "(1) establish the fraud by clear and convincing evidence; (2) demonstrate that the fraud was not discoverable by the exercise of due diligence before or during the arbitration hearing; and (3) demonstrate that the fraud was materially related to an issue in the arbitration.[503]

There is an obvious solution to concerns about bias situations. Potential arbitrators should disclose everything of any conceivable interest to the parties after a complete conflicts check that includes the parties, counsel, and witnesses. If this is done, a party must make a timely objection before the arbitration takes place, or waive its objection. This approach is easy to articulate but difficult to implement in practice.[504]

6. Conclusion:

The reference made to various international and institutional arbitration rules suggest that a party to the arbitration may challenge any arbitrator. However, the challenge is allowed only if circumstances exist that give rise to justifiable as to his impartiality or independence. A party may not challenge the arbitrator on the basis of circumstances known to that party at the time of the appointment by him or in whose appointment he has participated. He can only challenge on the grounds of which he became aware after the appointment has been made. The challenge can be done either in accordance with institutional arbitration rules or under national law. The parties to the arbitration may agree to exclude the jurisdiction of courts with regard to challenge of arbitrators.

The review of different court decisions disclose that there is no uniform standards with regard to setting aside of award on the grounds of bias by arbitrators. Improving the arbitration disclosure standards in international and institutional arbitration rules may help to reduce the possibility of challenging the final arbitral award on the grounds of arbitrator's independence and impartiality.

[500] ANR Coal Co. v. Cogentrix of North Corolina, Inc., 173 F.3d 493, 500 (4th Cir.1999).
[501] Scandinavian Reinsurance Co. Ltd. v. St. Paul Fire & Marine Ins. Co., 668 F.3d 60, 64 (2d Cir. 2012).
[502] Sheet Metal Workers etc. v. Kinney Air Conditioning Co., 756 F.2d 742, 745-46 (9th Cir. 1988).
[503] Davenport v. Dimitrijevic, 857 So. 2d 957, 961 (Fla. Dist. Ct. App. 2003).
[504] Stephen K. Huber, *the Role of Arbitrator: Conflicts of Interest*, 28 Fordham Urb. L.J. 915 (2002).

References:

[1] Allan Redfern and Martin Hunter, Law and Practice of International Commercial Arbitration, 4th edition 2004, Sweet & Maxwell, London, page 247.
[2] Canon I of the Code of Ethics for Arbitrators in Commercial Disputes (2004) the Code sponsored by the American Arbitration Association (AAA) and the American Bar Association (ABA).
[3] Chiara Giovannucci Orlandi, Ethics for International Arbitrators, *67 UMKC L. Rev. 93,* (1998).
[4] Deng Ruiping a1 and Duan Xiaosong aa1, Promoting Impartiality of International Commercial Arbitrators though Chinese Criminal Law: Arbitration by "Perversion of Law", *10 BYU Int'l L. & Mgmt. Rev. 109 (2014).*
[5] Dr. Ranee K.L. Panjabi, Economic Globalization: The Challenge for Arbitrators, *28 Vand. J. Transnat'l L. 173 (1995).*
[6] Edward C. Dawson, Speak Now or Hold your Peace: Pre-arbitration Express Waivers of Evident-Partiality Challenges, *65 Am. U.L. Rev. 307 (2013).*
[7] Gary B. Born, International Commercial Arbitration, Volume I, Wolters Kluwer.
[8] Gary B. Born, International Arbitration Cases and Materials, 2nd edition, 2015, Kluwer Law International BV, the Netherlands, page 146.
[9] IBA Guidelines on Conflicts of Interest in International Arbitration, 2014.
[10] Judge Dominique Hascher, Salient Issues in International Commercial Arbitration: Independence and Impartiality of Arbitrators: *3 Issues, 27 Am. U. Int'l L. Rev. 789 (2012).*
[11] Lindsay Melworm, Baised? Prove it: Addressing Arbitrator Bias and the Merits of Implementing Broad Disclosure Standards, *22 Cardozo J. Int'l & Comp. L. 431 (2014).*
[12] Report of the International Commercial Disputes Committee of the New York City Bar Association, *27 Am. Rev. Int'l Arb. 21 (2016).*
[13] Stephen K. Huber, The Role of Arbitrator: Conflicts of Interest, *28 Fordham Urb. L.J. 915 (2002).*
[14] Tibor Varady, John J. Barcelo III, Arthur T. von Mehren, International Commercial Arbitration, A Transnational Perspective, Second Edition, Thomson West, 2003.
[15] UNCITRAL 2012 Digest of Case Law on the Model Law on International Commercial Arbitration.
[16] Yearbook Comm. Arb'n 451, Cour de Cassation (Supreme Court of France) 16 March 1999.
[17] Yulia Andreeva, How Challenging is the Challenge, or can U.S. Courts Remove Arbitrators before an Arbitration has come to an End? *19 Am. Rev. Int'l Arb. 127 (2008).*

Cases:

ANR Coal Co. v. Cogentrix of North Corolina, Inc., 173 F.3d 493, 500 (4th Cir.1999).
AT & T Corporation v. Saudi Cable Co (SCC), [2000] EWCA Civ. 154].
Davenport v. Dimitrijevic, 857 So. 2d 957, 961 (Fla. Dist. Ct. App. 2003).
Desbois v. Industries A.C. Davie Inc., Court of Appeal of Quebec, Canada, 26 April 1990, [1990] CanLII 3619 (QC CA), available on the Internet at http://canlii.ca/t/1pjlg.
Jivraj v. Hashwani [[2011] UKSC 40.
Locabail(UK) Ltd v. Bayfield Prop. Ltd [2000] Q.B. 451.
Morelite Construction Corporation v. N.Y.C. District Council Carpenters' Benefit Funds and Others, 748 F.2d 79, (2d Cir. 1984).
Scandinavian Reinsurance Co. Ltd. v. St. Paul Fire & Marine Ins. Co., 668 F.3d 60, 64 (2d Cir. 2012).

Sheet Metal Workers etc. v. Kinney Air Conditioning Co., 756 F.2d 742, 745-46 (9th Cir. 1988).
State of Qatar v. Creighton Ltd (Cayman Islands), 25 Yearbook Comm. Arb'n 451), *Cour de Cassation* (Supreme Court of France) 16 March 1999.

HUMAN TRAFFICKING FOR LABOUR EXPLOITATION AND THE ROLE OF WORK INSPECTION

Aleksandra Jovanović[505]
Irena Šljivar Milijić[506]

DOI: https://doi.org/10.31410/eraz.2018.802

Abstract *Control of serious crimes such as trafficking in human beings, in addition to other purposes and for the purpose of labor exploitation, falls within the priority interests and goals of the modern state. Trafficking in human beings is forbidden, and it is necessary to control the actions of opposing, preventing the creation, the response to the problem and the elimination of consequences. Thus, the suppression of trafficking in human beings includes prevention, elimination of harmful consequences and sanctioning and control of carriers of threats, i.e. suppression of trafficking in human beings and improvement of the position of victims, i.e. protection, assistance and support to victims.*

Key words: *human trafficking, labor exploitation, indicators, labor inspection*

Introduction

One of the informal definitions in the identification of the victim of trafficking in human beings is: Better to err in identification by notifying someone who is not a victim to be a victim and helping him, but by preoccupation, referring to indicators, not identifying a person as a victim and failing and thereby depriving her not only rights that belong to it, but also the possibility to finally leave the vicious circle, i.e. from the trafficking chain!

Trafficking in human beings goes through three phases: 1. the recruitment of victims for the purpose of their exploitation or resale for the same purpose; 2. transport of victims in an organized trafficking chain and 3. the acceptance and exploitation of victims of trafficking in human beings after the victims arrive at the destination and become aware of the fact that they live in slavery, isolation, work in the sex industry or as workers in various activities. Victim exploitation involves ways in which victims are used to achieve the ultimate goal of trafficking in human beings, earning a profit for a trader. The victims face various forms of violence and torture, in order to fully control the victim and ensure her obedience. As long as they are on their way or when they arrive at destination, traders take away their documents with the explanation that they will be kept or that they need it to settle a work permit, etc. Thus, the victim loses his legal identity. Victims are most often detained, under constant surveillance, isolated in a group or individually. There are threats to violence against them or they are directed to members of the victim's family or to close people. In the absence of knowledge of the regulations, language and fear of institutions, the victim does not seek help.

There are several forms of trafficking in human beings, including trafficking in human beings for the purpose of labor exploitation. Recognize, identify, and express doubts about potential

[505] University "Union-Nikola Tesla" in Belgrade, Faculty of Law, Security and Management "Konstantin Veliki" Nis, Serbia
[506] Labor Inspection, Nis, Serbia

victims of trafficking in human beings for the purpose of labor exploitation or other forms of trafficking in human beings can be displayed with the relevant indicators of ILO indicators. Forced labor is a phenomenon much wider than the concept of trafficking in human beings. Forced labor involves any work done under threat or punishment. It is any work or service that is claimed by one person under the threat of any punishment and for which that person has not voluntarily applied. In relation to trafficking in human beings, forced labor conveys one of the forms of exploitation of victims - labor exploitation.

The international legal framework and the framework of anti-trafficking networks

UN instruments to address the global European and global human trafficking problem are conventions and protocols. The UN Protocol on Trafficking in Human Beings (the Palermo Protocol) or the Protocol for the Prevention, Suppression and Punishment of Trafficking in Persons, in particular Women and Children, in Article 3, paragraph 3, defines human trafficking: "Trafficking in human beings means recruitment, transportation, transfer, hiding and receiving persons through threats by force or by the use of force or other forms of coercion, kidnapping, fraud, deception, abuse of power or difficult position or giving or receiving money or benefits in order to obtain the consent of a person who has control over another person for the purpose of exploitation. Exploitation involves as a minimum the exploitation of prostitution of other persons or other forms of sexual exploitation, forced labor or service, slavery or a relationship similar to slavery, servitude or removal of organs. [1]

The ILO Convention defines forced labor as any work or service required by a person with the threat of a sentence or under compulsion and for which that person did not apply voluntarily. [2]

The Council of Europe Convention on the Fight against Trafficking in Human Beings in Article 4 details the term "labor exploitation", which is synonymous with the term "trafficking in human beings for the purpose of forced labor.

The Council of Europe Recommendation on Business and Peacekeeping Rights, adopted in March 2016 by the Committee of Ministers of the Council of Europe, should also be mentioned.

On the initiative of the Human Rights Defense Center (KEPAD) in June 2005, the ARIADNE Network Against Trafficking in Human Beings in South Eastern and Eastern Europe, based in Athens, Greece, was established. Members of the Network's founders are made up of 17 HBOs from 12 countries of the region of Southeastern and Eastern Europe (Albania, BiH, Bulgaria, Croatia, FYROM, Greece, Moldova, Montenegro, Romania, Serbia, Turkey and Ukraine). The KEPAD is set for the Network coordinator. The main goal of the Network is close cooperation between the countries of origin, transit and destination of victims in order to achieve the activities of combating trafficking in human beings, assistance to victims and prevention of trafficking in human beings. This publication is the product of the first joint project of the network, and the national report was created on the basis of basic research conducted by partner HBO in cooperation with state institutions, international organizations and other non-governmental organizations dealing with the problem of trafficking in human beings in the Member States of the Network. [3]

Legal and institutional framework in Serbia, prevention and awareness raising

The legal framework for regression and anti-trafficking prevention in Serbia consists of: the Constitution of the Republic of Serbia, the Law on the ratification of the Council of Europe

Convention on the fight against human trafficking in 2009, the Criminal Code, the Law on Social Protection, the Law on Health Protection, the Law on the Prohibition of Discrimination ... The Republic of Serbia has developed a Strategy for Combating Trafficking in Human Beings in accordance with the guidelines for the national plans of the Stability Pact action and in accordance with the Program for Development and Implementation of a Comprehensive National Response to Human Trafficking and Best Practice in the Region prepared by the International Center for the Development of Migration Policy (ICMPD). Trafficking in human beings is prohibited by Article 388 of the Criminal Code, which provides for a prison sentence of two to ten years.

The legal framework in the field of employment and labor market are: Law on Employment and Insurance in the Case of Unemployment, Law on Labor, Law on Safety and Health at Work, Law on Conditions for Referral of Temporary Work to Foreign Workers, Law on Inspection Control.

The Government of the RS is August 4, 2017. adopted the second strategic document in order to address the human trafficking problem, called the Strategy for the Prevention and Suppression of Trafficking in Persons, Especially Women and Children, and the Protection of Victims for the period 2017-2022. [4] The Strategy follows the Action Plan 2017.-2018. which includes some relevant actions in the field of human trafficking for the purpose of labor exploitation.

The institutional framework includes: The Coordination Body, which includes the Council for the Fight against Trafficking in Human Beings, the National Coordinator, the Implementation Team; MUP RS; Center for the Protection of Trafficking Victims under the auspices of the Ministry of Labor, Employment, Veterans' Affairs and Social Affairs; Labor Inspectorate - Inspection of Labor; National Employment Service; Employment agencies; Centers for Social Welfare; Market Inspection; Civil society organizations - non-governmental organizations.

The Committee on Human Rights, in its General Note no. 28. Points 12 and 39 recommends that Member States take national and international measures to protect women and children from violating their rights. [6]

The most important awareness-raising campaign conducted in recent years is "Open your eyes" between 2002 and 2003. It is one of the first bottles in Serbia launched and implemented by HBO ASTRA. Its main objectives were: pointing to the problem of trafficking in women, raising the awareness of state institutions and the general public about the problem of trafficking in women, establishing cooperation between HBO and state institutions. Between 2004 and 2005, in co-operation with the UN Office, there was a campaign "There is an Outcome" followed by a 2005 campaign "Save Children From Trafficking in Human Beings, 2006" Terrapin Children - Our Reality ".

Labor inspection

The implementation of the Council of Europe Convention on the fight against trafficking in human beings is assessed by the Group of Experts on the Fight against Trafficking in Human Beings (GRETA), which makes reports with recommendations on how to improve compliance with the requirements of the Convention. Thus, in 2013, GRETA published the Third General Activity Report, in which it noted that the absence of effective cooperation and labor inspection measures and executive authorities could lead to a profitable benefit of work arising from trafficking in human beings, and should approach the merging, information exchange and awareness raising citizens and workers about their rights.

The powers and duties of the labor inspectors were regulated during 2014-2015 in relation to the GRETA 5 proposal and the strengthening of the fight against trafficking in human beings for the purpose of labor exploitation by the participation of the Inspectorate for the work and directing activities towards the education of labor inspectors, with special emphasis on training on the topic of discovery and the prevention of child labor and combating trafficking in children. In accordance with the principles of the said Confederation, the Inspectorate for Labor devotes special attention to surveys in high-risk sectors: construction and industry, in sectors where jobs can be carried out that can be related to human trafficking: catering, construction, seasonal jobs, agriculture, tourism, as well as dealing with issues related to categories of particularly vulnerable groups of employees - a question related to women's workforce, working engagement of children and minors, the work of persons with disabilities and work engagement of foreigners. During the performance of inspections in the field of labor relations and occupational safety at work, persons on the job "in black", which is in the border areas, and especially during the control of late night hours in the control of catering facilities and hiring of foreign nationals, led to the suspicion that potential victims of human trafficking. Pursuant to the Law on Inspection Supervision of 2015, the scope of the labor inspectorate's competence has been extended to control, in addition to registered entities, unregistered entities engaged in "black-out" activities, and whose engagement may also be related to trafficking in human beings for the purpose of labor exploitation. During control of unregistered entities in the period from 30.07.2015 to 31.10.2017. Labor Inspection was discovered by 1,852. unregistered subjects in which 1,417 persons were found at work "in black". By the end of 2017, labor inspectors did not identify cases of trafficking in human beings for the purpose of labor exploitation. That is, it can be said that the persons caught are potential victims of human trafficking for the purpose of labor exploitation. These allegations do not mean that there are no such cases in Serbia. During some of the surveillance of the bureaus, labor inspectors investigated the suspicion of possible labor exploitation of women who were not citizens of Serbia. These doubts were not confirmed. During the supervision of employers engaged in road transport, labor inspectors encountered carriers that carried out illegal and non-scheduled transportation and transported migrants, and there was a certain suspicion of possible trafficking in human beings for the purpose of labor exploitation.

The competence and scope of work of the Labor Inspection Labor Inspectorate is also reflected in the work and business of the Agency dealing with the employment and renting of labor, and checking whether the same is registered in the APR RS and whether it has a license-license for mediation in employment, are engaged in foreign affairs.

Labor exploitation, as a form of trafficking in human beings, is not what happens to people from third world countries. This is best illustrated by an example of construction workers from BiH who shaken to work in Azerbaijan in 2009 and a month without money and passports asked for a way to return from Azerbaijan.

Indicators of trafficking for the purpose of labor exploitation

The identification of the presumptive victim implies an unequivocal finding that in the concrete case it is a victim of trafficking in human beings. Primary or preliminary identification is possible on the basis of indicators indicating victims of trafficking for the purpose of labor exploitation. The list of indicators was made by members of the Dutch police. The lists indicators of trafficking for the purpose of labor exploitation: the obligation of overtime work under any conditions; work on the order of another person (use of force); work at sites that are constantly changing; the person is spending the night on working meat; the person does not know the address on which he works; a person does not speak the languages spoken in the country in which he is and comes

from countries that are known as countries of origin of trafficking; a person must return a large incremental travel card debt before exercising control over his own earnings or the freedom to cease to engage in prostitution or terminate another business; the person did not know in advance what business to deal with or was deceived in terms of working conditions; a person cannot stop working or return home at will; the number of employees in the facility (eg tourist / catering) exceeds the necessary, or standard work capacity. [5]

Conclusion

Trafficking is one of the most serious forms of human rights violations. Victims have no freedom of movement or freedom of choice, they have no control over their lives. This phenomenon is known as "modern slavery" because victims are held in conditions similar to slavery and treated as property of people who bought them. Trafficking is a form of organized crime, but also a business that triggers supply and demand in the market. The goods that are offered are the people through which traders make huge profits. The International Labor Organization (ILO) estimates that there are a total of 2.4 million victims of trafficking in human beings. This criminal activity is increasing and is in third place, after the sale of drugs and illegal arms trade. Trafficking in human beings is said to be a low risk and highly profitable criminal activity, because it is not easy to detect, and one victim can be resold several times.

Trafficking in human beings in Serbia is a serious and complex problem. Given that there is no single system of monitoring and analysis, we are faced with a growing number of different data on this issue, from various sources: authorities, NGOs and international organizations. Serbia is primarily a country of transit, but also a country of origin and a temporary destination for human trafficking victims, depending on whether this criminal act for victims has women, men or children. Trafficking in women is usually associated with illegal markets, including the black labor market. It can be said that illegal migration, transfer, blackmail and prostitution are closely linked. The results of the research show that work on black is one of the most current problems of our society. The process of increasing the number of workers working on the black began in the early 1990s as a result of socio-economic transition and sanctions, and since that time, this work has increased with the decline of the economy and industry. Experience shows that anyone can become a victim of trafficking, regardless of age, nationality, citizenship, education. The results of the survey show that Serbia is the country of transit of victims of trafficking in women, but also the country of origin of a temporary or permanent destination. Research suggests that the most common form of recruiting women victims of trafficking is related to work, the nature of work, the conditions under which it is done and the profits.

Particular attention should be paid to the training of labor inspectors, with important workshops on labor exploitation. Training with adequate participation of relevant state bodies, institutions and non-governmental organizations is necessary. It would be useful to draw up instructions and recommendations with advice and conduct of labor inspectors on the topic of combating and preventing trafficking in human beings for the purpose of labor exploitation. All of these should enable the capacity of labor inspectors to identify potential victims of trafficking in human beings, to record them and to inform the competent authorities and services in an appropriate manner and in a timely manner to provide the necessary assistance, possible identification of the victim, the care of the victim and adequate sanctioning of the perpetrator. The labor inspector should also be familiar with the possibilities and manner of handling in cases when his personal safety is endangered and when the security of the victim he identified has been endangered.

The emphasis on fighting and preventing trafficking in human beings should be based on the capacity and ability to detect human trafficking cases for the purpose of labor exploitation, identification and work to eliminate the risk of exploitation of foreign and Serbian citizens abroad due to limited employment opportunities in Serbia, prevention of trafficking in human beings, responsible corporate practices and raising awareness of Serbian citizens as one of the more serious diseases of society and civilization.

References

[1] Protokol UN o trgovini ljudima (Palermo protokol) odnosno Protokol za prevenciju, suzbijanje I kažnjavanje trgovine ljudskim bićima naročito ženama i decom u članu 3 stav a

[2] Konvencija MOR br 29. o prinudnom radu, 1930. (čl. 2., ст. 1)

[3] ARIADNE mreža protiv trgovine ljudima u JI i I Evropi, Borba protiv trgovine ljudima, uredio Komitet pravnika za ljudska prava YUCOM, Kovačević-Vučo B- ,pp. 7, 122, 123, 128, 129

[4] Strategija prevencije o suzbijanju trgovine ljudima, posebno ženama I decom I zaštite žrtava za period od 2017. do 2022.godine, Službeni glasnik RS, br. 77/17

[5] Znaci trgovine ljudima I klasifikacija mogućih žrtava zbog registracije, Anti Trafficking Center, Beograd, 2004

[6] Opšta napomena Komiteta za ljudska prava br. 28. tačka 12 i39

[7] Zakon o državnoj upravi, Službeni glasnik RS br. 79/05, 101/07, 95/10

[8] Zakon o radu Službeni glasnik RS br. бр. 61/05, 32/13, 75/14, 13/17-УС, 113/17

[9] Zakon o bezbednosti i zdravlju na radu, Službeni glasnik RS, br. 101/05, 91/15

[10] Bjerkan L, Samo moj život, Beograd, 2005

[11] Nikolić Ristranović V, Ćopić S., Milivojević S, Simeunović-.Patić B, Mihić B, Trgovina ljudima u Srbiji, Viktimološko društvo Srbije, Organizacija za evropsku bezbednost I saradnju (OSCE), Beograd, 2004., Narodna biblioteka Niš, pp. 97, 98, 100

[12] Kroeger tr, Saradnja između policije I nevladinih organizacija u borbi protiv trgovine ženama- Struktura prikaza situacije u Nemačkoj, referat sa radnog sastanka na temu; Saradnja između policije I nevladinih organizacija u borbi protiv trgovine ženama u organizaciji OEBS u Jugoslaviji, održanog u Beogradu, januara 2002. godine pp 9

[13] Kalač M, Trgovina ljudima, Pravne teme godina 4 broj 3, pp 145.153, 343.431

TRAFFICKING WITH HUMAN BEINGS, IDENTIFICATION AND THE PRINCIPLES OF NON PUNISHMENT FOR VICTIMS OF TRAFFICKING

Veton Vula[507]

DOI: https://doi.org/10.31410/eraz.2018.808

Abstract: *One of the organized crime activities in the modern world is trafficking with the human beings. Organized crime at the same time is considered key factor on incitement of trafficking with the human beings-activity which despite the violation of human rights of individuals threatens also the security in the region and broader. However, the increase of trafficking comes as the consequence of economic, social and political none quality of people in many developing countries and those in transition. Seen from the aspect of human rights trafficking is a complex and multidimensional problem and it is also a modern form of slavery. It is treated as: abuse of human rights which touch upon a group of human rights of victims of trafficking. Obligations and recommendations that derive from international documents consist on improving the status of the victims as well as offering some rights for victims of trafficking. On prevention and combating trafficking with human beings international community as well as states individually have undertaken preventive and repressive measures in order to prevent and combat this profitable activity for organized criminal groups.*
Principle of non punishment of victims is seen in a number of international standards, including those with binding legal and political force approach, which respects in every time the dignity and the human rights of victims of trafficking. In the opposite punishment of the victims of trafficking linked directly with their trafficking is violation of their basic dignity.

Key words*: trafficking with human beings, human rights, identification, principle of non punishment*

Trafficking of human beings, identification and the principle of non punishment of victims of trafficking

At the end of the cold war, in general in most countries, the concern about the trafficking with the human beings as a form of organized crime, has been increased. Governments of some European and Western America were those which would lead this whip in 1990-s by involving other regions as well that happen to be states of origin, transit or host of illegal emigrants.

In this regard by mid of nineties, trafficking and smuggling with human beings was seen as an issue of management and the control of migration. While by the end of 90-s, trafficking of human beings and smuggling has been treated as the issue of organized transnational crime and the issue which threaten society and the economy[508].

Based in various forms of appearance of the organized criminality, the phenomenon of trafficking with human beings is not a new phenomenon---it exists since the time when borders

[507] University College ”AAB” Prishtina
[508] John Morrison, FMO Research Guide: Human Smuggling and Trafficking, *www.forcedmigration.org/guides/fmo011/fmo011.*

were put between states and nations. Trafficking with human beings is nothing less than a form of modern slavery, an unforgivable crime against the most sensitive parts of the society in general[509]. Even though trafficking with human beings is not a new phenomenon, it continually draws attention of more subjects from various profiles, because it takes new forms by changing structure, characteristics and more and more spreading of this phenomenon of the criminal nature. Due to this reason, author Lee M. concludes that trafficking of human beings has become issue of many scientific and professional researches at the national, regional and international level.[510]

Starting from the Convention on measures against trafficking of human beings, the European Council has given definitions which was generally accepted and according to what, term trafficking of human beings means "recruitment, transportation, transfer, housing or taking persons under the threat, the use of force or other forms of pressure, abduction, fraud, snare, misuse of power, of them that have unprotected positions or giving or getting payments or profits in order to achieve the approval of a person who has a control over the other person with the profit intention.

According to this definition, exploitation will cover minimally the exploitation of others for prostitution, other forms of sexual exploitation, work or other forced services, slavery or practices similar to slavery or taking off organs"[511].

Based on the motives of offenders of this criminal activity, when talked about the trafficking of human beings, there should be a difference made based on the motive where there could be noted two basic forms of trafficking of human beings. First, the motive of exploitation of work and the second the exploitation for sex.[512]

Groups of organized crime with the trafficking activity create big profit from the transport and exploitation of people in various forms. Incentive factors of trafficking according to the EU strategic approach, trafficking is generally broad phenomenon and transnationally complex caused for poverty, lack of democratic culture, gender inequality and violence against women, conflicts and post conflict situations, the lack of social integration, lack of possibilities of employment, approach on the education , the work of children and discrimination.

Other drawing factors of trafficking include sex industry which is on increase and requests for sexual services as well as the global requests for free labor force and free products[513]

Importance of identification of trafficked persons as a pre-condition to practice the principle of non-punishment

In order to have the principle of non-punishment to be not in the function it is very neccessary that as early as possible a person to be identified as a victim of trafficking and this enables

[509] President George W. Bush, Oct. 2, 2002, Assessment of U.S. Activities to Combat Trafficking in Persons, Aug. 2003, p. 1, [hereinafter Assessment] *at* http://www.state.gov/g/tip/rls/rpt/23495.htm
[510] Lee, M. (2007) „Introduction: Understanding human trafficking" u: M. Lee (ur.) *Human trafficking*, Devon: Willam Publishing, f.1-2 www.ilo.org/wcmsp5/groups/public/---ed.../wcms_142882.
[511] Convention of Council of Europe on measures against trafficking with human beings, Warshaw, May 16,2005 –series of European treaties ETS nr.197
[512] J. Markovic, *Trgovina ljudima kao oblik organizovanog kriminaliteta*, Kriminalistiçke teme nr. 3.4/2003, pg. 127,Faculty of Criminalistic Sciences, Sarajevo.
[513] "EU strategy on eradication of trafficking with human beings, 2012-2016", June 2012, pg.3

undertaking of measures so you avoid penal sanctions or administrative measures regarding the pretended criminal offenses.

For this reason, the creation of mechanisms and effective procedure are essential on identifying victims of trafficking always when this is possible. Non identification could result with treating the victim as the "real" actor of a criminal act, meaning that he/she should be hold responsible and even punished for such deeds. As the consequence, early identification is essential and states should ensure that civil servants which could be put in the contacts with the trafficked persons, e.g. police, custom officers, social services and labor inspectors---to be trained for this job and to cooperate themselves.[514] Moreover state authorities should be active in a way to reveal possible situations of trafficking with human beings, prosecutor should undertake initiative to ensure investigation on circumstances of suspected and the circumstances of the ban[515].

One of the definitions of the identification process is given by La Strada: "identification of trafficked is considered a whole range of actions through which, the police worker, based on the collected information from the supposed victim or from private/judicial persons, who have the information on the illegal activities of the mentioned person, is able to conduct analysis of the collected information, to comprise data on the conducted crime with the elements that define the criminal act of trafficking and who comes to the conclusion that the person is the victim of trafficking. Identification of the trafficked persons has as the goal the guarantee to an access in a package in the minimum of free necessary help, whose measure is determined by an effective legislation".[516]

Based on the Law Nr.04/L-218 on preventing and the fight against trafficking with human beings and the protection of victims of trafficking in Kosovo, article 12 it is said that: "official identification of trafficking victims is done by respective police units, prosecutors, defender of victims and the centers for social work based on [..], when there is a based doubt that a determined person is the victim of trafficking in accordance with the standard procedures of action drafted by respective authorities".[517]

Identification of trafficked persons is crucial on ensuring the human rights – since the first identification and most important there should be thoughts of protection and the necessary assistance. In order to protect and assist the victims, it is important to identify them precisely and immediately. In many international law documents it is stressed out the need for effective identification of trafficked persons. For example, in the document (ECOSOC) on Principles and Recommended Guidelines on human rights and trafficking with human beings it is said: "failure on correct identifying of a trafficked person could result with the denial of his rights. For this, states are obliged to ensure that identification could and should be developed."[518] Importance

[514] OSCE Ministerial Council, Decision No. 8/07 Combating Trafficking in Human Beings for Labor Exploitation (Madrid, 30 November 2007), paragraph. 4; OSCE Permanent Council, Decision No.557/Rev. 1 OSCE Action Plan to Combat Trafficking in Human Beings (Vienna, 7 July 2005), Chap. III para. 5, Chap. V para. 3, Addendum paragraph. 5

[515] Court of Appeal of Britain and Wales, Case Regina against O, Criminal Sector of the Court of Appeal 2835 (2008) , accessed on April 10, 2013

[516] International Centre for Women's Rights Protection and Promotion. Identification of Trafficked Persons in Moldova. La Strada. 2006.

[517] Law Nr. 04/L-218 on prevention and combating trafficking with human beings in Kosovo, article 12.

[518] UN ECOSOC, "Principles and Recommended Guideliness on Human Rights and Trafficking with Human Beings. Report oh High UN Commissionar for Human Rights in the Economic and Social", E/2002/68/Add.1, 2002, pg. 6.

of developing effective methods on identifying trafficked persons is noted in many studies. According to assessments made by international experts, around 65% of victims of trafficking are identified.[519] This happens for various reasons, as for example: persons that were trafficked in a foreign state often are frightened with the fact that they will be prosecuted because of the violation of the domestic law---this is especially the case when a foreigner violates emigration laws related to entrance and the stay in the third territory. Despite this, trafficked often believe the structures of the state agencies as long as they are not aware of their rights and possibilities to deal with the protection and to offer help, as the trafficked persons. Often psychological trauma does not allow trafficked to in an adequate way evaluate events so they can undertake necessary steps in repairing the situation. And as the result, trafficked more often in a routine way are presented as illegal immigrants rather than trafficked, they are put and stopped in court or administrative process, they are fined or expelled from the country. After turned in the country of origin these persons may be prosecuted further for using false documentation, for illegal escape from the country etc. As the consequence, sufferings and the suffered trauma are more complicated from the nightmarish caused during the talks with the state execution organs.

"The rights of trafficked victims should be in the center of the efforts on prevention and the fight against trafficking, assistance and ensuring the compensation of victims"[520].

Identification is very important to stop further violation of rights and victimization of trafficked victims, and in many cases to prevent victimization from authorities and the structures that are supposed to defend victims. In many countries of destination "victims of trafficking could be taken by mistake as illegal immigrants and thus they are deported or they are put in the detention centers".[521]

UN Commissioner for Human Rights considers the failure of quick identifying of victims as ;"a further violation of human rights of this person".[522]

Identification of trafficked persons is important on ensuring human rights; form the first identification and the most important is that there should be ensured the access on protection and the needed protection.

In order to protect and to help, it is important that the victims are precisely and immediately identified. In many of international law documents the need for effective identification is stressed out. For example, in the document ECOSOC (UN Economic and Social Council) on the Principles and the Recommended Guidelines on the rights of trafficked persons it is said: "failure on correct identification of a person could result as a denial of his rights. For this states are obliged to ensure that the identification could and should be developed by commitment".[523]

EU Action Plan in the field of anti trafficking adopted by the Council of Europe in December 2005, covers a package of measures in order to facilitate development of abilities to identify

[519] Limanowska, B., "Trafficking of human beings in South-East Europe", UNICEF, OKB OHCHR, OSBE/ ODIHR, 2002, page 142.
[520] OESC/ODIHR. National Mechanisms of reference. Unified Efforts on Protecting the rights of trafficked persons. Practical Manual,
[521] IOM. IOM Manual for direct assitance of victims of trafficking, Tirana 2007.
[522] UNHRC. Report of UN High Commissionar for Human Rights. Principles and Guideliness on Human Rights and Trafficking with Human Beings, 2002.
[523] OKB-ECOSOC, (UN- Economic and Social Council) "Principles and Guideliness Recommended for Human Rights and Trafficking with Human Being. UN Repot by High Commissioner for Human Rights in the Economic and Social Council", E/2002/68/Add.1, 2002, pg. 6.

trafficked persons (e.g.workshops and exchange of best experiences and practices).[524] Importance of developing of effective methods on identifying trafficked persons is stressed out in many studies ensuring that victims not to be penalized or punished for deeds or related directly to the fact of being trafficked, in this regard, as soon as there is a justifiable doubt that someone could have seen trafficked there should be a cautious evaluation of their case. Further, the order for deportation should be suspended[525] and a help should be given in accordance with the needs and the rights they joy, including legal independent counseling regarding their situation.

Article 12.1 of European Council Convention foresees: ”each party should adopt these legislative measures and others based on needs in order to help victims on their physical, psychological and social renewal. This help should include at least:[...] counseling and information, especially regarding the services at the disposal for them in a language they do not understand. Similar obligation exists also in EU[526]. OSCE engagement against trafficking calls on states to ensure assistance to the victims and especially on the access in the legal help and counseling in a language which is understood by the victim.[527]

Principle that a trafficked person should not be penalized acts in two ways: a) for the violations committed during the process of trafficking (violations which come as cause-consequence); b) violations which are not linked with the act of trafficking but victims of trafficking are obliged to commit being that they do not have autonomy on acts they commit (violations committed by being forced to commit).[528]

State legislations, guideliness for prosecutors and other subjects of criminal law should include both of these violations in fulfilling their duty on not punishing victims of trafficking. A complete list with the violations victims could do during their trafficking or as the consequence of trafficking, is impossible to be done. People are trafficked for many reasons and violations and therefore consequently violations are linked to these reasons. However, there are some violations which are committed more often in the context of trafficking with the human beings.[529]

[524] “EU Plan on best practices, standards and procedures on combating and preventing Trafficking with human beings ”. Official Gazette, *C 311, 09/12/2005*.

[525] Council of Europe, Op. Cit., Article 10, paragraph. 10. 3: “when the age of victim cannot be known for sure and when there is a reason to believe that victim is minor, he/she is presumed to be minor and there should be given special measures on his/her protection while waiting for the verification of his/her age”.

[526] EU Directive 2011/36/ European Parliament and Council, date April 05, 2011 on preventing and combating trafficking with human beings and protection of victims and that replaces Cadre Decision of Council 2002/629/JHA (April 05, 2011), Art. 11.5.

[527] Beings for Labour Exploitation (Madrid, 30 November 2007), para. 3; OSCE Ministerial Council, Decision No. 5/08 Enhancing Criminal Justice Responses to Trafficking in Human Beings through a Comprehensive Approach (Helsinki, 5 December 2008), para. 10; OSCE Permanent Council, Decision No.557/Rev. 1 OSCE Action Plan to Combat Trafficking in Human Beings (Vienna, 7 July 2005), Chap. IV, para. 6.1.

[528] United Nations Working Group on Trafficking in Persons, Non-punishment and non-prosecution of victims of trafficking in persons: administrative and judicial approaches to offences committed in the process of such trafficking, CTOC/ COP/WG.4/2010/4 (9 December 2009), paragraph. 4, (UN Working group on Trafficked Persons), accessed on April 10, 2013

[529] UN Office for Drugs and Crimes (UNODC), Model Law against Trafficking of Persons (August 05, 2009), accessed on January 29, 2013, pg.40:” Model Law against Trafficking of Persons” in the commentary of article 10 gives examples for guideliness for prosecutors ragarding legals systems where prosecutors are given a level of discretion:”a victim of trafficking should not be deteined, arrested or burdened with the responsibility for prosecution or administrative sanctions for criminal offenses committed from him or as a direct result of crime of trafficking of persons, including: a) illegal entry, exit or stay of a person in [state];b) ensuring of possession of whatever travel document or falsified identity that he/she has taken in order to enter or exit to/from the country

Criminal offenses which could be committed from victims during the time of trafficking include and which are not limited only with the law on immigration, giving the false information in order to get travel documents, working permission, temporary residence, illegally crossing border and the violations during the time of stay with the visa. These criminal offenses which may be committed as a consequence of trafficking and those committed during the time of being trafficked when the victim is controlled be the trafficker. Such criminal offenses include but are not limited to the criminal offenses linked to the type of exploitation for what the victim is trafficked. For example, victims forced to deal with the prostitution may not have permission (when in fact they should) or they may be working against the legislation on prostitution. These criminal offenses contain threat for law and order. State has a legitimate interest to prevent these activities and to arrest them. However in cases when a victim of trafficking has committed a crime as a cause or as a consequence of being direct victim of trafficking, prosecutor or judge should in each case analyze the level of linkage of this criminal offense with the victims trafficking and with the lack of their autonomy. There were the criminal offense is linked to the situation of an accused or suspected as the trafficked the state should give them immunity on prosecution, detention or execution of the punishment. But if trafficked person has committed a crime that was not dependent on the fact of being trafficked or if he has committed a crime but his own will without being object of any of ways foreseen with the definition of trafficking, he should be hold responsible for his deeds. Most of the countries of the Councik of Eurooe have ratified Convention of European Council on the activities against trafficking with the human beings.[530]

Despite the fact that the above mentioned conventions are ratified the theoretical and practical problems on concepts regarding identification of trafficking exist in most EU countries by not refined still national standards on identifying of trafficked persons, therefore as the lack of proper or not proper identification, we may have also unlawful punishment against the victims of trafficking with human beings.

Principle of nonpunishment as an essential element in the approaching human rights

Trafficked who were victims of one or more criminal offenses, states are obliged to help these persons and not to treat them as criminals. Principles and Guideliness recommended by United Nations express:"human righst of trafficked shoud be in the center of all efforts on oreventing and fighting trafficking as well as protection, assistance and offering solutions for victims".[531] European Council Convention for action against trafficking with human beings 2005 in its preamble foresees: "the most important objectives should be consideration of human rights of trafficked, protection of victims an the fight against trafficking".[532] In Porto Declaration of Council of Ministers, states participant in OSCE have confirmed also that: "dignity and human rights of victims should be respected in all the times"[533].

regarding the act of trafficking of persons; c) involving of person in the illegal activities in a size in which he/she were forced to do it.

[530] European Council Convention on activities agains Trafficking with Human Being (Warshaw, 2005).

[531] UN Office of the High Commissioner for Human Rights, Recommended Principles and Guidelines on Human Rights and Human Trafficking, E/2002/68/ Add.1 (20 May 2002), (Office of UN High Commissioner for Human Rights), accessed on: January 31, 2013.

[532] European Council, Convention for Acting against Trafficking with Human Beings, CETS Nr. 197 (Warshaw, 2005), Art. 26.

[533] OSCE Ministerial Council, Declaration on Trafficking in Human Beings, MC(10). JOUR/2 (Porto, 7 December 2002), Annex 2, Section II, para. 6 (OSCE Council of Ministers).

Penalization of a person for acts he has done as the direct cause or consequence of being trafficked, should be seen exactly in that context: this not only labels and punishes them without right but this also affects objectives of these human rights.

Principle of nondiscrimination besides it requires states to not undertake determined activities against trafficked persons, it sets up some positive obligations. In this regard the decision of European Court for Human Rights related to article 4 of the European Convention on Protection of basic human rights and freedoms (forbiddance of slavery and forced labor), case Rantsev vs.Ciprus and Russia, determined the obligation of states ---that respect of human rights includes also existence of the appropriate legislation"[...] to guarantee practical and effective protection of possible victims of trafficking".[534] This emphasis on protection of victims rights shows in reality that obligation includes also the guarantee that these persons will not be punished for the criminal offenses which are directly linked to the fact that they were trafficked. For this reason, obligation for non-punishment is closely linked to the obligations of the state to identify, to protect and to assist victims of trafficking[535] as well as with the obligation of the state to prosecute a situation of trafficking in order to identify smuggler and to require to bring the smuggler to the responsibility before justice[536].

Principle of non-punishment can be violate directly and indirectly. Indirect violation is done when state authorities do not manage to identify a person as the victim of trafficking which creates an incomplete picture of circumstances of the criminal offence and the criminal responsibility. The direct violation of principle of non-punishment comes from the situations when state authorities treat an criminal offence committed by a victim of trafficking as "they should have known"[537] their status and that in fact do not give needed importance of this fact when they decide on his/her responsibility.

Conclusions

Victims of trafficking are victims of criminal offenses and the heavy violations of human rights. According to the international law, states are obliged to ensure protection of the rights of victims by including the right to precisely be identified as trafficked adult or minor and it is precisely this identification that contains the crucial element of their protection. Non-punishment is not only a principle which respects and protects the rights of victim, including here also the right of being protected from re-victimization and offering assurance in recuperation. Respecting of this legal principle helps also the fulfillment of state obligations towards trafficked persons in accordance with the decision of Europena Court on Human Rights---case Ranstev.

Identification of trafficked persons is important in ensuring human rights from the first identification and most important is that it should be thought the ensurance of access on protection and the necessary assistance. In order to protect and to assist victims the precise and

[534] European Court for Human Rights, case Rantsev vs. Ciprus and Russia, request nr. 25965/04 (Strasbourg, January 07, 2010) , accessed on: January 31, 2013, paragraph. 284

[535] Ibid. paragraph 285: "[…] member states should build a legal and administrative cadre on preventing and combating trafficking. Court should take into the account that Protocol I of Palermo and Convention on Anti Trafficking refer to the need for a comprehensive approach to hit trafficking which includes measure on prevention and protection of victims [...] Expanding positive obligations which derive from article 4 should be seen in a broader context".

[536] Ibid., paragraph 286: positive obligations of states towards victims of trafficking start when "authorities are convinced or should be convinced on circumstances which raise believable suspects that an identified individual has been or is in front of close danger to the trafficking or being used[…].

[537] Ibid.

immediate identification of victims is important because failure on correct identification of a trafficked person could result with the denial of his/her human rights. For this states/party are obliged to ensure that identification should and could be developed precisely. Development of effective methods on identification of trafficked persons is of specific importance. In this regard the protection of victims of trafficking is objective and an important obligation for all states. Punishment of trafficking victims (for crimes committed or that are linked with their trafficking) contains a heavy denial of justice. States are obliged not to give punishments for committed crimes by trafficked person as a consequence of their trafficking or during the time of being trafficked. Obligation not to punish victims of trafficking should be executed effectively by states when facing trafficking victims. Policies and the criminal issues in the states should treat trafficking with human beings starting from the point of human rights by having in the center victim. States should encourage police, prosecutors and judges to consider trafficking victims as victims of heavy crimes and the violation of human rights---crimes and violations that should be seen as priorities. States should build up effective mechanisms to identify immediately trafficking victims, so the victims will not be punished for criminal offenses they have committed in the time they were trafficked or as the consequence of trafficking. Early identification is crucial and states should guarantee that public officials which may be in contacts with the trafficked as police officers, custom officers, labor inspectors, medical personnel as well the personnel of centers where th eillegal immigrants are kept, should be trained so they could do this professional identification. This training should include also addressing of difficulties on identification of victims who at the first sight could appear as suspected as well as on the guidelines on executing the disposal of non-punishing the trafficking victims.

it can be concluded that the precise identification of trafficking victims and as the result of this identification, their non-punishment contributes to further violation of human rights-trafficking victims.

Literature

1. John Morrison, FMO Research Guide: Human Smuggling and Trafficking. www.forcedmigration.org/guides/fmo011/fmo011.
2. President George W. Bush, Oct. 2, 2002, Assessment of U.S. Activities to Combat Trafficking in Persons, Aug. 2003, p. 1, [hereinafter Assessment] *at* http://www.state.gov/g/tip/rls/rpt/23495.htm
3. Lee, M. (2007) „Introduction: Understanding human trafficking“ u: M. Lee (ur.) *Human trafficking*, Devon: Willan Publishing, f.1-2 www.ilo.org/wcmsp5/groups/public/---ed.../wcms_142882.
4. Konventa së Këshillit të Evropës për masat kundër trafikimit të qenieve njerëzore, Varshavë, 16.5.2005 Seria e traktateve evropiane ETS nr.19
5. J. Markovic, *Trgovina ljudima kao oblik organizovanog kriminaliteta*, Kriminalističke teme nr 3.4/2003, f. 127, Fakulteti i Shkencave Kriminalistike, Sarajevë.
6. "Strategjia e BE-së në drejtim të çrrënjosjes së Trafikimit të qenieve njerëzore 2012-2016", qershor 2012, fq.3
7. OSCE Ministerial Council, Decision No. 8/07 Combating Trafficking in Human Beings for Labour Exploitation (Madrid, 30 November 2007), para. 4; OSCE Permanent Council, Decision No.557/Rev. 1 OSCE Action Plan to Combat Trafficking in Human Beings (Vienna, 7 July 2005), Chap. III para. 5, Chap. V para. 3, Addendum para. 5

8. Gjykata e Apelit e Anglisë dhe Uellsit, Cështja Regina kundër O, Sektori Penal i Gjykatës së Apelit 2835 (2008), International Centre for Women's Rights Protection and Promotion. Identification of Trafficked Persons in Moldova. La Strada. 2006.
9. Ligji Nr. 04/L-218 për parandalimin dhe luftimin e trafikimit me njerëz dhe mbrojtjen e viktimave të trafikimit i Kosovës, neni 12
10. OKB ECOSOC, "Parimet dhe Udhëzimet e Rekomanduara për të Drejtat e Njeriut dhe Trafikimin e Qenieve Njerëzore. Raporti i Kombeve të Bashkuara nga Komisioneri I Lartë për të Drejtat e Njeriut në Këshillin Ekonomik dhe Social", E/2002/68/Add.1, 2002, faqe. 6.
11. Limanowska, B., "Trafikimi i Qënieve Njerëzore në Europën Jug-Lindore", UNICEF, OKB OHCHR, OSBE/ ODIHR, 2002, faqe. 142.
12. OSBE/ODIHR. Mekanizmat Kombëtare të Referimit. Bashkimi i përjekjeve për mbrojtje të të drejtave të personave të trafikuar. Manual Praktik. 2006
13. IOM. Manuali i IOM-it për ndihmën e drejtpërdrejtë për viktimat e trafikimit. Tiranë, 2007.
14. UNHRC. Raport i Komisionerit të OKB-së për të Drejtat e Njeriut. Parime dhe Udhëzime mbi të Drejtat e Njeriut dhe Trafikimin e Qenieve Njerëzore. 2002
15. OKB-ECOSOC, (UN- Economic and Social Council) "Parimet dhe Udhëzimet e Rekomanduara për të Drejtat e Njeriut dhe Trafikimin e Qenieve Njerëzore. Raporti i Kombeve të Bashkuara nga Komisioneri i Lartë për të Drejtat e Njeriut në Këshillin Ekonomik dhe Social", E/2002/68/Add.1, 2002, faqe. 6.
16. "Plani i BE-së për praktikat më të mira, standartet dhe proçedurat për luftimin dhe parandalimin e Trafikimit të Qenieve Njerëzore". Gazeta Zyrtare *C 311, 09/12/2005*.
17. EU Directive 2011/36/BE e Parlamentit Evropian dhe Këshillit e datës 5 prill 2011 për parandalimin dhe luftën kundër trafikimit të qenieve njerëzore dhe mbrojtjen e viktimave, dhe që zëvendëson Vendimin Kuadër të Këshillit 2002/629/JHA (5 prill 2011), Neni 11.5.
18. Beings for Labour Exploitation (Madrid, 30 November 2007), para. 3; OSCE Ministerial Council, Decision No. 5/08 Enhancing Criminal Justice Responses to Trafficking in Human Beings through a Comprehensive Approach (Helsinki, 5 December 2008), para. 10; OSCE Permanent Council, Decision No.557/Rev. 1 OSCE Action Plan to Combat Trafficking in Human Beings (Vienna, 7 July 2005), Chap. IV, para. 6.1.
19. United Nations Working Group on Trafficking in Persons, Non-punishment and non-prosecution of victims of trafficking in persons: administrative and judicial approaches to offences committed in the process of such trafficking, CTOC/ COP/WG.4/2010/4 (9 December 2009), para. 4, (Grupi i Punës i Kombeve të Bashkuara për Trafikimin e Personave), vizituar më 10 prill 2013
20. Zyra e Kombeve të Bashkuara për Drogat dhe Krimet (UNODC), Ligji Model kundër Trafikimit të Personave (5 gusht 2009).
21. UN Office of the High Commissioner for Human Rights, Recommended Principles and Guidelines on Human Rights and Human Trafficking, E/2002/68/ Add.1 (20 May 2002),
22. European Court of Human Rights, Case: Rantsev vs Ciprus and Russia, Application no: 25965/04 (Strasburg, 7 January 2010),

YEKATERINBURG AGGLOMERATION: ANALYSIS OF THE CITY-PLANNING AND REAL ESTATE MARKET SITUATION IN THE SEGMENT OF APARTMENT BUILDINGS IN VERKHNYAYA PYSHMA

Anna Loginova[538]
Stanislav Pridvizhkin[539]

DOI: https://doi.org/10.31410/eraz.2018.817

Abstract: *The article gives a brief description of the city of Verkhnyaya Pyshma, satellite-city of Yekaterinburg, Russia. The demographic situation in this city is analyzed and the dynamics of the population is estimated. The article describes the existing municipal programs of the improvement the urban environment, as well as master plan of the city. The article presents an analysis of the real estate market situation in the segment of apartment buildings. Based on the materials given in the article, conclusions were drawn about the current city-planning and market situation for apartment buildings in Verkhnyaya Pyshma.*

Keywords: *Yekaterinburg agglomeration, demographic situation, real estate market, construction volume, apartment buildings.*

The object of study of the article is the city - Verkhnyaya Pyshma, which applies to the northern part of Yekaterinburg agglomeration.

Agglomeration (from Lat. agglomerare—to incorporate, to accumulate) is a compact location, a grouping of urban settlements united by intensive production, labor, cultural, social and recreation links. [1]

The aim of the article – make an analysis of the current city planning and real estate market situation in Verkhnyaya Pyshma and primarily in the market of multi-apartment buildings.

CHARACTERISTICS OF THE CITY

Verkhnyaya Pyshma, a city-satellite of Yekaterinburg, with a population of 69117 people. Adjoins to the Yekaterinburg from the north (the distance between city-centers is about 14 km). Verkhnyaya Pyshma is located on the eastern slope of the Middle Urals, at the source of the Pyshma River. Vicinity of the regional center, developed transport system provide the evolution of new enterprises and services sector. The leading element in the economy of the urban district is the industry, which is represented by 15 large and medium-sized industrial organizations of various industrial orientations. Verkhnyaya Pyshma is a base city of the Ural Mining and Metallurgical Company. Various municipal programs of Verkhnyaya Pyshma help it to be a rapidly developing, modern city of the Sverdlovsk region.

[538] Federal State Autonomous Educational Institution of Higher Professional Education “Ural Federal University named after the first President of Russia B.N. Yeltsin”, Yekaterinburg, Russian Federation
[539] Federal State Autonomous Educational Institution of Higher Professional Education “Ural Federal University named after the first President of Russia B.N. Yeltsin”, Yekaterinburg, Russian Federation

For example, on December 26, 2017, the program "Formation of a modern urban environment in the territory of the urban district of Verkhnyaya Pyshma for 2018-2023" was adopted as part of the priority project "Organization a Comfortable Urban Environment". [3] The main goal of this program is to improve the comfort and safety of living conditions and recreation of citizens in the city district. The objectives of this program include improving the level of landscaping of public and private (yard) areas in the city, as well as increasing the involvement of interested citizens and organizations in the implementation of actions to improve the territory of the urban district.

On May 29, 2017, a new master plan for the city of Verkhnyaya Pyshma was adopted. The purposes of the master plan in the region of territorial planning of the development of the city of Verkhnyaya Pyshma are: creating conditions for the growth of the quality of life, the city's economy and its investment attractiveness; reorganization of engineering, transport and social infrastructures; rational nature management, and environmental improvement. Within realization of these purposes, according to the new master plan, by the year 2034 in Verkhnyaya Pyshma there are plans to build more than eighteen new educational institutions, including general education and pre-school, the Tour Theater, the Palace of Technical Creativity, the Palace of Sambo, the Palace of Water Sports, the Department of judges, the Children's Art School, a cycle school and ski-track complex, an agricultural market. [2]

The program of the housing construction provided by the master plan. The projected population of by 2034 is accepted equal 110 thousand people. It is planned to decompact the residential development, as well as to improve the living conditions of citizens, in particular, to increase the average housing provision from 22.1 m^2 per person to 30 m^2 per person. New construction will be presented by private residential houses and medium and multi-story sectional residential buildings. The total amount of projected housing for the period till 2034 will be 3300.3 thousand m^2. New housing construction according to the plan is located on the demolition of the existing old and emergency housing stock and on free from building areas.

Also on September 14, 2017, the decree of the Government of the Sverdlovsk Region on the approval of the multipurpose program "Development of the Urban District of Verkhnyaya Pyshma" for 2017-2022" was formed. The main purposes and objectives of this program are: the development of the urban district infrastructure; modernization of objects of education, health system, physical culture, sports and youth policy; creation of conditions for reformation of housing infrastructure according to the quality standards that provide comfortable living conditions; increase the level of housing provision by increasing the volume of housing construction.

These programs create favorable conditions for the purchase of real estate in a modern city with a developed infrastructure and the availability of workplaces in a vicinity of the regional center.

DYNAMICS OF THE CITY POPULATION

According to the Federal State Statistics Service of the Sverdlovsk Region, Table 1, it is possible to see that the general demographic situation has positive trends.

Table 1. Population of Verkhnyaya Pyshma

	Population (on January, 1)								
Year	2009	2010	2011	2012	2013	2014	2015	2016	2017
Population	58405	59749	59700	60662	62588	64113	65781	67674	69117

Table 1 is compiled on the basis of data published on the website of the Federal Statistics Service of the Sverdlovsk region.

Table 2. Dynamics of the population of Verkhnyaya Pyshma

Population|Year	2009	2010	2011	2012	2013	2014	2015	2016	2017
Actual, man	58405	59749	59700	60662	62588	64113	65781	67674	69117
Plan, man	-	-	-	-	-	-	66298	68483	70668
Implementation of indicators							-517	-809	-1551
Actual increase, man	305	1074	-49	962	1926	1525	1668	1893	1443
Natural increase, man		-	-	254	214	304	299	13	-
Inflow of population, man				2293	3394	3230	3114	3465	-
Outflow of population, man				1250	1398	1584	1845	1771	-
Indicator of migration growth				1043	1996	1646	1269	1694	-

The planned indicators in Table 2 were compiled on the basis of the Master Plan of urban district V. Pyshma for the period 2014-2034, and the actual ones based on data published on the website of the Federal Statistics Service of the Sverdlovsk Region.

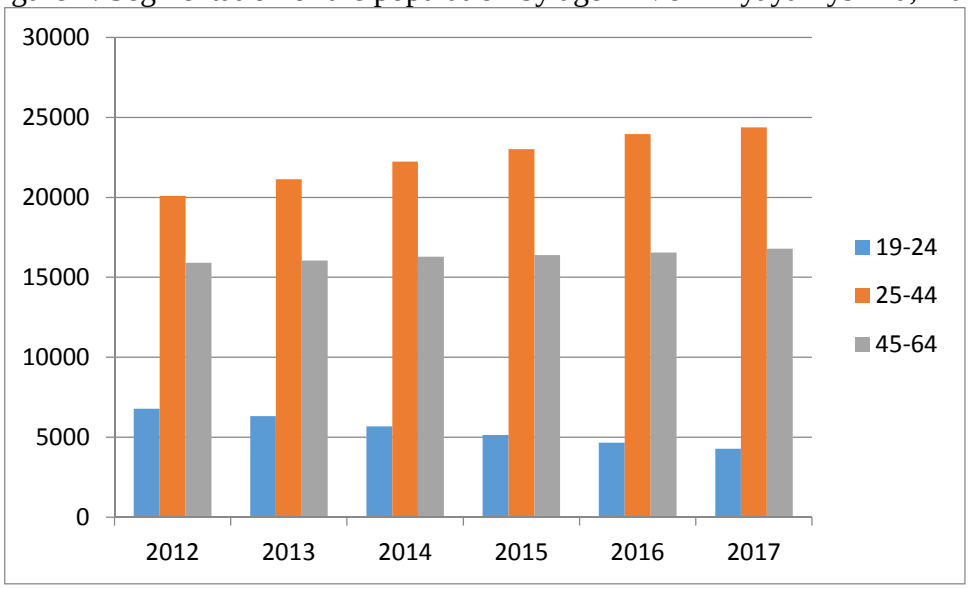
Analyzing the data of Table 2, it is possible to draw a conclusion that, according to the results of 2015-2017, the planned indicators for population growth are not fulfilled, although there is a general positive trend towards an increase. Also, the indicator of natural increase, as well as the indicator of migration growth, has a positive dynamics.

Table 3. Segmentation of the population by age in Verkhnyaya Pyshma.

Age/Year	2012	2013	2014	2015	2016	2017
19-24, man	6785	6313	5687	5136	4657	4269
% of total population (19-24)	11,2%	10,1%	8,9%	7,8%	6,9%	6,2%
25-44, man	20089	21138	22230	23019	23962	24378
% of total population (25-44)	33,1%	33,8%	34,7%	35%	35,4%	35,2%
45-64, man	15913	16044	16279	16385	16549	16781
% of total population (45-64)	26,2%	25,6%	25,4%	24,9%	24,5%	24,3%

Table 3 is compiled on the basis of data published on the website of the Federal Statistics Service of the Sverdlovsk region.

Figure 1. Segmentation of the population by age in Verkhnyaya Pyshma, man.



Based on the dynamics of the population by age, the number of people in the age of 18-24 years is steadily decreasing during the last six years, while the number of people in the age categories 25-44, 45-64 is steadily increasing. Although, if one look at the percentage ratio of the age category 45-64, to the total number of the population of the corresponding year, it is possible to see that the number of people of this age is decreasing. A positive factor for the development of housing construction is the increase the share of citizens aged 25-44, the most active participants in the housing market. Therefore, this shows a qualitative improvement in the demographic situation on account of a positive migration flow. That, allows builders to follow the current trends in the development of large cities: to conduct complex building by multi-stores apartment buildings.

Table 4. Working-age number of people

Year	2012	2013	2014	2015	2016	2017
Man (on January, 1)	38437	38809	39224	39409	39919	39947

Also, Table 4 was formed according to the Federal Statistics Service of Sverdlovsk Region, from the table it can be seen that the number of people of working age is kept approximately at the same level, in relation to previous periods.

From Table 2, it can be seen that the indicator of natural population increase has a positive value, therefore, citizens have the need to improve housing conditions by purchasing for children separate from their parents' flats or purchasing apartments of a larger area.

Loginova Anna Alekseevna
Master's Degree student of the Department of Pricing in Construction and Industry, Federal State Autonomous Educational Institution of Higher Professional Education "Ural Federal University named after the first President of Russia B.N. Yeltsin", Yekaterinburg, Russian Federation

CONSTRUCTION VOLUME

Table 5.Put into use, thousands of sq.m, in Verkhnyaya Pyshma

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
The volume of apartment housing put into use	37,00	56,89	64,21	73,58	27,69	87,58	98,86	63,89	143,02	94,12	119,16
The volume of private housing put into use	28,07	27,5	25,8	21,98	25,68	32,99	57,8	42,87	70,43	51,9	48,74

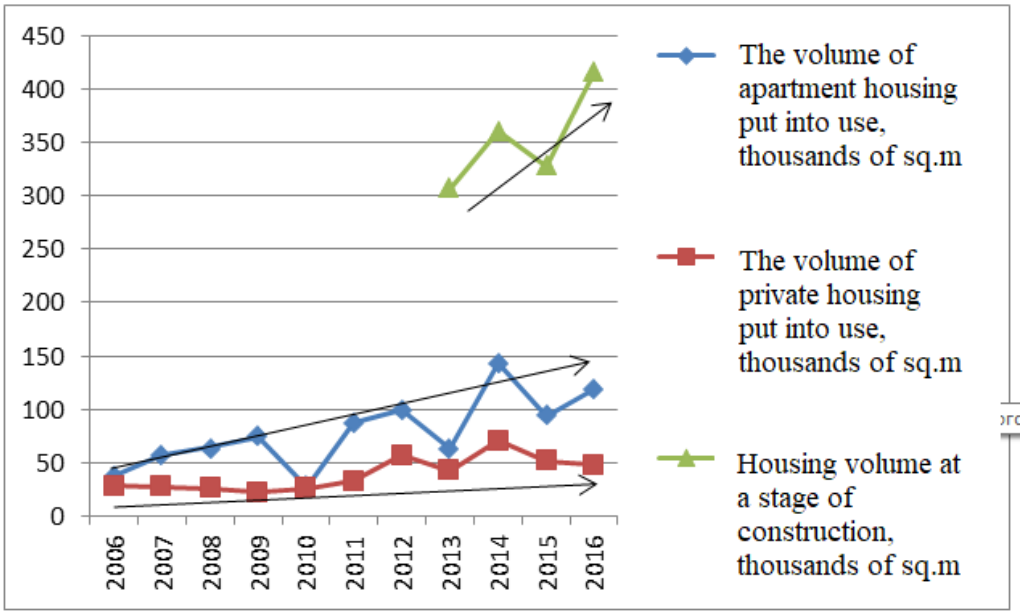
Table 5 is compiled on the basis of data published on the website of the Federal Statistics Service of the Sverdlovsk region.

Table 6. Housing volume at a stage of construction, thousands of sq.m, Verkhnyaya Pyshma

	I half year 2013	II half year 2013	I half year 2014	II half year 2014	I half year 2015	II half year 2015	I half year 2016	II half year 2016	I half year 2017
Housing volume at a stage of construction	134	173	181	179	169	159	170	246	231
Per year	**307**		**360**		**328**		**416**		-

Table 6 is given according to the data of the chief analyst of the Ural'skaya palata nedvizhimosti (Ural Chamber of Real Estate), Khorkov M.I.

Figure 2. The volume of real estate construction in Verkhnyaya Pyshma.



Drawing the graph (Figure 2), based on the data in Table 5 and Table 6, one can see that the volume of apartments and private housing in the city Verkhnyaya Pyshma is kept at a stable level. Also, one can see that the volume of housing at a stage of construction saves positive dynamics.

Table 7. The average price of 1 sq. m at the secondary housing market in Verkhnyaya Pyshma, rub/ sq.m

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017
Average price per 1 sq.m	40500	40034	44247	52746	58016	60704	60297	55678	53536

Table 7 is given according to the data of the chief analyst of the Ural'skaya palata nedvizhimosti (Ural Chamber of Real Estate), Khorkov M.I.

From 2009 to 2015, the real estate market in Verkhnyaya Pyshma saw an increase in the cost per square meter, in 2014 and 2015 peak levels were achieved, and since 2016 there has been a decrease in the cost per square meter, which leads cost to the price level of 2012. The fall of prices, possibly caused not by the specific situation on the real estate market in Verkhnyaya Pyshma but with the general crisis, that affected not only the construction industry but also many areas of economic activity. Because of crisis the consumer ability of the population decreased slightly, which led builders and sellers, to the decision to correct the prices for realizable real estate objects. The given data can be seen in Table 7. Despite the sharp drop, which amounted to 8.28% of the maximum values, there is a tendency to stabilize the cost per square meter.

The market of Verkhnyaya Pyshma is highly competitive. The proof is the implementation of the construction projects of the multi-apartment buildings by a wide range of developers (more than 5 represent local companies and operate only in the market of Verkhnyaya Pyshma, 3 projects are implemented by small developers working in different municipalities and 3 large Yekaterinburg developers: the Pravobereghny ASC, the Astra GC and the YIT IC), carrying out various municipal programs that create favorable conditions for the purchase of real estate in a modern city with a developed infrastructure; the developing industry of the city, and, consequently, the workplaces increase; domination of natural and migratory population increase; gradual stabilization of prices level for the real estate. The above factors create a positive dynamic for investment in the construction complex of the selected satellite city of Yekaterinburg.

It is also possible to draw a conclusion, that at positive dynamics of development of an economic situation in the Russian Federation the markets of the satellite cities (in particular the V. Pyshma's market) will synchronously develop with the market of the regional center – (Yekaterinburg). Moreover, with a slowdown of economic growth, the housing markets of satellite cities (for example, in the city V. Pyshma) will have a negative price dynamics, as remote areas of the megalopolis and a weak positive dynamics in increasing the input of new housing.

Stanislav Viktorovich Pridvizhkin
Doctor of Economics, Professor, Federal State Autonomous Educational Institution of Higher Professional Education "Ural Federal University named after the first President of Russia B.N. Yeltsin", Yekaterinburg, Russian Federation.

REFERENCES

1. Azrilyan, A. N. (Ed). Bolshoy ekonomicheskiy slovar. 5-e izd. dop. i pererab [Big economic dictionary: 5th revised and corrected edition]. Moscow: Institut novoy ekonomiki Publ., 1280. (P.11)
2. Master plan of the city district of Verkhnyaya Pyshma for the period 2014-2034
3. Programma «Formirovaniye sovremennoy gorodskoy sredy na territorii gorodskogo okruga Verkhnyaya Pyshma na 2018-2023 gody» [The Program "Formation of a modern urban environment in the territory of the urban district of Verkhnyaya Pyshma for 2018-2023"]
4. Postanovleniye Pravitelstva Sverdlovskoy oblasti ob utverzhdenii kompleksnoy programmy «Razvitiye gorodskogo okruga Verkhnyaya Pyshma» na 2017-2022 gody» [The decree of the Government of the Sverdlovsk Region on the approval of the multipurpose program "Development of the Urban District of Verkhnyaya Pyshma" for 2017-2022"]
5. Pridvizhkin S.V. Formirovaniye lokalnykh rynkov zhilya v prostranstve krupneyshikh gorodov. Avtoreferat dissertatsii na soiskaniye uchenoy stepeni doktora ekonomicheskikh nauk [Formation of local housing markets in the space of the largest cities. Abstract of dissertation for the degree of Doctor of Economics] / Yekaterinburg, 2007.
6. Upravleniye federalnoy sluzhby stastistiki po sverdlovskoy oblasti [Governance of Federal State Statistics Service of Sverdlovsk region]. Website- http://sverdl.gks.ru/
7. Analiticheskiy otdel Uralskoy Palaty Nedvzhimosti [Analytical Department of the Ural Chamber of Real Estate]. Website -http://upn.ru/
8. The official website of the government of the Sverdlovsk region -http://www.midural.ru/
9. The official website of the administration of the urban district of Verkhnyaya Pyshma - http://movp.ru/

ANALYSIS OF THE RISKS GENERATED BY CONCEALED WORKS IN THE FIELD OF CONSTRUCTION

Lidia NICULIȚĂ[540]
Laurențiu RECE[541]
Andreea Dora Bianca PIRONEA[542]

DOI: https://doi.org/10.31410/eraz.2018.824

Abstract: *This paper refers to construction works that become concealed, as well as to the dangers and risks they generate; it also focuses on the potentially negative consequences of concealed construction works on the quality and safety of buildings. This is a constant, critical issue which requires prevention methods, thorough research for the risks identification and monitoring by all stakeholders directly involved in the construction stages. This article describes and proposes an original method of qualitative and quantitative risk analysis for concealed construction works we define as the estimated probability-impact risk diagram method.*

Key words: *Construction quality and safety, risk analysis, concealed works, quality management.*

1. GENERAL CONSIDERATIONS REGARDING THE DANGERS AND RISKS THAT CAN AFFECT THE QUALITY AND SAFETY OF A CONSTRUCTION

The wide field of constructions is of particular importance and determinant in all activities of production, trade, transport, services, housing and any other human activity.

Construction safety, reliability, sustainability and quality in the broadest and most profound sense of the quality concept and management of constructions are constant concerns for all those involved, interested in and responsible for building safe, functional constructions, easy to maintain and with a lower risk for beneficiaries, investors, users or those responsible for their concept, design, execution, management and maintenance.

This article is the result and synthesis of the detailed study of concealed works and the risks they generate on constructions, a study conducted within the Doctoral School of the Technical University of Civil Engineering Bucharest.

Particularly for the case of our article, namely that of constructions, a hazard refers to a material factor or certain conditions of a physical, biological, chemical or environmental nature that may be the cause, and can determine an adverse effect on the quality and safety of constructions, beneficiaries, users or its occupants.

[540] UTCB - Technical University of Civil Engineering of Bucharest Romania, Lacul Tei 122-124, Bucharest, Romania
[541] UTCB - Technical University of Civil Engineering of Bucharest Romania, Lacul Tei 122-124, Bucharest, Romania
[542] UTCB - Technical University of Civil Engineering of Bucharest Romania, Lacul Tei 122-124, Bucharest, Romania

The adverse effect should be understood as any situation, change or random occurrence on the form, structure, quality or functionality of the construction that may lead to something negative, undesirable, dangerous or injurious to both the construction itself and the persons associated with it, irrespective of the nature of this connection.

Risk is essentially a possible hazard and can be defined as the possibility of reaching a situation of distress, i.e. a situation where an adverse event occurs or adverse events occur in relation to a defined normality.
A certain risk can be defined, characterized and quantified by its two fundamental valences, namely:

- The likelihood of occurrence of the concrete effect of a hazard, that is, the possibility of occurrence of a situation or incident that endangers the integrity, security, quality or safety of a thing or a being;
- The possible and likely impact of the actual effect of the danger on that thing or that being, an impact that is usually expressed by its intensity or magnitude, that is, by the quantified gravity of the adverse event produced.

The dangers and risks that may affect the quality, safety, reliability, maintenance and function of a construction have been analyzed taking into account three fundamental building-specific characteristics in relation to all other products resulting from the application of manufacturing technologies, of the vast majority of other production areas, namely:

a) The unique character of a product of any construction and the lack of a repetitive production line, as it is in the manufacture of other products;
b) A fixed position, both during the execution and throughout the period of existence and use of the construction;
c) The existence of works that become concealed after the completion of the construction and the results of these works that

Niculiță Lidia

Mrs. professor Niculiţă Lidia graduated from the Faculty of Machine Building Technology at the Polytechnic Institute of Bucharest, taking her degree of engineer in 1972, then following doctoral studies, and in 1979 she obtained the scientific title of doctor-engineer in the field of Engineering Sciences - Industrial engineering.
In 1972, she started as a trainee engineer in the technological design; from 1976 to 1999, she worked in the Machine Tools and Aggregates Company in Bucharest. In the period 1999-2002, she held the position of Principal Scientific Researcher, Grade I - Director of the subprogram and since 2001, she is professor and scientific coordinator in Industrial Engineering at the Technical University of Civil Engineering Bucharest - UTCB.
Niculiţă Lidia has signed 19 university books, over 43 guides and technical books, 56 papers presented at national and international conferences, of which 30 national conferences published in the proceedings and 26 international conferences published in proceedings and 32 articles published in national and international publications, of which 12 publications recognized ISI.
Niculiţă participated in 64 research projects as project manager or responsible for the project, out of which 14 won in a competitive system (1 European and 1 POS CCE, Priority Axis 2) and 26 research projects in quality member of the team, of which 10 won in a competitive system (3 European projects).
Professor Lidia is a member of the Association of Fine Mechanics and Optics of Romania, the Romanian Society of Mechatronics SROMECA, the World Scientific and Engineering Academy and Society, founder of two National Quality Organizations, QMS Auditor of the Quality Certification Body, SRAC and member of the editorial board of the magazine Access to Success, the magazine indexed by BDI (ISSN 1582-2559).

can not be directly observed, but by special means, expensive and most of the time invasive or destructive.

These three characteristics of the constructions determine specific approaches to quality control, quality management and risk analysis that can affect the quality and safety of the construction.

The quality and safety of constructions refer to their specific defined components such as foundations, vertical and horizontal strength structures, roofs and possible annexes, the necessary installations to ensure the functionality of the building according to its destination, as well as to the occupants and users of the construction, to its equipment and production facilities or to its utility suppliers.

In order to achieve a quality, safe and durable construction, both for those directly involved, but equally for all individuals and legal entities interested, it is necessary and important that throughout the design, execution, use and maintenance phases dangers and risks are minimized.

Risk assessment is the specific risk management activity that estimates and quantifies the possible losses of quality of the infrastructure or superstructure of a construction, as well as the effects on its safety, due to deficiencies in design or an inappropriate preparation of the execution conditions of the works, and especially in the practical part of execution of construction works. Risk assessment is especially important in the case of concealed works when natural calamities occur, under special weather conditions or if generated by other dangers.

Some of the most important sources of risk for a construction are the so-called "concealed works". These works should be given a very special attention in all phases and stages of the construction, as they may have negative, sometimes major effects on the quality, safety and effectiveness of the building's functionality.

Rece Laurentiu

Professor Rece Laurentiu attended the studies at the Polytechnic University of Bucharest, taking his degree in 1983, then following doctoral studies, and in 1999 he obtained the scientific title of doctor-engineer, in the field of technical science, the specialization of machine building technology.
In 1983 he started as a trainee engineer, in 1987 he started working as a research and design engineer at UTCB, in 1993 he became the head of the works, in 2000 he began his activity as a university lecturer and from 2004 until now he is a professor.
Professor Rece has signed over 70 published papers, including: 8 university books (1 treaty, 3 courses and 4 laboratory tutorials), 20 articles in specialized journals and 43 papers published in volumes of scientific events.
During his professional activity, professor has participated in more than 35 scientific research contracts, out of which 19 national / international grants (14 as responsible from UTCB or project director, of which 1 international and 13 national), as well as POSDRU projects of university management.
Rece Laurentiu is the author of 5 inventions and innovations, national and international, of which an innovation presented in 1985 called "Adjustable superfinishing device with abrasive blades, adaptable to the lathe" and 4 patents "Vibro Inertial generator with continuous variation of static momentum" (2005), "Motor vehicle luggage rack with tilting cross bars "(2014), "Massage bathtubs "(2016) and "Modular precast metallic balconies applicable to buildings and process for making the same" (2017). Rece Laurentiu is also a Type A Expert at the UTCB Doctoral School, Type B Expert for UTCB Master Programs, Member of the UTCB Academic College and UTCB Board of Directors, Member of the GISGUF Board of Directors.

From the analysis of the risks that may affect the quality and safety of a construction, it results a similar diagram to that shown in Figure 1, which presents the main groups of sources of the hazards and associated risks that may affect a construction.

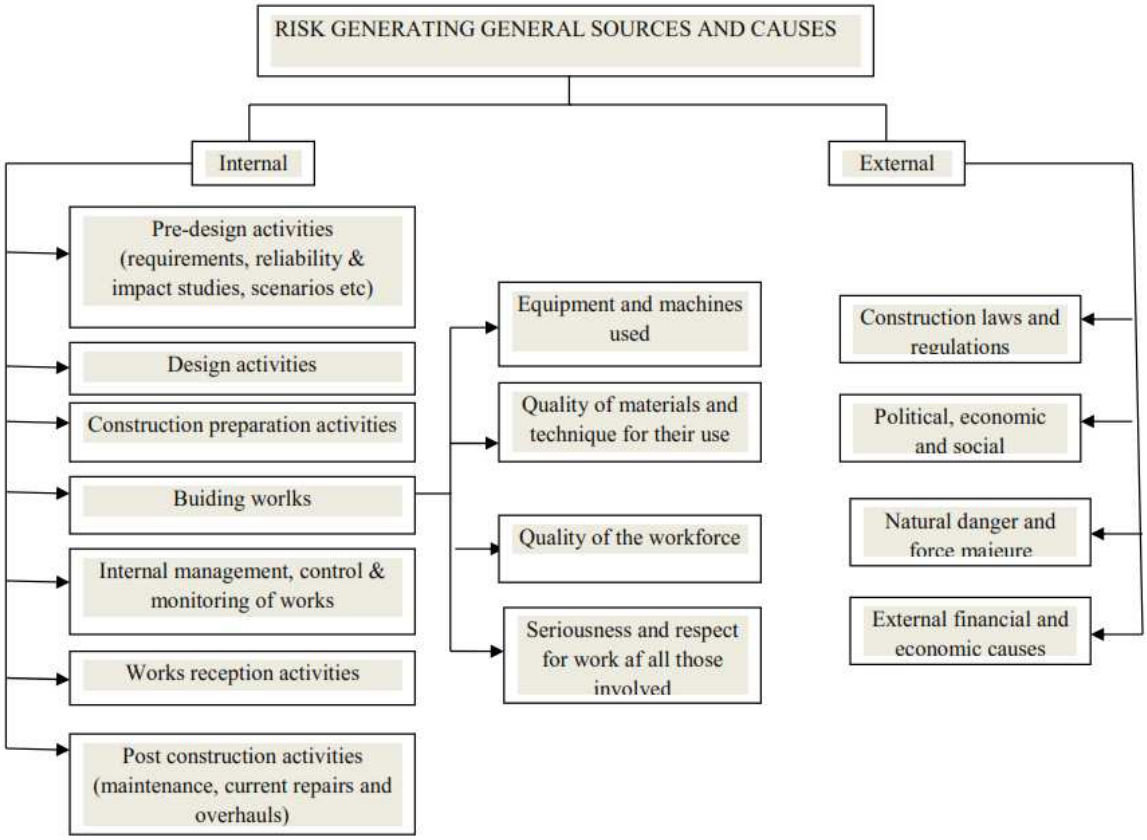


Figure 1: Sources and general causes that may generate risks regarding the quality and safety of a building for a construction company

2. CONCEALED WORKS OR WORKS ASSIMILATED TO THEM IN THE FIELD OF CONSTRUCTION

Concealed works or more correctly expressed the works that become concealed after their completion, are those executed works, components of the construction or complementary to a construction which, once executed and completed, can no longer be viewed, controlled or evaluated except by means of expensive intervention measures, sometimes destructive.

Potential hazards generated by concealed works are hard to monitor and manage because, as time passes since the execution of these works, assessments, expertise and investigations into the adverse effects of potential hazards become difficult, costly and sometimes inconclusive.
Works that become concealed represent one of the most important sources of dangers and risks of a construction, which can affect its quality and safety.

For this reason, these works should be given increased attention throughout the execution period, starting with the elaboration of the design project according to requirements and continuing with the design, the approval of the project and the authorization of the construction, the execution at all stages, the completion, the partial and intermediate reception, the final reception, commissioning, use and exploitation, maintenance, repairs and post-completion modifications, irrespective of their nature.

It is imperative that any quality management system implemented in any construction work should take into account, in addition to the classical aspects of the quality approach, the execution, supervision, control and careful management of the works that become concealed.

Following the study of concealed works or assimilated to them, works that cannot be easily and safely observed, analyzed, investigated or evaluated in terms of the risk of negative effects on the quality and safety of the construction, they were synthesized and classified into nine distinct concealed works categories, as follows:

A. Foundations (F);
B. Concrete (B);
C. Elements and Welded joints (S);
D. Hydro isolations (H);
E. Thermal insulation and vapor barriers (IZ);
F. Annexes to sanitary installations (IS);
G. Annexes to electrical installations (IE);
H. Annexes to heating installations (IÎ);
I. Annexes to air conditioning and ventilation installations (ICV).

3. METHODS USED IN THE ANALYSIS OF THE RISKS GENERATED BY CONCEALED WORKS IN CONSTRUCTIONS

Among the qualitative risk analysis methods, the most commonly used are the probability-impact matrix method and the scenario method, and the main methods of quantitative risks analysis are the model-based testing method the method of analyzing the expected value, Monte Carlo simulation method.

The probability-impact matrix method is based on the idea that any risk can be defined by two essential elements, namely the likelihood that the risk will occur and the impact it may have on the quality and safety of a construction.

For example, Figure 2 shows a probability-impact matrix with three lines and three columns, the abscissa being the probability of the risk and on the ordinate, the impact of the risk.

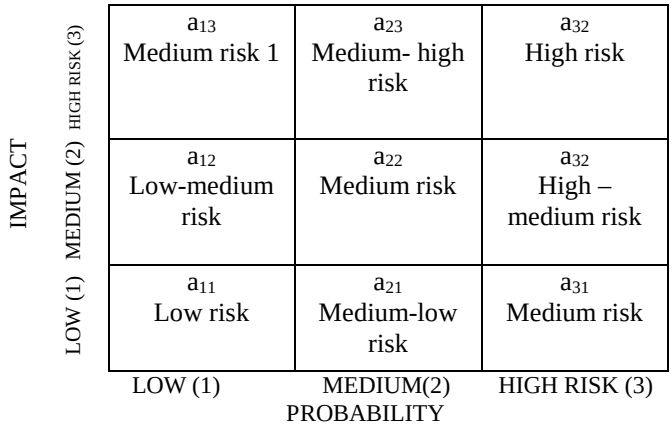


Figure 2: Example of a probability-impact matrix with three lines and three columns: aij - the element at the intersection of the line i with the column j (i = 1, 2, 3; j= 1, 2, 3)

As the number of lines and columns grows, the accuracy of the qualitative assessment of the analyzed risks increases.

4. ANALYSIS OF THE RISKS GENERATED BY THE CONCEALED WORKS OR ASSIMILATED TO THEM WITH THE HELP OF THE PROBABILITY-IMPACT DIAGRAMS

Starting from the qualitative risk analysis method, using the probability-impact matrices, we can conceive a new method, this time a qualitative and quantitative method that we will call the method of the estimated risk diagram or the probability-impact diagram.

This method of risk analysis is a combination of the qualitative analysis method using the probability-impact matrices and the method of quantitative analysis of the expected value.

The probability-impact diagram can be viewed as a probability-impact matrix with an infinite number of lines and an infinite number of columns, and the quantification of the expected value of the risk results from the product of the coordinates of the point representing the risk in the diagram field, i.e. the product between the probability risk (the abscissa of the risk point) and the impact of the risk (ordinate of the risk point).

In the case of the expected value method, the expected value VAA of the risk A, i.e. the occurrence of the undesired event A, is obtained by the calculation relation:

$$VAA = PA \,.\, IA \tag{1}$$

where PA is the probability of occurrence and materialization of risk A and IA is the value of the impact of risk A.

In the case of the estimated risk diagram method, the estimated risk value results from the product of the abscissa XA of the point in the diagram afferent to the A risk and its ordinate YA:

$$VAA = XA \,.\, YA \tag{2}$$

In order for a risk to be represented in the risk diagram, it is necessary to quantify both the likelihood of occurrence of the risk event and the value of its impact.

For the risk probability represented on the abscissa of the diagram, a percentage scale is used, with values from 0 to 1. The extreme values, 0 denotes the probability of zero occurrence of the risk event, and 1 signifies the probability of occurrence of the event.

To represent the risk impact on the ordinate of the risk diagram, the scale of percentages is used, with values between 0% (defining a null impact) and 100% (defining the greatest possible impact for that risk).

These scale ranges have been chosen in the diagram so that the estimated value of the risk resulting from the multiplication of the two coordinates of the point has a range of possible variation between 0 and 100. In this way, the interpretation of the estimated risk values is much easier and more suggestive, and can be compared to a 0% to 100% scale.

The probability of the risk for a particular case is analyzed, estimated and quantified by statistical processing of the data and information in the field and the category of works related to the analyzed risk, of the accumulated experience and on the basis of consultation of the specialized literature (books, treaties, articles from journals, scientific communications, previous technical expertise).

The impact of the risk is assessed and quantified based on impact studies, through studies on the costs of the effects produced and the costs necessary to restore the situation prior to the effects of the undesirable event.

The representation of a risk A that has the probability of PA and the impact of IA is shown in Figure 3.

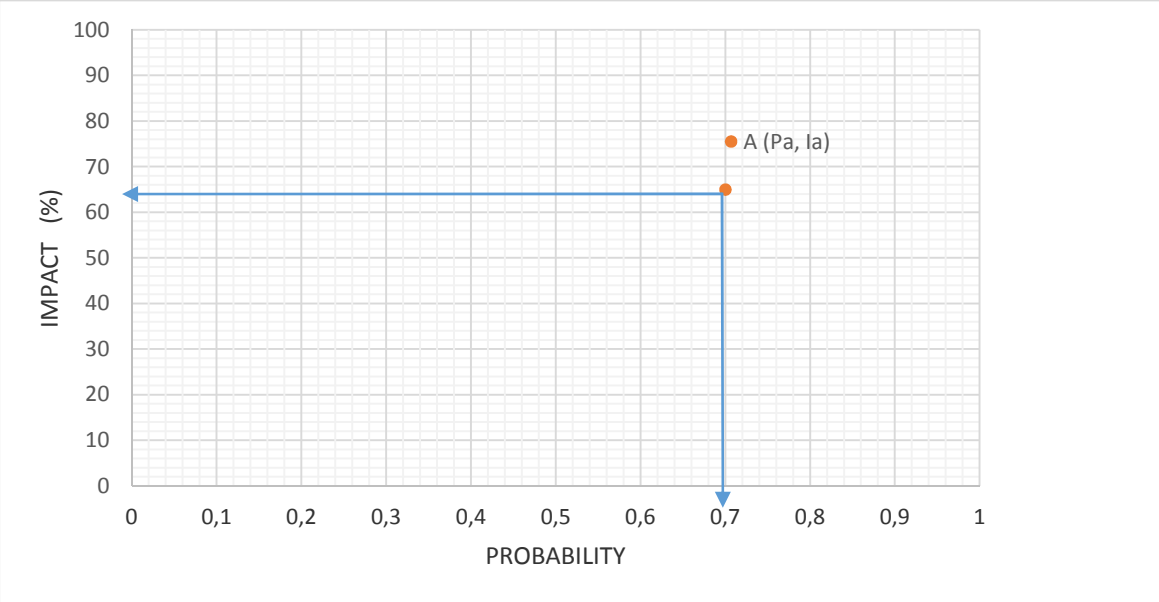


Figure 3: Probability-impact risk diagram: *A* –point *A* for risk *A*; P_A – probability of risk *A*; I_B – impact of risk *A*

As in the case of the probability-impact matrix method, it is possible to establish in the diagram field, probability and impact zones to delimit their qualitative categories using, for example, a five-intervals scale:

- Area with very high risks (with values ranging from 100% to only 80%);
- Area with medium to high risks (with values ranging from 80% to 60%);
- Area with medium risks (with values ranging from 60% to 40%);
- Area with medium to low risks (with values ranging from 40% to 20%);
- Area with low risks (with values ranging from 20% to 0%).

In the idea of simplifying things, we identified the works that can generate hazards and can be sources of risk, without specifically naming the risk or the related risks, but understanding these works as risks, expressed by the estimates and quantifications of the probability and impact values indicated by the percentages of each category of works.

To illustrate the use of the probability-impact diagrams, Table 1 shows a list of concealed works that are generating risks corresponding to the nine main categories of works presented in point 2 and the related percentages of risk and impact probabilities.

Category of concealed works	Works or cause the generates risks	Risk probability	Risk impact
F. Foundations	F1. Lack of a geotechnical study	0.65	79
	F2. Foundation on sensitive soil	09.5	97
	F3. Inadequate and insufficient dimensions of the foundation	0.81	97
	F4. Compaction deficiencies	0.70	71
	F5. Inadequate execution of foundations	0.62	65
	F6. Execution of foundations above the channels made for installations without safety measures	0.62	65
B. Concrete	B1. Inappropriate concrete works	0.61	91
	B2. Cessation of concrete works without adequate conservation measures	0.95	99
	B3. Excess water	0.90	87
	B4. Insufficient water	0.65	65
	B5. Insufficient vibration	0.98	97
	B6. Lack of compaction or insufficient compaction	0.85	91
	B7. Inadequate execution of the reinforcement	0.62	93
	B8. Inadequate montage of the reinforcement	0.60	89
	B9. Insufficient anchoring of the reinforcement bars	0.83	95
	B10. Adding water during pouring	0.81	79
	B11. Sand, with fine granulation, added into concrete, during casting	0.62	65
S. Elements and welded joints	S1. lack of preheating or welding with insufficient pre-heating temperature	0.61	91
	S2. Inadequate welding order	0.61	93
	S3. The use of too high welding speed	0.63	80
	S4. The using of too reduced welding current	0.64	85
	S5. Incorrect placement of welded layers	0.78	81
H. Hydro insulations	H1. Insufficient hydro insulations layers	0.61	81
	H2. Montage of the hydro insulations in inadequate conditions	0.90	91
	H3. Insufficient overlapping of layers of hydro insulation membranes	0.95	99
IZ. Thermal insulation and vapor barriers	IZ1. The outer layer that protects the thermal insulation material does not meet the requirements	0.61	61
	IZ2. Non-compliant application of the adhesive	0.90	91

	IZ3. Incorrect mounting of boards (lack of continuous cord, uncovered spaces, no interposition)	0.95	95
	IZ4. Anchoring and insufficient number of dowels	0.81	87
IS. Annexes to sanitary installations	IS1. Failure to comply with the project and execution stages	0.70	91
	IS2. Mounting of buried pipes not respecting the freezing depth of the earth	0.95	97
	IS3. Lack of pipe protection tubes	0.70	85
	IS4. Inadequate connection between two pipes made of different materials	0.60	85
	IS5. Lack of gaskets or faulty assembly at pipe joint	0.95	91
	IS6. Mounting of metallic parts embedded in aggressive and high-humidity environments, unprotected	0.70	71
IE. Annexes to electrical installations	IE1. Lacking or defective mounting of the protective layer against strong mechanical actions	0.70	85
	IE2. Insufficient compaction of layers of filler on the location of the conductors	0.90	91
	IE3. Poor conductivity in the cable	0.65	65
IÎ. Annexes to heating installations	IÎ1. Lack of inspection and piping before installation	0.70	71
	IÎ2. Fitting the pipes in a way that does not respect the depth of frost and the lack of the thermal insulation layer	0.95	97
	IÎ3. Fitting the pipes directly to the soil without protective layers	0.90	65
	IÎ4. Pipelines connection faulty	0.72	89
	IÎ5. Lack of supplementary thermal insulation on the joints surface	0.62	89
	IÎ6. Lack of tightness at joints between elements	0.68	95
ICV. Annexes to air conditioning and ventilation installations	ICV1. The use of flexible pipes generating an additional friction effect between the dust particles and the surface of the pipe in relation to the flat surface fixed pipes	0.62	61
	ICV2. Unauthorized modifications of the system by adding supplementary branches or hoods	0.81	81

Table 1: List of the concealed works or causes of the risks and the estimated probability and impact of each risk

On the basis of the estimated of the probability and impact values presented in Table 1, the nine risk assessment diagrams presented in Figures 4 to 12 were prepared, in which the points for each risk considered are represented.

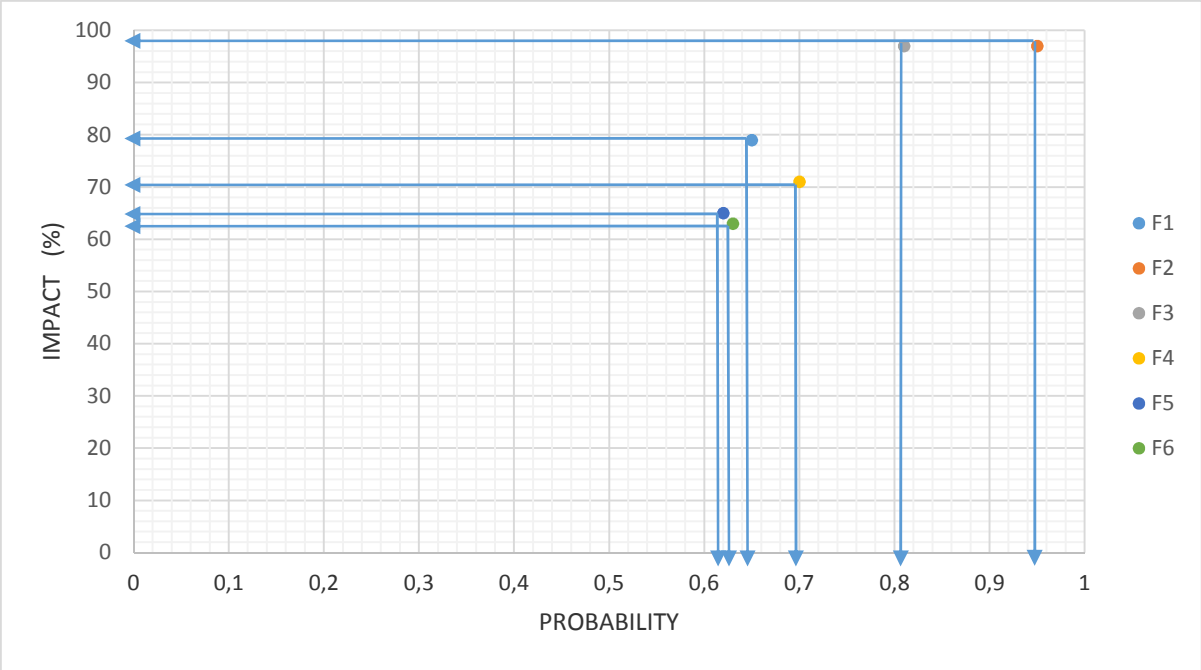


Figure 4: Diagram of estimated risk for the execution of foundation work (F)

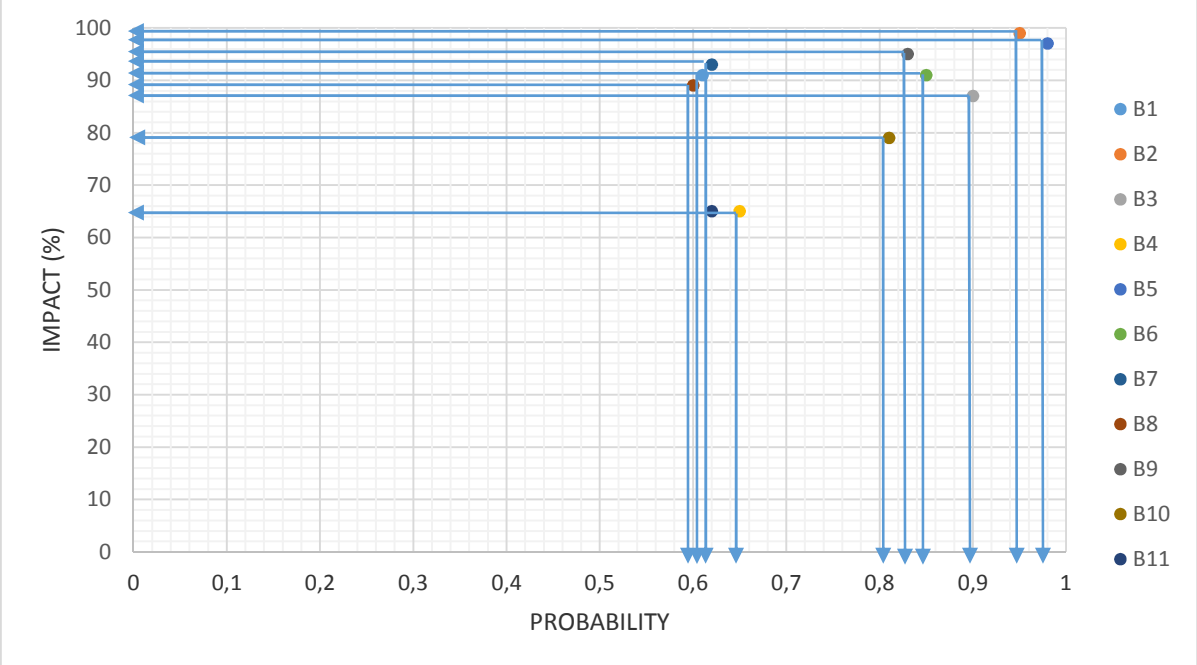


Figure 5: Diagram of estimated risk for the execution of concrete works (B)

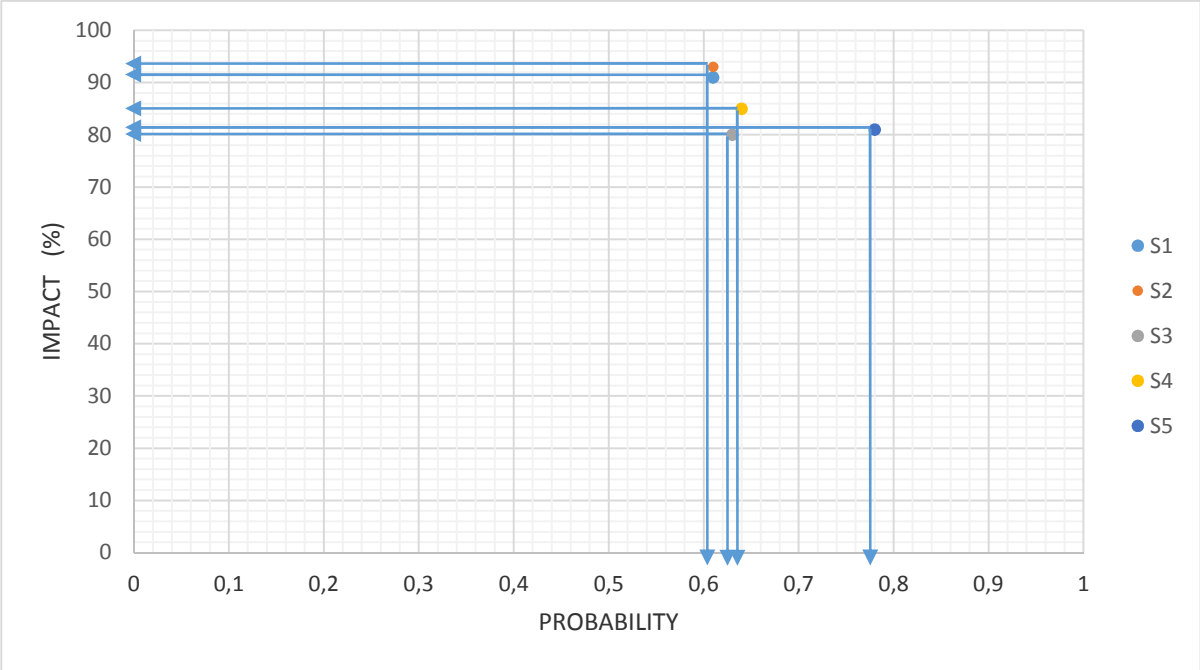


Figure 6: Diagram of estimated risk for the execution of welded joints (S)

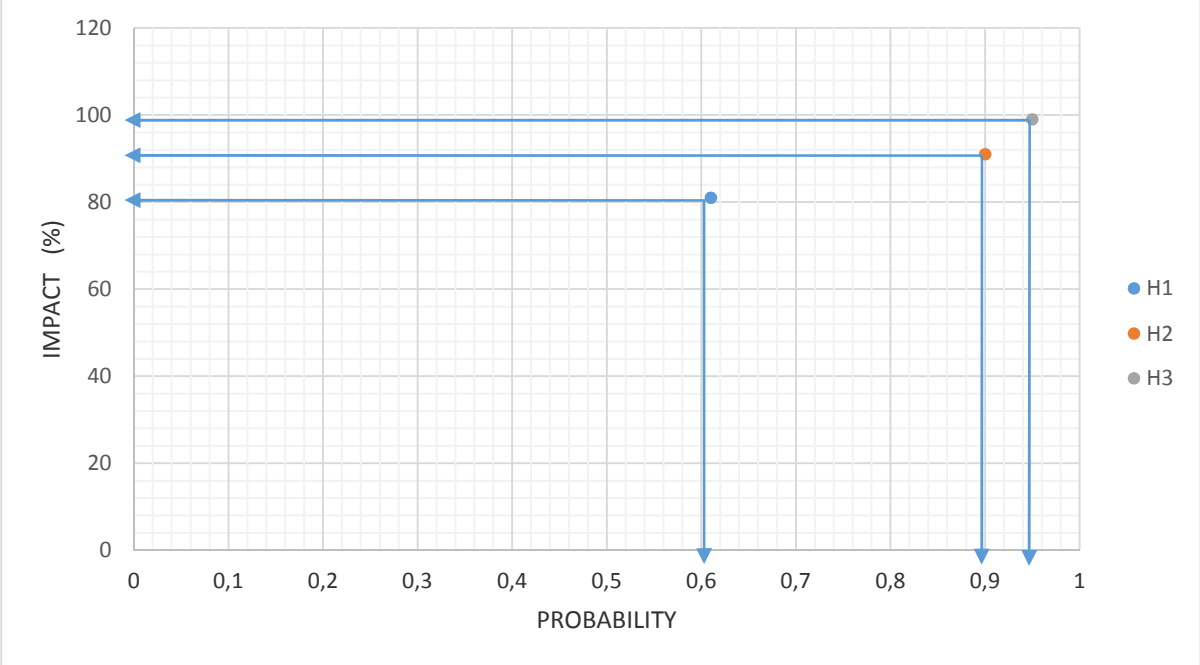


Figure 7: Diagram of estimated risk for the execution of hydro insulations (H)

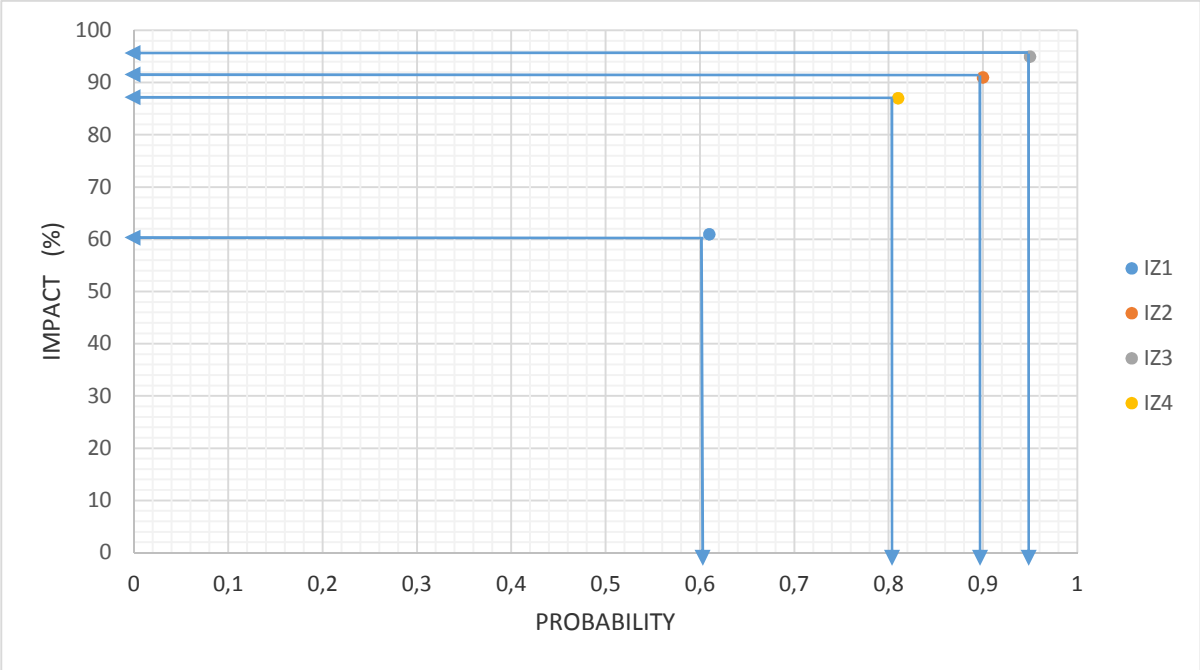


Figure 8: Diagram of estimated risk for the execution of thermal insulations and vapor barriers (IZ)

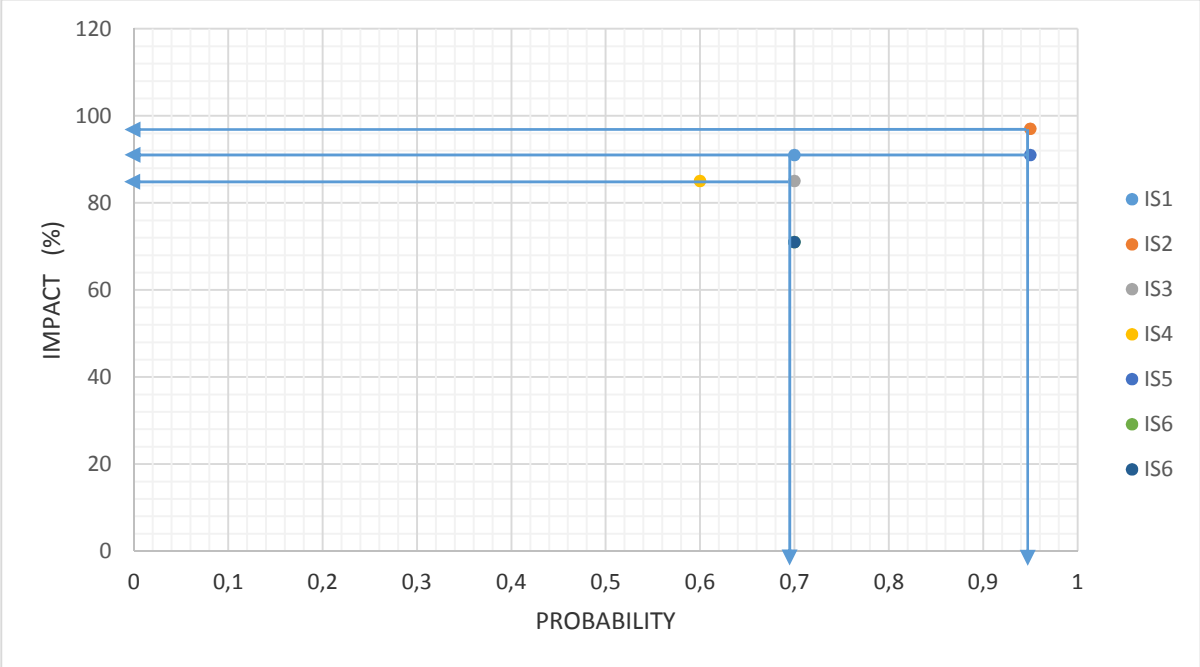


Figure 9: Diagram of estimated risk for the execution of annex works to sanitary installations (IS)

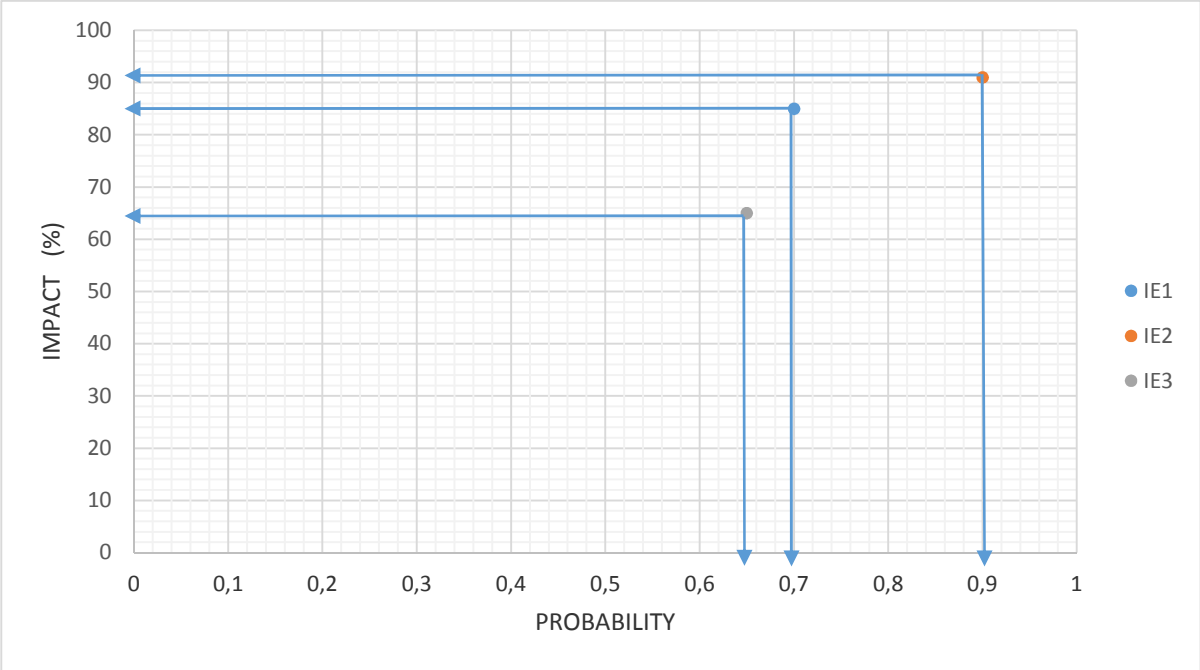


Figure 10: Diagram of estimated risk for the execution of annex works to electrical installations (IE)

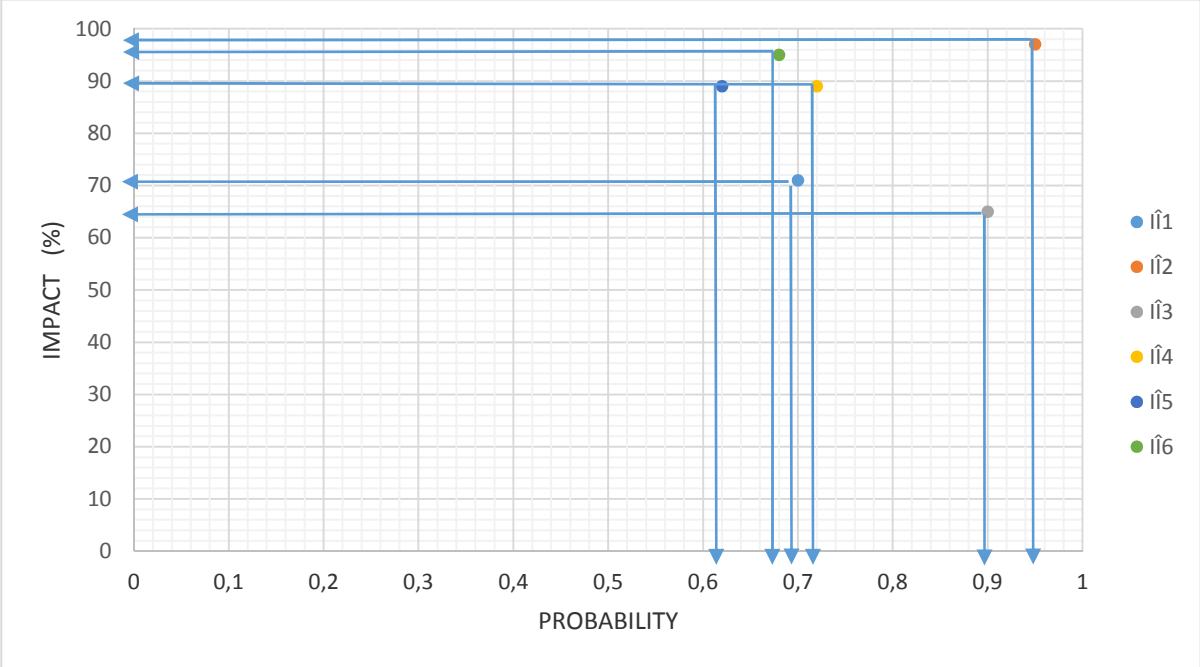


Figure 11: Diagram of estimated risk for the execution of annex works to heating installations (IÎ)

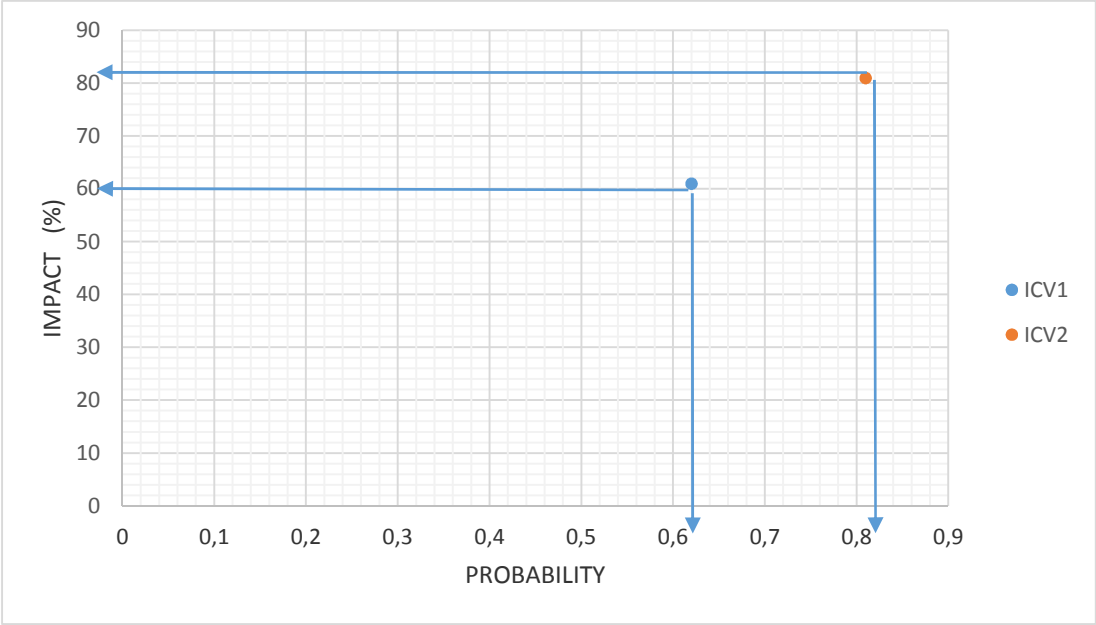


Figure 12: Diagram of estimated risk for the execution of annex works to air conditioning and ventilation installations (ICV)

After we had estimated the probability for each risk, a probability quantified by values between 0 (probability zero) and 1 (maximum probability, i.e. certainty), the risk is represented in the risk diagram by a point.

The point position in the diagram field, relative to its four corners (defined by the minimum probability 0 and the minimum impact 0, the maximum probability 1 and the minimum impact 0, the maximum probability 1 and the maximum impact 100 and the minimum probability 0 and the maximum impact 100) provides an image that can qualitatively assess the risk, analogous to the probability-impact matrix method, and the risk can be compare with other risks represented on the diagram field.

The point coordinates (the abscissa value between 0 and 1 and the value of the ordinate between 0 and 100 respectively) offer the possibility to calculate the value of the estimated risk as a product between the values of the two coordinates.

Since the extreme values of this product are between 0 and 100, the estimated risk will have values between 0 and 100, that is, in a scale similar to a scale expressed as a percentage with values between 0% and 100%.

Based on the facilities offered by the probability-impact risk diagram, one can easily analyze, compare and classify the estimated risks for a category of concealed works assimilated to them that may affect the quality and safety of a building.

In this way, for each of the nine risk charts presented above, related to the nine categories of concealed works, we can analyze, compare and rank risks.

5. CONCLUSIONS REGARDING THE PROBLEMATICS OF RISKS ARISING FROM CONCEALED WORKS IN CONSTRUCTIONS AND THE USE IN THE ANALYSIS AND RISK ASSESSMENT OF PROBABILITY-IMPACT RISK DIAGRAMS

Pironea Andreea Dora Bianca

Doctoral student Bianca Pironea attended the courses of "Neagoe Basarab" Theoretical High School, then studied at the Faculty of Civil Engineering in Foreign Languages of the Technical University of Civil Engineering in Bucharest, obtaining his license in 2013, with the title of engineer, specialization - civil engineering in English language. After this she went on to master studies, and in 2015 she obtained the master's degree. At present, Bianca Pironea is a doctoral student, in the third year, beneficiary of a state scholarship, within the Doctoral School of the Technical University of Civil Engineering, Bucharest, "industrial engineering" specialization.

In the framework of her contract assignments as a doctoral student with a scholarship, she held laboratory classes in the "Quality Assurance in Installations" discipline during the academic year 2015-2016 and 2016-2017 at the Faculty of Building Services at the 1st cycle, the year IV study, averaged 4 / hours per week.

In 2017, under the coordination of the vice rector of U.T.C.B. Professor Rece Laurentiu, PhD, Bianca Pironea participated in the preparation of the patent documentation named "Modular precast metallic balconies for buildings and processes for making the same", patent proposal no. RO132314-A0, dated 05 Jul 2017.

Following the analysis of the works that become concealed and the works assimilated to them in the construction field as well as the dangers and the risks generated by them, a first general conclusion was reached that the problem and the possible negative consequences of the hidden works in constructing a building over its quality and safety must be a major, permanent concern, materialized through preventive measures, identification and risk assessment studies and monitoring by all the participants directly involved in building a construction, and in particular through a fair division of responsibilities, on legal entities, collective and physical persons involved, and by developing a concrete plan for monitoring and controlling the performance of the works that become concealed and those assimilated to them.

This article presents and proposes an original method of qualitative and quantitative analysis of the risks associated with concealed works in the field of construction, which we have named estimated probability-impact risk diagram method which can be used in other fields of activity. This method of analysis comes from a combination of the qualitative risk assessment method, the probability-impact matrix method and the expected risk-weighted method.

The main findings of the analysis can define some of the most important sources of dangers and risks of producing negative events that affect the quality and safety of a construction;

As a consequence, it becomes strictly necessary and of particular importance to apply the methods, techniques and procedures for identifying, assessing and quantifying the dangers and risks generated by concealed works and taking measures to prevent or mitigating the effects of event occurrence which may affect the quality and safety of construction under various forms and intensities; The whole issue, theory and practice of risk refers to estimates of adverse effects that affect the quality and safety of a construction, and therefore the whole of these represent predictions, ante-factum;

During the erection of a construction, the general management and quality, management must include, by all means, as a major component the risk management with all its implications. Risks management involves and requires complex, continuous and coordinated actions involving all the participants in the construction project, such as the identification, definition, assessment, estimate, quantifying of potential risks, as well as the required risk revention methods and the continuous monitoring of risk-generating works, both ante-factum and post-factum.

REFERENCES

[1]. X X X - Standard SR ISO 31000:2010, Managementul riscului – Principii si linii directoare.
[2]. X X X - Standard SR EN 31000:2010, Managementul riscurilor – Tehnici de evaluare a riscului.
[3]. Hopkin, P., Fundamentals of Risk Management, 2nd Edition, Kogan-Page (2012), ISBN:978-0-7494-6539-1.
[4]. Ciocoiu, C., N. (2008) Managementul riscului, vol. 1, Teorii, practici, metodologii, Editura ASE.
[5]. Ciocoiu, C., N., (2008) Managementul riscului, vol. 2, Modele economic-matematice, Instrumente si tehnici, Editura ASE.
[6]. Crouhy, Michel, (2003) Risk Management, New York, McGraw-Hill, 2001.
[7]. Lam, James, Enterprise Risk Management: From Incentives to Controls, Hoboken, John Wiley and Sons.
[8]. Waters, Donalds, (2007) Supply Chain Risk Management – Vulnerability and Resilience in Logistics, London, Kogan-Page.
[9]. Niculita, L., (2013) Nou sistem de management al calitatii pentru siguranta constructiilor cu utilizarea analizei riscurilor si a punctelor critice de control, Calitatea Acces la Succes, Vol. 14, nr.134, pag. 7-15.
[10]. Niculiţã, L., (2005) Management and quality engineering, Romanian Academy, Bucharest.
[11]. Georgescu, D., Rece, L., Pironea, B., Apostu, A., (2018) Metodologie de evaluare a caracteristicilor de rezistenta ale betonului bazata pe analiza punctelor critice generate de specificul lucrarilor care devin ascunse, Revista Romana de Materiale, Nr. 2.

MODULAR PRECAST METALLIC BALCONIES FOR BUILDINGS AND PROCESSES FOR MAKING THE SAME

Laurentiu RECE [543]
Dragos VOICULESCU[544]
Andreea Dora Bianca PIRONEA[545]

DOI: https://doi.org/10.31410/eraz.2018.840

Abstract: *Modular precast metallic balconies for buildings and processes for making the same refer to a prefabricated metal structure applied to existing buildings with no balconies which are designed to improve the quality of life in rural or urban areas, providing occupants with an area with more natural light and access to open space..*

Key words: *Construction quality and safety, sustainability, development, quality management.*

1. INTRODUCTION

In the case of multy storey buildings, the classic solution for balconies is an external extension of the slab, made in the most common situations, of reinforced concrete. Building the balconies involves designing and constructing a platform as an intrinsic element of the structure of the building; this platform is an element of reinforced concrete (console), which supports a vertical load on the upper horizontal side.

The reinforced concrete slabs are the most used in civil constructions, they best respond to the technical and economic conditions imposed on the floors in the modern civil constructions. According to the research, the boards in the console are plates embedded on one side and free on the other sides, where the resistance reinforcement is disposed perpendicular to the embossed side. [1]

This solution for making the balconies has disadvantages:

a) the heavy weight of the reinforced concrete console, which increases the load to which the whole structure of the building is subjected;
b) the relatively large workload required for the execution and completion of the balcony after the execution of the reinforced concrete console;
c) the total length of execution time, imposed by the need to strengthen the concrete after casting and attaining the minimum required resistances imposed by the standards;
d) reduced possibilities of diversification of the dimensions and of the architectural design of the balconies thus realized;
e) the impossibility of applying to the existing constructions, because the realization of the reinforced concrete console would involve substantial interventions to the structure of the building, with unacceptable labor, costs and realization times;
f) the assessment of the concrete characteristics of the structural elements is a complex process that is a component of the environmental control of the construction works. [2]

[543] Technical University of Civil Engineering Bucharest, Bucharest, Romania
[544] Technical University of Civil Engineering Bucharest, Bucharest, Romania
[545] Technical University of Civil Engineering Bucharest,, Calarasi, Romania

For the same purpose, it is also known the solution of balconies made of wood that are used for wood buildings or attached to buildings made of other materials. The main structural elements of these balconies are wood beams at relatively small distances (0.5-1.00m); the maximum length of such balconies is up to 5-6m, and they are sited usually on masonry walls or on reinforced concrete elements.[3]

This solution for making the balconies has some disadvantages also:

a) reduced load capacity, which implies the need for additional strength elements;
b) deterioration of the resistance characteristics in time, due to the drying of the wood in the structure of the balcony;
c) reduced life in situations of poor or incomplete maintenance; they need periodic treatments necessary to eliminate or reduce the effects of the destructive action of microorganisms (caries, fungi, bacteria, molds);
d) relatively demanding maintenance from the point of view of antimicrobial treatments and coating with protective films against external environment factors.

The problem solved by using modular precast metallic balconies is to provide an additional exterior or interior space (open or closed balcony) to help improve the performance of the existing building and the quality of life, as well as to increase the value of the building. The modular prefabricated metal balcony product overcomes the aforementioned drawbacks in that, for the purpose of making balconies to existing buildings which do not have, it is prefabricated from metallic materials and can be applied practically to any type of building without major intervention to the building's structure because the horizontal horizontal platform of the balcony is a component part of the prefabricated balcony assembly.

Figure 1: Prefabricated metal balcony applied to existent building

The positive effects of modular precast metallic balconies are:

- easy access to an open space outside the building;
- possibility to refresh the air from the interior spaces with fresh air from outside;
- widening the visual perspective towards the exterior of the building;
- extension of the interior space bounded by the exterior walls of the building;
- enhanced natural illumination of the interior space;
- the consequent increase in the quality of living and comfort for occupants.

2. THE CONSTUCTIVE SOLUTIONS

Constructive solutions Type 1 - Balcony in console without supporting elements

Attached to the walls of a bulding, there are two beams fastened on the wall of the structure by means of clamping elements (a metal plate and threaded bolts); each of these beams is realized from two U rolled shapes, connected with round rods, welded or bolted. The horizontal distance between the beams equals the opening of the balcony.

This balcony is a modular console type metallic structure that is attached to structural elements of the building by means of metal parts, called "insert pieces". The pieces will be attached to the structure of the building by means of chemical anchors. The metal structure of the balcony console features a rigid frame made of welded rectangular pipes. The non-structural elements attached to the balcony will feature Deck plating, which will be the floor and the metal railing made of stainless steel circular elements to be trapped on the three sides of the balcony.

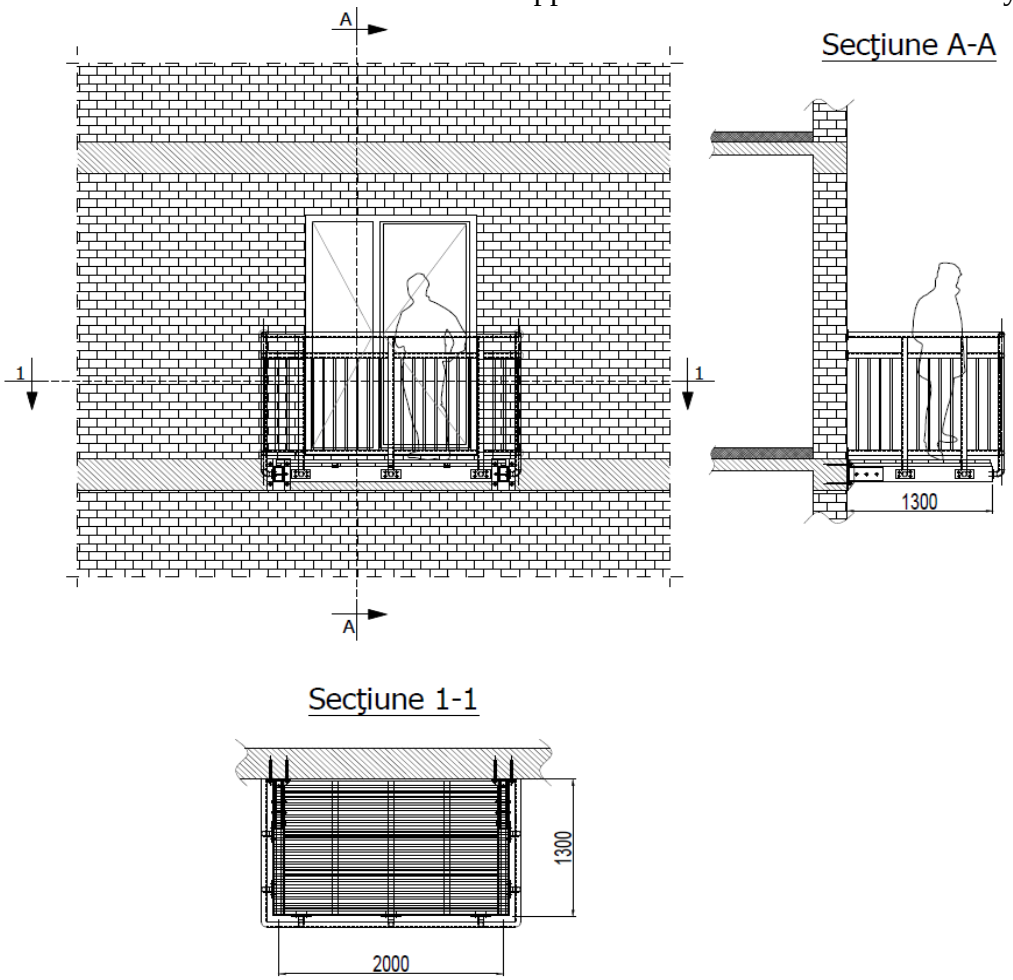


Figure 2: Constructive solution Type 1

At certain levels, between the U rolled shapes, it will be introduced a RHS beam, with a particular head – similar to a hammer. These RHS beams are the lateral consoles which support the structure of the balcony. Between the two consoles, there will be other long RHS beams, hitch will form the perimetre of the balcony.

Constructive solution Type 2 - Balcony in console without supporting elements, with circular corner

This type of balcony has a modular metallic structure similar to the console balcony structure without supporting elements but is only studied and thought for the types of balconies applicable to the corner of the building for which the corner balcony module has a circular shape. The corner module strength elements are U-profile welded to the beams of the frame. The non-structural elements of this balcony are similar to the console balcony elements without supporting elements.

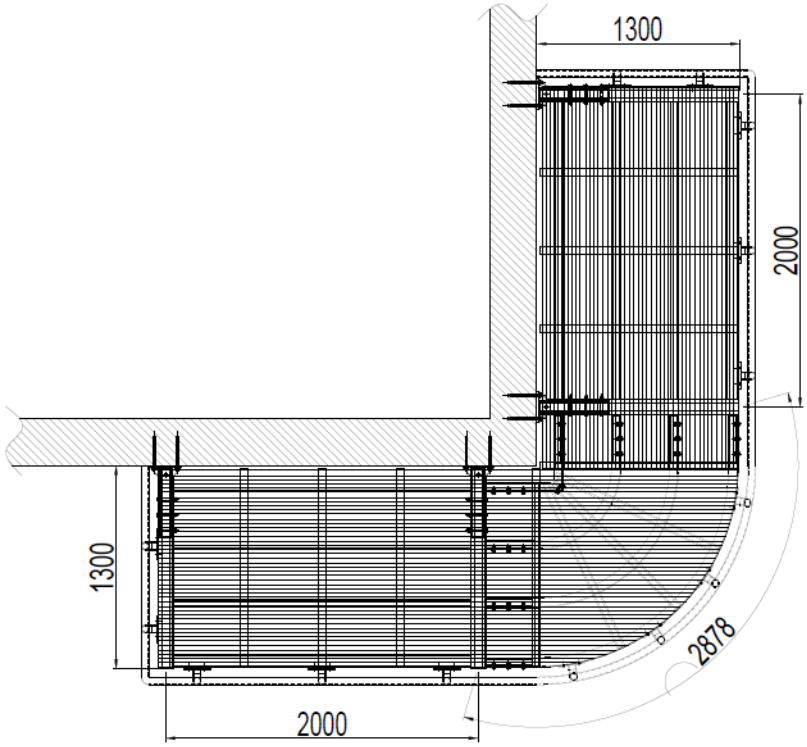


Figure 3: Constructive solution Type 2

Constructive solution Type 3 - Balcony in console with stiffening elements - tie beam type

This type of balcony is a metal construction in which a large part of the structural elements of resistance and support are made of welded plates. Balcony fasteners are U-shaped profiles with variable sections made of welded sheets that catch on the building wall along the entire height of the level. The support elements are the tie beam elements representing a straight-circular pipe with the heads provided with clamping devices. The metallic structure of the balcony console features a metal frame made up of main beams of welded sheet with variable section and secondary beams of rectangular pipes welded to the main beams.

The platform of the balcony can be realized as light as possible, using different solutions resistant to weather exposure. The same solution is adopted to secure the hand-rail of the balcony. Then introducing the vertical elements at the corner of the balcony and along the openings (the parapet) we will form a rigid body (hand rail – parapet – platform of the balcony) connected to the building wall.

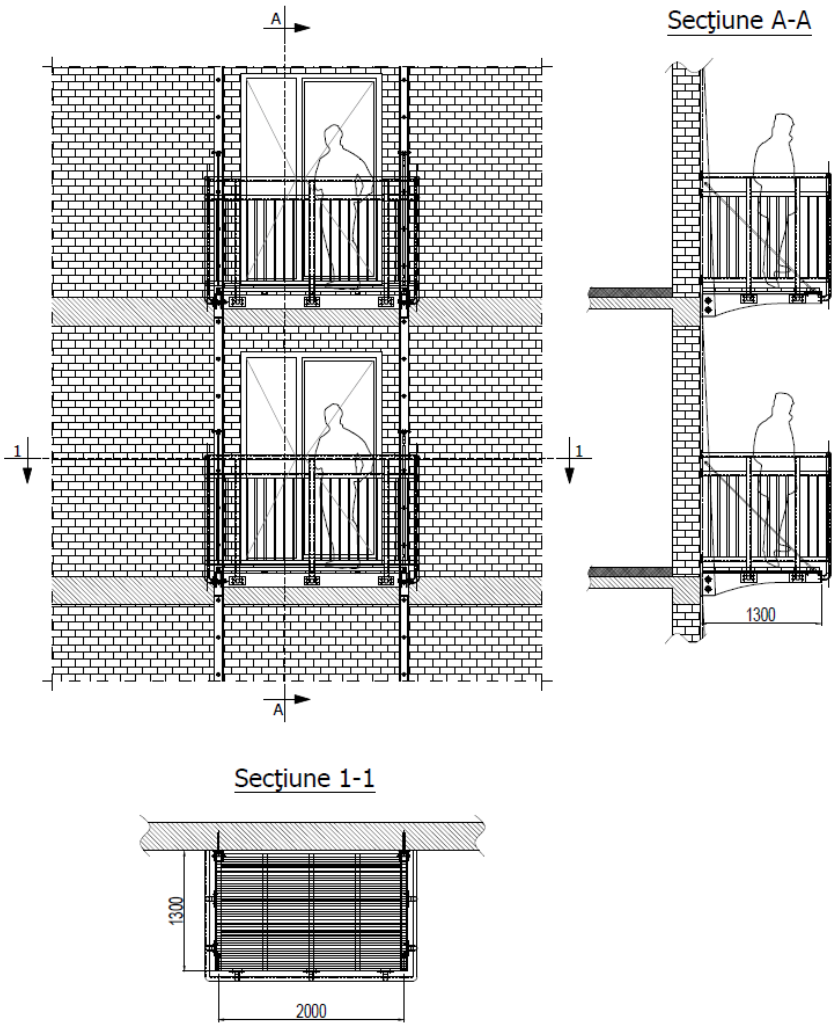


Figure 4: Constructive solution Type 3

This article will present three types of modular metallic buildings for balconies with an opening of 2.00m and a width of 1.30m. The difference between the balconies will show the type of the balcony's grip by the structural elements of the existing building, the shape of the railing and the static scheme of the balcony.

The solution has the following advantages:

- makes possible to build a balcony on existing buildings, thereby achieving significant beneficial effects on the quality of life and the comfort for the occupants of the building, while increasing the market value and use value of the buildings in question;
- due to the structural integrity, the modular prefabricated metal balcony applied to the buildings, transmits the building loads to the weight of the assembly and the external loads through the vertical elements, which determines that the proposed structure can be included in the category of partially self-supporting structures;
- by completing the prefabrication of the new balcony type and assembly systems, the product provides great flexibility under various conditions and specific requirements generated by the large diversity of existing buildings, the product being practicable in all possible situations;

- thanks to the used gripping methods, the prefabricated, modular metallic balcony applied to the buildings allows for simple installation, requires small mounting times and ensures high positioning precision on the building wall;
- provides high reliability and maintenance and maintenance costs are reduced;
- being a fully prefabricated product, there are the necessary conditions for the quality assurance of the execution, the sorto-type-dimensional diversification and the design of the assemblies made of balconies;
- Due to the gripping methods used, the loads transmitted to the building through the vertical elements are incomparably smaller than other gripping methods, which results in a dissipation of the effort on the entire surface of the vertical elements mounted and the decrease of the efforts in the platform support area;
- is a method that allows in the economic variant to obtain standardized products, modular (depending on the desired opening), verified and certified, for which the approval of the location will be easier;
- it is an economical construction method, the total costs being even lower compared to the existing variants due to the prefabrication and quick mounting scheme.

3. PRACTICAL SIZING

The main elements of the balcony structure can be sized very easy, using basic engineering skills, as exemplified below.

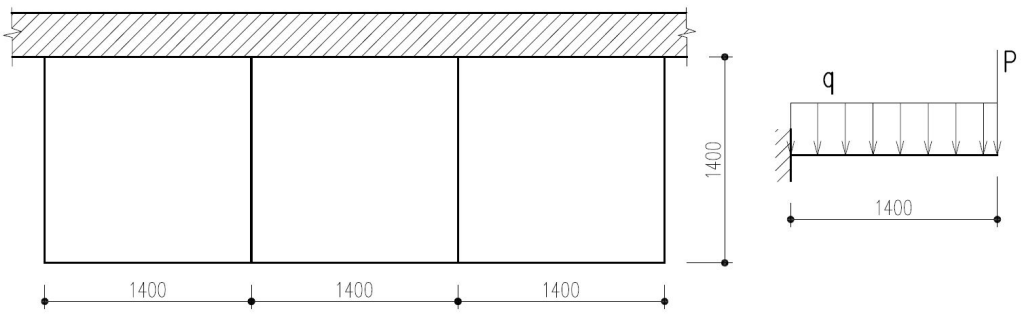


Figure 5: Numerical sizing example

A. Main beam design

- Load assigns

  a) Permanent loads : – self weight : 5 kN/m^2
  – self weight of handrail: 2 kN/m
  b) Live loads : – occupancy: 3 kN/m^2

- Loads on the main console:

$$q = 1.35 \times 5 \times 1.4 + 1.5 \times 3 \times 1.4 = 15.75 \text{ kN/m} \quad (1)$$

$$P = 1.35 \times 2 \times 1.4 = 3.78 \text{ kN} \quad (2)$$

- Maximum bending moment

$$M_{max} = 3.78 \times 1.4 + 15.75 \times 1.4^2/2 = 20.73 \text{ kNm} \quad (3)$$

- Size of the main beam

$$W_{nec} = 20.73 \times 10^3/235 = 88.2 \text{ cm}^3 \quad (4)$$

thus we consider

$$\text{RHS } 180 \times 80 \times 5 \quad (W_{eff} = 113 \text{ cm}^3) \quad (5)$$

B. Beam end fixture

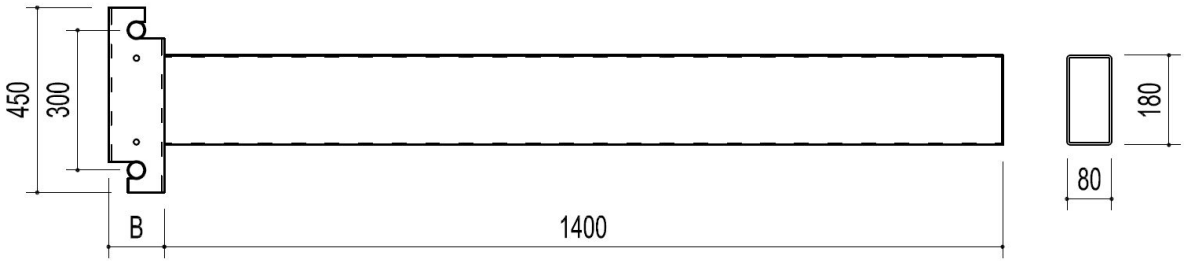


Figure 6: Beam end fixture

- Size of round rods

$$H = M_{max}/0.3 = 20.73/0.3 = 69.1 \text{ kN} \quad (6)$$

$$A_{nec} = 214.65 \text{ mm}^2 \quad (7)$$

So the rod should have a diameter D ≥ 16.6 mm, thus we consider D = 20 mm

C. Calculations of the connection: Column base/Rectangular tube

The gripping pieces are inserts pieces whereby the main beams of the metallic balcony are anchored to the beams of the existing building. As a result, the insertion pieces play the role of the main resilience elements that take over the loads transmitted by the structure of the balcony and transmits them to the main strength elements of the building.

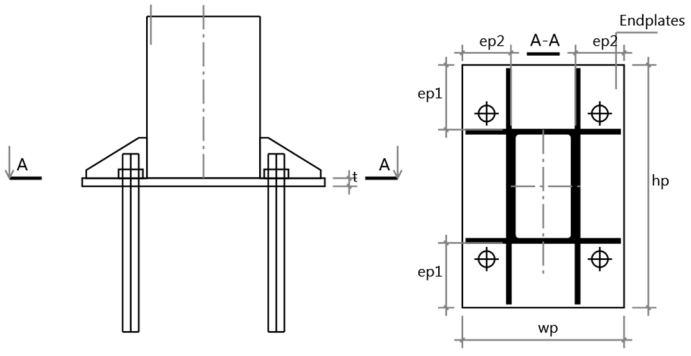


Figure 7: Insert piece

General Information
Column: TREC 140x80x5

Hb1 =	140 mm	Column height
Wb1 =	80 mm	Column width
twb1 =	5 mm	Web thickness
tFb1 =	5 mm	Flange thickness
Ab =	20.88 cm2	Section area
Iby =	540.7 cm4	Moment of inertia
Wpl =	96.25 cm3	Plastic section modulus
W =	77.24 cm3	Elastic section modulus
fyb =	235 MPa	Resistance

Bending in web plane

Verification of bending capacity:

$$Mz/MRdz = 0.97 < 1.0 \quad (8)$$

The condition is satisfied (97%)

Bending in plane of flanges

Verification of bending capacity :

$$My/MRdy = 0 < 1.0 \quad (9)$$

The condition is satisfied (0%)

Biaxial bending verification:

$$Mz/MRdz + My/MRdy = 0.97 < 1.0 \quad (10)$$

The condition is satisfied (97%)

Shear verification

Verification of shear capacity:

$$Vz/Vj,Rdz = 0.06 < 1.0 \quad (11)$$

The condition is satisfied (6%)

Shear in flanges plane

Biaxial shear verification:

$$Vy/Vj,Rdy + Vz/Vj,Rdz = 0.06 < 1.0 \quad (12)$$

The condition is satisfied (6%)

Welds control

$$Sqrt[(\sigma perp2 + 3(\tau perp2 + \tau par2)] <= fu/(\beta w * \gamma M2); 0\ MPa < 360\ MPa \quad (13)$$

The condition is satisfied (0%)

$$\sigma perp <= 0{,}9*fu / \gamma M2; 0\ MPa < 259.2\ MPa \quad (14)$$

The condition is satisfied (0%)

Vertical weld check

Forces applied along web

$$Sqrt[(\sigma perp2 + 3(\tau perp2 + \tau par2)] <= fu/(\beta w * \gamma M2);\ 158.36\ MPa < 360\ MPa \quad (15)$$

The condition is satisfied (44%)

$$\sigma perp <= 0{,}9*fu / \gamma M2;\ 17.36\ MPa < 259.2\ MPa \quad (16)$$

The condition is satisfied (7%)

Forces applied along flages

$$Sqrt[(\sigma perp2 + 3(\tau perp2 + \tau par2)] <= fu/(\beta w * \gamma M2);\ 0\ MPa < 360\ MPa \quad (17)$$

The condition is satisfied (0%)

$$perp <= 0{,}9*fu / \gamma M2;\ 0\ MPa < 259.2\ MPa \quad (18)$$

The condition is satisfied (0%)

Additional condition

$$M/Mc,Rd = 0.15 < 1.0 \quad (19)$$

The condition is satisfied

$$V/Vc,Rd = 0.02 < 1.0 \quad (20)$$

The condition is satisfied

Final verification

Connection verification:

Verification of connection	FEd – force	FRd - capacity	Ratio FEd/FRd
Horizontal welds - force in web plane	24.78 MPa	360 MPa	**7 %**
Horizontal welds - force in flanges plane	0 MPa	360 MPa	**0 %**
Vertical welds - force in web plane	158.36 MPa	360 MPa	**44 %**
Vertical welds - force in flanges plane	0 MPa	360 MPa	**0 %**

Table 1: Connection verification

The connection conforms to the (EN 1993-1-8:2005/AC:2009)

4. CONCLUSIONS

The purpose of the modular precast metallic balconies is to provide an additional exterior or interior space, open or closed balcony, to help improve the quality of life, the performance of the existing building within its lifetime limits, and to increase the value of each building concerned.

In order to achieve the purpose of the product, the starting point was that the structure must be prefabricated, built upon a metallic structure in order to be applied to any type of building without affecting its structural strength, since the balcony's horizontal platform is a component part of the prefabricated assembly.

According to the research, most of the buildings designed without balconies or loggias are old buildings that have been subjected to numerous seismic actions, having reached or exceeded the specified level of exposure; that is why the patented product started from the idea of a prefabricated structure, designed so that the interventions have a minimal effect on the structural resistance and are non-destructive.

Following the analyses and because of the structural integrity, the conclusion was that, by using modular precast metallic balconies for buildings, the loads resulting from the weight of the assembly, as well as the external loads resulting from vertical elements are transmitted to the building. Consequently the proposed structure can be included in the category of partially self-supporting structures.

Due to the implementation of quality management systems in the execution process as well as in the product assembly, it was possible to carry out a simple and fast assembly, which ensures with great precision the position of the product on the surface of the building.

Therefore the necessary conditions for the quality assurance of the execution, the dimensional diversification and the design of the assemblies made of balconies are complied with. This is a method which, in an economic variant, allows the obtaining of standardized modular products, depending on the verification and certification of the desired space.

The main effect of the application of this product is that it makes it possible to extend the existing space by adding balconies to the existing buildings, with significant beneficial effects on the quality of life for the occupants and the comfort of occupying the premises while increasing the market value of the buildings.

*Professor **Voiculescu Dragos** attended the studies at Technical University of Civil Engineering Bucharest, taking his degree in 1989, then following doctoral studies, and in 1999 he obtained the scientific title of doctor-engineer, in the field of technical science, the specialization of metal constructions.*

Starting with 1998 Professor Voiculescu Dragos is an Associate Professor at Technical University of Civil Engineering Bucharest in the field of metallic constructions and in present, Vice-dean at Faculty of Civil, Industrial and Agricultural Buildings.

During his professional activity, Professor Voiculescu Dragos has sustained courses and seminars in the field of Metal Constructions, optional courses of special Metal Construction and Reinforcement and Rehabilitation of Metallic Structures in English and French, leading bachelor and dissertation projects and participate in licensing exams committees.

Professor Voiculescu Dragos is one of the authors of the patent proposal no. RO132314-A0, dated 05 Jul 2017, concerning the modular precast metallic balconies for buildings named "Modular precast metallic balconies applicable to buildings and process for making the same" (2017).

Professor Voiculescu Dragos is also a projects verifier certified by Ministry Of Regional Development And Public Administration Romania to requirements A1 and A2 and responsible for specialized courses and activities in the field of design procedures regarding silos, bunkers and metal tanks.

REFERENCES

[1] Daniel Dan, Silviu Secula and Luminita Fekete-Nagy (2001), *Element Design in Civil Engineering*, Politehnica Publishing House, Timisoara, Romania

[2] Dan. Georgescu, Laurentiu Rece, Bianca. Pironea, Adelina Apostu (2018), *Methodology for the assessment of concrete resistance characteristics based on the analysis of the critical points generated by concealed works*, Romanian Journal of Materials, Foundation for Materials Science and Engineering "Serban Solacolu", Bucuresti, Romania

[3] *** (2011), *Structures for Buildings - Structural Role and Basic Principles*

COMPARATIVE ANALYSIS OF THE SHEAR FORCE RESISTANCE OF WELDED STEEL SECTIONS WITH FLAT WEBS TO CORRUGATED WEBS STEEL CROSS SECTIONS

Daniel Taus[546]
Dorin Radu[547]

DOI: https://doi.org/10.31410/eraz.2018.851

Summary: *One of the major concerns of the steel structures field is the defining of methods for reducing material consumption, and obtaining safe structures in service using elements with cross sections which does not require manual labor and can have a reduced steel quantity. An economical way to reduce the weight of steel elements is to decrease the thickness of the web of welded profiles required to bend and the profile of the web.*
The present paper proposes to perform a comparative analysis on the shear web resistance of the steel plate girders and girders with corrugated webs (trapezoidal and sinusoidal web).

Key words: *Corrugated beam webs, sinusoidal corrugated webs, trapezoidal corrugated webs.*

1. INTRODUCTION

One of the major concerns of the steel structures field is the identification of methods for reducing material consumption, and obtaining safe structures in service using elements with cross sections which does not require large volumes of manual labor.

Welded cross sections with flange made of thick steel sheets with profiled webs made of corrugated steel sheets are structural systems introduced in the field of steel structures as an alternative to profile type beams or welded steel plate girders.

Fig. 1. Some examples of corrugated steel sheet web beams type

In case of sections made of steel plate webs the shear force is taken over by the beam web, the contribution of the flanges being almost insignificant and the shear is integrally taken over by the corrugated webs in the case of SIN cross sections. Also, in the case of corrugated web, the

[546] Transilvania University of Brașov, Faculty of Civil Engineering, Turnului 5, Brașov, Romania
[547] Transilvania University of Brașov, Faculty of Civil Engineering, Turnului 5, Brașov, Romania

possibility of the local buckling is significantly reduced, which leads to the possibility of using steel sheets with reduced thicknesses, leading to the reduction of the steel consumption.

Compared with similar elements, structures made of these profiles types were found to be more economical, considering the lower steel consumption. The studies shown that the double T welded sections with corrugated webs, also known as SIN profiles are 15% ÷ 45% lighter compared to the same structures made of laminated profiles, with I and / or H transversal section shapes.

The paper is presenting a comparative analysis, considering the shear web resistance resulting from the condition of web buckling for the three cases: welded sections with full, plan web, welded sections with trapezoidal corrugated web and welded sections with sinusoidal corrugated web. The conclusions show the significant shear resistance of the SIN profile type profiles.

2. SIN PROFILES SHEAR RESISTANCE

Regarding the denomination of these elements, SIN profile name consists of a group of three letters and three groups of numbers: three letters groups symbolize the heart thickness, as follows:

WTO - tw = 1.5 mm WTA - tw =
2.0 mm WTB - tw = 2.5mm WTC - tw = 3.0 mm, and tw = web thickness.

The first group of numbers represents the height of the web expressed in *mm*. The machine that produces the double T sections of thick plates welded with corrugated webs, can produce steel webs with different heights like: h_w = 333 *mm*, 500 *mm*, 625 *mm*, 750 *mm*, 1000 *mm*, 1250 *mm*, 1500 *mm* and h_w = web heights.

The second group of numbers represents the width of flanges (b_f). These have values between: b_f = (200 ÷ 450) mm. The third and last group of numbers represent the flanges thickness (t_f) and can have values between 10÷30 mm. An relevant example for noting a SIN sections is: WTB – 500 x 220 x 12.

2.1. WEB SHEAR FORCE RESISTANCE OF STEEL CROSS SECTION WITH FLAT WEBS

The contribution of a stiffened or unstiffened plate web (Fig. 2) to the shear buckling resistance [5] is given by :

$$V_{bw,Rd} = \chi_w \frac{f_{yw}}{\gamma_{M1}\sqrt{3}} h_w t_w \quad (1)$$

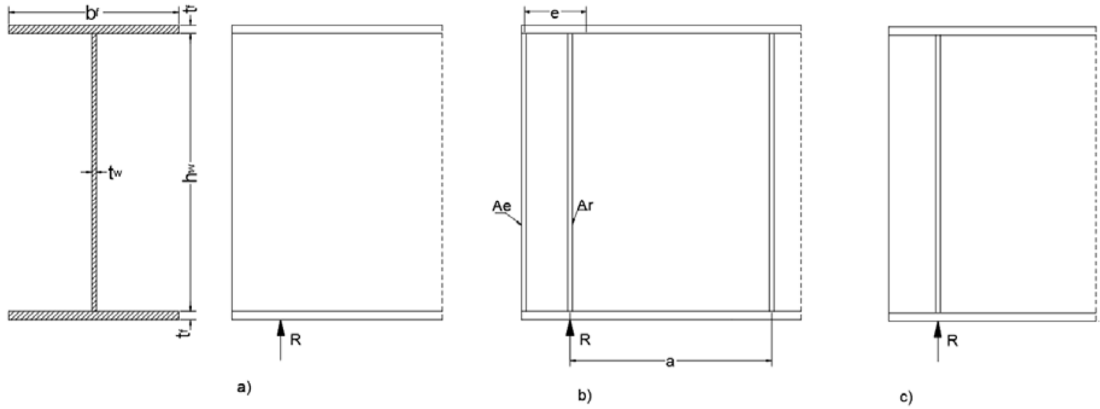


Fig. 2: a) End supports; b) rigid end post; c) non-rigid end post

For webs with transverse stiffeners at supports only and for webs with either intermediate transverse stiffeners or longitudinal stiffeners or both, the factor c_w for the contribution of the web to shear buckling resistance should be obtained from Table 1.

Table 1. Contribution of the web to shear buckling resistance

	Rigid end post	Non-rigid end post
$\lambda < 0.83/h$	h	h
$0.83/h \leq \overline{\lambda_w} < 1.08$	$0.83/\lambda$	$0.83/\lambda$
$\lambda \quad 1.08$	$1.37/(0.7+\lambda$	$0.83/\lambda$

The slenderness parameter, $\overline{\lambda_w}$, is determined by the formula (2)

$$\overline{\lambda_w} = \sqrt{\frac{f_{yw}}{\tau_{cr}\sqrt{3}}} = \frac{h_w/t_w}{37.4\epsilon\sqrt{k_\tau}} \tag{2}$$

where: f_{yw} is the yield steel stress in the web and τ_{cr} is the critical elastic shear stress [5]:

$$\tau_{cr} = \frac{\pi^2 E}{12(1-\mu^2)} k_\tau \left(\frac{t_w}{h_w}\right)^2 \tag{3}$$

The shear buckling resistance obtained as follows k_τ a) transverse stiffeners at supports only, k_τ=5.34, b) transverse stiffeners at supports and intermediate stiffeners

$$k_\tau = 5.34 + 4/(a/h_w)^2 \text{, when } (a/h_w) \geq 1 \tag{4}$$

$$k_\tau = 4.00 + 5.34/(a/h_w)^2 \text{, when } (a/h_w) < 1 \tag{5}$$

2.2. SHEAR RESISTANCE OF CORRUGATED WEBS

The expression to establish the shear resistance is:

$$V_{Rd} = \chi_c \frac{f_{yw}}{\gamma_{M1}\sqrt{3}} h_w t_w \tag{6}$$

where: V_{Rd} = the shear strength of the web; h_w = web height; t_w = webs tickness; f_{yw} =steel yield stress, for steel type used for the web; γ_{M1}=partial safety factor for element buckling resistance; and χ_c = the lowest value of the reduction coefficient, applicable to local buckling $\chi_{(c,\,l)}$, and to the global value $\chi_{(c,\,g)}$.

$$\chi_c = \min\left\{\chi_{c,l} = \frac{1.15}{0.9+\overline{\lambda_{c,l}}} \leq 1{,}0 \;\; ; \; \chi_{c,g} = \frac{1.5}{0.5+\overline{\lambda_{c,g}^2}} . \leq 1.0 \right\} \quad (7)(8)$$

$$\overline{\lambda_{c,l}} = \sqrt{\frac{f_y}{\tau_{cr,l}\sqrt{3}}} \quad (9)$$

where: $\overline{\lambda_{c,l}}$= relative slenderness for local buckling.
The critical shear stress value for local buckling $\tau_{cr,l}$ is obtained as following:

$$\tau_{cr,l} = \left(5.34 + \frac{a_3\, s}{h_w t_w}\right) \frac{\pi^2 E}{12(1-\nu^2)} \left(\frac{t_w}{s}\right)^2 \quad (10)$$

where: w = a half-wave length (see Figure 1); d= a half-wave length developed (see Figure 1);
=Poisson's coefficient; E= longitudinal elastic modulus;
The relative slenderness for the global value is:

$$\overline{\lambda_{c,g}} = \sqrt{\frac{f_y}{\tau_{cr,g}\sqrt{3}}} \quad (11)$$

$$\tau_{cr,g} = \frac{32.4}{t_w h_w^3} \sqrt[4]{D_x D_z^3} \quad (12)$$

where: $\tau_{cr,g}$ = critical shear stress value to global buckling ;

$$D_x = \frac{E\, t_w^3}{12(1-\nu^2)} \frac{w}{s} \quad \text{for sinusoidal corrugated webs} \quad (13)$$

$$D_x = \frac{E\, t_w^3}{12(1-\nu^2)} \frac{a_1+a_4}{a_1+a_2} \quad \text{for trapezoidal corrugated webs} \quad (14)$$

$$D_z = \frac{EI_z}{w} \quad \text{for sinusoidal corrugated webs} \quad (15)$$

$$D_z = \frac{E\, t_w a_3^2}{12} \frac{3a_1+a_2}{a_1+a_4} \quad \text{for trapezoidal corrugated webs} \quad (16)$$

where: I_z = moment of inertia of a wave of w length (see figure 3);
The dimensions used for sinusoidal and trapezoidal webs are presented in figure 3.

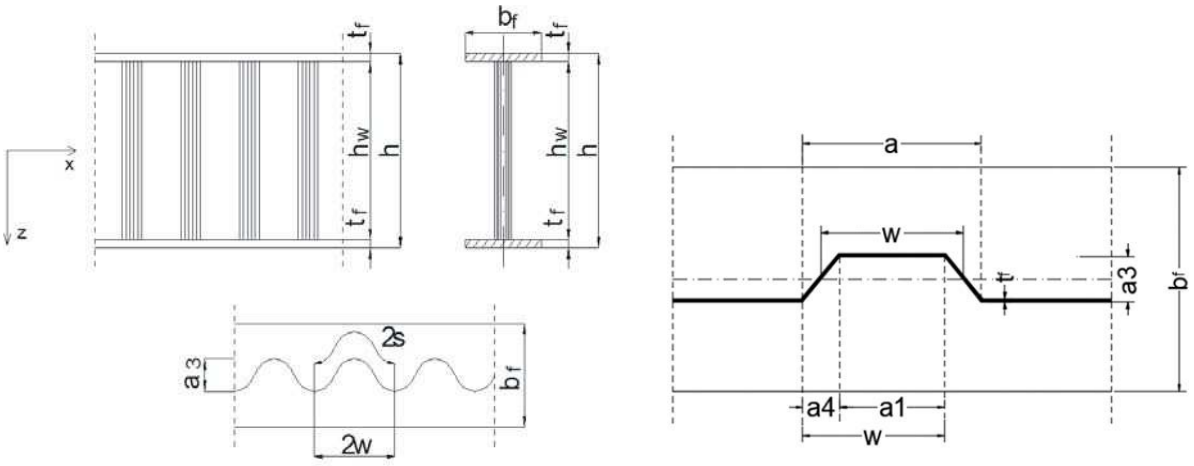


Fig.3. The dimensions used for sinusoidal webs

3. COMPARATIVE ANALYSIS

The comparison was needed in order to determine the shear resistance value of four types of steel cross sections with flat steel web, a welded cross section with trapezoidal corrugated web and a welded cross with sinusoidal corrugated web (SIN section);
The constructive solutions taken into account are:
a) steel cross sections with flat steel web
Four types of elements GP1, GP2, GP3 si GP4 are analyzed, with the following design data:

- •Simple supported girder, made of steel S 235.
- •Web dimensions $h_w x\ t_w$ are: GP1 (500x6), GP2 (500x7), GP3, GP4 (500x8),
- •Girders with transverse stiffeners only, at a distance of a =1,500and 2,000 mm. In Table 2 are presented the design parameters and the values of V_{bw}.

Tabel 2 – Design parameters and the values of V_{bw}

Name	h_w [mm]	t_w [mm]	a [mm]	k_t	$\bar{w}$	Cw	V_{bw} [kN]
GP1	500	6	2000	5.59	0.80	1.04	38
GP2	500	7	2000	5.59	0.94	0.88	44.8
GP3	500	8	2000	5.59	0.70	1.18	58.4
GP4	500	8	1500	5.78	0.67	1.19	58.9

b) *welded cross section with trapezoidal corrugated web (TC)*

- Simple supported girder, made of steel S 235.
- Web dimensions $h_w x\ t_w$=500 x 4 mm

The results obtained are presented in Tabel 3.

Tabel 3 – Design parameters andthe values of V_{bw}

Name	h_w [mm]	t_w [mm]	$\bar{\lambda}c,l$	$\bar{\lambda}c,g$	Cw	V_{bw} [kN]
GTC	500	4	0.4	0.71	0.88	271.1

c) *welded cross with sinusoidal corrugated web (SIN section);*

- Simple supported girder, made of steel S 235, WTA-500-300x12 section
- Web dimensions $h_w x\ t_w$ =500 x 2 mm

The results obtained are presented in Table 4.

Tabel 4– Design parameters and the values of V_{bw}

Name	h_w [mm]	t_w [mm]	$\bar{\lambda}c,l$	$\bar{\lambda}c,g$	Cw	V_{bw}[kN]
SIN	500	2	0.42	2.21	0.87	107.3

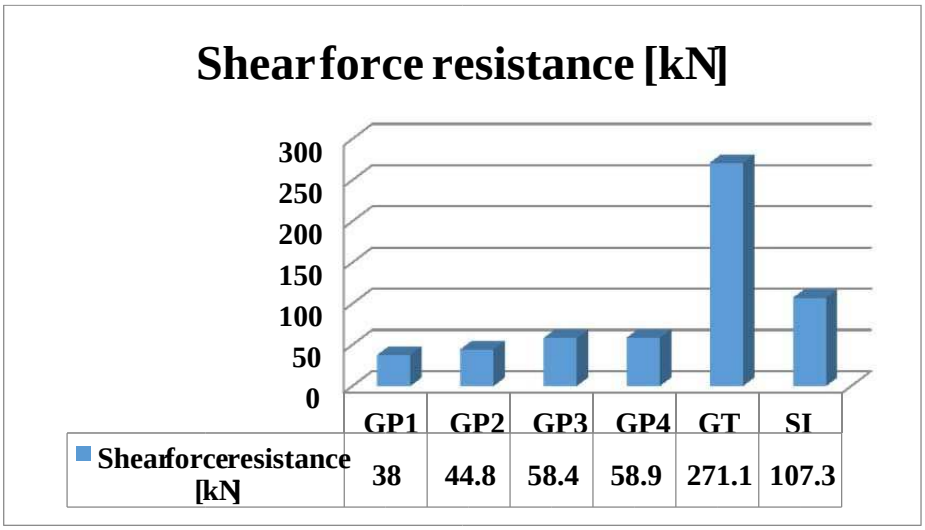


Fig.4. Shear force resistance for studied webs

The importance and efficiency of corrugating the webs of steel elements on the shear force resistance can be observed by dividing the shear force resistance to the thickness of the web for each studied case, as shown in figure 5.

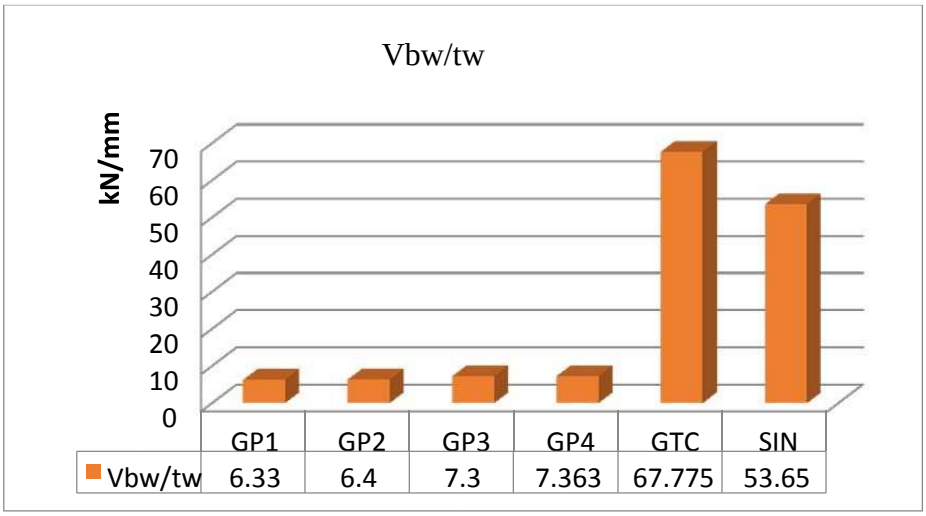


Fig.5. The ratio between the shear force resistance and the webs thickness

4. RESULTS AND CONCLUSIONS

Using steel elements with double T sections of welded steel thick plates with corrugated webs leads to lower consumption of steel compared to elements with double T welded steel sections with thick steel sheets webs. This advantage is due to the fact that these webs move away the material from the neutral axis becoming more efficient against local buckling. Considering this aspect, the same shear resistance value can be obtained using webs having less thickness compared to the thickness of straight webs made from steel sheets.

Comparing the capable shear forces resulting from the shear resistance condition in all studied situation analyzed can be observed that in the case of the corrugated webs V_{bw} has a significantly higher values than plane web, even if their thickness is less than half of the plane webs.

A disadvantage of the double T cross section steel elements with corrugated webs is that they can be manufactured only with machineries built special for this purpose. Those machineries have a large gauge and have a high acquisition and maintenance cost.

Assis. eng. ***Daniel TAUS,*** *PhD.*
University Transilvania from Brasov

Graduate of the Civil Engineering Faculty of Transilvania University in 2007. After finising University he started to work in Civil Engineering Department of The Faculty of Constructions of Transilvania University. PhD in steel structure design.
The research topics in steel design of industrial structures and welding.

REFERENCES

[1] Ramberger G. (1990) - „Expert Opinion on the calculation of welded I-beams with corrugated webs", Vienna, 11.16.1990.
[2] Moga P. (2013) – „Grinzi metalice conformate structural" U.T. Press, Cluj-Napoca, 2013, ISBN 978-973-662-882-
[3] Taus D., Ch. Cazacu (2016) – „Notions of Share Force Rezistane of Double T Thick Steel Welded Sheets with Sinusoidal Webs Produced in Romania" Bulletin of Transilvania Univesity of Brasov, CIBv 2018, Vol. 9 (58)-2016, Series I: Engeneering Sciences.
[4] Final report on the bearing performance of corrugated web beams; Brandenburg University of Technology, Chair of Steel Construction, Cottbus 1996.
[5] SR EN 10025- 2: 2004 Produse laminate la cald din oteluri pentruconstructii. Partea 2: Conditiitehnice de livrarepentruoteluri de constructiinealiate,(Hot rolled products of constructions structural steels. Part 2: Technical delivery conditions for unalloyed structural steels).
[6] SR EN 1993- 1-5: 2006 Eurocod 3: Proiectarea structurilor de otel. Partea 1-5: Elemente structurale din placi plane solicitate in planul lor,(Steel structures design. Part 1-5: Structural elements of flat plates stressed in their plan).
[7] Test reports on experiments carried out on I-beams with corrugated web plates, Vienna University of Technology, institute for Steel Construction, Dept of Applied model Statics in Steel Construction, August 1990.

EVALUATION OF STEADY-STATE OPERATION OF ENVIRONMENTAL CLIMATIC CHAMBER MEASURING TEMPERATURE AND RELATIVE HUMIDITY

Iska Kolaveri Spahiu[548]
Dhurata Premti[549]
Floran Vila[550]
Anisa Dhroso[551]

DOI: https://doi.org/10.31410/eraz.2018.858

Abstract: *This study reports measurements conducted with a climatic chamber as a technical device that enables the selection, at a closed volume, of specific temperature and humidity values in the air. The main scope was to study the stability, in order to have an efficient chamber that could reach a steady state during operation, in high accuracy.*

Key words: *Experimental chamber, temperature, relative humidity.*

1. INTRODUCTION

The calibration of a climatic chamber is very important to determine the deviation of the climatologically characteristics of the air temperature and relative humidity in specific parts of chamber volume that are selected for use. Climate chamber that we used for our measurements is model DY110 - 62672. Other aspects such as the inhomogeneity of the internal environment and a steady state through measurements are often necessary to characterize the climatic environment, as well as the possible effects of the test material placed on it. We investigate the most suitable spatial position to place our temperature sensor or relative humidity sensor (about 5 cm from each direction). Temperature uniformity is related to the total thermal load and the amount of circulating air inside the chamber. During the investigation we focus also on identifying quantitatively and qualitatively the parameters contributing to the transient situation.

2. GENERAL DISCRIPTION OF CLIMATIC CHAMBER

Climatic chamber is a technical device allowing selectively specified air temperature and/or relative humidity values to be realized in a closed volume in a working space. The chamber structure is made up of carbon steel sections and panels protected by painting with powdered polyester resin especially chosen for its excellent resistance to abrasion and atmospheric agents. The calibration of a climatic chamber serves to determine the deviation of the climatological characteristics of air temperature and relative humidity in those parts of the chamber volume which are provided for use or in individual points of the chamber volume from the values displayed by the indicators of the chamber. The calibration result is valid only for the volume spanned by the measuring points.

[548] General Directorate of Metrology of Albania, Autostrada Tr-Dr, km8, Kashar, Tirane, Albania
[549] University of Tirana, Faculty of Natural Sciences, Bulevardi Zog I, Tirane, Albania
[550] Academy of Sciences of Albania, Shëtitorja Murat Toptani, Tiranë, Albania
[551] University of Tirana, Faculty of Natural Sciences, Bulevardi Zog I, Tirane, Albania

3. THE CHARACTERISTICS OF THE CLIMATIC CHAMBER

The volume of the chamber is 112 liter, with useful internal dimensions (54.8x46x44.7cm). The range of humidity 10% to 98% and the range of temperature: -40°C to 180°C. During the increasing temperature process, the maximum variation speed is approximately 3°C/min .

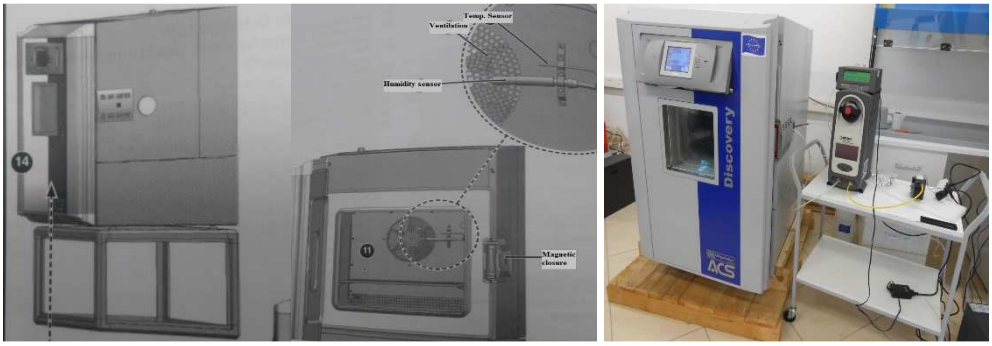


Figure 1. The design of the climatic chamber and the sensor placed inside it.

4. OBSERVATIONS DURING THE MEASUREMENTS

During this study are used some reference sensors. The measurements are made in different days, in accordance with chamber characteristics. During the measurements was noticed the deviations of air temperature and the humidity inside the chamber, as a result of inhomogeneity system. Technical means (thermal insulation, air circulation, radiation shields, etc.) are used to minimize the temporal and spatial inhomogeneity of air temperature and air humidity as well as the deviations of the air temperatures and humidities prevailing in the useful volume from the nominal values.

Iska Kolaveri Spahiu

Graduated in 2009 from the University of Natural Sciences of Tirana, Albania, in Physics, Master degree in Physics.
Since 2011 works in General Directorate of Metrology of Albania, in Temperature and Humidity fields. From January 2017 to September 2017 was researcher in Gestworking place Czech Metrology Institute, Prague, Czech Republic, part of EMPIR project no. "15RPT03, Expansion of European research capabilities in Humidity measurements (HUMEA)"

The lack of homogeneity or in-homogeneity, Stability of the chamber during 30 min, are necessary to characterize the climatic chamber, as well as the possible effects of the test material placed on it. A measuring location is the spatial position (i.e. approx. 5 cm max. in each dimension). Other measurements are done in only one center position.

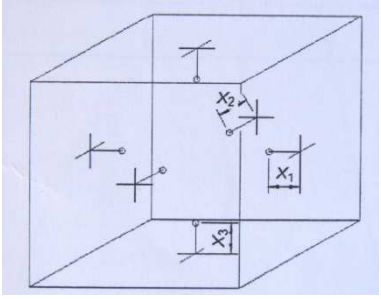


Figure 2. An example for the locations of Temperature sensors inside the chamber

5. MODELING AND SIMULATION OF WALL TEMPERATURE BASED ON HEAT TRANSFER CALCULATION

The wall temperature is a state variable that only changes when there is a heat flow in or out of the wall. The heat flows are only possible by conduction and the heat flow on the input side is modeled as:

$$Q_i = \alpha_i S_{murit} (T_{in.} - T_{murit}) \quad (1)$$

$$S_{murit} = L \cdot H \quad (2)$$

Where:
-wall width L, height H and thickness d
-insulation thickness on input side $d_{ins,i}$ *and output side* $d_{ins,o}$
-thermal conductivity of wall material K *and insulation material* K_{ins}
-heat transfer coefficient α
-volumetric specific heat capacity of wall material c_V *and insulation* $c_{V,ins}$
Also Some other formulas are used, in base simulation program: POLYMATH[3]

In this study, are done measurements in different points of Relative Humidity, but on this paper is presented only for one point, medium point of RH%.

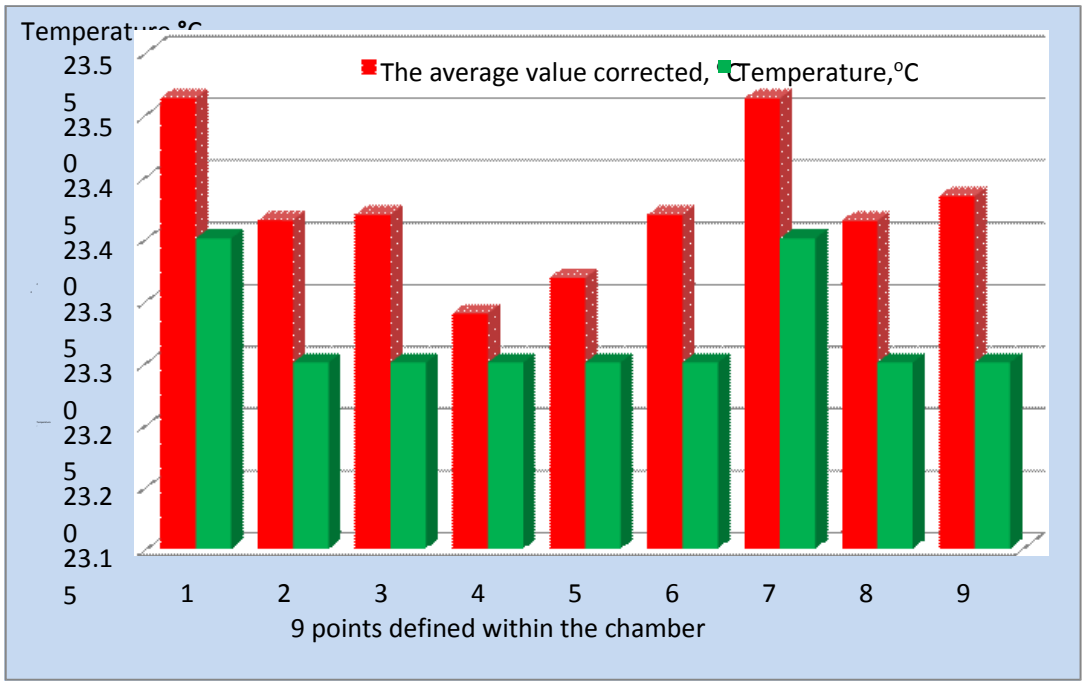


Figure 3. The difference of corrected average of temperature values in the specified volume of the climatic chamber at 50% relative humidity.

Dhurata Premti
Part the staff working at University of Tirana, Department of Industrial Chemistry. The Department of Industrial Chemistry at the Faculty of Natural Sciences, University of Tirana, is the only Department of all other public and private Universities departments that specializes in teaching and research in the field of organic, inorganic, engineering, chemical technology chemical, food technology and microbiology.

6. CALCULATION OF THE UNCERTAINTY

In 50% of relative humidity, are performed the calculations of the some components that are added in the uncertainty budget for temperature, as shown in the table below.

Quantity	Description	Distribution	Uncertainty
$\delta T_{inhomogenity}$	Correction of inhomogeneity	rectangular	495 mK
$\delta T_{instability}$	Correction of instability	rectangular	356 mK
$\delta T_{radiation}$	Correction of radiation effect	rectangular	584 mK
δT_{load}	Correction of loading effect	rectangular	98 mK

In 50% of relative humidity, are performed the calculations of the some components that are added in the uncertainty budget for humidity, as shown in the table below.

Quantity	Description	Distribution	Uncertainty
$\delta h_{inhomogenity}$	Correction of inhomogeneity for rh%	rectangular	1.9 %
$\delta h_{instability}$	Correction of instability for rh%	rectangular	1.4 %
δh_{load}	Correction of loading effect for rh%	rectangular	0.45 %

REFERENCES

[1] EURAMET Calibration Guide *cg-20, Version 02 (11/2010), Calibration of climatic chamber.*

[2] DKD-R 5-7: *Calibration of Climatic Chambers (2004)*

[3] Base simulation program: POLYMATH http://www.learncheme.com/student-resources/polymath

[4] EURAMET Calibration Guide *no 20, Version 5.0 (09/2017), Guidelines on the Calibration of Temperature and/or Humidity Controlled Enclosures.*

[5] IEC 60068 series on environmental testing, in particular: IEC 60068-3-6 – Environmental Testing – Part 3-6: (2001) BS EN 60068 -3-6(2002), *Confirmation of the Performance of Temperature/Humidity Chambers.*

Floran Vila

Decorations and Awards: Order Naim Frashëri, Kl. III, (Presidium of the People's Assembly of RPSSH, Tirana, Albania, 1979)
Honor Award, (Balkan Physical Union, BPU 9, Istanbul, Turkey, 2015)
Professional experience from 1964
1994 – ongoing: Professor, Department of Physics, FSHN, UT
2008 – ongoing: Academician, Academy of Sciences of Albania

***Anisa Dhroso** is a lecturer at the Department of Industrial Chemistry, Faculty of Natural Sciences, University of Tirana since 2007. She graduated from this Department in 2006. In 2009 she completed her postgraduate studies in Food Engineering. In 2015 she received the Doctor of Science degree, in the direction of Technology and Food Microbiology, Food Safety Assessment and Quality. She has participated in a number of academic activities at national and international level.*

PERFORMANCE EVALUATION OF AN EXPERIMENTAL SYSTEM MEASURING ETHANOL CONCENTRATION

Erinda Piluri[552]
Hasime Manaj[553]
Ilirjan Malollari[554]
Irakli Premti[555]

DOI: https://doi.org/10.31410/eraz.2018.862

Abstract: *In this set of experiments we measure a soluble gas, ethanol in a non-invasive technique using a continuous system. The analogy of this system with our lungs is the main motivation behind the experiments conducted. In our first set up we use three continuous isolated vessels, with equal amount of solution water-ethanol, with ethanol concentration 0.476 mg/l. The connectors used between vessels, for each set of experiments, are of specific diameter as it influences the pressure drop in our system. Air passes through each vessels solution with a fine-gas sparger and carries with it a certain amount of ethanol vapor which, when it evaporates, lives in the upper part of the solution. This process is repeated in the second vessel where the air from the first reactor is passed to the second vessel and again absorbs an amount of ethanol vapor and passed to the third vessel where, unlike the first two, we try to achieve equilibrium between the concentration alcohol content and concentration of alcohol in the air. The air stream after leaving the third reactor is passed to the analyzer for mass concentration of alcohol. We conducted a second run of experiments, in the same conditions but with four vessels is series. Gas flow was kept 12 L/min and temperature ranged from 32^0C to 38^0C. Through comparison of ethanol concentration outside of the system we evaluated the efficiency of each system, concluding that the second system has a better performance.*

Key words: *Ethanol concentration, continuous system, temperature and pressure parameters*

1. INTRODUCTION

In this set of experiments we measure a soluble gas, ethanol in a non-invasive technique using a continuous system. After drinking, the alcohol diffuses through the stomach and the small intestine wall, passing via the capillaries into the bloodstream. It is well known that on the one hand alcohol is a stimulant but on the other hand, from a medical point of view, it is a cellular toxin.

The analogy of this system with our lungs is the main motivation behind the experiments conducted. In our first set up we use three continuous isolated vessels, with equal amount of solution water-ethanol, with ethanol concentration 0.476 mg/l. The connectors used between vessels, for each set of experiments, are of specific diameter as it influences the pressure drop in our system.

[552] General Directorate of Metrology, Highway TR-DR, Km 8, Kashar, Tirane, Albania
[553] Faculty of Natural Sciences, University of Tirana, Boulevard Zogu I, Tiranë
[554] Faculty of Natural Sciences, University of Tirana, Boulevard Zogu I, Tiranë
[555] Polytechnic University of Tirana, Square Mother Tereza, Tiranë

2. EXPERIMENTAL MEASUREMENTS OF TEMPERATURE

*Dr. **Hasime Manaj,** is part the staff working at University of Tirana, Department of Industrial Chemistry. The Department of Industrial Chemistry at the Faculty of Natural Sciences, University of Tirana, is the only Department of all other public and private Universities departments that specializes in teaching and research in the field of organic, inorganic, engineering, chemical technology chemical, food technology and microbiology.*

Due to the volatile nature of ethanol, a certain quantity of alcohol, proportionate to the blood alcohol concentration, transfers from the blood to the lung alveoli (in the same way that CO2 moves from the blood to the lung alveoli) in order to be eliminated, as illustrated in Figures 1. Based on this phenomenon, it is possible to measure the alcohol concentration from a deep exhaled breath sample with high accuracy, according to Henry's law. In this set of experiments we measure a soluble gas, ethanol in a non-invasive technique using a continuous system. The analogy of this system with our lungs is the main motivation behind the experiments conducted.

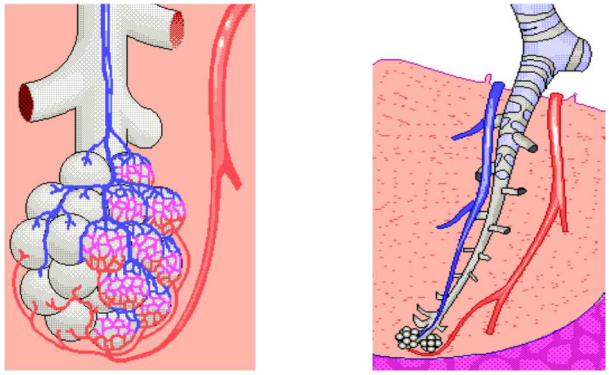


Figure 1: Lung alveoli

In our experimental system measuring ethanol concentration, the air flows through three vessel which are connected in series. Each vessel contains a Ethanol/Water solution with well-known concentration. All vessels are located in a thermal bath to realize a defined temperature of e. g. 34 °C. Usually the following parameters are varied to obtain different ethanol concentrations in the gas stream:

- temperature of the bath, T= 34 ^{0}C
- concentration of Ethanol in the Ethanol/Water solution, 0.476 mg/L
- gas flow of the gas (usually between 1 Liter/minute and 20 Liters/minute
- kind of gas flowing through the apparatus (air or nitrogen)
- pressure at the outlet of the system.

These parameters are very important for the establishment of equilibrium of a certain ethanol concentration in the gas stream.

3. RESULTS AND DISCUSIONS

We conducted the set of experiments with three vessels is series. Gas flow was kept from 8 to 24 L/min and temperature 34 ^{0}C. After receiving all the values from the experiments we had these results.

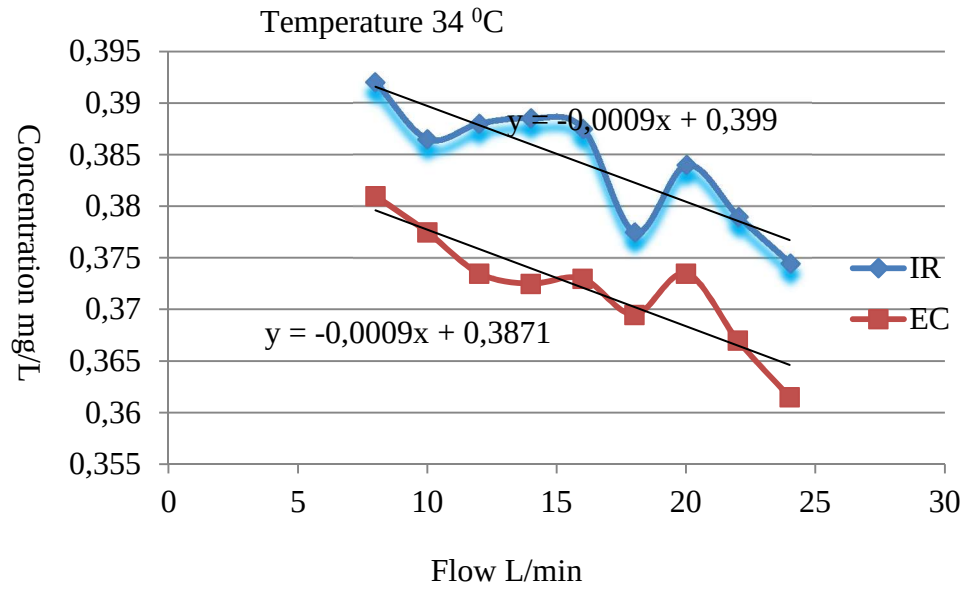


Figure 1: Graphic presentation of flow dependency from concentration V=500 ml, T = 34^{0}C

We conducted a second run of experiments, in the same conditions but with four vessels in series. Gas flow was kept 12 L/min and temperature range 34 ^{0}C. After receiving all the values from the experiments, we compared the values and we have the results in the graphs below.

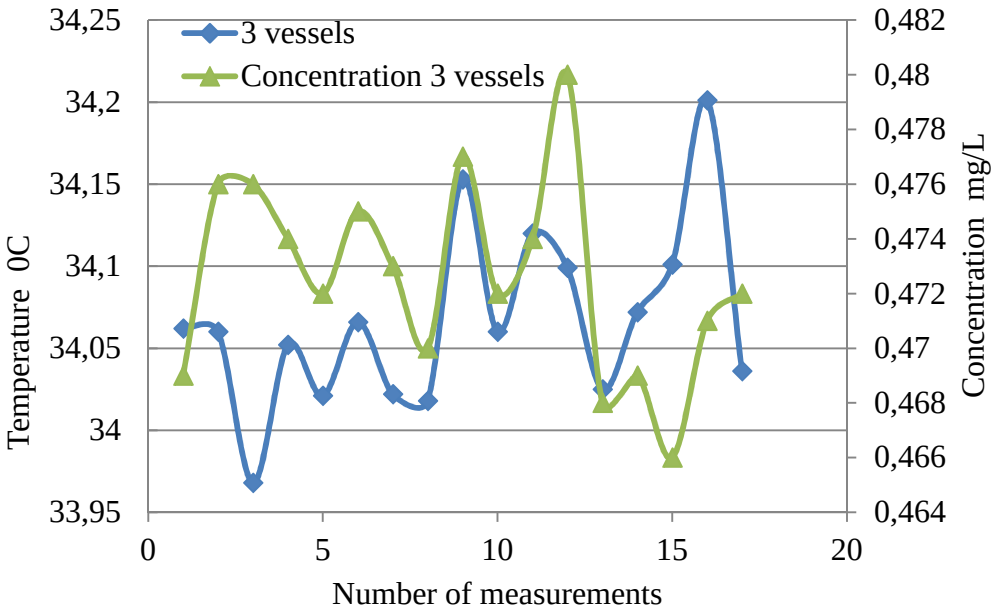


Figure 2: Graphic presentation of number of measurement dependency from concentration and temperature V=500 ml, T = 34^{0}C, three vessels

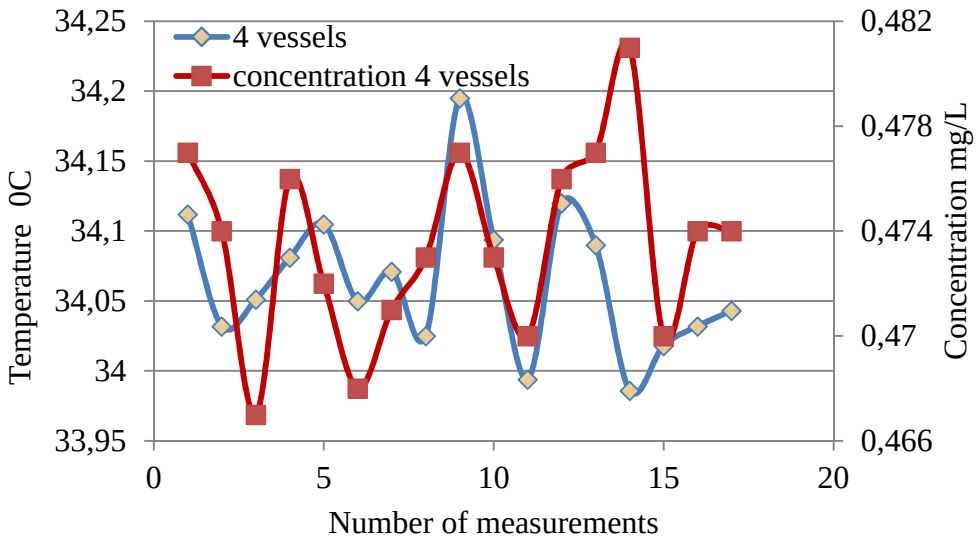


Figure 3: Graphic presentation of number of measurement dependency from concentration and temperature V=500 ml, T = 34^0C, four vessels

4. CONCLUSIONS

*PhD. **Irakli Premti** is part of the staff working at Polytechnic University of Tirana, Department of Mechanics of Structures. FIN is one of the oldest and most experienced faculties in Albanian higher education.*

At the end we arrived in these conclusions:

- The increase of temperature brings a linear increase of the concentration of ethanol in the gas phase with a fixed ratio of ethanol in gas separation within solution.
- The increase speed of flow of the gas flow decreases the concentration of ethanol in the gas phase.
- By using at least three or four vessel in series, a stable value of mass concentration at exit is achieved, allowing a fairly large number of measurements to be made.
- Through comparison of ethanol concentration outside of the system we evaluated the efficiency of each system, concluding that the second system has a better performance.

REFERENCES

[1] R.F. Borkenstein, R.F. Crowther, R.P. Shumate, W.B. Ziel, R. Zylman, 1964 *The role of the drinking driver in traffic accidents (The Grand Rapids Study)*, Department of Police Administration, Indiana University and 1974, Blutalkohol, Vol. 11.

[2] OIML R 126 *Evidential breath analysers*, OIML, 1998.

[3] K.M. Dubowski, *Breath-Alcohol Simulators: Scientific Basis and Actual Performance*, Journal of Analytical Toxicology, Vol.3, Sept./October 1979, pp. 177-182

THE FACTORS AFFECTING THE TREND OF FDI-S IN ALBANIA DURING THE LAST 5 YEARS

Blerta Dragusha[556]
Erjola Barbullushi (Sakti)[557]

DOI: https://doi.org/10.31410/eraz.2018.866

Abstract: *Foreign Direct investments are considered very important for a country's economic growth. Foreign direct investments in Albania have had their trend over the last 25 years. Over recent years, a high priority has been given to foreign investments and potential investors through the liberalization of investment absorption policies. In line with these policies, a series of reforms and laws have been implemented, guaranteeing and supporting foreign investments. With a liberal legislation where foreign and domestic investors have the same obligations and rights, the Albanian Government has given particular priority to sectors with high potential to develop such as: Renewable Energy, Mining Industry, Tourism, Industry Processing, Agriculture, Transportation and Logistics, as well as the Information and Communication Technology sector.*
Foreign Direct Investments inflows increased by 15.7% in 2017 compared to the previous year. But S & P warns that this growth is coming as a result of major projects, and then will fall to 10% of GDP in 2019-2020.
Albania offers great investment opportunities in sectors with sustainable economic growth such as: Energy & Miner Industries; Transport & Logistics; Tourism; Agriculture; Manufacturing.
In this paper, through the data provided by Albanian and foreign institutions we will make a description of the trend of Foreign Investments in Albania over the last 5 years, focusing on the type of investments, country of origin and industries where they are concentrated.
Then we will analyze the main factors that have affected the actual level of Foreign Investments in Albania over the last 5 years.

Prof. As. Dr. ***Blerta Dragusha***

She is the Dean of the Faculty of Economy, University of Shkodra "Luigj Gurakuqi". She has 20 years of academic and research experience. From May 2001 she holds a MBA degree from Southern Illinois University, Carbondale, USA.
She also holds a Ph.D. degree at Faculty of Economy, University of Tirana, Albania, in June 2009. She teaches Financial Management and Investments on the undergraduate and graduate level of Finance Accounting and Business-Administration studies.
Actually she holds the academic title „Associated Professor".
She delivered lectures in many countries abroad, particularlly University of North Caroline at Pembroke, USA, and Butler University, Indianapolis, USA.
She participated in some summer schools in Greece and Italy as well as at some other training courses organized by the Albanian Universities or other institutions that were designed through cooperation of European and American Universities.
Professor Dragusha published over 50 articles in scientific journals and actively participated in many national and international conferences.

[556] University of Shkodra "Luigj Gurakuqi", Godina e Rektoratit, Sheshi 2 Prilli, Shkoder, Albania
[557] University of Shkodra "Luigj Gurakuqi", Godina e Rektoratit, Sheshi 2 Prilli, Shkoder, Albania

Key words: *FDI, Albania, economic growth*

Dr. ***Erjola Barbullushi (Sakti)***

She is a Lecturer of Finance and Accounting at Economic Faculty of University of Shkodra "Luigj Gurakuqi". She graduated in 2005 in University of Shkodra, and followed master studies in Finance at University of Tirana. Since 2005 the main subjects taught are Cost and Management Accounting, Taxation and Risk Management. Her field of interest lately consists on International Corporate Finance and Bank Efficiency Evaluation.

Dr. Barbullushi is engaged in international projects and teaching. She was engaged in teaching at Sandhills Community College, North Carolina, USA, and University of Warsaw, Poland.

Recently, she has been part of Final project for Financial Management, Auditing and Controlling curricula development for capacity building of public administration in Albania. In this way focusing in fiscal policies and financial control.

She is an active member of some Professional Organizations especially regarding Finance and Accounting and holds a CFA since 2011.

CROWDFUNDING AND SOCIAL RESPONSIBILITY: CREATING ECONOMIC VALUE AND SOCIAL VALUE

Nadia Oliva[558]

DOI: https://doi.org/10.31410/eraz.2018.868

Abstract: *This work begins with the study of the phenomena of crowdfunding, highlighting its importance as an alternative form of financing. In the crowdfunding world the dimension of the social impact that it can generate is increasing, supporting projects of high civic and moral value. Crowdfunding campaigns increasingly finance innovative projects focused on biotech and environmental sustainability. The focus of this work is the study of crowdfunding as a tool for best practices, capable of creating not only economic value but also social value. In order to demonstrate the perfect union between economy and social responsibility, an empirical survey will be carried out, analyzing the strengths and opportunities offered by the European reward based crowdfunding platform, Ulule, which for now is the only one to have obtained the certification of B Corp. Ensuring compliance with social and environmental performance standards is a driving force for success and competitiveness.*

Nadia Oliva

She was born in Benevento, Italy, May 26, 1982. She has a degree in Economics 2006) at the University of Sannio, Benevento (Italy), and earned her Ph.D. in Planning and control at the University of Florence, Italy, in 2010. Currently she is a research fellow of Business Administration at the Faculty of Economy, University Giustino Fortunato (Benevento – Italy). Her research interests are: Management control, Crowdfunding, Non profit Organizations and Accounting, Social Reporting and Corporate social Responsibility.

Key words areas specialization: balance sheet, accountancy, social reporting, corporate social responsibility, accountability.

Key words: *corporate social responsibility, accountability, crowdfunding, shared value creation, reward based*

[558] TELEMATIC UNIVERSITY GIUSTINO FORTUNATO, VIA R. DELCOGLIANO,12 BENEVENTO-ITALY

THE STRUCTURE OF MARGINAL COSTS: A PEDAGOGICAL REVIEW

Petar Stankov[559]

DOI: https://doi.org/10.31410/eraz.2018.869

Abstract: *The paper assumes an implicitly given production function with capital and labor and derives marginal costs from it. Further, it analyzes conditions under which marginal costs change. Finally, based on the derived structure of marginal costs, capital and labor market policies for affecting firm-level behavior are discussed, which economics students easily understand.*

Understanding marginal costs is essential to interpreting firm-level and aggregate equilibrium outcomes. However, microeconomics students rarely see a full-fledged derivation of those costs in either introductory or advanced-level microeconomics courses. In the standard introductory-level textbook literature, the issue of the structure of marginal costs is too early to grasp, and hence is left out (e.g. Alchian and Allen 1965, Case and Fair 2007, Farnham 2009, Mankiw and Taylor, 2014, Parkin 2004, and Sloman 2006). In the more advanced literature (e.g. Varian 1992 and Mas-Colell, Whinston, & Green 1995), the issue is left out because it is either assumed to be known a priori, or trivial. It can also be left out or because the textbook allegedly needs to deal with more important issues for the advanced students.

As a result, students rarely understand the intuition behind marginal costs, and assume them as given – which they are not. A direct implication is that students do not see exactly how certain rational capital and labor market policies work at the level, at which they matter most – the firm. This is an issue, because it hampers the acceptance of the fundamental mechanics of microeconomics.

To remedy the issue, I propose a simple derivation of marginal costs, which holds both pedagogical and policy implications. The derivation is a standard procedure used in advanced microeconomics classes in Western schools, and arrives at the basic structure of marginal costs.

The derivation procedure starts with an implicit production function:

$$Q = F(K, L),$$

where the quantity of output Q is a function of the quantities of capital (K) and labor (L). To produce Q, however, the firm needs to pay factor prices, and hire factors with varying productivities. Therefore, the total costs of the firm are directly affected by how much the firm produces, which is further related to the amounts of capital and labor that the firm hires:

$$TC(Q) = TC[Q(K, L)].$$

As marginal costs are, by definition, equal to $dTC(Q)/dQ$, we first need to totally differentiate the cost function:

$$dTC(Q) = dTC[Q(K, L)].$$

[559] University of National and World Economy, Sofia, Bulgaria, J.K. Studentski grad, 1700 Sofia, Bulgaria

When we further develop the total differential of the cost function, we can attribute the change in total costs to the underlying changes in factor quantities and factor prices:

$$dTC(Q) = dTC[Q(K,L)] = \frac{\partial TC}{\partial Q}\frac{\partial Q}{\partial K}dK + \frac{\partial TC}{\partial Q}\frac{\partial Q}{\partial L}dL.$$

That is, total costs change due to both changes in capital and labor. The first part of the expression tells us how much total costs change due to the change in capital, and the second part – die to labor. Within each part, there are three multiples: $\frac{\partial TC}{\partial Q}; \frac{\partial Q}{\partial Z}$ *and* dZ*. The multiple* $\frac{\partial TC}{\partial Q}$ *tells us the change in total costs due to a unit change in output; then,* $\frac{\partial Q}{\partial Z}$ *tells us how output changes due to a unit change in any factor Z; finally,* dZ *informs how much of a change there has been in Z.*
Dividing both sides by dQ*, we get:*

$$\frac{dTC}{dQ} = \frac{\partial TC}{\partial K}\frac{dK}{dQ} + \frac{\partial TC}{\partial L}\frac{dL}{dQ}.$$

Note that, by definition, $\frac{dTC}{dQ} \equiv MC$*. Further,* $\frac{\partial TC}{\partial K} \equiv p_K$*, or the price of capital, because it is the increase in total costs due to a unit change in capital K, again by definition. Similarly, we notice that* $\frac{\partial TC}{\partial L} \equiv p_L$*, or the price of labor. Thus, we see that the first two elements of each of the expressions of the marginal costs are actually the factor prices* p_K *and* p_L*.*
The other two elements are also easy to understand. Note that, by definition, $\frac{dQ}{dZ} \equiv MPZ$ *, where Z is any factor. Then,* $\frac{dK}{dQ} \equiv \frac{1}{MPK}$*, and* $\frac{dL}{dQ} \equiv \frac{1}{MPL}$*. That is, the second set of elements in the structure of marginal costs are the inverse of factor productivities. Having this in mind, we finally arrive at the structure of marginal costs:*

$$MC = p_K\frac{1}{MPK} + p_L\frac{1}{MPL}.$$

Explicitly arriving at the structure of marginal costs allows for the following conclusion: marginal costs are in a positive relation with factor prices, and in an inverse relation to factor productivity. As marginal costs directly affect firm-level equilibrium, we can analyze the conditions under which output increases, given prices. In turn, intuitive policy implications are easy to derive, given output prices:

1) *lower interest rates reduces marginal costs, and increases production;*
2) *lower wages increase production – but also higher wages are compatible with higher production if labor productivity increases faster than wages;*

Petar Stankov, Ph.D

CORE COMPETENCES:
Applied economics (teaching and research); Preparing and managing research projects
CURRENT POSITIONS
09'2010 – now: Senior Assistant Professor of Economics (with tenure). Dept. of Economics, University of National and World Economy (UNWE), Sofia, Bulgaria
EDUCATION
2008–2014 Ph.D. degree in Economics. CERGE-EI, Prague, Czech Republic. Thesis title: Empirical Essays on Crises, Reforms and Growth, Chair: Lubomír Lízal,
Czech National Bank and CERGE-EI. Defense Feb. 2014,

3) *increasing capital productivity increases production;*
4) *increasing labor productivity increases production.*

Naturally, the above production function from which we started assumes away many other relevant production factors. Two of the important ones to understand are: material inputs (e.g., transportation, electricity and any other specific material input to the firm) and human capital. Both of them have varying contributions to marginal costs, and bring additional policy implications. Having this structure of marginal costs in mind, it is easy to sell those policy implications to advanced economics students.

References

Alchian, A. & W. Allen (1965). University Economics. Third ed. Wadsworth Publishing Co., Belmont, California

Case, C. & R. Fair (2007). Principles of Microeconomics. Eighth ed. Pearson Education, Inc., New Jersey

Farnham, P. (2009). Economics for Managers. Second ed. Pearson Education, Inc., New Jersey

Mankiw, G. and Taylor, M. (2014) Microeconomics, CENGAGE Learning, Hampshipe, UK

Mas-Colell, A., Whinston, M., & J. Green (1995). Microeconomic Theory, Oxford University Press

Parkin, M. (2004). Economics, Seventh ed., Addison-Wesley

Sloman, J. (2006). Economics, Sixth Ed., Prentice Hall

Varian, H. (1992), Microeconomic Analysis, Third Ed., Norton

ANALYSIS OF THE STRUCTURE OF BANK RECEIVABLES FROM THE BUSINESS SECTOR IN THE REPUBLIC OF SERBIA

Dragana Tadić Živković[560]

DOI: https://doi.org/10.31410/eraz.2018.872

Abstract: *This paper will analyze the claims of banks in the Republic of Serbia from the business sector in the period 2008-2017. It will point to the existing trends in the structure of receivables as indicators of the state of the economy and the dynamics of economic development. In the observed period, there was an increased need for liquid assets in the economy, but also insufficient wideness of financial products that would meet those needs. Financing the development of the economy is conditioned by the banking offer, due to the insufficiently developed financial market and the monopoly position of banking institutions on it. In the last years of the observed period, it is evident that the quality of banking products is improving, and the lower risk and safer assets yield a lower interest rate. Such developments contribute to the increase of banks' credit potential and the growth of credit activity while at the same time the business sector operates on somewhat more favorable terms.*

Key words: *banks, business sector, Serbia*

[560] Faculty of Economics East Sarajevo, Bosnia and Hercegovina

ALTMAN Z-SCORE REVISED MODELS AS EARLY WARNING SYSTEMS FOR BANKRUPTCY EVALUATION OF ECONOMIC ENTITIES

Erjole Barbullushi[561]
Blerta Dragusha[562]

DOI: https://doi.org/10.31410/eraz.2018.873

Abstract: *During the past three decades, bankruptcy prediction has become a considerable concern for stakeholders in entities and is a subject that has been explored in different ways over the last decades. The ability to predict the possibility of the entities to bankrupt and give warning signals of worsening financial situation of the entities is of interest not only to the managers, but also to their external stakeholders. There are different models in the literature for predicting the phenomenon of bankruptcy.*
The main objective of this study is to compare the accuracy of the revised Altman Z' Score model for private enterprises and Z" Score for emerging market enterprises to determine if it is an optimal model for predicting bankruptcy of commercial enterprises (big entities) of North Albania through the review of 50 ongoing enterprises in the period 2014-2016.
The database is the official website of NBC where the financial statements are published and the data is processed using Excel software to calculate the financial ratios and financial difficulty levels of the commercial enterprises of North Albania for both revised Altman Z Score models.
The results show that the accuracy of the Altman Z ' Score model is 40% in the first year and in the second year and 46.67% in the third year. While the accuracy of the Altman Z" Score model is 70% in the first year, 73.3% in the second year and 46.67% in the third year. So the model with the highest accuracy is the Altman Z" Score model for emerging market firms.

Key words: *Bankruptcy, Altman-z score models, emerging markets, developing markets.*

[561] University of Shkodra „Luigj Gurakuqi“, Economic Faculty, Sheshi 2 Prilli, Rektorati, Shkoder, Albania,
[562] University of Shkodra „Luigj Gurakuqi“, Economic Faculty, Sheshi 2 Prilli, Rektorati, Shkoder, Albania

NON-FINANCIAL BACKGROUND OF FINANCIAL PERFORMANCE: EVIDENCE FROM CENTRAL AND EASTERN EUROPE

Gyorgy Andor[563]
Tamas Toth[564]

DOI: https://doi.org/10.31410/eraz.2018.874

Abstract: *This research concerns the relationship between progress in financial performance and firm characteristics, such as the applied capital budgeting methods, the presence of a code of ethics, the firm size, the extent of management ownership, and the presence of Western management culture, in Central and Eastern European (CEE) firms. The data of 218 non-listed companies are used from a survey in 2006 that focused on the capital budgeting practices and other characteristics of firms. The most important financial variables—sales, earnings before interest and taxes (EBIT), total assets, equity, debt, return on equity (ROE), return on assets (ROA), debt to assets, equity to assets, and number of employees—are analyzed, reflecting the financial progress of these firms from 2005 to 2012.*
Companies that do not use a formal capital budgeting technique have a significantly worse average financial performance than do companies that use a formal capital budgeting technique; companies using discounted cash flow (DCF) methods have the best performance. No significant difference in financial progress is found between firms using only accounting-based (AB) methods or DCF methods. The presence of a code of ethics appears to be a strong separation parameter—companies with a code of ethics usually outperform companies without one. The size of a firm is also shown to have a significant impact on financial progress. Companies with a high management ownership show better ROE and ROA than companies with a low management ownership. Finally, this study identifies better financial performance for firms with a Western management culture.

Key words: *capital budgeting practice; code of ethics; size effect; management ownership; financial performance; Central and Eastern Europe*

[563] Eotvos Lorand University, Institute of Business Economics; Neumann Janos University, Faculty of Economics and Business; Hungary
[564] Eotvos Lorand University, Institute of Business Economics; Neumann Janos University, Faculty of Economics and Business; Hungary

ENTERPRISE ARCHITECTURE AS A FACTOR TO ELIMINATE IMPACTS IN ENTERPRISE EXTERNAL ENVIRONMENT

Petra Pártlová[565]
Jan Váchal[566]

DOI: https://doi.org/10.31410/eraz.2018.875

Abstract: *The current environment of business entities operating in market economies can be described as an environment of permanent changes complemented by the aspect of chaos with a different degree of organization. This fundamental change compared to the enterprise environment in the last century naturally implies the necessity of corporate system organization and structure. This concerns both the basic building elements of corporate system, such as vision, mission, strategy, organizational units, internal resources, elements of meso environment, control mechanisms, competency relations of corporate infrastructure, as well as business processes, competency relations, communication links and, finally organizational and management structures the submitted contribution focuses on. The above mentioned elements are in foreign literature referred to as "Enterprise Architecture". With a certain degree of generalization, it can be stated that the changes occurring are at the very beginning of their transformation and their intensity will increase. In terms of the importance and function, organizational and management structure can defined as functional, spatial and integrative element operating within a corporate system that fundamentally influences other components of enterprise architecture. The research was carried out between 2016 and 2017 on a test sample of 456 enterprises from the whole Czech Republic. 109 micro enterprises, 140 small enterprises (with no more than 50 employees), 124 medium-sized enterprises (51 – 250 employees) and 83 large enterprises (with more than 250 employees) were addressed. The enterprises were further classified by the basic sector differentiation of the Czech Republic (excluding the quaternary sector) into manufacturing and industrial (187 enterprises), services (255 enterprises) and primary sector (14 enterprises), and by the extent of their operation – regional (189), national (126) and multinational (141) enterprises. For processing of the results, statistical methods were used (p-value with Pearson´s chi-squared test results).*

Petra Pártlová *is an assistant lecturer at the Department of Management at The Institute of Technology and Business in České Budějovice. Her research activity focuses on corporate governance issues related to SMEs and regional policy. She also deals with the issue of the impact of the external environment on the viability and prosperity of small and medium-sized enterprises in the Czech Republic. In the context of the increasingly intense changes, the changes are being proposed to their corporate architecture. It is a fact that the production and economic and social base for SMEs is a rural area that is the subject of research in the area of territorial area studies.*

[565] Institute of Technology and Business in České Budějovice, Department of Management, České Budějovice, Czech Republic
[566] Institute of Technology and Business in České Budějovice, Department of Management, Okružní 10, 370 01 České Budějovice, Czech Republic

The tests were performed at a standard significance level 0.05, i.e. with 95% reliability. Within the whole tested sample, the decline in classical management structures such as divisional and combined structure to the detriment of department structures was indicated, stating that this trend is the most pronounced in the category of large enterprises. This organizational transformation has a demonstrable relation to the enterprise orientation, where this trend was found to be the strongest in the category of industrial enterprises. There were also analyzed a number of management levels, where no dependence was found between the number of management levels and orientation of the enterprise compared to the statistically proved relation to the size of the enterprise. In terms of the number of management levels, no causal relation to the enterprise orientation was found, unlike the relation to its size. At the same time, a considerable lack of organizational and managerial skills of especially micro, small and medium-sized enterprises managers. The relation between the type of DSA and enterprise profitability was also addressed. As supplementary data, a number of managers at the individual management levels, that is, at the level of top-level management, middle-level management and at the operational level. Even in this case, the aspect of sector and size of the enterprise was taken into account. The top managers took the view of the importance and necessity of transformation of the existing organizational and management structures, highlighting the individuality of solutions according to the conditions of each enterprise. The conclusion/ final part of the contribution deals with the prediction of future development in the corporate structure in terms of organizational and management framework of business entities.

*Professor **Jan Váchal**, is the vice-rector of the Department of Strategy, Innovation and Quality and the statutory deputy of the rector of the Institute of Technology and Business in České Budějovice and a member of the Department of Management. In the project, he will focus on the issue of analyzing a predicting the internal potential of enterprises and external factors influencing them by using mathematical and statistical methods and modelling. The internal potential of enterprises can be seen as the potential base for outsourcing innovation activities including subsequent environment.*

Key words: *enterprise architecture, organizational and management structure, transformation of management structures*

THE 40% CLUB: COMPANY PERFORMANCE QUALITY AND GENDER EQUALITY

Brikena Berisha[567]

DOI: https://doi.org/10.31410/eraz.2018.877

Abstract: *With the new laws across Europe being made, mandatory quotas appointing the number of women participating, are being introduced. As a result, more women are and more women are being expected to participate on boards of directors, contributing this way to gender equality in the labour market.*

This year is the tenth anniversary since Norway approved the law on the mandatory participation of women on boards of directors, to be as high as 40%. A considerable number of other countries followed with the same action, with some of them, also approving financial penalties for companies not respecting the quota. In 2013, the European Union also approved the law that 5000 selected private European companies should have 40% representation of each gender from 2020, while state-owned companies should start the same from 2018. The Parliament of Kosovo, in March 2018 approved the law for women participation on board of directors, obliging commercial companies to have a board of directors made of 40% women at least. After two years, this will be followed by the 50% percentage and sanctions for those that obey. The scenario was the one foreseen, and besides, in the absence of sound debate or qualitative concerns.

Overall, the quota main aim certainly has been to increase women participation as board's members. And for these 10 years, throughout Europe, the number of women on boards actually has doubled. In Kosovo, as predicted, the scenario was followed by the absence of qualitative concerns and debate. But what about Europe, are there controversy over this action? Yes, there is much controversy over the relationship between setting quota and quality growth.

Going on an in-depth analysis, what is the effect of introducing quota on business performance? Based on literature review, this article analyses the effect of quotas on private companies in a cross-country context. Reviewing different practices, the study finds that changes on decision making and financial performance have been made during this period, but could not be attributed directly to the quota effect and are not directly related to the board composition.

Brikena Berisha *is an economist, experienced in research and lecturing. She pursued her bachelor studies in Marketing (2012) and her master studies in Economics (2015), at University of Prishtina and Universita degli Studi di Milano. In 2016, she obtained a certificate in executive education from Duke Center for International Development, in Sanford School of Public Policy. Currently, Berisha works as a teaching assistant in Faculty of Economy at AAB College, in the Department of Marketing. She has been a visiting professor in SMK College in Lithuania as a part of Erasmus+ Staff Mobility Programme, and has been awarded with scholarships from USAID Transformational Leadership Program – Scholarships and Partnerships (TLP-SP) in 2016 and European Commission Scholarship Programme, Erasmus Mundus Action 2 SIGMA scholarship in 2014. Berisha is also a columnist, writing mostly about economical and social issues.*

[567] Faculty of Economy, AAB College, Prishtinë

Key words: *quality, gender equality, women, performance, economy*

CORPORATE GOVERNANCE AND PERFORMANCE OF SME SECTOR IN KOSOVO

Saxhide Mustafa[568]

DOI: https://doi.org/10.31410/eraz.2018.879

Abstract: *OECD (2015) suggested that its corporate governance principles should be considered for implementation also by Small and Medium companies. A good corporate governance system it's established to ensure proper balance in terms of long-term interests of different stakeholders (primarily: owners, employees and management) through improvements of company's performance and improving its competitive position in the market.*

This paper provides a short overview on the theoretical discussions that is related to the interdependence between corporate governance and company performance, than presents the results of empirical studies in different countries and also results of a survey of around 100 SMEs in Kosovo.

The analysis of data in this paper, in the case of Kosovo, has proved that the greater the company, the effects of corporate governance on the performance of enterprises are even greater. Also, the effects of corporate governance are greater in performance in those cases where companies operate on the larger market. Regarding the determinants, the theoretical expectations are confirmed that the size of the company, the level of investment, export activities and company life expectancy are statistically significant determinants of the adoption of corporate governance practices.

Key words*: Performance, governance, company, boards, executive management.*

Saxhide Mustafa

WORK EXPERIENCE
2011- ongoing: Lecturer, **RIINVEST COLLEGE**
2003- Ongoing: Deputy Executive Director, RIINVEST INSTITUTE

EDUCATION
2012- Ongoing: PhD Study, Economic Faculty, Public University of Tirana

PUBLICATIONS:
Berisha, H., Ergun, H. S., Gurbuz, F.G., Mustafa, S., Yener, M.I., and Yusof, I. (2017).under review. Strategy as Practice: An Organizational Culture Approach in a Higher Education Institution in Kosovo. International Journal of Economics, Management and Accounting. 26: 1.

Abdixhiku L., Hashani A., Mustafa S. Beqiri G., and Nixha, A. Corporate Governance in Family owned Enterprises Published by: 2015, Riinvest Institute

Abdixhiku L., Shllaku., Hashani A., Gashi D. Nixha A., Hyseni P., Mustafa S. and Reçica F. Transparency in Kosovo: A Collection of Short Articles Published by: 2014 Riinvest Institute

Abdixhiku L., Hashani A., Mustafa S.and Beqiri G. Corporate Governance in Publicly Owned Enterprises in Kosovo Published by: 2013, Riinvest Institute.

Abdixhiku L., Hashani A., Mustafa S., Reqica F., Beqiri G., Gashi D., Rizvanolli Artane, Mehmeti Ilire, Jusufi Zana and Nixha Agon. Improving Transparency and Governance of Public Funds, Published by: 2012, Riinvest Institute.

[568] Riinvest - Institute for Development Research

CORPORATE SUSTAINABILITY: VALUE CREATION IN SUSTAINABLE MANUFACTURING

Damla Ozekan[569]

DOI: https://doi.org/10.31410/eraz.2018.880

Abstract: *In recent years there has been significant discussion about corporate sustainability in the business and academic area. This term is often used very related to, and also sometimes as a synonym for corporate social responsibility and sustainable development. Although there are many definitions for this term, corporate sustainability can be defined as a new and evolving corporate management model which is an alternative to the traditional growth and profit maximization model. It is a term that includes the goals related to sustainable development - such as environmental protection, social justice and equity- as much as corporate growth and profitability. In manufacturing, value is generated through activities and interactions between suppliers, manufacturers, customers and other stakeholders. However, when it comes to sustainable value creation, the economic, environmental and societal impacts on all stakeholders must also be considered. The first section of the paper gives a deep literature review on corporate sustainability and value creation.*

According to Badurdeen and Jawahir; there are eight key strategies to enable value creation through sustainable manufacturing. These strategies include; sustainable manufacturing education and workforce development, next generation decision support toolset, risk, uncertainty and unintended consequences for supply networks, Product Lifecycle Management (PLM) capability for process planning, lifecycle cost models, 6R-focused end-of-life management, flexible and scalable manufacturing alternatives and sustainable manufacturing

Damla Ozekan

EDUCATION:

2014- 2015: University of Cambridge, Cambridge, Institute of Continuing Education
Master of Studies in Sustainability Leadership
2004-2010 Marmara University, Istanbul: Institute of Social Sciences
Ph.D. in International Economics
Thesis: Global Climate Change Issue in the Context of Energy, Environment, Sustainable Development and the Kyoto Protocol: The Turkey Case.
Advisor: Prof. Dr. Müfit Akyüz

ACADEMIC EXPERIENCE:

2013-present: ISTANBUL KULTUR UNIVERSITY,Istanbul
Assistant Professor: Working as an assistant professor in the fields of Economics, International Economics and Global Energy Politics both in Faculty of Economics and Administrative Sciences and the Vocational School of Business Administration.

ADMINISTRATIVE AND BUSINESS EXPERIENCE:

2018-present: ISTANBUL KULTUR UNIVERSITY,Istanbul
Programme Director: Working at Vocational School of Business Administration as Aviation Logistics Programme Director

[569] Istanbul Kultur University, Isletmecilik MYO Zuhuratbaba Mah. Yolbasi Sok.No.1 Incirli Bakirkoy Istanbul Turkey

metrics. In the second section of the paper, these key strategies and other strategies are explained to enable value creation in sustainable manufacturing.
At the last part of the article, one of the biggest manufacturing companies in Turkey on glass industry is investigated as the main case of this study on sustainable manufacturing. To underline the policy and strategy of the company on sustainability, a depth-interview has been done with the coordination office of sustainability. The company defines its aim to become one of the top three in global market through mainstreaming, evaluating and prioritizing their business strategy in line with sustainability principles while adding value they create by the stakeholders. The key strategies in literature and the company strategies are compared in sustainable manufacturing and the findings gathered from the interview are going to be explained in full text article in detailed.

Key words*: corporate sustainability, sustainable manufacturing, value creation*

CHANGING ROLE OF CFOS

Sinan Cifci[570]

DOI: https://doi.org/10.31410/eraz.2018.882

Abstract: *The purpose of this research is to study whether and how the traditional Chief Financial Officer (CFO) role has changed in today's organizations. Changing business needs due to new (globally-driven) regulatory and compliance aspects as a result of financial crises, enhanced use of technology and digitization of key business and finance activities result in a new landscape for organizations. Previously considered as solely a Finance & Accounting job with accounting, treasury and forecasting / planning responsibilities, CFO role has continuously been gaining more strategic importance in the C-suite of today's organizations. Increasing number of functions (e.g., regulatory compliance, M&A and Business Development, IT, procurement, investor relations) report to the CFO and this transformation results in a need to define the CFO's contribution to organizations in a broader perspective. The research will use a grounded theory based approach with data collection through transcribed interviews with CFO's mainly from Turkey and some other countries across a wide range of industries. Data will be analyzed through constant comparison across data sources and a grounded theory will be developed from the data.*

Sinan Cifci *is currently a PhD in Business Administration student at Galatasaray University, Istanbul.*

He holds an MBA from the University of Melbourne – Melbourne Business School and a Bachelor of Arts degree in Management from Bogazici University, Istanbul.

He currently holds the position of Director, Financial Planning & Analysis at a private institution in Istanbul, Turkey. Prior to this role, Sinan served in various finance and strategy related roles across M&A and Business Development, Project Finance and Strategic Planning functions.

Key words: *organization, CFO, role*

[570] Galatasaray University, Istanbul, Ciragan Cad. No:36, 34349 Ortakoy/Istanbul

UNBUNDLING THE ROLES OF INSTITUTIONS AND HUMAN CAPITAL IN DEVELOPMENT: A GLOBAL EVIDENCE

Soner Gokten[571]
Furkan Baser[572]
Pınar Okan Gokten[573]

DOI: https://doi.org/10.31410/eraz.2018.883

Abstract: *There are two considerable broad approaches in controversy in the comparative development literature. First, one asserts that institutions have a primacy in development process. The other one emphasizes that human capital is a more basic source of development. In this paper we revisit the debate over unbundling the roles of institutions and human capital in development by using mediated structural equation modelling with latent construct. We used 14 publicly available indicators to measure institutional quality, human capital and economic development and our dataset covers 143 countries. Measures for the institutional quality are political rights and civil liberties estimated by Freedom House, polity scores taken from the report of Polity IV Project of Center for Systemic Peace, the rule of law score of The Worldwide Governance Indicators, and Political constraint index dataset by Witold Henisz. The set of proxies to constitute the aggregate human capital latent function includes Legatum Institute's education, health and business environment sub-indexes, capital per worker as current US$ and research and development expenditure as percentage of GDP. The economic development latent variable includes gross domestic savings as percentage of GDP, high-technology exports as percentage of manufactured exports, GDP per capita and economic quality sub-index of Legatum Institute.*

At the first step we constructed a non-mediated structural equation model where institutional quality and economic development are respectively exogenous and endogenous. The finding verified the direct causal relationship between institutions and economic development which is a prerequisite for constructing the mediation model where human capital is a mediator while institutional quality and economic development are respectively exogenous and endogenous. The results of mediation model indicate that (a) human capital mediates the effects of institutional quality on economic development, (b) full mediator role of human capital makes the direct relationship between institutional quality and economic development insignificant and thus, (c) the effect of institutional quality on economic development occurs indirectly through human capital even institutional quality has a primacy in development process.

Key words: *institutions, human capital, development,*

[571] Department of Management, Baskent University, Ankara, Turkey
[572] Department of Insurance and Actuarial Sciences, Ankara University, Ankara, Turkey
[573] Department of International Trade, Gazi University, Ankara, Turkey

THE IMPACT OF HUMAN CAPITAL ON SUSTAINABLE GROWTH - THE CASE OF REPUBLIC OF MACEDONIA -

Slagjana Stojanovska[574]
Violeta Madzova[575]
Margarita Matlievska[576]

DOI: https://doi.org/10.31410/eraz.2018.884

Abstract: *The sustainable growth of a country is not only about better performance and continuous increased production of the outputs, but as well as about providing higher living standard for the whole country's population.*
However, enabling sustainable growth of a country requires not only large financial investments, but as well as committed and continuous investments in the population's human capital.
This paper aims to analyze the relationship and impact of the human capital on GDP real growth, population's standard of living and inequality in the Republic of Macedonia.
For that purpose five basic Human Capital Indicators are selected, analyzing its relationship and impact on depended variables, such as: Real GDP growth rate, Human Development Index as indicator for standard of living and GINI coefficient measuring population's income inequality. Using the quarterly data for the time span 2008q1- 2016q4, two models have been conducted: Granger causality test - in order to analyze the casual relationship among the Human Capital indicators and the respondent variables, as well as Impulse Response function method, to analyze the dynamic effects of the respondent variables.
The Granger causality test's results have shown mutual causality between Quality of math and science education indicator and Real GDP growth and unidirectional impact of Quality of education system and Quality of research institution indicators on Real GDP growth. Furthermore, the mutual causality between three human capital indicators and Human Development Index have been identified, as well as unidirectional impact of Quality of math and science education indicator on HDI as a measure for standard of living. Analyzing the inequality it is confirmed that all selected human capital factors have impact on income inequality in Republic of Macedonia.
To make further projections and analyze sensitivity of respondent variables, the Impulse Response function method is used, showing different level of sensitivity of the real economic growth, standard of living and income inequality to one percent shock given to each of particular human capital indicators.

Key words: *human capital indicators, economic growth, standard of living, inequality, Granger causality test, Impulse Response Function method.*

[574] Integrated Business Faculty, bul. 3-ta Makedonska brigade, 66A - , Skopje, Macedonia
[575] International Balkan University, Tasko Karadza str. 11a , Skopje, R.Macedonia
[576] MIT University –Skopje , bul. 3-ta Makedonska brigade, 66A - , Skopje, Macedonia

LEADERSHIP EFFECTIVENESS IN MODERN AGE

Vuk Mirčetić[577]
Pavle Brzaković[578]
Svetlana Vukotić[579]

DOI: https://doi.org/10.31410/eraz.2018.885

Abstract: *This article addresses leadership and effectiveness in modern age. Contemporary time that we live in is understood as a complex historical product that is continuously developing thanks to digitalization and uprising of techniques, technologies and globalization. Changes affect modern management and business environment as well as people working in it, and effective leaders are needed now more than ever. Effectiveness of a modern leader is reflected not only through developing and reaching goals, but also in having motivated subordinates. In this paper, rich theoretical approaches to leadership effectiveness are examined and correlation between activities undertaken by leader and leadership effectiveness is analyzed.*

Key words: *effective leadership, contemporary leader, leadership behavior, positive affect, modern management.*

[577] Faculty of Applied Management, Economics and Finance, Jevrejska 24, Belgrade, Serbia
[578] Faculty of Applied Management, Economics and Finance, Jevrejska 24, Belgrade, Serbia
[579] Faculty of Applied Management, Economics and Finance, Jevrejska 24, Belgrade, Serbia

GOOD ORGANIZATIONAL GOVERNANCE AND DEVELOPMENT OF LEADERSHIP SKILLS IN SPORTS

Danica Pirsl[580]
Andon Kostadinovic[581]

DOI: https://doi.org/10.31410/eraz.2018.886

Abstract: *The idea of what constitutes good organizational governance extends beyond the ideas of monitoring to ensure conformance and developing to improve performance. Henry and Lee (2004) provide a list of seven key principles for good organizational governance in sport organizations: 1. Transparency – ensuring the organization has clear procedures for resource allocation, reporting and decision-making; 2. Accountability – sports organizations need to be accountable to all their stakeholders; 3. Democracy – all stakeholder groups should be able to be represented in the governance structure; 4. Responsibility – the board has to be responsible for the organization and demonstrate ethical stewardship in carrying out that responsibility; 5. Equity – all stakeholder groups should be treated equitably; 6. Efficiency – process improvements should be undertaken to ensure the organization is making the best use of its resources; and 7. Effectiveness – the board should establish and monitor measures of performance in a strategic manner. This list of principles is not exhaustive but it does give us a clear indication of the philosophical approach organizations should adopt in designing and implementing an appropriate governance framework. The English legal system requires PL clubs to fulfill a number of obligations for communicating with shareholders, consultation with fans, the use of customer charters, and dialogue with supporters' trusts. The FGRC noted that while the majority of PL clubs do an adequate job in this area, there was room for improvement. In addition PL clubs that are listed public companies must follow a combined code that sets out principles for the activities of directors, director's remuneration, accountability and audit requirements, relations with shareholders, and institutional shareholders. The FGRC found that while PL clubs are moving towards having more independent directors, they fall short compared to other listed companies. There are now more than 70 supporters' trusts for clubs in the FA, and about 60% of PL clubs have a supporter's trust. The trusts fulfill an important governance role, with 25% of PL clubs having a trust representative on their board. This representation means that committed fans have the*

***Danica Pirsl**, assistant professor, received her B.A. and M.A. degrees in Applied Linguistics from the Faculty of Philosophy in Nis and PhD from the University of Novi Pazar, Serbia. She is now at the Faculty of sport, in Nis, Serbia. She has published more than 180 papers in applied linguistics, rhetorics and second language pedagogy as well as two textbooks on English for specific purposes.*

***Andon Konstadinovic**, full professor, academician is a Dean of the University of "Union - Nikola Tesla", Belgrade, Faculty of Law, Security and Management "Konstantin Veliki", Nis, Serbia, his major works and interests are in the area of sociology, management, leadership. He has published extensively having more than 10 textbooks, monographs.*

[580] University of Nis, Faculty of Sport, Serbia
[581] University of "Union - Nikola Tesla", Belgrade, Faculty of Law Security and Management "Konstantin Veliki", Zetska 2-4, 18000 Niš, Serbia

chance to participate in decision-making at the highest level in regard to the future of their club, and in return support the club in sport development, marketing and fundraising activities. Coaching experts give some guidelines as to how adopt leadership skills such as visualizing what one wants to accomplish, taking the lead, fighting for equitable funding, projecting oneself, putting one's own "stamp" on each of the coached athletes, surrounding oneself with good people, adopting and being persistent with one's philosophy, sharing commitment and knowing who your friends are, and finally identifying those who can positively influence one's coaching career and being true to one's values.

Key words: *organizational governance, audit requirements, shareholders, decision-making, leadership skills, sport*

MANIFESTATIONS AND SIGNIFICANCE OF "WORK EXPERIENCE" IN THE ORGANIZATION

Mária Héder[582]

DOI: https://doi.org/10.31410/eraz.2018.888

Abstract: *One of the most outstanding difficulties of business life nowadays is how the lack of workforce is treated. Thanks to this, organizations put more and more emphasis on keeping the current staff besides recruiting the right employees. The aim of the presentation is to highlight a novel approach in the success of keeping the employees where the emphasis is on the experience of work – and within this to help the flow experience. This is used consciously by more and more organizations to strengthen employee loyalty. The introduction of the right practices through company examples offers an analysis which helps summarize the possibilities and the practical realization. We can say that conscious organizations already start the influence through experiences in the job searching phase, which is often helped by experts who are specialized in this. After having employed these people there is an unlimited palette of possibilities to be used through gamification to internal organizational competitions to virtual reality. In several cases the process does not stop even after the employee has left the company so that the company's reputation is not harmed by a bit and to give the possibility of a later employment. This trend would appear more consciously in Hungary, too thanks to the multinational companies with a history and national organizations with an advanced approach.*

Mária Héder *is PhD Student at University of Debrecen, at Károly Ihrig Doctoral School of Management and Business. Previous work experience: HR Assistant (October 2013-april 2014), Personal Assistant to Managing Director (May 2014-september 2016). PhD student (September 2016-recent). Research topic: Effects of introducing and operating talent management system on certain functions of HRM.*

Key words: *work experience, organization, employee loyalty*

[582] Károly Ihrig Doctoral School of Management and Business, University of Debrecen, Hungary, H-4032 Debrecen, Egyetem ter 1.

SUSTAINABLE MARKETING AS A COMPETITIVE ADVANTAGE AND A CASE STUDY ON GLASS SECTOR IN TURKEY

Evrim Ildem Develi[583]

DOI: https://doi.org/10.31410/eraz.2018.889

Abstract: *In today's economy, business is very competitive. The firms have to be part of ecosystem. In ecosystem sustainability is important in order to protect and save the environmental system. In this manner, as a human being, as a firm, as a member of society there should be paid respect to mother earth. To be respectful to earth and environment the firms are responsible for sustainability of knowledge, technology, resources and reducing costs. This sustainability also causes competitiveness among firms. One has to be better than other, because it has to be preferable between the other same ones. That firm has to use it's resources in most effective way, thus the resources are limited and also behave in harmony with the ecosystem. To create this system the firm has to get in touch with it's ecological customers, and has to use sustainable marketing strategies.*

With this article the reader is going to find out what is sustainability and how a firm behave in sustainable marketing as being competitive in ecological global system through literature and a firm case study. With first part of article it's tried to express what's said on sustainability and marketing as competitiveness within literature. Sustainable development is development that "meets the needs of the present without compromising the ability of future generations to meet their own needs" (UNCWED–United Nations World Commission on Environment and Development 1987,p.8). Sustainable marketing then, "is marketing within, and supportive of, sustainable economic development (van Dam and Apeldoom 1996,p.46;Hunt 2011, p.7). In the second part as a view of sustainability, the resource–

Assist. Prof. ***Evrim Ildem DEVEL***

PHD THESIS & ADVISOR:
Attitude of Target Audience in Public Sector Advertising in Terms of Social Marketing, 2008
Advisor: Prof. Phd. Zafer KESEBİR

Researches and Publications:

Develi, Evrim İldem, "The Moivation By A Retail Clothing Brand In Retail Sector To Internal Customer, International Congress Of Management Economy And Policy 2018 Spring Abstract Book, April 2018, ISBN: 978-605-81728-1-4 (Online)

Develi, E.İldem, Begüm Şahin, Yeliz Sevimli, "Entrepreneurship And Importance of Personality on Entrepreneurship: A Research on Trainees of Entrepreneurship Education Program", ICBM - The Social Sciences Reaserch Society, International Conference on Business and Management, April 2011, İzmir

Alnıaçık, Ümit, E.İldem Develi, Caner Giray ve Esra Alnıaçık, 14th National Marketing Congress, "How Do Local-Level Social Responsibility Activities of Global Firms Affect Brand Equity and Brand Preferences", Marmara University, Journal of Öneri, Vol.9, Year:17, No:35, pp.83-91, January 2011

Develi, E.İldem. "Perception of Turkish Consumers About Country of Origin Effect in German and Chinese Products", Marmara University, Journal of Öneri, Vol.9, Year:16, No:33, pp.173-184, January 2010

[583] ISTANBUL KÜLTÜR UNIVERSITY, YOLBASI STREET NO:1 BAKIRKOY-ISTANBUL/TURKEY

advantage theory of competition and its relation with sustainable marketing is explained. The resource–advantage theory (R-A) is a general theory of competition. In Hunt's article which is on sustainable marketing, equity and economic growth: a resource-advantage, economic freedom approach, Hodgson's (1993) taxonomy is used to explain R-A theory. This theory is an evolutionary, disequilibrium-provoking, process theory of competition, in which innovation and organizational learning are endogenous, firms and consumers have imperfect information and entrepreneurship, institutions, and public policy affect economic performance (Hunt 2011, p.9). To Hunt, whose studies on sustainability and marketing is the basic ones in literature, many owners, executives, managers, and employees of firms, as well as many consumers, often act in accordance with the prescriptions of sustainable marketing theory. So there are intersects with R-A theory in several ways in sustainable marketing. The 7 ways of it will be explained in the full text article. As a last part of the article there is the survey about one of the big sized companies of Turkey on glass industry becomes the main case of this study on sustainable marketing. To point out the strategy and policy of the firm on sustainability, a depth-interview has been done with the coordination office of sustainability. The firm has the wisdom of being a part of the international ecosystem. Within it's strategy and policy on management, production and supply chain it seeks financial continuity integrating with natural resources, raw materials, consumption, customers, employees and values. The findings gathered from the dept-interview are going to be explained in full text article in detailed.

Key words: *sustainability, marketing, competitiveness*

ACCESS AND METHODS OF MARKETING RESEARCH

Dina Lazarević[584]
Nevena Ćurić[585]
Katarina Radlovački[586]

DOI: https://doi.org/10.31410/eraz.2018.891

Abstract: *The paper discusses the importance of marketing research and the acquisition of objective knowledge about other people, users of products and / or services of the company. The question of the needs of management for market research and the adjustment of the information received for decision-making is increasingly being posed. Research projects should serve as a material for assessing the market potential of the observed unit. Knowledge development is based on innovation, using information and telecommunication technologies and encouraging research and development in all areas.*

Key words: *marketing research, research methods, marketing, making decisions, information systems*

Nevena Ćurić

She was born on April 27, 1993 in Krusevac. Elementary school in Aleksandrovac and secondary school ended in Kruševac. 2012. She enrolled at the Belgrade Business School, University of Belgrade and ended her studies as a full-time student in 2015, after which she enrolled at the Faculty of Applied Management, Economics and Finance, University of Novi Sad, Department of Accounting and Auditing. Master studies ended in 2017. During her studies she was engaged in marketing research and participated in various seminars in the field of direct marketing. She worked as an associate in the commercial service and direct marketing services of the German company Hyla A.A.S. D.O.O. In April 2017, she was selected as a teaching assistant at the Faculty of Applied Management, Economics and Finance. She participated in several conferences such as ERAZ 2017, "Innovation to Sustainable Development", organized by the Faculty of Applied Management, Economics and Finance, as well as conferences organized by the Faculty of Tourism and Marketing Management in Timisoara. She plans to continue academic education in the field of economics and management .

[584] Faculty of Applied Management, Economics and Finance, Belgrade, Serbia
[585] Faculty of Applied Management, Economics and Finance, Belgrade, Serbia
[586] Faculty of Applied Management, Economics and Finance, Belgrade, Serbia

Dina Lazarević

She was born on May 20, 1991. in Belgrade. She finished elementary and high school in Lazarevac, with great success. After graduating in 2010, she enrolled at the Faculty of Organizational Sciences, University of Belgrade, Department of Management and Organization, and finishes it in October 2014. She finished Master studies in 2016 at the Faculty of Applied Management, Economics and Finance, University of Novi Sad Academy of Economics, direction planning and process management. She volunteered at the Ana and Vlade Divac Foundation and was a coordinator within the project "Divac Youth Projects." During her work in the foundation she acquired practical knowledge in the field of management. She participated in two conferences organized by the Foundation "Ana and Vlade Divac" - We are celebrating Diversity and Divac Youth Funds in Belgrade in 2015. In November 2016, she was selected as a teaching assistant at the Faculty of Applied Management, Economics and Finance. In May 2016, she participates at the international scientific-professional conference "How to make a better life" organized by the Faculty of Applied Management, Economics and Finance, with the theme "The Impact of Modern Diseases on the Quality of Life". She plans to continue academic education in the field of management.

Katarina Radlovački

She was born on June 9, 1993. in Belgrade, Serbia. She finished elementary and high school in Belgrade with great success. After finishing high school in 2012, she enrolled at the Faculty of Economics at the University of Belgrade and completed Basic Academic Studies in 2016 with an average of 9.50 as one of the best students of generation in the direction of International Economics and Foreign Trade. In the same year, she enrolled in Master Academic Studies at the Faculty of Economics, University of Belgrade, in the direction of International Business. During the master studies she worked at Dexy Co company as a Specialist in the category of Baby Equipment, after which she started practice at British American Tobacco as a Corporate Finance Assistant. In 2017 she is employed at the Faculty of Applied Management, Economics and Finance as a Teaching Associate in Economics. She plans to continue academic education in the field of economics.

SIGNIFICANCE OF SOCIAL MEDIA MARKETING

Milena Sretić[587]
Nemanja Stojković[588]
Željko Ondrik[589]

DOI: https://doi.org/10.31410/eraz.2018.893

Abstract: *This paper deals with the importance of digital marketing, modern forms of communication due to the development of IT sectors and social networks, as well as the need for marketing agencies and marketing teams to develop new activities such as copywriting and the importance of training a large number of creative copywriters.*

Key words: *Digital marketing, copywriting, social networks, communications*

Milena Sretić

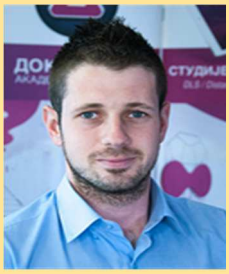
She was born on February 16, 1990. in Belgrade. She finished elementary and high school in Belgrade. She enrolled in 2008 at the Faculty of Philology, University of Belgrade, in the direction of Serbian Literature and Language.
In 2016, she enrolled at the Faculty of Applied Economics and Finance Management in Belgrade, the University of Novi Sad's Academy of Economy, Master Degree in Secondary Degree Process Management. In 2017 she started her academic career at the Faculty of Applied Management, Economics and Finance, University of Novi Sad University.

Nemanja Stojković

He was born on July 6, 1991. in Belgrade. He finished elementary and high school in Belgrade. He enrolled in 2013, Belgrade Business School, High School of Vocational Studies in Belgrade, Marketing and Trade.
In 2016, he enrolled at the Faculty of Applied Economics and Finance Management in Belgrade, the University of Economy Academy in Novi Sad, in the direction of operatively applied management and the title manager. After that, he continued his master studies at the Faculty of Applied Economics and Finance Management, the University of Economy Academy in Novi Sad, on the direction of planning process management and graduate manager. In the same year, he enrolled in Master Academic Studies and started his academic career.

[587] Faculty of Applied Management, Economics and Finance, Belgrade, Serbia
[588] Faculty of Applied Management, Economics and Finance, Belgrade, Serbia
[589] Faculty of Applied Management, Economics and Finance, Belgrade, Serbia

Željko Ondrik



He was born on September 24, 1993 in Pancevo. He finished elementary and high school in Pancevo, with great success. After high school, in 2012 he enrolled at the Belgrade Business School, High School of Vocational Studies in Belgrade, Department of Economics, Accounting and Finance.
In 2015, he enrolled at the Faculty of Applied Economics and Finance in Belgrade, University of Economy Academy in Novi Sad, applied economics and finance, and earned the title of economist. After that, he continued his master studies at the Faculty of Applied Management, Economics and Finance, the University of Privredna Akademija in Novi Sad, in the direction of Applied Economics and Finance, and is a graduate economist. He also enrolled in Master Academic Studies and started his academic career.

THE INFLUENCE OF THE EXTERNAL ENVIRONMENT ON THE FORMULATION OF MARKETING STRATEGY

Katarina Radlovački[590]
Željko Ondrik[591]
Nemanja Stojković[592]

DOI: https://doi.org/10.31410/eraz.2018.895

Abstract: *The paper discusses the importance of environmental management in order to formulate an effective marketing strategy. It starts from the fact that no company can completely influence external environmental factors and have to adapt them to successfully satisfy all the needs of their customers. External factors that are important for marketing managers when making any decision can be systematically distributed to social, demographic, economic, technological, political, legal and competing factors.*

Key words: *environmental management, external factors, marketing manager, consumers*

[590] Faculty of Applied Management, Economics and Finance, Belgrade, Serbia
[591] Faculty of Applied Management, Economics and Finance, Belgrade, Serbia
[592] Faculty of Applied Management, Economics and Finance, Belgrade, Serbia

INTEGRATING CLOUD ENABLED SMART TECHNOLOGIES INTO EVENT MANAGEMENT

Saha Baygul Ozpinar[593]
Alper Ozpinar[594]

DOI: https://doi.org/10.31410/eraz.2018.896

Abstract: *Event marketing is one of the most rapidly growing areas of modern marketing communications. The latest technological innovations and manufacturing technologies makes the things of our lives; and become Internet of Things with not only sending and receiving data also becoming smaller, smarter, talented intelligent and all these with affordable price for all around daily usage and consumption. When IoT collaborate with the other technological innovations of the latest years such as Industry 4.0 tools, cloud computing, machine learning and artificial intelligence the resulting hybrid solutions can also serve for public relations and communication. This document presents the future of event management with smart technologies, IoT and cloud computing enabled software systems.*

Key words: *Smart Event Management, CRM, Event Personalization, IoT, Traceability, Bluetooth Beacon, Low Energy, RFID, Automatic Identification, Smart Tags, Industry 4.0*

Şaha Baygül Özpınar *obtained her BA degree from Yeditepe University Faculty of Communications, Public Relations Department. She had been the Valedictorian; academically ranking highest in both the Department and the Faculty. She holds an MA in Public Relations from Yeditepe University. She earned her PhD in 2008, in Advertising and Public Relations from Anadolu University, Institute of Social Sciences.*

During her years at school she has worked as an intern at various companies, one of which is A&B Communications, known to be the first PR company in the country and worked as PR specialist at TÖMER. She started her academic career at Yeditepe University in 2000; first as a RA then worked as an instructor for four years. She was assigned as an Asst. Professor in 2009.

In 2011 and 2012 she worked at Yeni Yüzyıl University, lectured at Faculty of Communications. She also functioned as an Advisor to the Rector, conceptualized and implemented innovation and corporate development. She was later assigned as the Dean of Students at the same university.

From 2013 to mid-2016 she worked as the Brand Communications Manager at Corporate Communications Department, Bursa İstanbul. During this period, she took active role in the project and the communication of transformation of İstanbul Stock Exchange to Bursa İstanbul, where the exchanges of Turkey have merged under a single roof. With her team, she organized/ took part in more than 80 international events, maintained international sponsorships and international media relations.

She taught Communication Skills at the Turkish Naval Academy Retirement Program. Her research has been published in various academic journals and professional publications.

Ms. Şaha Baygül Özpınar now works at Advertising Design and Communication Department at Üsküdar University. Her research interests include Corporate Communications; Corporate Culture, Identity and Reputation and Marketing Communications.

[593] Uskudar University, Altunizade Mah. Haluk Turksoy Sk. No:14 PK:34662 Uskudar / Istanbul / Turkey
[594] Istanbul Commerce University, Kucukyali E5 Kavsagi, Inonu Cd. No:4 PK:34840 Kucukyali / Istanbul / Turkey

Alper Ozpinar

He obtained his Ph.D. in Mechanical Engineering from Yildiz Technical University, MS in Systems Engineering from Yeditepe University, and BS in Chemical Engineering from Bogazici University, all located in Istanbul, Turkey. His field of expertise includes the application of various computer and information systems to different fields of engineering, especially artificial intelligence, machine learning, energy, demand side management, environmental health and safety, renewable energy sources, industrial automation and control, automatic data collection systems, systems modeling, and simulation. He has twenty years of experience in computer and software applications and has served as a consultant and a project manager for government organizations like the European Union, Ministry of Forestry and Environment, and Greater Municipality of Istanbul, as well as for companies like ABB, Toyota, Bosch, and Siemens. He is offering courses like Cloud Computing, Machine Learning, Artificial Intelligence, and Programming with different programming languages, such as ASP.NET, VB.NET, C++, Java, and Database Systems. He has a vast experience in artificial intelligence applications, such as smart grids, machine learning, artificial neural networks, artificial intelligence, fuzzy logic, and genetic algorithm applications. He has worked on neural networks, energy applications, active and passive RFID tags, readers and controllers, and RFID technology expert, especially on electronic vehicle identification. He has developed numerous projects and software applications with MS Azure, MS Access, Visual Basic, C#, ASP, and VB.NET in automotive, textiles, services sector, health sector, and various fields of engineering. He is also one of the authors of the Electrical Energy Technologies and Energy Efficiency Series and published book chapters. His recent studies are based on industrial applications of Industry 4.0, IoT, machine learning, and artificial intelligence on different platforms.

OFF-ROAD TOURISM: AN ALTERNATIVE WAY FOR SUSTAINABLE TOURISM IN ÇANAKKALE, TURKEY

Figen SEVİNÇ[595]
Erol DURAN[596]

DOI: https://doi.org/10.31410/eraz.2018.898

Abstract: *The number of the tourists participating in tourism activities as an extreme adventure in nature in the world is gradually increasing. The off-road tourism, having emerged from people travelling by off-road machines according to their own motives, is becoming more popular, off-road routes are getting enlarged, and projects are developed for off-road activities day by day. Therefore, the elements constituting the off-road tourism have come into prominence and the motivations of the off-road tourists participating off-road activities and its relation on satisfaction with life have been studied. Thus, the aim of this study is to find out the importance that off-road tourists give to and the level of the interest they show for off-road tours. The central question of the study raised on is; what is the level of interest and importance on off-road tourism and how can it be an important touristic attraction for Çanakkale tourism? For this purpose, in-depth interview technique was used on 22 off-roaders at different via off-road association in Çanakkale, Turkey. According to the results of the analyses, developing off-road by its philosophy and structural requirements in Çanakkale can be feasible in sustainability perspective because of its meaning on off-roaders like exploring, challenging and conflicting with the wild and socializing with the others. At the same time, a positive relation has been determined between attending off-road activities and satisfaction with life.*

Figen SEVİNÇ *is lecturer at Bartın University, Bartın Vocational School, and phd. Student at Anadolu University, Faculty of Tourism. Her research fields are Consumption and Tourism, Alternative Tourism, etc.*

Erol DURAN *is Assoc. Prof. Dr. At Çanakkale Onsekiz Mart University, Faculty of Tourism. His research fields are, Sustainable Tourism, Alternative Tourism, Sociology of Tourism etc.*

Key words*:* *Sustainability, recreation, off-road tourism, satisfaction with life*

[595] Bartın University, Bartın Vocational school. (Turkey)
[596] Çanakkale Onsekiz Mart University, Faculty of Tourism (Turkey)

INFORMATION AND COMMUNICATION TECHNOLOGIES IN SERBIA: GROWTH AND UNEVEN SPATIAL DEVELOPMENT

Aljoša Budović[597]
Vojislav Đeđanski[598]

DOI: https://doi.org/10.31410/eraz.2018.899

Abstract: *ICT sector in Serbia, during the period of post-socialist transition, emerged as one of the most dynamic, productive and propulsive parts of the economy. By absorbing labour surplus, especially highly skilled workers, attracting foreign investments, and by increasing exports, productivity and competitiveness of the economy, ICT is considered to be a key element of the recovery and progress of transition economies. However, expansion of ICT is generally limited to larger cities in Serbia, especially Belgrade. Small or no presence of ICT services considerably weakens economic potential and inhibits economic development, thus uneven spatial distribution of ICT is becoming a new factor of spatial polarization. The aim of this paper is to understand the mechanisms behind the uneven spatial development of ICT sector in Serbia. For this purpose we used geographically weighted regression method to examine the impact of various socio-economic factors on the employment growth of ICT services in Serbian municipalities. The results of this study are important for spatial economic policy aimed to provide environment for further, but more evenly distributed, development of this strategic sector in the Serbian economy.*

Key words: *ICT, Serbia, uneven development, geographically weighted regression*

Aljoša Budović *was born in Sarajevo in 1987 were he finished both elementary and high school. He graduated at the Faculty of Geography, University in Belgrade in 2014, where he defended his master thesis Territorial and Functional Analysis of Tourism in Belgrade. From 2015, he is employed as a teaching assistant for Human Geography at Faculty of Geography in Belgrade. He is currently attending doctoral studies, and is engaged in a project Problems and Tendencies of Development of Geospatial Systems of the Republic of Serbia, under the Ministry of Education, Science and Technological Development of the Republic of Serbia. He participated in two international projects that were financed by German Academic Exchange Service (Tourism and Regional Development in Montenegro, 2009; Innovation and Creative Industry in SEE, 2013). During 2015 he participated in the research of cultural tourism in Belgrade organized by ATLAS Cultural Tourism Group. In 2016 he was awarded the BAYHOST Mobility Grant within the program Research sojourn of students and early-stage researchers at the Institute for Geography, Otto-Friedrich University of Bamberg.*
His major research interests include economic geography, urban tourism and tourist spatial behavior.

[597] University of Belgrade - Faculty of Geography, Studentski trg 3/III, Belgrade, Serbia
[598] University of Belgrade - Faculty of Geography, Studentski trg 3/III, Belgrade, Serbia

Vojislav Deđanski *was born in Smederevo, Serbia in 1991. He graduated at the Faculty of Geography, University of Belgrade in 2014, where he defended his master thesis Industry in spatial structure in Smederevo.*
During bachelor studies, he was awarded the scholarship of Ministry of Education, Science and Technological Development. In October 2014 he enrolled PhD studies at the Faculty of Geography, University of Belgrade. He is an active member of Talent Regional Center Belgrade II. In 2017 he participated in the organization of International Geographic Olympiad. He currently works as a lecturer at accredited program: Methodology for the preparation of high school students for national and international geography competitions.
His major research interests are industrial geography and uneven economic development

EVALUATION OF INNOVATIVE ENTREPRENEURSHIP ECOSYSTEM: TECHNOLOGY AUDIT

Mehmet Şahin Gök[599]
Erşan Ciğerim[600]
Tuğkan Arıcı[601]

DOI: https://doi.org/10.31410/eraz.2018.901

Abstract:
Purpose - The importance of innovative entrepreneurship ecosystem has grown with increased reliance on high-technology products and services. Regarding to this trends, companies focus on to increase their technological capabilities. Evaluating the technology level of companies has become more crucial in order to apprehend their specific opportunities and increase their innovative capability (Stoel, et.al., 2012). In this study, we attempt to develop a new tool for evaluating the technological capabilities of companies.

Methodology - We developed a survey tool in order to analyze technological capabilities of companies. The questionnaire has conducted on 175 SMEs on IT sector.

Findings - Theoretical approach and several models of technology evaluations are discussed regarding to the study findings. We also find that additional factors are significant for technology audit of SMEs.

Conclusion - Study findings demonstrate the strong-weak and opportunity-threat points of the SMEs according to the technological capabilities. Acknowledging, suggestions are provided for innovative entrepreneurships and policy makers.

Key words: *Innovation, Entrepreneurship, Technology Audit, SMEs, Questionnaire*

[599] Gebze Technical University, Kocaeli, Turkey
[600] Gebze Technical University, Kocaeli, Turkey
[601] Gebze Technical University, Kocaeli, Turkey

ADAPTING A COMPANY'S STRATEGY IN THE DIGITAL TRANSFORMATION ERA

Christian Tanushev[602]

DOI: https://doi.org/10.31410/eraz.2018.902

Abstract: *The article explores how the company's strategy develops in the digital transformation era. Going digital is crucial for the survival of the corporations. Four stages are defined as required: motivating the consumers by activating their external and internal triggers, alluring them to engage in the required activity that will transform the potential customers to real ones, requiting the observed action by providing specific reward – constant or variable, and finally stimulating the investment of either time, effort, data, social capital, or money. The final goal is to acquire the consumers and convert them to loyal devotees of the company's products.*

Key words: *company, digital transformation, transformation era.*

Christian Tanushev *was born in Sofia in 1958. He graduated in 1982 and defended his Ph.D. thesis on Management and Planning in 1988 at the University of National and World Economy (UNWE) in Sofia. In 2005 he was elected as Associate Professor of Marketing and Strategic Planning Department. Since 2009 he is a Vice-Dean responsible for International Cooperation of the Faculty of Management and Administration in UNWE. He teaches courses in Money and Capital Markets, Strategic Corporate Planning, Game Theory, and International Marketing. In 2002 he sucessfully covered the requirements of the program on Investment and Securities of Georgetown University, Washington, DC, USA. He has been a guest lecturer in the European University in Madrid, Spain, the Saxion University in in Deventer, the Netherlands, the University of International Studies in Rome, Italy, the University of Lisboa ISEG School of Economics and Management in Lisbon, Portugal, and the ISMA University (Information Systems Management Institute) in Riga, Latvia.*

He served as the first Chairman for the establishment and management of the Bulgarian Securities and Stock Exchanges Commission. Additionally he used to serve as the Director of Budget Directorate in the National Health Insurance fund, the Financial Director of the National Health Hospital, and chief-expert in the Ministry of Economy and Planning. During his business career he was also the CEO of the Financial Company "Naturella" and the CFO of the "Financial Company" for more than nine years. He participated in multitude international projects including the "Ex-Ante Evaluation of the Partnership Agreement of the Republic of Bulgaria and the EU for the 2014-2020 Programming Period", "Implementation of Practical Impact Assessment of Legislation and Policies", "Development of a Hospital Master Plan and Restructuring Strategy", sponsored by the European Union and the World Bank. He has more than 50 publications in Bulgaria as well as internationally. Some of them are: the books - "Marketing and Planning in the Investment Companies", "Research on Non Professional Investors – Real and Potential Clients of Collective Investment Funds"; the co-authorship in "Money and Capital Markets", "Voluntary Health Insurance Funds", chapters in "Marketing", "Forecasting and Strategic Planning", "Strategic Planning and National Balances" and a wide variety of articles.

[602] University of National and World Economy, 1700 Sofia, Student Town, UNWE

BLACK BOX OF INDUSTRY 4.0: NEW OPPORTUNITIES FOR ENTREPRENEURSHIP ECOSYSTEM

Erşan Ciğerim[603]
Tuğkan Arıcı[604]
Mehmet Şahin Gök[605]

DOI: https://doi.org/10.31410/eraz.2018.903

Abstract:
Purpose - The current globalization is faced by the challenge to meet the continuously growing request for innovative products and services. Todays, global business environment faced by the development towards the fourth stage of industrialization, the so-called Industry 4.0 (Stock and Seliger, 2016). This era provides new opportunities for companies. Especially startup companies should apprehend this changing environment for long-term success. This study attempts to indicate a state of the art review of the challenges of Industry 4.0 especially for innovative entrepreneurship ecosystem.

Methodology – We conduct a meta-analysis on the innovative entrepreneurship ecosystem and specifically focus on the challenge of Industry 4.0. Moreover, face to face interviews are applied to the start-up firms.

Findings - An overview of new opportunities of Industry 4.0 for entrepreneurship ecosystem is presented. A use case for the enhancing of start-up firms as a specific opportunity for sustainable development in Industry 4.0 will be exemplarily outlined.

Conclusion - Theoretical and practical implications are provided for innovative start-up firms.

Key words: *Industry 4.0, Entrepreneurship, Innovation, Globalization*

[603] Gebze Technical University, Kocaeli, Turkey
[604] Gebze Technical University, Kocaeli, Turkey
[605] Gebze Technical University, Kocaeli, Turkey

IMPROVING TEACHING USING A GAME ENGINE

Natalija Vugdelija[606]
Nenad Kojić[607]
Nikola Mihajlović[608]

DOI: https://doi.org/10.31410/eraz.2018.904

Abstract: *All IT teachers know how difficult it is for students to acquire desktop development knowledge that is necessary for an individual to be competitive in the labour market. Being familiar with a game engine can be very profitable and it can also be combined with knowledge derived from desktop programming, such as C# taught at ICT College.*
In ICT College for vocational studies, students acquire programming skills for desktop and web. It turned out that web development is easier for the students, and many related schools had the same experience. In order to make it easier to master C#, which proved to be difficult for students, we tried various changes – increasing the number of exercise classes, having smaller groups of students on the exercises, dividing subjects in order to reduce the volume of materials, but it turned out that the gain was extremely modest, while school expenditures were highly increased. Understanding how important personal motivation is in mastering a skill, we sought ways to raise student motivation. Through interviews with students, we found out that market demand for this kind of knowledge is not sufficient, but it is also important for them to do something they like and that occupies their attention. Students are therefore more receptive to web development because they can quickly see the results of their work, which is not the case with classic desktop development. Linking desktop development and software games, that students are rather familiar with, proved to be a great motivational move.
Software games can be viewed both as desktop development and as a web application, which is an interesting mix for our students. Through certain projects, that students choose themselves, using the game engine, the students apply existing knowledge and acquire new ones that are required and well paid in the labor market. By making a game for a teaching project, the student gets acquainted with the game engine environment and gets new competencies in a very short time. One of the most important benefits is the personal satisfaction of the student, as well as his motivation to learn more. Increased enthusiasm of the students facilitates learning of an objectively difficult subject.

Nikola Mihajlović *was born in Belgrade, Serbia in 1994.*
In 2017 he specialized himself at ICT College of Vocational Studies in Belgrade department of Software engineering.
He was involved in multiple projects and their implementation in real world environment, mostly in web technologies.
Now, he works at the ICT College of Vocational Studies in Belgrade as a teaching assistant

[606] ICT College for vocational studies, Belgrade, Serbia
[607] ICT College for vocational studies, Belgrade, Serbia
[608] ICT College for vocational studies, Belgrade, Serbia

At the moment the most used engine is Unity, as it is one of the best free game engines, and it is free as long as the developer does not earn on the products made in it. The concept of the game, the characters within the level, their animations and effects can be developed in the Unity game engine, a platform for making games and simulations. For defining the movement engine of the players, opponents on the map, missiles thrown by both the user and his enemies, etc., C# code can be used.

Key words: *Game engine, IT education, innovation in teaching, desktop programming, Unity*

CONTRACT ON GIVING INFORMATION AND ADVICE (CONSULTING CONTRACT)

Mario Vojnić Hajduk[609]

DOI: https://doi.org/10.31410/eraz.2018.906

Abstract: *The basic goal of every business entity is to maximize profits. To achieve this goal, different professional knowledge and experiences are required. They can relate to various areas of business, such as legal regime of business, financial operations, banking, organization of production, price policy, marketing, etc. The modern market enables the engagement of experts (such as insurance advisers, financial consultants, marketing experts, lawyers), who will provide the business entities with the necessary information and advice, according to the rules of the profession and customs. This relationship is a contractual relationship. In English, this contract is called a contract on giving information and advice, in German, this contract is called Beratungsvertrag*[610]*. In Draft Common Frame of Reference (DCFR)*[611]*, this contract is called a contract on information and advice. In most countries, this contract is not specifically regulated by state law, although in practice it exists as a significant domestic and international commercial law contract. The legal norms, which regulate the rights and obligations of the contractual parties, are mostly contained in commercial customs and in state norms for some other contracts.*

The aim of this paper is to analyze the basic legal issues of this contract, which, as a newer contract, contributes to the knowledge-based economic prosperity; to analyze his relationship and influence on other business contracts.

Contract on giving information and advice is a contract where one contracting party, a consultant, is obliged as a good expert to provide information and/or advice to another party, the client, and the client is obliged to pay the price of the service. Essential elements of the contract are information and advice, which are related to the business (existing or planned) of the client. Information is the knowledge of the existence or non-existence of facts in reality. Advice is a proposal for a particular client behavior, for example to make some kind of decision. Information and advice must be given in a manner, in a form, on time, in place, as agreed and customary, always in accordance with the best interests of the client. By its legal nature, this is a contract for services (service contract). A contract for services is a contract by which a provider of services agrees to provide a service to a client in exchange for a price. Contract for

Mario Vojnić Hajduk
PhD student of Laws

2014-Bar exam
2013-Judical State exam
2011-2012:Master of Laws (average grade 10,00), Faculty of Law Novi Sad. University of Novi Sad, Republic of Serbia
2005-2010: Diplomirani pravnik (average grade 9,89); Faculty of Law Novi Sad University of Novi Sad; Republic of Serbia

Languages: German, English, Hungarian, Serbian

[609] University of Novi Sad, Faculty of Law Novi Sad, Serbia

[610] Other terms are consulting contract, contract for the provision of information and advice, Consultingvertrag. Terms in use in the Republic of Serbia are Ugovor o davanju informacija i saveta, Ugovor o konsaltingu, Ugovor o savetodavnim uslugama.

[611] DCFR, *prepared by the Study Group on a European Civil Code and the Research Group on EC Private Law*, Book IV, *Specific contracts and the rights and obligations arising from them*, Part C, *Services*, Chapter 7, *Information and advice.*

services can be entered into verbally or in writing. In legal systems that do not regulate the contract for services, the application of norms of other related contracts comes into consideration[612].
The basic obligation of the consultant is to provide information and/or advice to the client. It is essentially an intellectual work. The important question is whether this is an obligation of means or obligation of result. Other obligations of the consultant serve the basic one (obligation to collect preliminary data, obligation to acquire and use expert knowledge, obligation of skill and care, conformity, obligation to keep records, obligation to disclose any possible conflict of interest, obligation to keep business secrets). The basic obligations of the client are payment to the consultant and the obligation of cooperation.

Key words: *consulting contract, contract on giving information and advice, Beratungsvertrag, contract for services, information, advice*

[612] *For example see Articles 600 and 749 of the Serbian Law on Obligations*; Закон о облигационим односима, ,,Сл. лист СФРЈ" бр. 29/78, 39/85, 45/89, 57/89, ,,Сл. Лист СРЈ" бр. 31/93

CROSS-BORDER UNFAIR COMPETITION CASES IN ONLINE ENVIRONMENT – THE EU CONFLICT-OF-LAWS PERSPECTIVE IN TERMS OF LEGAL CERTAINTY AND PREDICTABILITY

Iveta Rohová[613]

DOI: https://doi.org/10.31410/eraz.2018.908

Globalization in general and free movement (of goods, services, persons, and capital) within the EU in particular promote cross-border transactions. Massive use of electronic means of communication foster cross-border dimension of private law relationships. As a result, issues that could have once been addressed almost exclusively at a national level require a conflict-of-laws approach. The same is also true for cases involving acts of unfair competition. For example, misleading advertising or defamation of reputation uploaded online and being accessible world-wide can affect interests of consumers or competitive relations, or interests of solely one competitor in various states. The two key questions every aggrieved party in such cases will inquire are: (i) where to file an action (what courts are competent), and (ii) what law will apply. The focus of this paper centers the second issue.

Due to the transfer of legislative competences within the field of private international law from the Member States to the EU, EU measures have to a large extent replaced national legislation. Rules for determining the governing law for non-contractual obligations in cross-border cases are almost comprehensively covered by the Rome II Regulation, while Article 6 of this Regulation is specifically devoted to non-contractual obligations arising out of acts of unfair competition (and of a restriction of free competition). The said provision is intended to provide a special rule in relation to the general one under Article 4 of the Regulation, in order to reflect the requirement of legal certainty and predictability of both the party aggrieved and the party liable. However, following Professor Heller's assumption, the author claims and will demonstrate that the interpretation, range of application of this provision and its relation to other conflict rules remain unclear. As a result,

Iveta Rohová

Currently, Iveta holds a position of a PhD candidate and teaching assistant at the Department of International and European Law, at the Faculty of Law, Masaryk University, Brno (Czech Republic). She teaches courses on EU law and legal aspects of European integration, European Private International Law, international trade and cross-border business transactions, as well as on cross-border dispute settlement, including ADR. She conducts classes for both Czech and exchange students, including students of law, of economics and informatics.

Formerly, Iveta also served as a coach of the Masaryk University VIS Moot and CEEMC student teams (being a former participant herself). Besides the academic work, she has the experience of a practicing in-house company lawyer.

In her research, she focuses on the interplay between internal market regulation and private-law relationships (with cross-border dimension), and on EU private international law in general. Her PhD thesis centers legal aspects of cross-border unfair competition cases within the EU; the interaction between EU-unified conflict rules and procedural rules in particular.

[613] Masaryk University Faculty of Law (Czech Republic)

such a conflict rule can hardly meet the requirement for legal certainty of the parties, foreseeability of the court settlement, and predictable and reasonable balance between the interests the party aggrieved and the party liable, all being the essential elements of the Rome II Regulation.

The aim of this paper is to critically analyse the conflict rule under Article 6 Rome II Regulation, and to contribute to re-opening the discussion in order to overcome the existing uncertainty as to the interpretation and applicability of the provision at hand. To achieve the objective, the defined piece of legislation will be analyzed in a broader context, having regard to other EU PIL instruments (the Brussels Ibis Regulation and the Rome I Regulation), particularly scrutinizing existing decisions of the Court of Justice of the EU in matters related to unfair competition, and last but not least interpreting legal doctrine and standpoints of various author on this matter.

As a result, the paper will offer a critical view of the existing EU conflict rules on cross-border unfair competition. The author, following the conclusion that the current state of legislation does neither fully, nor proportionally reflect the principle of legal certainty and predictability, will present in what aspects she sees gaps and week points of the existing regulation and suggest how these should or could be diminished.

EUROPEAN BUSINESS EXCELLENCE MODEL ON SUSTAINABLE DEVELOPMENT

Vesna Miladinović[614]
Katarina Lazović[615]

DOI: https://doi.org/10.31410/eraz.2018.910

***Abstract**: The Excellence model is a framework in which organization score points based on various criteria that embody a set of best practice core values on sustainable development. The framework is structured to show both Result Criteria (performance and the Enabling Criteria that drive these performance). It places a participate people issues within organizations – Leadership. People Management and Impact upon Society account for over a third of the possible overall score.*
In these context we analyse sustainable development which is very complex system. First point is finish policy of sustainable development. Second point are instruments of sustainable development. And last point is government policy. In this case we expect clearly instruction by government.
Many actors are in process environmental management, but government is first. Government policy has legislative and ecologies instruments. Low regulates rules on market with payments – taxes and other responsible measures.

Key words: *business, excellence, model, sustainable development*

[614] Belgrade Business School, Belgrade, Kraljice Marije 73, Serbia
[615] Faculty Futura, Belgrade, Kneza Miloša 82, Serbia