

**ACTA OECONOMICA
UNIVERSITATIS SELYE**
Vedecký recenzovaný časopis

**5. ročník
2. číslo**

UNIVERZITA J. SELYEHO - EKONOMICKÁ FAKULTA

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**2016
KOMÁRNO**

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ACTA OECONOMICA UNIVERSITATIS SELYE**

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HEALTH-AWARENESS OF YOUNGSTERS AMONG SLOVAKIAN UNIVERSITY STUDENTS

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Abstract

Being healthy and preserving your health is one of the most important tasks and goals in our lives. The question may arise to what extent the youngsters are aware of the conscious health preserving protocols and to what extent this lifestyle becomes active part of their lives. In order to answer this question, a research was carried out in 2015, which was part of the project TÁMOP-4.2.2A-11/1/KONV-0009. In the framework of that project the health-consciousness of Slovakian students studying in higher education was examined. The present paper shows some results of this research. The quantitative research was carried out based on questionnaires with snowball method. The evaluation of the results was carried out with SPSS program. The hypothesis –that there is difference between the participants of the research regarding their gender-, which was conceived during the research, was denied by the authors.

Key words: *women-men, health-awareness, preserving health, lifestyle*

JEL Classification: *M 10, M11, M19*

Introduction

Economic consequences due to inappropriate lifestyle of youngsters, - such as absence from workplaces, illness, not being open-minded, lower level of capacity, intolerance towards stress, etc., - can mean serious issues for the financial situation of companies and institutions (Böröndi-Fülöp, 2012). Knowledge about healthy life and about prevention, keeping the advice with regard to healthy lifestyle can greatly contribute to improving and maintaining the health condition of the whole society, but from the aspect of the present research it can contribute to improving the health

condition of the youngsters (NHS England Department of Health, 2013). We hear more and more stories about young adults, who turn to different health-damaging drugs just because they want to fight stress or they have unsolved mental problems or because they want to belong to a certain group (group of friends), or simply because it is trendy to lead a self-damaging life, which will definitely ruin their mental or physical health. In order to avoid the inappropriate behaviour of youngsters and to help them solving their problems, we parents and teachers have to know the background causes from their aspect. Getting the necessary information is sometimes not easy as we usually experience that youngsters do not open themselves or they are lazy and have no willpower, etc., and all these things are obstacles for getting correct research results. (Olsovska, et al, 2016) Although the authors of the present study initiated a research, which tried to gather as much information as it was possible from young adults about their lifestyle, their harmful habits and their ideas and steps how to preserve health with regard to their knowledge sharing (Stoddard – Pierce, 2016; Töröcsik, 2013; Bernát, 2012; Németh, 2011). The authors studied previous theoretical and practical researches in order to have more information in connection with the examined field and they also analysed the fields, which need further examination.

Material and Methods

Theoretical background

Human resource as the most valuable resource goes into the centre of strategic thinking in many cases, but organisations only reach the phase of thinking about it only. We experience in several cases that corporates and organisations are not aware of the knowledge they possess by the humans and what is the knowledge they could utilize, and they have to find the already elaborated and used solutions again and again when solving new problems. It is also emphasized by the fact that the already elaborated solutions do not reach the place where they are needed due to the lack of connection-nets. It is especially true in case of the knowledge-intensive organisations, such as organisations dealing with researches, developments, education and health (Bencsik, 2015). The majority of Hungarian companies and organisations – and the same applies to Slovakian companies, (especially in health care) do not possess knowledge map, competence matrix, which would make it possible to reach the most suitable people with the necessary knowledge. One of the most highlighted problems in health care in an urgent situation is the question of how and where to reach the most suitable person to treat that problem. If due to geographical distance, the opportunity to meet face-to-face would not happen, knowledge-sharing opportunities and social nets would be 'life saving' (Emotional Wellbeing, 2014). This net is a significant help not only in the life of organisations, but also in our everyday life it can mean great support for us. Due to the lack of social nets, it is problematic for the youngsters to reach the necessary knowledge and information or to share knowledge (Mura – Rózsa, 2013). In case of debating prickly questions or preparing for uncomfortable situations, they do not know who they should turn to with their problems. This situation, -where there is not enough information and knowledge-, can lead to developing inappropriate behaviour, to wrong decisions, to unhealthy way of life and in extreme situations it might lead to death (Chircop et al, 2013). All these problems greatly influence the thinking of companies and organisations and motivate them to answer the questions, such as how to prepare and what to do in order to create the group of future employees

and how to keep them. The experienced problems and the critical situations motive the responsible leaders to take actions.

Of course several studies have been carried out in order to get to know the health status of youngsters. A research was carried out in 2014 among Slovakian youngsters, which showed that more than half of the 15-year old students have smoking- and 39% among male and 26% among female students between 18-30 smokes on a daily base. Furthermore the research also showed that the rate of young adults, who drink alcohol regularly, is very high. (Youth report 2014).

According to the mentioned OECD research, the Slovakian Republic produced lower results than average with regard to health condition, subjective well-being, work and salary. Employment is low and 6% of the employed work in too long hours. With regard to qualification, they produced outstanding results, as this level was a lot higher than the OECD average. 91% of the employed have at least secondary school qualification, compared to the 76% of the OECD average. With regard to life expectancy, Slovakia has worse results than the average 80 years, with its 77 years. In general, it can be claimed that Slovakian people are less satisfied with their life circumstances than the OECD average, this value is 6.2 on a 10-point (Miháliková, 2015; <http://www.oecd.org/slovakia/2016>).

The programs, which are developed in order to increase the health-awareness of youngsters aim to support health development and family planning of youngsters on one hand by forming attitude, and on the other hand by giving knowledge, deepening self-knowledge, and trying to find possible solutions. Health is value in itself. The effects of health on economy and on the operation of society are important, but without reference to this, health of each person is valuable (Baum et al., 1997; Berke et al, 2012). The priority of health among other values of society is determined by the amount the person or the society spends from its sources on the activities, which primarily influence health condition

The government of the Slovakian Republic launched a program for the period 2014-2020 with the aim to improve life situation and life circumstances of the youngsters. They have strategic plans to support the field of education, employment, creativity, willingness to do business, health awareness, wellbeing, environment-aware education and building social relations. The aim of the strategy is to improve the quality of future life situations of youngsters, to form culture and to make them active participants in building Slovakian economy. For this it is vital to educate healthy and health-aware generation. Sources from the EU will support it (Ministry of Labour, Social Affairs and Family of the Slovak Republic, 2014).

In order to create the above mentioned appropriate attitude and to suggest influential solutions, the authors initiated a practical research, which revealed the field of healthy life among youngsters with regard to their willingness of sharing knowledge. The authors present one part of this empirical research in the following chapter.

Empirical research

The primer research part of the previously mentioned study was carried out in 2015, and some of its results are also shown in the followings. The primer research was carried out in Hungarian and in Slovakian higher educational institutions. Collecting the method was with snowball method and the respondents had to answer the questionnaire on a platform on the internet. The questionnaire mainly contained

closed questions and it was built on nominal and metric scales. The evaluation method was the one- and multi-variable statistical method: average, deviation, cross-board analysis, nonparametric studies. The authors fulfil the analysis of the following hypothesis:

Hypothesis

In case of the participating Slovakian youngsters, the health-conscious behaviour of the female and male respondents is different.

Results and Debate

Sample and Questionnaire

Altogether 251 university students responded. With regard to the gender of the respondents: 44.2% of them was male, while 55.8% of the respondents was female, which means that there was about 10% deviation with regard to the frequency of genders. Based on the years of birth, nearly 73% of the sample was 25 years old or younger. The oldest respondent was born in 1969, while the youngest was born in 1997. The questions of the research were dealing with the health-aware behaviour of the youngsters. The first group of questions was about health conditions and about hygiene. The questions were based on simple nominal variables. It was followed by questions in connection with eating; then the questions focused on the physical activity of the respondents. There were questions about regular sport activities, and about home entertainment. The research also had questions about taking drugs, but this was really a critical field of the research. Finally the authors wanted to know with whom the respondents share their ideas with concerning health-consciousness. Complex statistical methods were used in case of these issues, and the authors show some of them in the followings.

According to the above mentioned, one group of questions of the questionnaire was dealing with the priority factors of youngsters in their lives, such as which factors are of primary importance and which factors are less important in everyday life? They had to evaluate in on a scale of 10, where 10 means the most important and 1 means the least important factor.

Results of analysis

Table 1 shows some alternatives and the average and deviation deriving from the volume of their acceptance.

Table 1 Priority factors in the life of youngsters (average, deviation)

| | N | | Mean | Std. Deviation |
|--|-------|---------|------|----------------|
| | Valid | Missing | | |
| Healthy lifestyle | 251 | 0 | 7.06 | 2.122 |
| Doing exercises, physical activity | 250 | 1 | 6.89 | 2.412 |
| Healthy eating | 250 | 1 | 6.59 | 2.214 |
| Keeping personal contact in physical space | 248 | 3 | 7.85 | 2.022 |
| On-line presence | 250 | 1 | 5.64 | 2.325 |
| Entertainment with friends | 249 | 2 | 8.03 | 1.965 |
| Being together with the family | 251 | 0 | 8.58 | 1.967 |
| Gaining professional knowledge | 251 | 0 | 8.22 | 1.814 |
| Avoiding dependencies | 250 | 1 | 7.57 | 2.740 |

Source: edited by the authors

The results justify that family and entertainment with friends and gaining professional knowledge (the reason why they are studying in higher education) are the most important. On-line social presence was the least important for the respondents. However, the deviation values are quite high in these cases, which mean that the opinion of the respondents was not homogenous in this question. It is also interesting that healthy lifestyle received low values, although it is true that the sample was really homogenous in this issue. In order to have further analysis, the authors also analysed what division they can have with regard to the given variables. The Kolmogorov-Smirnov-test did not show even in one case that normal division could be seen. Therefore, the authors carried out nonparametric analyses in order to analyse the difference. The table 2 shows the results of the different opinions of men and women, based on the results of Mann-Whitney-test.

Table 2 Results of Mann-Whitney-test

| | Mann-Whitney U | Wilcoxon W | Z | Asymp. Sig. (2-tailed) |
|--|----------------|------------|--------|------------------------|
| Healthy lifestyle | 7635.500 | 17505.500 | -.238 | .812 |
| Doing exercises, physical activity | 6500.000 | 16230.000 | -2.159 | .031 |
| Healthy eating | 7672.000 | 13888.000 | -.076 | .940 |
| Keeping personal contact in physical space | 7271.500 | 17001.500 | -.553 | .580 |
| On-line presence | 7199.000 | 13415.000 | -.915 | .360 |
| Entertainment with friends | 7219.500 | 16949.500 | -.771 | .440 |
| Being together with the family | 6400.500 | 12616.500 | -2.549 | .011 |
| Gaining professional knowledge | 7720.500 | 17590.500 | -.089 | .929 |
| Avoiding dependencies | 6874.500 | 12979.500 | -1.500 | .134 |

Source: edited by the authors

Based on the test, on the 0.05-significance level, the different opinion can be justified in case of two variables, such as physical activity and being together with the family. The former one was valued more important by male respondents, while in case of the latter one it was just the other way round.

The results regarding the health conditions and hygiene of the respondents are the following: 10% of the respondents were aware about having any kind of chronic disease, where 74.1% of the respondents were female and 25.9% was male. 23.6% of the youngsters participating in the research never visited any screening examinations, while 23.2% frequently did. Regarding frequency, female and male respondents were different (Pearson's Chi-square: 42.140 df: 3 sign.: .000 $p < 0.05$), which means that 36.7% of the female respondents often went for screening examinations, while 6.3% of the male respondents did, and they only went for screening examinations if (38.%) they had problems. Although at the same time, with regard to frequency of dental examinations, female and male responses were not different (Pearson's Chi-square: 7.771 df: 3 sign.: .051 $p > 0.05$), the majority of the respondents (58.2%) independent of gender, visited the dentist once a year. Its necessity is justified by the fact that the majority of the respondents (52%) wash their teeth more times daily and at least 96% of the respondents washed their teeth at least once a day. Similar results were received in connection with having a shower or a bath; the genders were not significantly different in this respect (Pearson's Chi-square 5.092 df: 2 sign.: 0.78 $p > 0.05$), 97.2% of the respondents used the bathroom for this reason at least once.

The research was also focusing the subjective wellbeing of the participants. According to that 7.6% of the participants felt tired regularly, while 35.1% felt it often. The female and the male respondents felt themselves the same (Pearson's Chi-square test: 7.331 df: 4 sign.: .119 $p > 0.05$). 86.9% of them did not or just a bit felt lonely, they were mainly men. Mainly women were more overloaded by schools problems than men. 36.2% of the respondents answered that they are rather or very much overwhelmed by school problems, as opposed to men, where this rate was 20.7% (Pearson's Chi-square: 13.462 df: 3 sign.: .004 $p < 0.05$). This difference can be due to the fact that 40.5% of the female respondents had no idea or had just some idea about themselves, as opposed to men, where this ratio was 34.6% (Pearson's Chi-square: 9.985 df: 3 sign.: .019 $p < 0.05$).

The questions concerning mental wellbeing were followed by questions about physiological prosperity. The first group of questions was in connection with eating. Table 3 shows the result of frequency.

Table 3 Eating habits (%)

| | Rarer than monthly | Monthly | Once or twice in a week | 2 to 4 times in a week | Daily |
|--|--------------------|---------|-------------------------|------------------------|-------|
| How often do you eat fruits? | 2.0% | 8.0% | 30.5% | 36.1% | 23.3% |
| How often do you eat vegetables? | 1.6% | 2.8% | 26.8% | 38.4% | 30.4% |
| How often do you eat wholemeal products? | 17.7% | 22.6% | 28.6% | 14.9% | 16.1% |
| How often do you drink candied soft drinks? | 22.1% | 22.90% | 32.9% | 11.6% | 10.4% |
| How often do you eat light products? | 62.4% | 19.2% | 12.0% | 4.0% | 2.4% |
| How often do you eat in fast-food restaurants? | 56.8% | 29.6% | 11.2% | 2.0% | .4% |

Source: edited by the authors

From the table it can be clearly seen that 60% of the respondents had fruits regularly, while the rate is 70% regarding eating vegetables and 30% regarding eating wholemeal products. Although at the same time, more than every 5th respondent often take candied soft drinks. The rate of fast-food eaters is rather low (approximately 2.4%), and tits reasons were discovered by the present research. The Chi-square tests did not justify the significant difference with regard to genders in any cases.

With regard to physical activity, there were differences between men and women. There were questions about daily sporting activities and entertainment. Table 4 shows the results of frequency with regard to sporting activities.

Table 4: Sporting habits (%)

| | Never | Rarer than monthly | Once or twice in a month | Once or twice weekly | More often |
|---|-------|--------------------|--------------------------|----------------------|------------|
| How often do you do sports at least for 60 minutes? | 8.0% | 17.1% | 16.7% | 32.3% | 25.9% |
| How often do you go to a gym? | 32.3% | 15.5% | 12.0% | 26.3% | 13.9% |

Source: edited by the authors

From the answers it could be seen that almost one fourth of the Slovakian students do sports once or twice a week for more than 60; while in case of going to a gym, 13.9% of the respondents go to gym twice a week. In case of doing sport for 60 minutes a day, the difference between men and women could be. (Pearson's Chi-square: 19.125 df: 4 sign.: .001 $p < 0.05$). For example, 38, 7% of men do sport more than once or twice a week.

Table 5 shows the frequency results of home entertainment and daily activities not connected to moving.

Table 5: Daily activities not connected to moving (%)

| | Nothing | 1-2 hours | 3-4 hours | 5-6 hours | More than that |
|---|---------|-----------|-----------|-----------|----------------|
| How many hours do you spend daily on watching TV in your free time? | 16.4% | 60.4% | 19.2% | 2.8% | 1.2% |
| How many hours do you spend daily doing nothing? | 31.7% | 51.0% | 14.1% | 2.8% | .4% |
| How many hours are you online daily? | 6.0% | 36.8% | 27.6% | 18.8% | 10.8% |
| How many hours do you spend daily on playing on computer or on similar devices? | 49.6% | 34.4% | 10.4% | 3.2% | 2.4% |

Source: edited by the authors

It can be seen from the table that youngsters are very actively online on the internet and they like playing computer games on a daily base. With regard to genders, there were no significant differences concerning the above variables.

The research asked them about taking different things. With regard to smoking 16.4% of the respondents smoke daily. With regard to drinking alcohol, the majority of students drink alcohol more than once or twice a week (51.2%). Students do not really take tranquilizers (95.6% of the students do not take them). Taking light drugs is quite rare, less than 1% of the respondents take light drugs 1-2 times, or 4-5 monthly. Taking marihuana was more frequent in case of the Slovakian students, nearly 5% take it once a month, while on a daily basis, and 1.2% of the students take it. No significant difference was observed with regard to the different genders.

Finally the authors wanted to know with whom youngsters usually talk about health-consciousness. The respondents had to choose among the given personality types the ones they usually turn to. It could be seen from the answers that they talk about sports with their friends the most often, just about entertainment and taking alcohol. They usually talk about health and eating with their parents. There was no significant difference with regard to the different genders considering this aspect.

Conclusion

The study presented the results of a research, where the health consciousness of Slovakian students was examined. The conceived hypothesis cannot be fortified after getting the results as the difference between genders can be justified only in some cases. With regard to the priorities influencing the way youngsters think and behave, there were differences in case of some variables, such as physical activity was mainly characteristic for male, (a later question –focusing especially on sporting activities-also fortified), while in case of women, they rather like spending their free time with their family. But also healthy life, healthy eating, personal relationship, online presence, entertainment with friends, getting professional knowledge and avoiding dependencies are also equally important for them. The research could not identify significant differences regarding these fields.

An important message of the research is that however youngsters do not conceive consciously what healthy way of living is for them, yet their health and mental wellbeing is very important for them. School burden usually influences the feeling of wellbeing of ladies, which means that ladies are more worried about school burden. One possible background of it is that 40.5% of them either did not have or just had some good opinions about themselves, they lacked self-confidence. As opposed to men, where this ratio was 34, 6%. Although in most cases respondents of the two genders were equally tired or lonely. Sport and maintaining physical condition seemed equally important for the students.

As regards eating habits of the youngsters, there was no significant difference observed. As regards eating fruits, nearly 60% of the respondents eat fruits frequently, while this number with regard to eating vegetables almost reaches 70%, which is quite a good ration compared to international figures. Only 31% of the respondents like wholemeal products, while more than every 5th drinks candied soft drinks. This ratio weakens the positive benefits of the previous one. The rate of the students visiting fast-food restaurants is rather low (approximately 2.4%), but the research did not analyse the background of it in the study (but probably there are financial results in the background).

Concerning doing sports, male respondents were more active than female. As regards internet, computer games and online presence, there was no significant difference with regard to the two genders.

Although at the same time, the message of the research is that unfortunately there are some new addictions of youngsters, and parents, teachers and also friends should pay more attention on prevention.

The research asked them about taking different things. With regard to smoking 16.4% of the respondents smoke daily. With regard to drinking alcohol, the majority of students drink alcohol more than once or twice a week (51.2%). Students do not really take tranquilizers (95.6% of the students do not take them). Taking light drugs is quite rare, less than 1% of the respondents take light drugs 1-2 times, or 4-5 monthly. Taking marihuana was more frequent in case of the Slovakian students, nearly 5% take it once a month, while on a daily basis, and 1.2% of the students take it. No significant difference was observed with regard to the different genders.

Finally, it could be seen from the answers that students talk about sports, entertainment and taking alcohol with their friends the most often. They usually talk about health and eating with their parents. There was no significant difference with regard to the different genders considering this aspect. It is also worth mentioning that youngsters get information about other harmful addictions mainly from friends, which means that they might get false information as well, which can be quite damaging for them. Building trust would definitely help in this field as well. They usually talk about health and eating with their parents. There was no significant difference with regard to the different genders considering this aspect.

Summarizing the above mentioned, we can say that the stakeholders should focus on the problems, which are deserve more attention and are still worth dealing with. Time, money and energy should be spent on teaching youngsters about healthy way of living and also the conditions for doing sport, social activity, communication and supporting environment should also be developed. All forms of knowledge sharing opportunities have to be used in favour of sharing information and educating and a net of trust should be developed where youngsters can get caring help, support and correct answers anytime.

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CAREER CRISES AS A VALIDITY FACTOR OF PROGNOSIS

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Abstract

One of the most important aims of the recruiting experts is to predict the performance. Most of the papers on this field seek for the best selection method – the assessment center seems to be the winner. This paper intends to give an additional approach that analyse the relevant crises of the candidates. These crises are comparable to the challenges of the applied position. We assume in this approach, that these necessary crises are crucial for bringing some important competencies or potentials to surface. Getting known this process the further development of the candidates can be more understandable by describe a dynamic of it instead of a static state

Key words: *crisis analysis, selection, assessment, development, performance prediction*

JEL Classification: *M12, M53, M54*

Introduction

Recently increased attention has been given to assessment forms, especially to assessment centers, even from scientific and company environments. While some papers prefer the psychological testing (Carless, 2009) or personality testing (Goffin et al., 1996) to detect the potentials to predict the candidates' performance, several results (Krause – Gebert, 2003) emphasize the advantages of assessment centers as a deepest way to summarize the difference between the candidates. However, this turns the companies preferring AC-s compared to other selection methods. Apart from other reasons it is due to AC is inevitably the most expensive (Thornton et al., 2000) one and it is dedicated to the most selected candidates. According to our research AC is one of the best method to indicate not just the difference between the candidates but the most important actual crises and their dynamics in personal development. It is useful if we use the method with developmental aims (development center). However, we have the same opportunity to find these crises during the interview – certainly not with the same method to detect.

One of the basic personality development approaches belonged to Erikson (1965) introduced eight stages of self-development during life. Each stage sets up a crisis that has or doesn't have good solutions. Crises that are not won by the person block the further development. He says that even different expectations of the environment, even different career models have these stages and their dynamics are the same. Of course the dramatic content is changing as the background and the situation

changes. Although Erikson focused on the whole life we can recognize analogies of how crises function within a certain stage. The existential part of life mostly belongs to Erikson's fifth stage. This is Identity vs Role confusion. The point of this stage is that the person among other areas of life needs to find his or her identity in profession – if we concentrate on work – but only after trying the optimal quantity of opportunities. To successfully win this stage's crises there must be a developmental link between these career opportunities.

Although the Erikson's stages presuppose the success of the previous one, this rule is not so strong in career development context with the crises I have examined, due to there are many ways of career. The vertical progress is only one of them.

The main focus of researchers is on the predictive validity factor of selection methods. Jones and his colleagues (1991) showed that a well-established assessment center has a better predictive validity if the assessors use the written and subjective comments than using only the numerical evaluation. Lievens and his colleagues pointed out the possibility and the advantages of using declared criterions to analyse in assessment exercises (Lievens et al., 2009). Russell and Domm could further increase the validity by introducing the task-based ratings instead of the traditional trait-based ratings in AC (Russell – Domm, 1995). This could make us feel that the static state of the competence of the candidates may be not enough to understand the hidden or the presently manifesting potentials. Sometimes the assessors detect the potential, but they can find evidence that some kind of dynamics precludes the manifestation of the given skill. This could be key question if we use the method as a development center but also very useful for selection to understand the candidates. However the validation of the prediction has a crucial problem. There are control groups missing in all patterns of the researches, due to the practical limit of the examinations. We are able to analyse only the candidates who won the application. We can't also give the opportunity of the positions to the underestimated applicants from a control group just in order to be able to compare their performance with the appointed ones.

Phrases used in this study

Task orientation - Target orientation: an attitude that represents the focus of efforts during the work. If one understands only the exact task but does not understand its aim, he needs a dedicated leader; he is not independent in work. At a higher level of development worker can organize his or her own tasks due to understanding the target of the task and the aim of the position.

Strategic thinking: an ability to understand and implement long-term goals to the operative routine. Strategic goals justify the present time problem solving.

Operative thinking: concentrating on present time problem solving.

Operative leader - Strategic partner: Several times the strategic leader sets up the targets, operative leaders are responsible for implementation and organize the "how". "Know what" vs "know how".

Defense mechanism: unconscious emotion-focused coping strategies. In this paper: due to not fitting the expectations some people choose regression in role to avoid stress instead of developing in his or her new role. For example one tries to cope with the situation as it would mean professional challenges instead of identifying the situation as a leadership one.

Regression: interpreting the situation in the paradigm related to a previous position.

Operative whirling: the large quantity of ad-hoc tasks make one unable to meet the strategic challenges due to less time and less concentration, which leads to further lack of time in projects. Strategic leaders find the way to refuse a significant part of operative whirling by delegation or something else.

Political thinking: the maturity step usually beyond strategic role. This means the ability to find sponsors for initiative instead of fighting with someone by arguments, networking instead of assuming common interests, understanding the hidden, unveiled reasons of management decisions instead of accepting only the professional reasons.

Applicator role: usually a beginner role of a person in work who receives exact tasks. He or she is task-oriented. Usually shifts the contradicted situations and decisions off. He or she needs strict leadership.

Conceptual role: one understands tasks in a wider context, able to receive complex objectives, understands the aims of processes, target-oriented.

Frustration of professional or strategic role: one is blocked to step on a higher or more conceptual level of role and one is frustrated to live his or her engagement to this role due to the stress factors of the environment such as authority superior.

Personality development: among several approaches I will choose Erikson's (1956) one, because it provides a very good context to understand crisis that develops us.

Extrinsic, intrinsic motivation: self-generated motivation or the motivation that comes from outside, especially from the superior.

Project managerial challenge – a few of the project management skills are highlighted in this paper such as leading a team of colleagues without dedicated authority, not from superior position.

Focus on integration

Over the last 30 years many studies have searched the competence factors that were necessary for the applied position and the best way to assess them. According to some results (Jones et al., 1991), there was a significant difference between a well-established AC and a structured deep interview (Champion et al., 1994) as we could detect the manifestation or the potential of these skills and competences. Our study focuses not on the difference between the two selection way – we also find AC better method for predict the validity, but we also agree with the results of the studies that have found AC one of the most expensive method (Krause – Gebert, 2003, Arthur et al., 2000). After all, we concentrated on and tried to identify some kinds of developmental crises inside this stage. We think analysing these crises could answer not only the questions about the existence of the certain competences but it can point out and describe the process as they are developing through the experience. Champion (1994) points that as a part of an assessment process the interviewers should detect and understand some occurrences in the description of CV-s. These could show some trends in the candidates' attitude, maturity etc., even if these cases return. In our approach some crises of the candidates could have been rated among these emphasized occurrences to be able to better understand the manifestation or staying potentiality of some specified competencies.

Pattern

We have examined two different groups. The first group contains 36 candidates selected to the final interview. The candidates applied answering advertisement or received head hunting calls.

The other group contains 26 employees from a multinational FMCG company. They applied for career consultancy. The interview's style with the two patterns was certainly different, but we have consciously searched for crises during the work to describe these' dynamics and the current state in both groups. The most informative answers to identify token crises are given to the questions that ask descriptions of how to fit the different expectations in the current and the previous positions. The two patterns have surely different authenticity, because the candidates intend to win the position so they have strong interest to show all crises have been won – as they believe. Of course the method how we need to question it in interviews must be different. However, this distortion effect exists in AC-s as well. Fortunately due to its longer duration and its playful atmosphere candidates could feel a little bit more comfortable to forget the assessors' direct purpose. Although the other group whose participants have their own development purposes with the sessions so it is not much easier to detect these crises. Even though they don't have a direct intention to hide their frustrations during the work, what's more the sessions starting points are these challenges with a hard emotional content, employees are not fully conscious about their psychological blocks. So the method is just different, not easier.

Since the top 3 candidates' patterns are after a selection process, they have shown less deviation on experience and represented more won battles. As our purpose was not to compare the two patterns one with the other, but find as many relevant crises as possible; we didn't separate them at the summary.

Detection technique

After all, the most important purpose of this paper is to point out the method that we can implement in interviews and ACs. To answer this, the first thing is to emphasize what we have to look for. First of all, let's see what crises were detected in the patterns and how these function:

Description of detected crises

Maybe it would be very comfortable if we could find crises hierarchically linked to each other. There are four crises where we can declare some hierarchy if we think about a classical career development as a vertical progress, but we can show exceptions so the hierarchy would be relevant only to better recognize them but not to better understand the essence of them.

Table 1 Identified crises among top 3 candidates and career consultation participants (Percentile figures are rounded numbers)

| Crisis groups | Associates (11) | Senior associates (16) | Operative leader (8) | Middle/strategic manager (22) | Top managers (5) |
|------------------------------------|-----------------|------------------------|----------------------|-------------------------------|------------------|
| Ego identity vs role diffusion | 5 45% | 0 0% | 0 0% | 0 0% | 0 0% |
| Task vs target orientation | 10 91% | 12 75% | 1 9% | 4 2% | 1 20% |
| Operative vs strategic | 0 0% | 6 38% | 5 63% | 16 72% | 2 40% |
| Strategic vs political | 0 0% | 0 0% | 3 36% | 4 18% | 3 60% |
| Subjective vs objective | 2 18% | 4 25% | 3 36% | 7 32% | 3 60% |
| Creative vs analytical | 0 0% | 2 13% | 1 9% | 3 14% | 0 0% |
| Theoretical vs practical | 0 0% | 1 6% | 0 0% | 0 0% | 0 0% |
| Passive or aggressive vs assertive | 1 9% | 0 0% | 0 0% | 0 0% | 0 0% |

Source: own edition

We can see the repartition of typical crises among position groups in table 1. On the one hand the chart shows the number of crises, at the other hand we can also see the percentage of crises among the given kind of positions. The basis of position kind's declaration was the applied position in the group of candidates and the current position in the group of consultation participants.

Kinds of hierarchical crises:

- ego identity vs confusion of roles (Erikson's fifth stage),
- task vs target orientation,
- operative vs strategic thinking,
- strategic vs political thinking.

In this pattern I have also found non-hierarchical crises that could influence others and relevant concerning career:

- creative vs analytical,
- theoretical vs practical,
- passive vs aggressive vs assertive,
- subjective vs. objective.

Functions of crises

Ego identity vs confusion of roles (Erikson's fifth stage)

The person needs to find his or her identity. The optimal progress of this stage is that after a few trials one can find his or her identity and any further development following a logical direction. According to Erikson, there are two different bad ways of closing this stage. The first one if the individual closes this stage too early without enough real trials. For example, there are several doctors in the family retroactively from three generations. Sometimes there is no question about the career; the child accepts the given script. The second one if the person always tries new opportunities without final decision-making and engagement. Erikson calls this confusion of roles (1956).

A good solution of this stage could be the basis for further working crises. There are interesting programs used by international companies to adjust this balance between the two extremities such as rotation to widen the employee's perspective or mentoring or project opportunities to deepen the insight of him or her. In our pattern there was one example of this in the career consultancy group. To the question about naming the ambition she gave an abstract answer and nominated tools such as education and training.

Task vs target orientation

We can set up two different forms of engagement according to some approach (Yeo, 2006). These are the target and the task orientation. The first one evokes proactivity and independency in work. The second one makes the worker receive only exact commands. The employee is committed only to finish the task without standing for the result of it. If a person is target oriented he or she will better understand the whole process and the reason for acting. There are several implementer positions at companies where result orientation is not expected. The crisis point when an associate appointed to the first position where decisions or proactivity are expected during the work. At first, the worker's defence mechanism makes him delegate back the responsibility to the superior by asking him or her to make the decision instead of him, i.e. the employee. There are two typical reasons for this regression. One is the stress itself that reduces the risk taking. The other is the frustrated unconscious feeling that he or she was successful until this new challenge with the routine, accustomed effort. The employee usually tries to use the same skills and competences. The typical attitude of this stage is "Give me a definite task and I'll give you the definite output! Protect me from intermediate decisions!". The good solution of this crisis is to step out from the comfort zone and develop a new attitude, tolerating the contradicting information and the complexity of the duties, to be able to make decisions from the view of target and its criteria.

Operative vs strategic thinking

As the employee is getting more experienced, he or she is able to manage his or her own process in its complexity. At this level the person can be target oriented, but

all the actions have a present time context. He or she is a present time problem solver. One can realize the relationship with other processes, but only in the short run. His or her attitude can be typified as "Give me a definite target and I organize the completion; protect me from target setting!". There might be problems with the priority setting as well. One may realize the importance of dealing with the long term actions that has greater effect on the success, but some urgent problems appear – as always. Due to the latest habit the temptation wins and the leader turns over his or her time schedule. If the leader doesn't stand against the operative whirling he or she won't have enough opportunity to get a new practice in strategic thinking. The good solution of this crisis is to be able to think of a longer period. One can influence and organize the present action from the perspective of the possible or planned future. He or she can set up the priority on the strength of the impact to the future. The winner attitude is: "Let's use conceptual consciousness instead of increasing headless present effort!".

Strategic vs political thinking

Around the middle management level the expert can be committed for long term goals, has a very deep insight in business and several processes attached to the strategic goals. One can set up long term goals, because he or she can feel or calculate the future trends and the possible reactions of the market to his or her strategic action. That's why one can be a good strategic planner. If he or she wants to be more effective with initiating projects and want to be a partner or member of the top management, the crisis is to recognize that there is something else what influences the decisions of upper management beyond professional and strategic factors. There are hidden reasons behind the veils which are rarely discussed, but sometimes have stronger effect to the upper decisions than the professional arguments. The political level has a different language as well. The best outcome of the crisis is to be able to speak this language. That's why project managers have to find a sponsor or sponsors for the projects, because if there is any conflict with other managers, the sponsor speaks this language and can use his ascendancy. The pure professional or strategic arguments are not enough. It counts who says them. The essential attitude of the crisis is "Give me a vision, I can set up what is worthy of achieving, I possess and manage the resources to win, but please protect me from labyrinthine, hidden interests inside the company!". To win this crisis one needs to learn the rules of lobbying, managing the power of upper management and the special interests (not always tightly belonging to the work) as well.

Creative vs analytical

The list of detected non-hierarchical crises of this pattern starts with a balance question. The present or future time problem solving can happen with two different mind-sets. Basically there are characters with the first or the latter, but as the expectations are increasing the way of development improves the other part of the personality. On the one hand, if you are analytical your sharp criticism can demotivate the creative team members; on the other hand if you are creative your ideas bleed to death in practice without precise planning. The task of this crisis is to synthesize the two sides. It is not easy if we think about a classic problem solving process. It is useful to define the target first, and one can list the opportunities of ideas. Further

to this you can plan or work out the promising ones and check them. In the creative part the analytical comments reduce the number and originality of the ideas; in the following part you should not skip the critical remarks to be able to avoid mistakes or wrong choice from solution opportunities. One of the possible winning strategies of this crisis is if one can separate in time these two approaches, but implements them to the process. Others can engage themselves to either thinking mode, but as a manager collects different thinking members to the team and they utilize them in appropriate time of the cooperation. People who stick in this crisis can easily block themselves or other team members by trying to meet the double expectation simultaneously.

Theoretical vs practical

We don't know how much this crisis is common; we have detected it in this pattern the first time. This candidate had a lot of experience as a consultant, in addition with successes. In his current position he was expected to execute his job in practice, but had a lot of difficulties with practical methods. Due to the fact that he had had successes in strategic planning his defence mechanisms regresses him to this thinking mode instead of acting. We can link this situation to the basic Erikson's ego identity stage, and maybe it is the outgrowth of an early closing to strategy without enough practical experience. If he had planned his career, it would have been the best to "rotate" him to a practical position earlier to be able to synthesize the missing experience.

Passive vs aggressive vs assertive

The classic conflict solving behaviours (McCann, 1988) can be understood in the context of a working crisis, but mostly in connection with other crises. If we think about the strategic vs political crises one has to initiate projects to achieve high objectives, even driven by extrinsic or intrinsic motivation. He or she has to lobby for the project, confront with several members of upper management. It does matter to choose the right behaviour to succeed. Passivity would mean an operative regression and frustration about initiate. Aggressive behaviour will cause prejudice and leadership gap. A good solution of this crisis is to be able to represent one's interest, but conform to management's interests simultaneously or politically find mentors or sponsors to fight for us. Apart from this pattern's example this crisis can be imagined in several different situations.

Subjective vs objective

The ability to think objectively can be relevant in any stages of career development. Sometimes this skill can be linked closely to self-esteem. It is not usual to find this competence among selectional processes' criteria, because it is not easy to measure. As a consequence, it has a moral aspect; it is not difficult to prove ourselves to be moral in decisions. Even in interviews or ACs. Being objective is something more that can be detected in selectional forms. The elements of it can be:

- stress resistance during contradicting information,
- stress resistance in case of difficult reception of initiatives,

- resist against operative whirling in the midst of functional and cross functional expectations,
- able to practice and think playfully without thinking regression even at high risk

We can detect one or more areas where stress makes the candidate think regressed because of stress. If we use the interview or the AC in selection orders we can describe the applicant's coping strategy and its effect on the job. In case of developmental usage the mentor or the employee gets grabbing points to improve.

Applied questioning method

The technique is different if we use it for developmental and selection purposes such as represented in the two groups of the current pattern. The goal of the assessors is to identify these or similar crises and understand how the candidate improve to win it.

Interviews

- Asking to describe the authority and scoop of activities.
 - The answer can indicate the perspectives and attitudes which can inform about the hierarchical crises.
- Asking to describe successes and failures
 - Not rarely the successes belong to a maturing process, sometimes the challenge makes the candidate exceed his or her comfort zone. The description informs us about the regression or improvement. Without the opportunity of regression there is no crisis. An authentic reference for a higher level of solution indicates the won crises. Sometimes assessors need to check if the self-esteem builds in the success in a right way. The attribution (Covington - Omelich, 1988) of success can show differences according to control attitude (Rotter, 1975). There are some examples for the candidates meet the extra expectation, he or she is successful, but the regression still exists as he or she aims to go back to comfort zone. Recognizing the unknown skill does not widen the comfort zone. It belongs to subjective vs objective crisis as well.
- Signs for the meeting with a crisis.
 - The most informative answers describe a frustration - it is a necessity of crises - that makes one to create the conditions of his job. Employees often need to have a deeper insight and wider perspective for that. We should find the items allude to regression or improvement.
- Stress to authority exceeding
 - Higher responsibility means higher insight. If this deeper understanding is new it causes stress. Assessors should find the signs of regression or stress resistance. The coping strategy can be the most informative.
 - Asking about the role of duty of the superior can inform us about this insight. Before meeting the crisis applicants cannot describe this with insight. They describe the boss's higher responsibility stereotypically but without practical experience.
- Defence mechanisms about a role

- Improvement of a crisis changes the applicants' identification with their roles. The defence mechanism mostly belongs to the actual challenge (current or desired position) that can lead to regression or development.
- Understanding that all the frustrating factors are parts of the game means accepting the role; and it initiates the improvement of the crisis.
- Career consultancy, personal progress discussions with the leader
 - The method is different because the employee and his or her superior have (or should have) an intimate relationship. The leader is mostly aware of the subordinate's weaknesses, potentials and possible ambitions. In practice leader collects evidence during the year about these crises, but in this conversation he needs to identify and nominate them. In this case the employee has no interest to hide his or her limits, but the awareness and the consciousness are never as high as from the leader's point of view.
 - The performance appraisals could focus on the same crises and role regressions. The most informative conversations analyses the interpretation of achieving or failing the personal objectives.

Assessment centers, development centers

As mentioned, assessment centers mostly follow other selection forms, such as interview. If the assessors have preliminary information about a suspicion of a crisis they can check it by choosing relevant tasks or group games to see these on the job. For that they need to create the similar stress, demands and challenges to the applied position as possible. Anyway, the given position and its job description inform us about the required won crises, so we need to focus on these at establish the AC. It can contradict with a conservative AC rule to keep the time schedule anyway. If assessors happen to find a situation game or task that models the wanted crisis, I suggest giving more time to participant to better understand the candidates and seeing the developed outcome of the crisis. So the most important part of the technique is to know what possible crises should be searched for. Even the interviews and ACs are not suitable for crisis analysis if applicants have the permission to give stereotype answers. If assessors get such answer they should accept it but ask more. The best question is that the candidate can answer with using all the resources he has. Too easy question is not enough. The candidates' usual feedback shows that they better knowing themselves after the session but it was not easy.

Conclusion

In this paper a novel method for assessment was suggested. This method says that the assessors should look for the typical crises of the career development. The trend of the crisis on the one hand depends on the current stage of career; on the other hand there are idiosyncrasies of the participants. Only the non-stereotypical answers can give authentic information so the assessors need to walk around the question properly. The method helps to predict the performance and the personal development and gives tools to leaders to coach the candidates.

We have analysed 36 candidates for different positions and 26 employees who applied for career consultancy. The analysis of the pattern indicates that different kinds of crises can be found. Some of these are grouped in hierarchic order, some others relate differently to the others. These crises can be very useful to better understand at first the process of career improvement, at second the current state that can add useful information for meeting or not the expectation of the position. And finally it can be useful to predict the further improving process and the performance. Besides that understanding the state and the completion level of the crises helps to decide between candidates applying positions, it can provide grabbing points to current or next superiors for personal progress and development efforts. Mentoring people through their crises pays in higher performance and greater engagement.

Analysing the patterns shows trends of crises. In a larger pattern it is possible to find further crises. Some of them could be categorized into these trends, but hopefully we can find rare or individual crises. This is why this pattern did not contain wide forms of jobs and workers, such as associates before retirement, mothers getting back to work after maternity leave etc., and there can be further trends of crises that were not indicated in this study.

For assessment reasons crisis analysis makes assessors' judgment not only a quantitative data, but furthermore a qualitative description. This can be an input to developmental purposes and further prediction tools to assessment aims.

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RATIO ANALYSIS OF POLAND'S SUSTAINABLE DEVELOPMENT COMPARED TO THE COUNTRIES OF THE EUROPEAN UNION

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Abstract

Considerations of this publication focus on sustainable development. It is a concept that gains significance and is being popularized in local units as well as in major organizational units such as countries. This elaboration presents indicators of sustainable development from certain groups, which enable presenting the level of its implementation from the point of view of different areas of social life. An average value of the indicators in European Union was also presented, what enabled the evaluation of Poland's situation compared to EU countries.

Keywords: *sustainable development, sustainable development indicators, sustainable development of Poland*

JEL Classification: O10, R58, Q50

Introduction

Sustainable development was defined in Environmental Protection Law act. It is an economic and social development, which integrates social, economic and political activities while maintaining balance of natural processes in order to meet the needs of citizens currently living in the country and those of future generations (Environmental Protection Law Act, 2001).

In recent years one can observe the concern over the condition of the environment, therefore shaping a proper attitude of society towards the environment as well as the necessity of solving many issues existing in economic and social fields becomes a significant objective (Godlewska, 2009).

Sustainable development refers to a number of environmental protection and social issues (Giddings, Hopwood 2002). Such concept is referred to in majority of significant international and domestic documents. The problem of sustainable development is covered in the Constitution of the Republic of Poland and Treaty on European Union. The entrepreneurs more commonly take the responsibility for their action and reduce their negative influence on the environment (Lapinskaite, Radikaite, 2015).

Material and Methods

Sustainable development level assessment of a country has been based on ratio analysis. It is one of the most frequently applied methods when comparing the

situation of individual entities. It aims at creating the indicators that enable assessment of the situation of the surveyed units. The most important feature of the indicators is comparability of their values, that determines the position of the entity compared to the others. (Rahmann, Nunez, Valencia, Arrechea, Sager, Kammen, 2016).

The basic principle of creating sets of sustainable development indicators is monitoring the implementation of number of planning documents (strategies, programs, etc.) developed at local, regional and national as well as EU level and determining corresponding level for each of them. This study uses indicators from individual groups, such as:

- social order,
- economic order
- environmental order,
- institutional and political order.

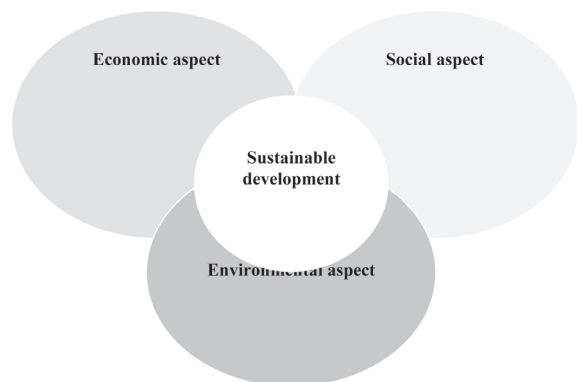
Sustainable development indicators are basic tools of monitoring that reveals the essence of such development concept to a large extent. They allow to create statistical picture of a country and compare the level of indicators of Poland compared to European Union countries.

Results and Debate

Concept of sustainable development

Economic changes and being aware of the world around us make the concept of sustainable development increasingly important (Stinnett, Gibson, 2016). Sustainable development exists in economic and social field and has influence on maintaining the balance in the environment. Its fundamental purpose is meeting the basic needs of the society (Herbuś, Krawczyk-Sokołowska, 2012). The concept of sustainable development also assumes that human activity should affect the environment to the smallest degree, because it needs to be kept in the best possible condition for future generations (Gechev, 2005).

Picture 1 Dimensions of sustainable development



Source: authors' own study on the basis of (Wingfield, 2010).

The concept of sustainable development may also be a part of the vision of social development (Nagórny, 2011). However, this requires the implementation of its principles in all areas of the economy (Tomski, 2011). In addition, sustainable development does not affect the limitation of economic development but improves the quality of living (Adamczak, Nitkiewicz, 2007).

The concept of sustainable development is provided in Polish legal acts, which proves that it is rooted in social consciousness and culture (Shone, Simmons, Dalziel 2016).

This concept may be identified with the development of social, environmental and economic policy (Ayala-Carcedo, Gonzáles- Barros, 2004). Sustainable development refers to three dimensions: ecological, economic, social (Keiner, 2004).

The essence of sustainable development of Poland and European Union

Both in Poland and European countries environmental aspect becomes a significant factor for a many countries, which is why more and more legal norms of international scope are being created. Motivating factors for recognition of environmental concerns in legal acts may mostly be found in (Rosicki, 2010):

- broadly defined research methodology (social, ecological, economic and similar studies);
- performance improving techniques;
- technological development;
- studies of prosperity and poverty;
- contemporary management idea;
- social and economic development forecast;
- analysis of international economic relations.
- studies of climate change;
- analysis of industrial development;
- research of problems of the, so-called, third world countries, developing countries and developed countries;
- shaping the idea of dependency between human and environment.

Sustainable development is a concept that evolved in recent years. It aims at increasing the standard of social life while reducing the human impact on the environment and modification of social values (Walker, Hills, 2013).

The aim as well as the effect of sustainable development is quality of social life. European Union Countries including Poland adopted fundamental principles of sustainable development in the process of increasing the social and economic quality of life (Katoła, 2013).

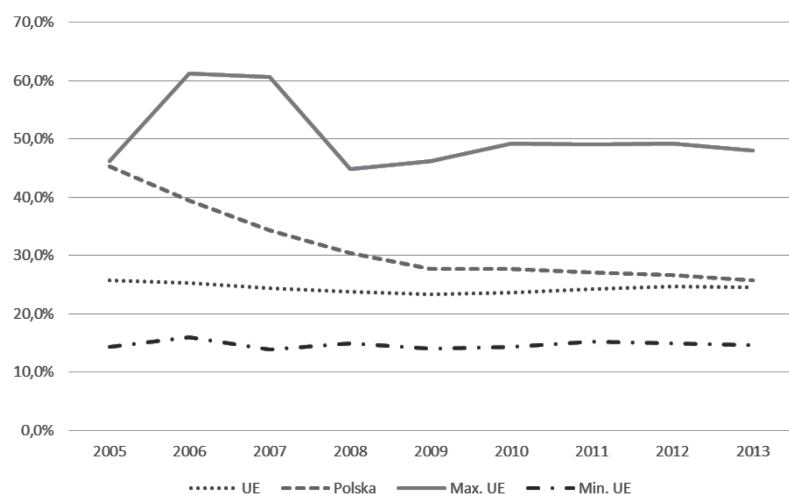
Analysis of sustainable development indicators in Poland and European Union countries

Indicators reflecting the level of sustainable development are used for the assessment. The empirical part of the study analyses selected indicators belonging to three groups: social, economic and ecological (Kronenberg, 2010). First social indicator is risk of poverty or social exclusion. It is the result of three indicators, risk of poverty indicator, indicator of people at risk of deep material deprivation and indicator of

people living in households of low labour intensity, expressed as a percentage of total population. The first component of the indicator refers to the percentage of people whose disposable income equivalent does not exceed the poverty line, set at 60% of median value of disposable income of households in a given country. Second indicator refers to percentage of people in households, who because of their financial situation are not able to meet at least 4 of 9 of their specific needs. The last component of the described indicator is percentage indicator of people of age 0-59, living in households, in which adult persons (18-59) have worked in less than 20% of their potential capabilities.

The poverty and social exclusion indicator illustrates the many aspects of this phenomenon, which is a challenge from the point of view of sustainable development. It illustrates the impact of low income and lack of work on the quality of life and ability to meet the needs recognised in European conditions as fundamental.

Chart 1 Risk of poverty and social exclusion indicator (%)

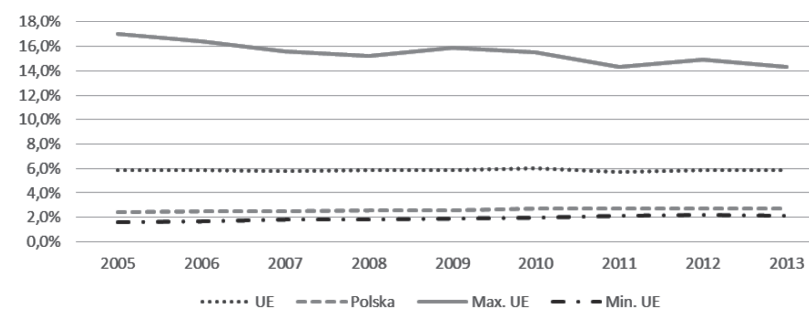


Source: authors' own study on the basis of (WskaźnikizrównoważonegorozwojuPolski, 2015).

Poland's risk of poverty or social exclusion indicator has reached the highest level in 2005, from that point it is decreasing at a yearly rate. Over the the studied period it regressed for 19.5 pp. Poland's indicator in the analysed years was higher than in European Union, however when comparing the base year, in which the value was higher by 19.6 pp and the last sample period, in which the value was only 1.3 pp, it may be concluded that Poland is approaching the European standard, what indicates the improvement of living conditions and poverty reduction. Among the 28 European Union countries under research, in 2013 Poland has placed itself on 16th place when it comes to the lowest value of the indicator. Despite the improvement in living conditions, Poland still deviates from the minimal value, in 2013, countries at the lowest level of risk of poverty or social exclusion were Czech Republic (14.6%), Netherlands (15.9%) and Sweden (16.4%). From the European Union countries the majority of people at risk of poverty or social exclusion could be found in Bulgaria (48%), Greece (35,7%) and Latvia (35,1%).

Another indicator from the social group is the electric energy usage in households per capita, it defines the consumption of the electric energy used for heating rooms, water and operating all electrical equipment per inhabitant. Electric energy usage per capita is a main indicator illustrating the level of consumption in a given country. This indicator shows the changes occurring on the level of usage of electric energy over a period of time, resulting from the change of the way of living and larger number of electrical appliances in households. Increased electric energy consumption is contradictory to the sustainable development trend and has negative effect on the environment.

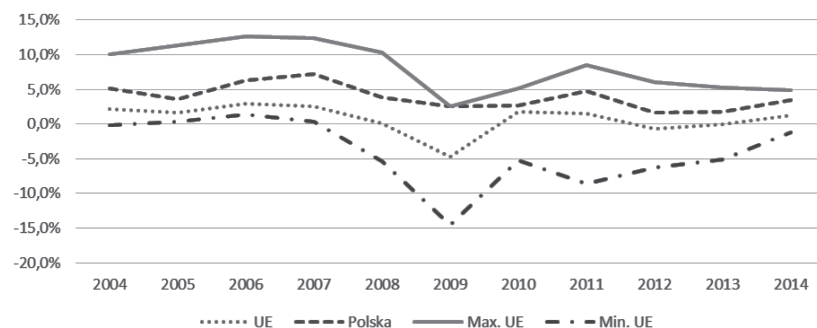
Chart 2 Household electric energy usage per capita (%)



Source: authors' own study on the basis of (WskaźnikizrównoważonegorozwojuPolski, 2015).

Over the period of 2005-2013 in Poland one may observe a systematic increase in the electric energy usage in households, it results from the technological development and increased number of electrical appliances used in households. When comparing 2005 and 2013 the indicator value rose by 0.3 pp. Average value of the indicator for European Union in studied years the highest level of 6.0% was reached in 2010, while over the studied years it has not changed in a significant way. Poland belongs to the group of countries of the lowest level of the described indicator, in 2013 its level is more than 2 times lower than the average of the European Union, and more than 5 times lower than in the country of the highest level of usage, Sweden (14.3%). The lowest level of the indicator was recorded only in Romania (2.1%)

Chart 3 Increase of gross domestic product per capita (%)



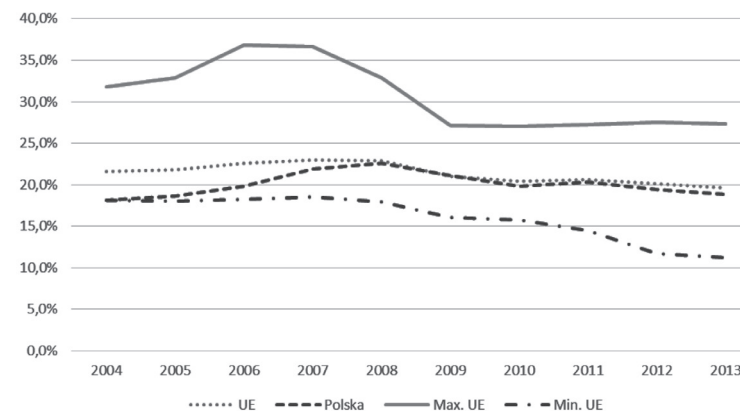
Source: authors' own study on the basis of (Wskaźnik zrównoważonego rozwoju Polski, 2015).

Next group of the analysed indicators of sustainable development are economic indicators. Among others, they include increase in gross domestic product per capita. It is a percentage change in real GDP (per capita) in the analysed year compared to the previous year. Such indicator is very important for sustainable development, because GDP is one of the main economic indicators. Gross domestic product per capita illustrates the condition of a given economy and one of the major objectives of country's economic policy is aiming at its increase.

As shown in the table above the biggest drop of GDP per capita in European Union occurred in year 2009 (-4.7%). Substantial increase has been recorded in 2006 and it was 3%. In Poland such trend is different, because the biggest value of the indicator could be observed in 2007 (7.2 %), however it should be noted, that in 2006 the indicator of GDP increase per capita in Poland was on second place in terms of extent and was 6.3%. It means that year 2006 both in Poland and EU countries was characterised by substantial increase in gross domestic product per capita. Positive phenomenon is the occurrence of a higher value of the analysed indicator in Poland in all the years of research. It should be also emphasized that in years 2004-2014 no decrease of gross domestic product per capita has been recorded.

Investment rate indicator may also be assigned to the group of economic indicators of sustainable development. It is a share of gross fixed capital formation in GDP value in the national currency. Investment rate provides information on competitiveness and innovativeness of the economy. Fixed capital formation is a crucial factor affecting the economical growth and reflects its level.

Chart 4 Investment rate (%)

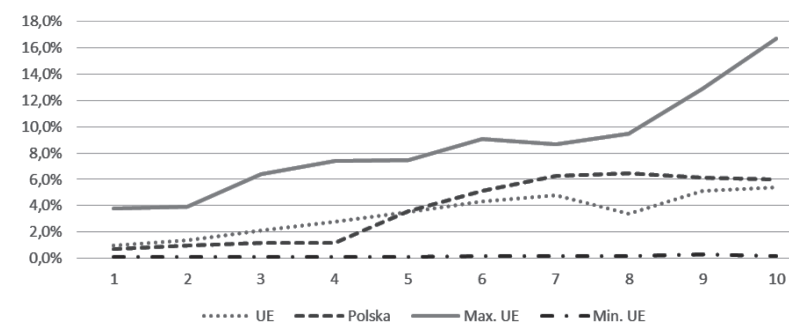


Source: authors' own study on the basis of (Wskaźnik zrównoważonego rozwoju Polski, 2015).

In analysed period, the investment rate of European Union countries was at a similar level. The lowest value can be observed in 2013 (19.6%), the highest in 2007 (23%). In 2004-2007 the indicator value showed progression, but in 2008 there has been a decrease (in 2011 alone the investment rate slightly increased compared to preceding year). The trend in Poland is very similar, however the regression starts from 2009 and, as in the European Union, growth may be observed only in 2011. In all the years of research the investment rate in Poland was lower than in the member states of the European Union. It means that gross fixed capital formation were lower than in other countries of European Community, however, almost in every period they were higher than minimal value of such indicator for European Union.

Third group of the sustainable development indicators are ecological indicators. Among them one can distinguish the share of energy from renewable sources in the consumption of fuels in transport, calculated as the ratio of renewable sources used in all types of transport in total energy consumption in transport. The use of energy from renewable sources in transport is characterised by a lower emission of CO₂, what is crucial from the point of view of environment protection.

Chart 5 Share of energy from renewable sources in the consumption of fuels in transport



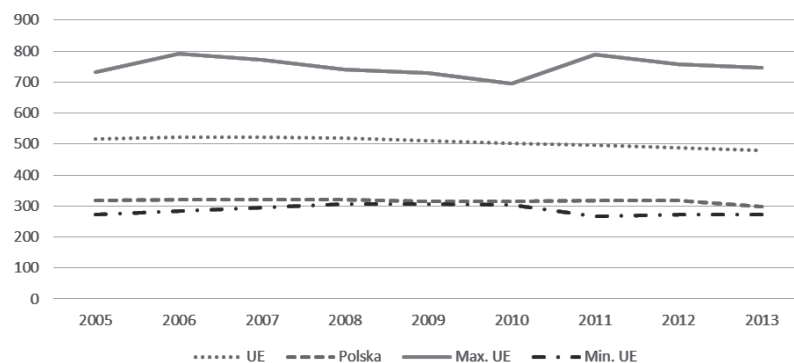
Source: authors' own study on the basis of (Wskaźnik zrównoważonego rozwoju Polski, 2015).

In 2004-2013 in Poland an increase in share of energy from renewable sources used in transport has been recorded, it progressed by 5.3 pp when comparing 2013 with 2004. Whereas, the highest level occurred in 2011 (6.5%), in following years it was consecutively decreasing by 0.4% in 2012 and 0.1% in 2013. From 2008 the indicator value in Poland exceeds European average, what indicates increasingly widespread use of alternative energy sources in Polish transport. In European Union countries there is also growing trend for the indicator, in 2011 alone it decreased by 1.4%, while in 2012 it exceeded the level from 2010. In 2013 Poland placed itself on 6th place in terms of shares of energy from renewable sources used in transport, the highest indicator value was observed in Sweden (16.7%), Finland (9.9%) and Austria (7.5%). Countries of the lowest degree of usage of alternative energy sources in transport in 2013 were Estonia (0.2%), Spain (0.4%) and Portugal (0.7%).

Conclusion

Sustainable development implies the integration of political, economic and social activity oriented on meeting the needs and taking natural balance into account. The aim of sustainable development is ensuring proper quality of social life. Indicators reflecting the level of sustainable development are used for the assessment. The empirical part of the study analyses selected indicators belonging to three groups: social, economic and ecological. First group indicators, that is risk of poverty and social exclusion indicator and household electric energy usage per capita indicator illustrate the social order, that is level and quality of people's life in a given country. In case of Poland the level of the first indicator shows the improvement of living standards, each year less and less households are at risk of poverty, yet compared to the EU Poland places itself at 16th position out of 28 countries, surpassing the European average in all analysed years. Next indicator specified the level of household electric energy usage, indicating the economic development of a given country and measures to reduce exploitation of energy resources. Both in Poland and in EU countries one can observe an increase in consumption resulting from technological changes. High level of energy consumption can be observed in developed countries, Poland as a developing country belongs to a group of countries of low level of electric energy consumption. The analysis uses two indicators assessing the economic order of European Community countries, that is increase in gross domestic product per capita and investment rate indicator. GDP being the one of the most important indicator of economic growth, has a significant impact on the level of sustainable development. A positive phenomenon is the occurrence of a higher value of GDP increase in Poland than the European Union average in all studied years. Also the negative GDP has not been recorded, in contrast to the EU average, which in 2009 and 2012 was characterised by a GDP drop. It arises from the fact, that Poland is a dynamically developing country, what positively affects the quality of social and economic life. Next indicator evaluating the investment rate, that is level of competitiveness and innovativeness of the economy, has provided information on a slightly lower level of gross input for investments in Poland than average of the EU countries, however it places Poland as a country of a higher investment rate than its minimal value in Europe. Third group of indicators allowed to evaluate the ecological order, the indicators of share of energy from renewable sources in the consumption of fuels in transport and municipal waste generated per capita that were used in the analysis, characterises Polish society as environmentally friendly. Both indicators have taken more favourable values than the average of the European Union member states. In the analysed years Poland has recorded a significant increase in the use of energy from renewable sources and decrease in the amount of generated municipal waste, close to the minimal value. The analysis of the selected sustainable development indicators shows a positive status of the actions determining the social, economic and environmental order of Poland, the described indicators show economic growth, improvement of society's quality of life with taking the measures to reduce environmental degradation into account.

Chart 6 Municipal waste generated per capita (kg)



Source: authors' own study on the basis of (*WskaźnikizrównowazonegorozwojuPolski, 2015*).

Next ecological indicator crucial for measuring the sustainable development is the amount of municipal waste generated per capita. It tells what number of municipal waste is generated per capita throughout the year. It also provides information on negative effect of waste on the environment. The more they are generated in a given country, the more negative environmental effects can be observed, that is why striving for limiting the number of waste is one of the objectives of sustainable development.

Number of generated waste in Poland in all analysed years is lower than in European Union. These values also significantly differ from the maximum level of the indicator in countries of the Community. Undoubtedly it is a favourable situation and positively affects the level of Poland's sustainable development. Both in Poland and European Union one can observe an increase of importance of the principles of this concept since 2008. The amount of generated waste is decreasing in all periods in relation to the previous year. It is connected with emphasis on the necessity to limit the amount of generated waste. A significant decrease in Poland can be observed in 2013, which is associated with the act from 14 December 2012 regarding waste becoming effective.

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FACTORS DETERMINING DEVELOPMENT OF SOCIAL CAPITAL IN SMALL AND MEDIUM-SIZED ENTERPRISES

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Abstract

In the market segment where small and medium-sized enterprises compete, both tangible and intangible factors are significant in terms of strengthening their level of competitiveness. One of the important intangible factors is that of social capital. The herein paper describes the significance of social capital in terms of managing small and medium-sized enterprises. Social capital is of a tangible pragmatic value. It is a factor which streamlines the functioning of the social system of an enterprise. The author presents the results of research on the internal factors determining social capital in small and medium-sized enterprises in the province of Silesia. By way of conclusion, it is written that having the positive attributes of social capital, among others - the ability to cooperate in a network, create ties, loyalty, credibility, solidarity, trust, all require the appropriate level of management in English, max 10 lines

Key words: *social capital, social network, organizational trust, small and medium-sized enterprises*

JEL Classification: M 120, D 230, D 850

Introduction

In search of the opportunities to increase the competitive potential on the market, enterprises are increasingly drawing attention to the necessity of cultivating the skills of interpersonal cooperation within employee groups and organizations with the aim of realizing common interests. The aforesaid skill depends on the degree by which the given organization acknowledges and shares the set of social norms and values. Sharing this is favourable towards the creation of social capital which is a significant cultural and economic value. The skill of cooperation, common values and norms, as well as trust between the members of an organization constitute the magnitude of the social capital and its role in the functioning of the enterprise. Such an approach facilitates the formulation of the theory that social capital is as important a type of capital in an enterprise as financial capital or real capital (Kriesi, 2007, pp.23-42).

With regard to the increasing competition on the market, building social capital may become a factor that increases the competitiveness of small and medium-sized enterprises. It may constitute a key attribute for small firms, while simultaneously opinions are divided as to the conditions in which it leads to the increase of business efficiency (Stam, 2013, p.2).

The authors deemed the subject matter of analysis to be the scope of the occurrence of social capital of SMEs in Poland. The choice of this research matter was

the effect of meta-analysis of social capital in small enterprises, which in turn indicates that social capital has a stronger impact on efficiency in small firms in emerging markets than in highly developed ones (Stam 2013, p. 17). By accepting the assumption that social capital has a significant impact on efficiency and thus also on the market position held, three research questions have been formulated as follows: What is the scope of the occurrence of social capital in small and medium-sized enterprises? What is the role of managers in the creation of social capital? Does the size of an enterprise make a difference in terms of the resources of human capital of employees?

Social capital in an organization - theoretical background

The problematic issues of social capital in an organization are more and more frequently referred to by researchers. Closer analysis of this notion indicates its intricacy. In subject-related literature a multitude of different notions of this aspect emerge. Generally speaking, it is possible to distinguish four approaches to defining social capital. In the first one, this appears in the form of resources that an entity possesses as a result of participation in differentiated social networks. Social capital is a resource, which thanks to social ties strengthens social structures and the members have restricted possibilities of contacts in the networks at their disposal in terms of the realization their business interests (Fuchs 2006, p. 105). Likewise, Nahapiet and Ghoshal (1998, p.243) define social capital "as the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit".

In the second perception, social capital is generally identified with the trust of people and institutions towards themselves. Mutual trust is the basic condition and effect of group cooperation. Attention is drawn to the relation between trust and social capital by R.D. Putman (2000, p.137), according to whom a cause-effect relation exists between social capital and trust. The more people trust each other and are worthy of trust, the more they become involved in social life. Opposing and inactive people as citizens believe that they are surrounded by miscreants and feel less obliged to proceed in an honest way.

In the third notion, social capital is referred to social networks, namely the resources and experience are embedded in social networks and are not freely available for everyone in a particular organization. By means of participation in a network and ties with others the entity gains access to specific knowledge and resources, while basing on the norms and values that are binding in the network (Penuel et al. 2009, p. 129).

In the fourth notion, it is possible to refer to capital when the social ties regulate the norms of mutuality and justice. Hence, social capital is information, trust and norms of mutuality that constitute part of some social network (Woolcock (1998, p.153). The composition of the norms of mutuality encompasses the norms of trust that are based on the "principle of the vow to fulfil obligations" and the principle of "not deceiving trading partners" (Vanberg 1997, p. 270). These norms secure the appropriate functioning of social networks. Likewise, Adler and Kwon illustrate social relations as the source of social capital. The authors in question perceive the formation of social capital by means of (1) "the opportunities provided by the network structure of those relations, (2) the norms and values that constitute the content of those social network ties and give them their motivational force, and (3) the abilities at each of the nodes of this network that can be mobilized by such goodwill". (2014, p. 2014)

Analysis of the definitions within the framework of these notions facilitates the distinction of the most frequently listed composite elements of social capital as follows: the network and social structure, social norms, skill of cooperation, co-action and ability to organize, convictions, values, competences and skills, knowledge and experience, participation and trust.

For the purposes of the herein paper, the author assumes that social capital shall signify the component of the skill of co-action and cooperation of the human entities within the framework of the social groups, organizations and social institutions of various types for the realization of common goals.

A review of the numerous works relating to social capital in an organization enables the distinction of two approaches to its perception in terms of an organization - internal and external (Leana, Frits, 2006, pp.353-355). In the external notion, it is viewed as a form of ties of an organization with its stakeholders, partners and competitors. In the theory of networks, it is indicated that the value of an enterprise is derivative of the ability to create a network of organizations and the right to avail of the knowledge capital created by the network participants (Burt, 2000, p.24). In the internal notion, it is perceived as the form and nature of ties between the members of an organization (internal notion of capital). Thanks to this, the abilities of the organization to absorb and create knowledge grows (Nahapiet, Ghoshal 1998, pp.242-266). Simultaneously, it is necessary to emphasize that internal social capital has a greater impact on the technological and market situation of an enterprise than the internal social capital (Cuevas-Rodríguez, Cabello-Medina & A. Carmona-Lavado 2014).

In an organization, social capital may take on various dimensions. Nahapiet, Ghoshal (1998, pp.253-256) describe three of its dimensions, namely: structural (ties between the members of the organization), cognitive, namely a common language (signs, symbols), as well as the relational dimension (norms of mutuality, trust). Their feature is that of mutual penetration and interdependence.

The structural dimension of social capital relates to the configuration of ties between the participants of social networks. Networks where members mutually influence each other are featured by cooperation and exchange of information (OH et al., 2004). The network participants by communicating face to face minimize potential misunderstandings and facilitate effective exchange of knowledge (Davenport, Harris & Kohli, 2001).

The cognitive dimension of social capital concentrates on the creation of common cognitive perspectives or common perception of context. The cognitive dimension of social capital helps the members of the group to communicate and cooperate more effectively. Elements of the cognitive social capital - language, common values - define the ability to share explicit and tacit knowledge. Thanks to this, the parties involved have a common basis for communication (Brown & Duguid, 2000).

The relational dimension of social capital relates to the resources that accompany the relations of two or more people. Of the elements of relational capital enumerated by Nahapiet and Ghoshal (1998), trust is acknowledged to be the most important (Holste & Fields, 2005). It facilitates the free flow of information exchange (Inkpen & Tsang, 2005) and facilitates cooperation between the members of a team leading to increased dialogue and common communication (Schippers, Den Hartog and Koopman, 2007).

Social capital may have a positive impact on the economic performance of a firm by ensuring benefits in three principal areas as follows: information, impact and solidarity. (Du et al. 2015, p. 9). Firstly, social capital may enable fast access to

restricted information which is an important factor influencing the process of acquiring resources. Secondly, the advantage of social capital is to ensure the impact on the other network participants. This relates to the ability of the firm to accumulate the obligations of the other members of the network with regard to it and availing of them at a later date. Thirdly, the benefit of solidarity with the other members of the network is the reduction of the costs of transactions, exchange of the goods in possession and resolving conflicts. Apart from the afore-mentioned benefits, it is also possible to indicate the ease of the transmission of knowledge and diffusion of new technological solutions among the network participants. Social capital favours the sharing of knowledge by means of providing access to tacit and explicit knowledge, the exchange of knowledge and innovations in the team (Hu, Randel 2014). Likewise, social capital also stimulates innovations, education, while also having an impact on work efficiency (Sztaudynger 2007, p.136).

Method and Sample

In research on social capital in small and medium-sized enterprises, it was assumed as an operating definition that social capital is a set of resources which may include trust, cooperation, solidarity, participation, loyalty of those belonging to a unit and organization. Analysis of the level of social capital was conducted on the basis of the results of research on the scope of occurrence of social capital in SMEs. The research availed of the survey method with the opinion poll technique. The research tools were built from questions facilitating the identification of the attributes of social capital and their level of occurrence.

The aforesaid research was conducted in February and March of 2016. The selection of enterprises for research was based on a purposive method, which was participated in by 147 companies, including 39 micro-scale (0-9 people), 62 small (10-49 employees), as well as 46 medium-scale enterprises (50-249 employees) running business activities in the province of Silesia. The majority of enterprises conducted activities in the sector of services (31%) and in manufacturing (28%), while subsequently in miscellaneous sectors (22%) and in trade (19%). The respondents were company owners (7%), chairmen/vice-chairmen (21%), managers (32%), while also administrative employees of the company (40%).

Results

One of the bases of fluctuating behaviour that enables reactions to changes in the external environment of enterprises is that of social capital. In an enterprise, it is possible to distinguish areas of social capital. The first one relates to the managerial staff and encompasses such attributes as the following: quality of leadership, communicative skills and strategic thinking, honesty, creativity, trust, credibility and solidarity (Grudzewski et al. 2010, pp.96-111). The latter area relates to employees and encompasses the following: cooperation, solidarity, honesty, loyalty and trust (Skawińska 2011, p. 130-131) Possessing the attributes of social capital and their skilful management is favourable towards the development of the organization. The level of social capital in an enterprise depends to a large extent on the degree of occurrence of its attributes among the employees. In Table 1, the results of the research on four of its attributes have been presented. The first one, namely cooperation,

is a behavioural component and relates to co-action. This resource is most highly rated by the representatives of the micro-scale enterprises, particularly the cooperation in diagnosing and resolving problems. Likewise, a further highly rated attribute is that of sharing information, knowledge and learning from one another. This attribute is most highly rated by the representatives of the micro-scale enterprises.

The resource of solidarity is a regulative component of social capital, which increases the level of certainty in terms of taking risks on the part of the employees. This is the lowest rated among the enterprises under analysis. This particularly relates to the placing of the general interest ahead of your own. The difference between the analysed enterprises with regard to their magnitude is noticeable. In fact, this resource appears to be at its greatest extent among the employees of micro-scale firms, while at the lowest among small enterprises.

The resource of loyalty belongs to the normative element of social capital. This is displayed by being loyal with regard to the company and co-workers, being willing to provide aid to other work colleagues and by keeping your word. Analysis of the evaluation of this attribute indicates that the magnitude of enterprises is a varying fluctuation of the scope of the aforesaid ratings. The highest ratings were awarded to the attributes associated with this resource in micro-scale enterprises, whereas the lowest among the representatives of medium-sized firms.

The attributes of the resource of participation belong to the structural element of social capital. Participation in the network facilitates the acquisition of varying benefits in the case of the entities, albeit only in the situation whereby they are long-lasting and geared towards mutual co-action. As noted by A. Portes (1998, p.6), the feature of social capital is the ability of entities to ensure benefits from the membership in terms of the social networks or other social structures. Social contacts are not public goods that an entity acquires automatically, but only become a resource when it is actively involved in the social networks. On the one hand, the sense of belonging to informal groups, mutual informal contacts in the workplace, while on the other hand participation in events, integrative meetings are favourable towards building ties between employees and ties between them and the management. In this sphere, significant differences occur in terms of the degree of their evaluation with regard to the magnitude of the enterprises. The attributes of this resource were most highly rated in the medium-sized enterprises, whereas the lowest in the micro-enterprises.

Table 1 Evaluation of attributes of resources of cooperation, solidarity, participation and loyalty of employees in SMEs*

| Attributes of resource | Total | Size of enterprises | | |
|---|-------|---------------------|-------|--------|
| | | Micro | Small | Medium |
| Resource of cooperation | | | | |
| Employees cooperate with each other in diagnosing and resolving problems | 3.70 | 3.95 | 3.5 | 3.37 |
| Employees share information, knowledge and learn from one another | 3.69 | 3.77 | 3.66 | 3.63 |
| Employees apply knowledge of one sphere to resolve problems, which emerge in another sphere of firm | 3.59 | 3.56 | 3.24 | 3.39 |

| | | | | |
|--|------|------|------|------|
| Employees frequently make contact with managers in search of new solutions to the tasks commissioned for execution | 3.70 | 3.54 | 3.60 | 3.98 |
| Majority of employees possess the skill of cooperation | 3.61 | 3.61 | 3.64 | 3.59 |
| Strength of relations between employees has an impact on the new solutions and ideas | 3.74 | 3.67 | 3.72 | 3.6 |
| Resource of solidarity | | | | |
| Employees place the general good over their own | 2.78 | 2.95 | 2.69 | 2.74 |
| Employees display solidarity with other work colleagues | 3.19 | 3.46 | 3.18 | 3.06 |
| Employees are ready to take risk in their actions | 3.17 | 3.23 | 3.11 | 3.13 |
| Resource of loyalty | | | | |
| Employees keep their word in the majority of cases | 3.27 | 3.64 | 3.19 | 3.28 |
| Employees are loyal to each other | 3.23 | 3.38 | 3.16 | 3.17 |
| Employees are loyal with regard to firms they work in | 3.38 | 3.49 | 3.47 | 3.46 |
| Employees are ready to help other employees | 3.53 | 3.77 | 3.5 | 3.43 |
| Resource of participation | | | | |
| Employees participate in training, workshops and courses | 3.50 | 3.20 | 3.74 | 3.63 |
| Employees readily participate in integrative events | 3.77 | 3.54 | 3.47 | 3.98 |
| Employees create informal groups based on cooperation | 3.51 | 3.38 | 3.47 | 3.63 |

Source: self-analysis

*Scale of between 1 and 5.

Detailed analysis of participation in social networks of the analysed enterprises illustrates that it is the employees who first and foremost participate in them within the organization. In current research, the frequency of contacts with employees was adopted as the indicator of networking among employees who may be turned to for help or advice and the closeness of ties with other employees. The indicator of the frequency of contacts with other employees on a scale from 1 to 10 amounted to 6.77 in micro-sized firms, while 6.27 in small firms and 6.43 in medium-sized firms. Likewise, the indicator of the closeness of ties between employees was the highest in micro-sized firms (7.02), while subsequently medium-sized firms (6.04) and small firms (5.91).

The participation of managers in social networks within an enterprise strengthens their relations with subordinates. In accordance with the models of networks prepared by Burt (2000), managers are becoming significant elements of social networks. In research, networks consisting of employees and managers have been adopted as indicators: the frequency of contacts with managers to whom it is possible to turn to for help or advice and the closeness of ties of the employees with the manager. In the first case, the greatest frequency was noted in medium-sized enterprises (6.37), while subsequently in micro-sized enterprises (6.28) and in small firms (6.37). In turn, the highest value of the indicator of the closeness of ties of an employee with the manager was noted in micro-sized firms (5.95), while subsequently in small firms (5.53) and in medium-sized firms (5.5). By summing up these results, it is possible to state that social networks first and foremost occur where there are direct interactions between employees and more seldom when the managers also participate.

Another resource of social capital is that of organizational trust. In an enterprise, this may take on a vertical and horizontal form. Vertical trust exists between employees. In the analysed enterprises, trust on a scale of values of the following: 5 - very high, 4 - high, 3- medium, 2 - low, 1 - very low, the highest level was noted in micro-sized firms (3,56; $\sigma=0,852$), while subsequently in small firms (3,34; $\sigma=0,990$) and medium-sized firms (3,23; $\sigma=0,967$). Horizontal trust relates to the degree of trust among employees with regard to the organization. The indicators of this type of trust are trust between the employees and the manager, between the employees and the enterprise and between the employees and the owner of the firm. Analysis of these indicators illustrates that the highest level of trust occurs in micro-sized enterprises (3,80; $\sigma=0,996$), while subsequently in small firms (3,5; $\sigma=1,857$) and medium-sized firms (3,46; $\sigma=1,078$).

In an enterprise, a significant factor determining the level of social capital is that of the features of the employees associated with the professional competences held, the ethical values, the relations with other employees (Table 2). Current research indicates that the most highly rated in the process of creating social capital is that of the features of the employees associated with the professional competences held, namely high skills at their disposal, being an expert in terms of the execution of work and being a professional. Features associated with ethical values, namely honesty, responsibility, being guided by ethical values in relations with other employees are equally important. Subsequently, further features are enumerated, namely openness, being reliable and trust towards the management. Evaluation of the features of the employees that favour the building of social capital in the enterprise did not indicate any significant statistical relation with the size of the enterprise. Only the correlation between trust towards the management and the size of the enterprise was the only important one from a statistical standpoint (Gamma Correlation Coefficient $\Gamma = -0,257$; $p=0,001$).

Table 2 Evaluation of employees that favour the building of social capital in SMEs

| Specification | Total |
|--|-------|
| They are open | 3.54 |
| They are experts at executing work and functions fulfilled | 3.60 |
| They are reliable | 3.50 |
| The majority of them keep secrets | 3.29 |
| They illustrate great skills | 3.85 |

| | |
|---|------|
| They are responsible | 3.62 |
| They are honest | 3.61 |
| They trust the management | 3.39 |
| They have respect for norms and values | 3.51 |
| They have mutual trust in each other | 3.28 |
| They are loyal | 3.39 |
| They are ready to give help | 3.51 |
| They are guided by ethical values in relations with other employees | 3.42 |
| They are creative in resolving problems at work | 3.38 |
| They are innovative, search for new solutions and ideas | 3.31 |
| They are professionals | 3.44 |

Source: self-analysis.

Scale of evaluation: 5- very high, 4 - high, 3- medium, 2 - low, 1- very low.

In an enterprise, managers attempt to control the flow of knowledge and information between employees. This takes place in the situation of a low level of trust between the manager and the subordinates. In current research, significant dependencies have been discovered between the control of the flow of knowledge and information availed of by the employees and the features of the employees. A significant dependency occurred in the case of features associated with employee competences, namely: being an expert at the execution of work and the functions fulfilled, creativity in resolving problems at work, innovativeness, acquisition of new solutions and ideas, while also possessing great skills. The higher the competences the employees had, the higher the control of the flow of knowledge and information between the employees. However, in the case of ethical values the correlation indicator had a lower value. Such features occurred as follows: being reliable, keeping secrets, openness had an impact on the lower control of the flow of knowledge and information between employees.

Table 3 Gamma Correlation between control of knowledge and information utilized by employees in an enterprise and features of employees

| Specification | Gamma Correlation Coefficient |
|--|-------------------------------|
| They are open | 0.340 |
| They are experts at executing work and functions fulfilled | 0.494 |
| They are reliable | 0.302 |
| The majority of them keep secrets | 0.327 |
| They illustrate great skills | 0.429 |
| They are responsible | 0.393 |
| They are honest | 0.381 |
| They trust the management | 0.411 |

| | |
|---|-------|
| They have respect for norms and values | 0.418 |
| They have mutual trust in each other | 0.389 |
| They are loyal | 0.418 |
| They are ready to give help | 0.402 |
| They are guided by ethical values in relations with other employees | 0.382 |
| They are creative in resolving problems at work | 0.466 |
| They are innovative, search for new solutions and ideas | 0.432 |
| They are professionals | 0.353 |

Source: self-analysis
p<0,001

A significant impact on the market position of an enterprises is exerted by external social capital that occurs in the cooperation with other enterprises. One of the forms of cooperation is that of participation in the networks of small and medium-sized enterprises. Strong ties of enterprises creating networks bring benefits to the participating entities as this strength increases the readiness and ability of entrepreneurs to intensify network contacts with the aim of ensuring the necessary resources for activities (Batjargal, 2003). Current research on social capital in SMEs indicates that the majority of the firms analysed undertake cooperation with other enterprises, while this is to a greater degree the case of medium-sized firms than micro-sized firms (Table 3). While initiating cooperation with a new trading partner, it is significant to secure against dishonest practices. The majority of the enterprises analysed apply a high level of security with relation to new firms which arises from the lack of trust in them. In essence, there is no difference in this sphere due to the size of the enterprise. Nevertheless, in a long-term situation of cooperation, the enterprises reduce this level of security with regard to long-term trading partners. Simultaneously, this to the greatest extent relates to medium-sized firms and to the least extent to micro-sized enterprises. The factor that influences the reduction of the level of security is that of honesty in the realization of contracts. Analysis indicates a relatively high level of honesty in the realization of contracts on the part of the firms analysed.

Table 4 Degree in which an enterprise takes action with regard to other firms

| Specification | Total | micro | small | medium |
|--|-------|-------|-------|--------|
| Applies high level of security with relation to new clients | 3.54 | 3.56 | 3.56 | 3.48 |
| Cooperates with other enterprises | 3.53 | 3.07 | 3.6 | 3.67 |
| Reduces security with relation to long-term trading partners | 3.31 | 3.08 | 3.29 | 3.39 |
| Cooperates with research institutions | 2.87 | 2.64 | 2.72 | 2.98 |
| Cooperation in the sector brings benefits to the firm | 3.43 | 3.41 | 3.29 | 3.41 |
| Is honest in realization of contracts | 3.77 | 3.71 | 3.74 | 3.78 |

Source: self-analysis

Scale of evaluation: 5- very high, 4 - high, 3- medium, 2 - low, 1- very low.

In the building of external social capital of an enterprise, the managers who initiate cooperation with other enterprises are of great significance. They create networks of enterprises supporting their activities on the market. Their attitudes and activities depend to a great extent on the level in which the enterprise shall cooperate with other firms (Table 5) Analysis of the impact of the features of managers on the degree of cooperation of the enterprises with other firms indicates that the most significant impact is exerted by the following: respect for norms and values (Gamma indicator $G=0,374$; $p<0,001$), acknowledgement of trust to be an important source of competitive advantage ($G=0,332$; $p<0,001$) and keeping your word ($G=0,301$; $p<0,001$).

In the building of long-term cooperation with other enterprises, honesty in the realization of contracts is of great significance. In the enterprises analysed, the statistically important impact on honesty was that of such features of managers as the following: keeping your word ($G= 0,545$; $p<0,001$), keeping secrets ($G= 0,517$; $p<0,001$), respect for norms and values ($G= 0,506$; $p<0,001$) and seniority and experience of the manager ($G=0,505$; $p<0,001$).

The analysed enterprises that undertake cooperation with new firms apply a high level of security with relation to them. Managers have a statistically important impact on these actions, for which the following are significant: keeping secrets ($G= 0,522$; $p<0,001$), opinions, trust as a significant source of innovativeness ($G= 0,504$; $p<0,001$), respect for norms and values ($G= 0,474$; $p<0,001$) and self-improvement of knowledge ($G= 0,415$; $p<0,001$). In turn, with regard to long-term business partners the analysed enterprises reduce the level of security. Such features of managers that have an impact to a large extent are as follows: keeping secrets ($G= 0,426$; $p<0,001$), keeping your word ($G= 0,419$; $p<0,001$), respect for norms and values ($G= 0,378$; $p<0,001$), as well as the conviction that the majority of people are open ($G= 0,374$; $p<0,001$). By way of conclusion, the majority of the analysed features of managers have a significant impact on the action taken by SMEs with regard to other firms on the market.

Table 5 Gamma Correlation between the features of managers and action of an enterprise with regard to other firms

| Features of managers | Cooperates with other firms. | Applies high level of security with relation to new clients. | Reduces level of security with relation to long-term trading partners. | Is honest in realization of contracts. |
|--|------------------------------|--|--|--|
| Self-improvement of knowledge | 0.202 | 0.415 | 0.376 | 0.373 |
| Keep secrets | 0.239 | 0.522 | 0.426 | 0.517 |
| Great tendency to trust others | 0.188 | 0.217 | 0.323 | 0.388 |
| Keep their word | 0.301 | 0.380 | 0.419 | 0.545 |
| Think that the majority of people are open | 0.279 | 0.389 | 0.374 | 0.451 |
| Have respect for norms and values | 0.374 | 0.474 | 0.378 | 0.506 |

| | | | | |
|--|-------|-------|-------|-------|
| Feel that trust is an important source of competitive advantage | 0.332 | 0.343 | 0.347 | 0.448 |
| Think that trust is an important source of innovativeness | 0.299 | 0.504 | 0.335 | 0.391 |
| Participate in integration events | 0.213 | 0.343 | 0.259 | 0.321 |
| Restrict contacts to the closest co-workers | 0.232 | 0.249 | 0.331 | 0.192 |
| Are interested in increasing qualifications for their subordinates | 0.203 | 0.357 | 0.389 | 0.296 |
| Greater seniority and experience of manager have impact on ability to create new knowledge | 0.243 | 0.398 | 0.363 | 0.505 |
| Are guided by ethical values in relations with subordinates | 0.243 | 0.317 | 0.324 | 0.462 |

$p < 0,001$

Source: self-analysis.

Conclusion

In small and medium-sized enterprises, their level of success is to a great extent decided by intangible factors. One of the significant factors strengthening these ties is that of social capital. Becoming familiar with its structures facilitates the optimal use of the underlying potential for action on behalf of the organization.

The results of the research conducted enable the specification of the scope of occurrence of the attributes of social capital in SMEs. In the opinions of the representatives of enterprises, the highest level was attained by the following resources: cooperation, participation and trust. The lowest position was attained by loyalty and solidarity, which are the weak side of social capital and a barrier to its development.

Research on social capital in small and medium-sized enterprises reveals that the authors most frequently focus on the networks as a structural dimension of social capital (Stam 2013). In current research, it has been noted that the composition of the network consisted of first and foremost employees, while managers to a lesser extent. Social networks relatively frequently occurred in micro-sized enterprises than in small and medium-sized enterprises.

A significant relational element in the dimension of social capital is that of trust. It influences the scope of access to tangible and intangible resources for the network members and the possibility of their use. Current research reveals that there was a higher level of trust among the employees towards the enterprise and its owner than with regard to the other employees and managers.

Hence, managers should focus greater attention on the effective stimulation of social capital, particularly in terms of developing the resources of the employees, social networks and trust which all constitute very important elements of social capital. The level of internal and external capital in small and medium-sized enterprises depends on their level of involvement. A barrier to its development may become the pursuit of managers to control the knowledge and information availed of by the employees in possession of high professional competences in the enterprise. This is noticeable in medium-sized firms (3.61; $\sigma = 0,998$ on a scale of 1 to 5, where 5 - equals very high, 4 - high, 3 - medium, 2 - low, 1 - very low). The lower control of the flow of knowledge and information was in the micro-sized enterprises (3.46; $\sigma = 0,870$), while in small firms ($\sigma = 1,023$).

Apart from the focus on the creation of internal capital, an important area of activities for managers is the building of external social capital. They create networks of enterprises supporting their activities on the market. A significant impact on these activities is exerted by the features of managers, particularly with relation to ethical values, namely, respect for norms and values, keeping your word and trust, namely, keeping secrets and the acknowledgement that trust is an important source of innovation.

By way of conclusion, a significant contribution has been made by the author in the development of knowledge associated with social capital in terms of focusing research attention on the organizational social capital in small and medium-sized enterprises. In subject-related literature, this is not a frequently undertaken matter of research. Researchers usually focus attention on the various aspects of external social capital, e.g. the relational capital of the owners of small and medium-sized enterprises (Zhao et al. 2010), although they relatively seldom undertake research on the conditioning and scope of the occurrence of social capital in small and medium-sized enterprises. In analysing the chosen factors of internal social capital, the author discovered a significant impact of the features of employees and managers on the scope of occurrence of structural and relational dimensions of social capital in enterprises, while also indicating the important role of managers in building internal and external social capital.

A significant restriction in the analysis conducted on social capital in SMEs was that of the magnitude of the research sample. The authors in question are aware that the findings of the research are restricted to only the analysed firms as the analysis carried out was with the aim of outlining the intricate problematic issues of social capital in small and medium-sized enterprises and constitutes a starting point for broader research on its function in contemporary organizations.

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THE APPLICATION OF ISIC, ITIC AND EURO<26 IN TOURISM

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Abstract

Tourism is an important industry, opening space mainly for young people. The paper deals with the applying of student's cards in area of tourism. The aim of the survey is to analyse the possibility of applying such passes in the area of transport, accommodation and travel insurance and based on the findings from the analysis of a survey to choose the area where it is weakest in providing discounts on the cards and in that area to make a proposal to improve the current situation. The result of this process is the proposal to establish cooperation between the association and camping, which will allow pass holders get a discount from the price. In the long term this could lead to increased competitiveness and availability of the tourist organization.

Key words: *youth tourism, travel insurance, student's card, Slovakia*

JEL Classification: G22, L83, Z32

Introduction

Tourism is an important industry in many developing and post-communist countries, where tax revenues are often in short supply, surprisingly little attention has been paid to the taxation of the tourist industry. In principle there is a strong economic case in many, but not all, countries for taxing tourism more than at present, but that the nature of the industry and administrative difficulties severely limit what can be done in practice (Bird, 1992). The development of tourism, in those countries with potential, appears to offer a valuable source of foreign exchange in order to accelerate them on that path to development. (Cater, 1987). Tourist travel tends to reduce the gains from tourism, when an increase in tourism can lead to de-industrialization (Copeland, 1991). Expansion of tourism has an effect on capital accumulation, sectoral output and resident welfare with an externality in the traded good sector. It increases also relative price of the nontraded goods, improves terms of trade and revenue (Chao et.al, 2006). Hazari et.al (2003) analyse the consequences of tourism in rural and urban areas on regional incomes, welfare and urban unemployment using a generalized The most important result they obtain is that a tourist boom in the urban region may immiserate the rural area. According D'Auria (2014) tourism development could be an engine for the economic growth of the sub-regions. Moreover tourism development is connected with overcoming the results of crisis (Fodor and Poór, 2009). Also Reddy et.al (2012) investigated potential of travel participants on key factors that influence their motivation, behavior and decision-making.

Youth tourism represents a specific market segment within tourism. It has a long tradition in Europe and its significance is increasing. Youth travel is one of the fastest growing and most dynamic markets of the global tourism sector. Around

20% of the 940 million international tourists travelling the world in 2010 were young people. Number of young people is owners of students' cards, which offer them various advantages and benefits. Similarly also employees from the schools have possibility to use number of advantages, resulting from their cards. Mainly from this view there is necessity to deal with possibility to use cards ISIC, ITIC a EURO<26 for chosen areas of tourism.

The strategic objectives in the development of youth travel take into account increasing youth travel by attracting disadvantaged young people, developing the system for youth cards, providing tourist information of interest to the youth, etc. (Moisä, 2008). Chadee and Cutler (1996) identified student motives for undertaking international travel, the planning process, and the preferred destinations and methods of financing international trips. The findings indicate that students traveling overseas represent a distinct market with specific needs and preferences. Horak and Weber (2000) attempt to elaborate the concept of youth tourism, describe its characteristics, and analyse the mobility and expenditure of this tourism market. According results they identified main features of tourism products intended for young travellers. In 2000 the International Student Travel Confederation (ISTC) began to compile a review of existing studies on the youth and student travel market and the characteristics of today's independent young traveller (Richard and Wilson, 2003). Almost no market research existed on the youth and student traveller. Varasteh et.al (2015) attempted to find out important factors influencing international students' travel behaviour. Their study revealed travel behaviour is also affected by age, marital status, nationality, and source of finance.

Cards ISIC, ITIC a EURO<26 can be used in practice for the needs of tourism participants in area of transport, accommodation, and travel insurance. Consequently according results of analysis there is possible to create general conclusions for individual areas of tourism and analysis of students and teachers cards applying in tourism. Chosen areas (transport, accommodation, travel insurance) are compared with chosen organizations from Germany. Table 1 summarize previous findings, connected the rebate of bus operators for owners of ISIC, EURO<26 and ITIC at internal and international bus transport in the frame of Europe. The biggest rebate is provided by Student Agency Express, following by EUROLINES Slovakia and Bohemian lines. Any of mentioned organizations do not provide rebate from ticket price for ITIC owners.

Table 1 Provided discounts from travel fair at bus transport

| | ISIC | EURO<26 | ITIC |
|-------------------------|------------|------------|---------|
| EUROLINES Slovakia | 10% | 10% | - |
| Student Agency Express | 15% | 15% | - |
| Bohemian lines | 5% | 5% | - |
| | ISIC | ITIC | EURO<26 |
| Eurolines Slovakia (SK) | 10% | - | 10% |
| MeinFernbus (DE) | Voucher 3€ | Voucher 3€ | |

Source: own processing

Unlike the Slovakian company MeinFernbus do not provides to its customers that are holders of ISIC, ITIC and EURO <26 discount precisely defined as a percentage

of the total fare, but allows holders of ISIC and ITIC acquisition of a voucher, which gives them a discount 3 € of ticket, regardless of the length of the route and the fare (Benefit, 2015). Following table 2 serves as review of rebates, resulting from applying ISIC, ITIC a EURO<26 in internal and international railway transport, operated by Railway Company Slovakia, RegioJet and LEO Express.

Table 2 Applying of cards ISIC, ITIC a EURO<26 in international railway transport

| | ISIC | EURO<26 | ITIC |
|-------------|------|---------|------|
| ZSSK | - | - | - |
| RegioJet | 10% | 10% | - |
| LEO Express | 10% | 10% | 10% |
| | ISIC | EURO<26 | ITIC |
| ZSSK | 50% | 50% | - |
| RegioJet | 50% | 50% | - |
| LEO Express | 10% | 10% | 10% |

Source: own processing

Railway Company Slovakia does not provide any rebate for interstate railway transport according chosen cards. RegioJet offers rebate 10% from full fare for owners of ISIC and EURO<26 without regard to the class. LEO Express offers possibility to apply rebate 10% of fare for all three type of cards, but only for class Economy. Railway Company Slovakia offers to owners of ISIC and EURO<26 rebate 50% in 2nd class and from 1st March 2016 instead of 33%, similar 50% rebate in 1st class. RegioJet offers for owners of the cards 50% rebate from full fare without regard to the class. Any of the companies offer rebate for owners of ITIC. LEO Express offers at similar conditions the same rebates for internal transport, as well as for interstate transport.

Second chosen area in tourism for analysis of students cards using (ISIC, ITIC and EURO<26) is insurance. Results of the analysis are mentioned in the Table 3. From the analysis results that rebate of students or teachers cards during contracting of travel insurance offers in Slovakia only UNION and KOOPERATIVA.

Table 3 Providing of rebates from travel insurance by Insurance companies in Slovakia

| INSURANCE COMPANY | ISIC, EURO<26 | ITIC |
|-----------------------------------|---------------|------|
| UNION Poisťovňa | yes | yes |
| ALLIANZ | no | no |
| KOOPERATIVA | yes | no |
| GROUPAMA | no | no |
| AXA | no | no |
| GENERALI | no | no |
| WUSTENROT | no | no |
| UNIQA | no | no |
| MetLife | no | no |
| European Travel Insurance Company | no | no |

Source: own processing

Travel insurance is important part of tourism. This kind of insurance provides insurance covering of medical expenses, accident insurance, baggage insurance, insurance of responsibility for damages, insurance of immobilized vehicles, insurance of returning early, etc.

Material and Methods

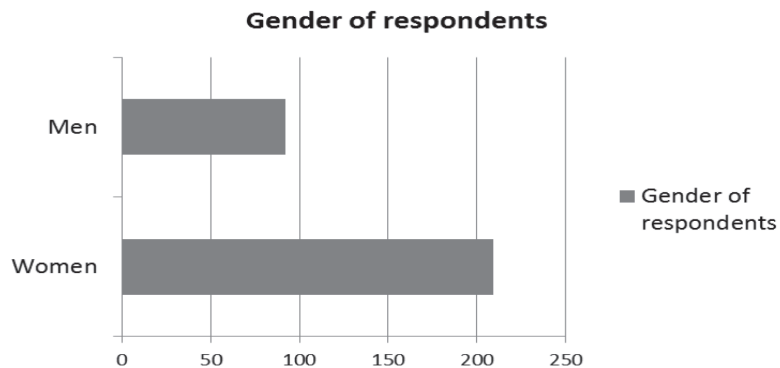
Due to the searching of possibility to use students cards in area of tourism, there was made research through questionnaire, orientated to owners of ISIC, ITIC and EURO<26. Questionnaire consisted from 13 questions, connected using of the cards at the tourism. Assumed number of respondents was 250-300. Research was done by on-line questionnaire, sent by Facebook and e-mail. The questionnaire served for analysing, to which measure students and teachers use their cards, in which areas they used them mostly and to which area they would like to use their card for the need of tourism. Collections of data run during 17 days in February and March, 2016. 301 respondents filled the questionnaire through application Google Forms. With cooperation with CKM SYTS questionnaire had been sent by email to the owners of the cards once a month. The email served as information about newest rebates and possibilities for cards application.

In the introduction of the questionnaire respondents had been informed about necessity of the research, and that single tourism does not mean traveling to the work or school. Questionnaire consisted from 13 questions, 11 questions enable choosing of the answer and 2 questions provide possibility of own response:

1. Gender of respondents?
2. Age of respondents?
3. Which of cards do you have?
4. Do you know about possibilities to use (discounts and benefits) of your card during participation at tourism?
5. In which from the following areas of tourism are you using mostly advantages of your card?
6. In case you can evaluate your present travel, which from the mentioned ways of transport would you use mostly with applying of discount of your card?
7. Do you use discount, resulting from your card during contract travel insurance?
8. At what monument, place or event visit (purchase of ticket), connected with tourism did you applied your card?
9. Did you sometimes use your card for discount of accommodation?
10. In present time in Slovakia there are 3 318 accommodation facilities, from which only 23 facilities provide discount for card ISIC, ITIC or EURO<26 owners. Do you think in case there would be more such facilities; there could be greater development of domestic tourist travel?
11. In case providing of discount in accommodation facilities in Slovakia for card ISIC, ITIC and EURO<26 owner would be extended, would you prefer such facilities?
12. Would you accept internet web site or application through which you could have all discount of your card, connected with tourism altogether and that would be applicable immediately? (transport, accommodation, insurance)
13. What other application of your card would you like to have during participation at the tourism?

Material of the research is given by answer to first two questions speak about basic information about respondents. According Figure 1 92 respondents (one third) presented men, but there is any influence of gender to the using of the cards in tourism.

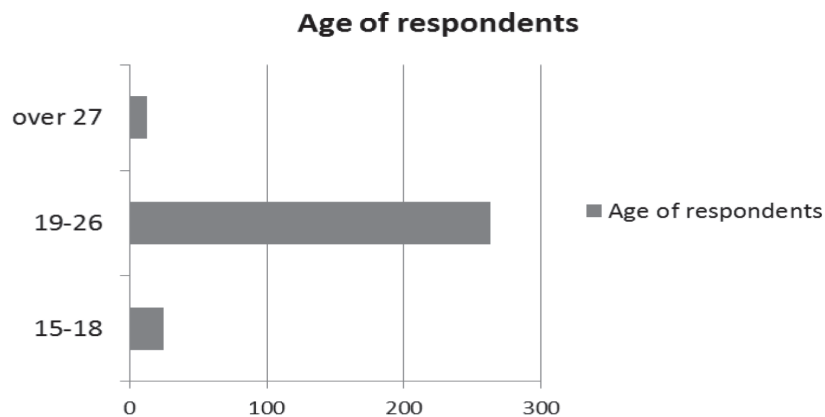
Figure 1 Structure of respondents according gender



Source: own processing

Biggest age group was 19-26 years, presented by 263 respondents, which means 87,3% from total number 301, behind which is age group 15-18 years with 25 respondents and third age group - over 27 years is presented only by 13 respondents (Figure 2).

Figure 2 Structure of respondents according age



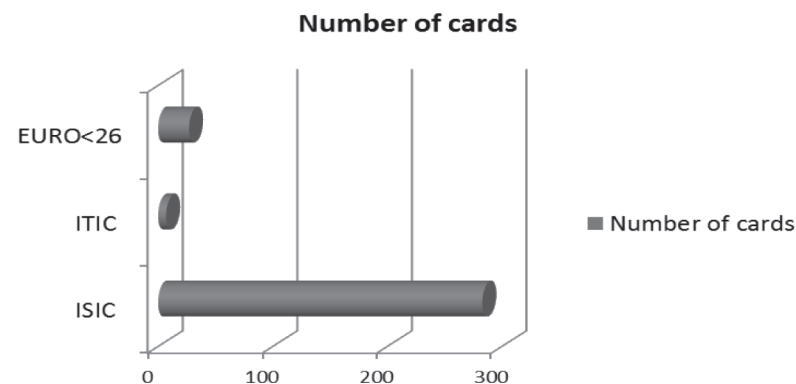
Source: own processing

Results and Debate

Research of card using in area of tourism

Structure of individual cards in the frame of searching sample is given by Figure 3. Most abundant is student's card ISIC; where from 301 requested 283 are owners of the card. Second place belong to card EURO<26 with 27 respondents and the least group belong to teacher's card ITIC - 7 owners. Total number of mentioned cards is 317 from 301 respondents. Combination of ITIC and EURO<26 is not possible, since cards EURO<26 are determined only for young people to 26 years.

Figure 3 Participation of respondents according cards owners

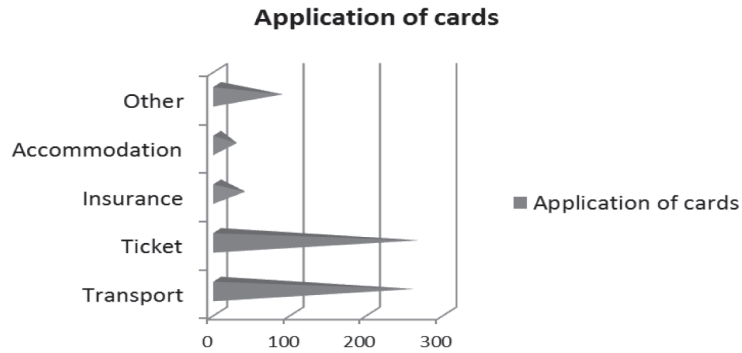


Source: own processing

Age structure and structure of individual cards in the frame of research is very similar. Before single research there is assumed that in age group 15-18 years there will be mainly owners of card EURO<26, in age group 19 - 26 years there will be owners of ISIC and in age group over 27 there will be owners of ITIC. The results proved the statement.

Following question in the questionnaire had been orientated to single using of cards during tourism (Figure 4). Respondents could choice from various areas, where they can use their card in the practice. Most respondents - till 87,7% use their card during applying of rebate for entrance to various places, monuments, events, cultural events, etc. Second area, in which many respondents apply rebate, is transport - 85,7%. Less number of requested - 12,2% uses card only for travel insurance contracting. Finally less using of cards is during possibility of reduction from accommodation, this area had been chosen only by 8,6% respondents.

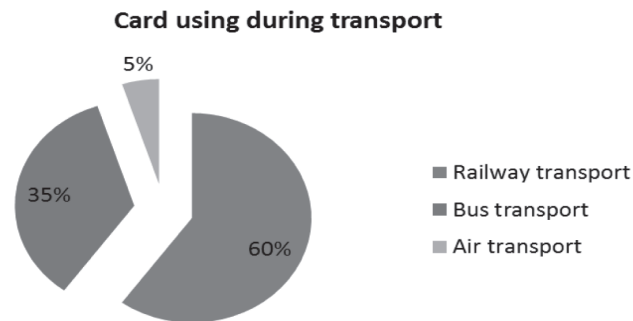
Figure 4 Using of cards at the tourism



Source: own processing

Other questions of the questionnaire are orientated directly to the individual areas of tourism. In the frame of transport respondents used mostly during railway transport (180 respondents). Bus transport had been used by 107 respondents and finally cards are used the least in area of air transport (14 respondents) with assumption that such results are influenced by the fact that Railway Company Slovakia offer traveling for students in the frame of Slovakia for free. On the other hand the least number of respondents mentioned air transport due to the less frequency during travelling, in comparing with railway or bus transport. Similarly, resulting from present state of the problem, in air transport there are the least available rebates for owners of cards.

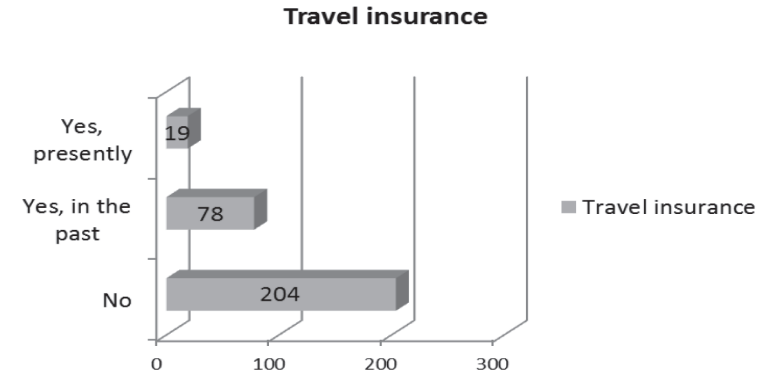
Figure 5 Most commonly used way of transport with card application



Source: own processing

At travel insurance the research is given to the fact if respondents used their cards for insurance. Respondents could choose from three possibilities (Figure 6).

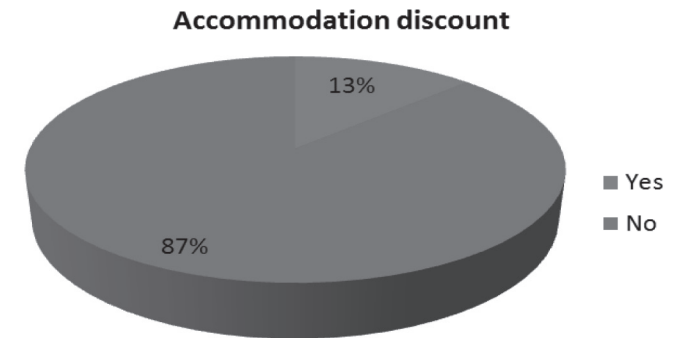
Figure 6 Applying of discount for travel insurance



Source: own processing

Only 6,3% of respondents mentioned they have travel insurance in this time, 25,9% mentioned they used travel insurance in the past. Remaining 67,8% did not use discount from travel insurance yet not once. Next part of the questionnaire is orientated questions to the area of accommodation in tourism. Respondents had been requested, if they any use their card for applying of reduction from accommodation prices, whether they are of the opinion that if such a discount would be provided by more accommodation facilities than in present time, this would ultimately affect the availability of these facilities and the expansion of the domestic tourism. 261 respondents answered they did not apply their card for obtaining of reduction from accommodation price, on the other hand 40 respondents answered YES (Figure 7). Those numbers result from lack of accommodation facilities, providing reduction for owners of ISIC, ITIC and EURO<26.

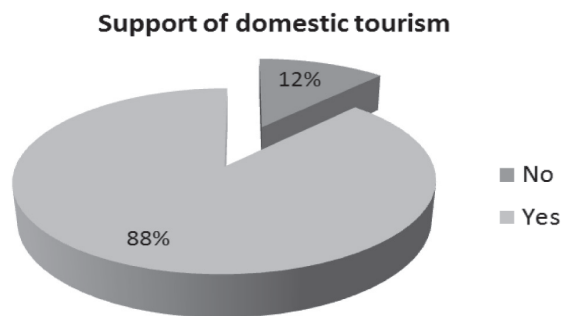
Figure 7 Applying of reduction for accommodation for owners of ISIC, ITIC or EURO<26



Source: own processing

In Slovakia from total number 3 318 accommodation facilities only 23 provide reduction for owners of students or teachers cards, which present less than 1% from total number. At the same time respondents had been requested if there would be more accommodation facilities in Slovakia, providing rebate for cards owners, more people would prioritize accommodation in those facilities and by this way their availability would increase as well, which finally could lead to increased travelling in Slovakia and domestic tourism would be supported (Figure 9). 88% respondents reacted positively, which means 264 respondents. Negative opinion had been expressed by 12% of respondents, presenting by 37 persons.

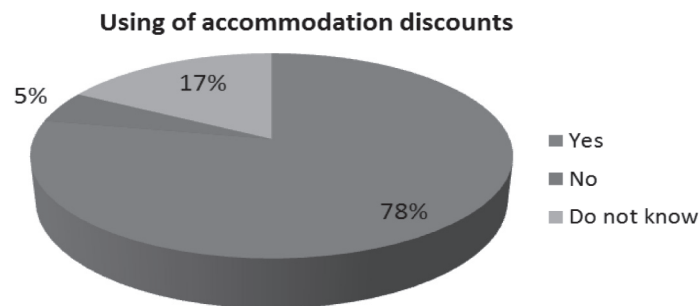
Figure 8 Support of domestic tourism through extension of discounts providing in accommodation facilities



Source: own processing

Final request of respondents is, how they would decide to choose among accommodation facilities, providing rebate, if they would consider it or if they would consider also other conditions (Figure 9). Most respondents – 236 would prioritize accommodation facility with providing of rebate for cards owners. Next 51 respondents would decide according given conditions and only 14 respondents would not prioritize such accommodation facility.

Figure 9 Using of accommodation discounts according respondents' answers



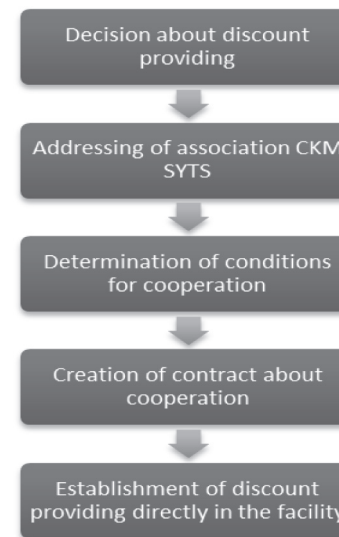
Source: own processing

Area of accommodation in tourism area has sufficient potential and mainly space for extension in providing of rebates for cards owners. According respondents' answers rebate in accommodation could have positive impact to domestic tourism development in Slovakia.

Discussions

From the research results expressly that transport is most covered area in providing of rebates for cards owners in tourism (in Slovakia). Less covered transport is air transport, but also in this case there is possible to find convenient students and youth flight tickets through verified portals and internet. Second area of rebates providing in area of tourism is insurance, where insurance companies provide certain rebates or concrete product for cards owners, which is covered less in transport. Last and least covered area in tourism is area of accommodation. Here are existing 3318 accommodation, but only 23 facilities offer discounts for holders of ISIC, ITIC and EURO <26, which represents less than 1%. This area offers the biggest space for improvement. One of the possibilities of improvement is cooperation among youth travel agencies and accommodation facilities. Single process of rebates establishment in accommodation facility consists from several basic steps (Figure 10).

Figure 10 Process of establishment for discount providing



Source: own processing

Results of the cooperation could be contract, enabling to provide reduction from accommodation prices for ISIC, ITIC or EURO<26 card owners. First step is decision of the facility owner, if he wants to provide rebates in the facility. Second

step is requesting CKM SYTS. Also agency could request accommodation facility with aim to create mutual cooperation. Such cooperation should be based on principle of corporate social responsibility, since companies, attentive to CSR are performing better economic (Antošová, Csikósová, 2016). Third step in the process are demands from both sides. Cooperation is concluded in most cases for uncertain period, but it can also be concluded for a fixed term, depending on the nature of the cooperation. Fourth step is creation of agreement and its individual items that consists information about agreement between both sides. Last step in the process is single establishment and providing of rebates in accommodation facility. Company in the process must have external integration between travel agencies, transport providers, accommodation, restaurants and insurance companies (Topolsek, et.al, 2014). After beginning of rebates providing accommodation facility is requested according mutual agreement to provide to association every month report about number of applied rebates from cards ISIC, ITIC and EURO<26. According Cehlár et.al (2011) the cooperation will need to find out proper way of financing with acceptance of risk. In area of tourism development there is necessary to consider legislation, governing tourism. Mainly tourism legislation must respect European law, which is now subject to fundamental transformation (Petras, 2015).

Conclusion

Youth travellers provide an up-to-date overview of the major characteristics and trends of the market, highlighting its importance to governments and business leaders worldwide. It also draws attention to the issues that need to be addressed to ensure that more and younger people around the world can continue to benefit from the enriching experiences that travel brings, for travellers and the communities they visit. Contribution is orientated to the suggestion of improving and extending of possibilities to use cards ISIC, ITIC and EURO<26 in area of travel and accommodation services in tourism in Slovakia. Suggestion is orientated to the concrete accommodation facility with cooperation with agency CKM SYTS that added the facility to its offer and by this way it could increase its propagation. At the same time accommodation facility will provide rebates for cards holders, which could increase its availability and competitiveness. If number of accommodation facilities would follow this example in Slovakia, there could be recorded also development of domestic tourism.

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CONCEPT OF ORGANIZATIONAL CREATIVITY

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Abstract

The organizational creativeness is a relatively new concept in theory of organizational management. Its roots can find in the theory of innovative problem solving (TRIZ). Our concept of the organizational creativeness (as a process) allows to organize individual or group activity in order to transform the human experiences into creative ideas, products, services, production methods, technologies, processes and models. It consists of the following stages: mental form, subject form, organizational form, market form. The individual or group activity is supported by creative, innovative, entrepreneurial and expansive processes. All processes are evaluated by effectiveness. The results of surveys shows that our proposal for organizational creativeness was accepted by the most respondents.

Key words: *creativity, organization, entrepreneurship, innovativeness, expansiveness*

JEL Classification: D20, D21, D22

Introduction

Social, economic and technical projects undertaken by people have always been connected with their creative activities. This type of activity has accompanied humans since the dawn of time, enabling invention of various tools, devices and systems, and transformation of natural resources found in the environment. From the very beginning, creativity has been a process of searching for new values and formulating laws and rules that can be applied to various domains of social life. Practically until the end of the 19th century, creativity was understood as an activity performed by individuals with particular intellectual and cognitive capabilities. The 20th century witnessed a radical change in the approach to creativity – both to the process, as well as to the creative person. Currently, creation is regarded as personal, group and professional activity. The colloquial understanding of creativity as a nature's gift and/or an inborn talent of a person - creator for making innovative discoveries was developed in the 21st century into concepts, which explained creativity e.g. in terms of information processing, transformation of experience in organisations (Dereń, Skonieczny, 2016). This perspective results in the fact that creativity is now treated as an indispensable element of an organisation's functioning and management. Therefore, we may refer to organisational creativity, which should be understood as an innovative activity (valuable, useful, new) of a human entity and/or a group (team of people), having the form of a process covering experiences

and feelings transformed into creative works in the mental, product-related and market forms.

Creativity can be analysed as:

- a creative process;
- a creative product (as a result of a creative process);
- a group of capabilities (intellectual properties or a set of personal characteristics);
- a group of social stimulants (the social climate of creative conditions).

The organizational creativity has not only theoretical, but also practical meaning. In scientific reflection many researchers are dealing with this problem. For example:

- L. Gumusluoglu and A. Iiisev have presented a study aimed to investigate the impact of transformational leadership on organizational innovation and to determine whether internal and external support for innovation as contextual conditions influence this effect.
- They have defined organizational innovation as the tendency of the organization to develop new or improved products or services and its success in bringing those products or services to the market. Authors have hypothesized that transformational leadership has a positive influence on organizational innovation. To test this hypothesis, data were collected from 163 research and development (R&D) employees and managers of 43 micro- and small-sized Turkish entrepreneurial software development companies (Gumusluoglu, Iiisev, 2009);
- J Moultrie, A Young have explored organizational creativity in firms within the creative industries. For this purpose, based on questionnaire which based on both Amabile's 'Organizational Creativity' model and Ekvall's 'Creative Climate' model have done research in ten firms in different sectors of the creative industries. The results indicate that both models of organizational creativity are complementary, although not necessarily fully applicable in the creative industries. Specific differences between firms in the graphic design/branding sector and firms in product design were also observed (Moultrie, Young, 2009);
- R. W. Woodman, J. E. Sawyer and R. W. Griffin define organizational creativity as the creation of a valuable, useful new product, service, idea, procedure, or process by individuals working together in a complex social system. Starting from theoretical studies they developed a theoretical framework for understanding creativity in complex social settings (Woodman, et al, 2013);
- N. Anderson, K. Potocnik and J. Zhou discuss new theories of creativity and innovation. Then they apply a comprehensive levels-of-analysis framework to review extant research into individual, team, organizational, and multilevel innovation. Key measurement characteristics of their studies are then noted. In conclusion, they proposed a guiding framework for future research comprising 11 major themes and 60 specific questions for future studies (Anderson et al, 2014);
- K. Bratnicka has brought empirical research on entrepreneurship in organizations and has discussed the impact of different leadership styles on creativity and the she has formulated, an integrated conceptual model that links creative novelty and creative practicality with leadership (Bratnicka, 2015).

Material and Methods

The purpose of this thesis is to present the construct of organisational creativity as a process taking place in contemporary organisations. In this perspective, creativity may be seen in business processes, management practices, work processes, and in the widely understood diversity management in the organisation (Kalev, Dobbin, 2016). Contemporary organisations operate in a dynamic, uncertain and highly complex environment, to which they can adjust by developing creative processes. Creativity, being a strong opposition to triteness, affects many aspects of exploration and exploitation of the organisation's opportunities. The most crucial to understanding the phenomenon of creativity seems to be heuristics, seeking and formulating methods fostering creativity. Authors have verified the discussed problem in questionnaire researches the results of that were discussed in further part of the article.

Results and Debate

Organisational creativity as a function of human creativity, innovation, entrepreneurship and expansiveness

Currently, the designates of creativity in an organisation include human creativity, innovativeness, entrepreneurship and expansiveness.

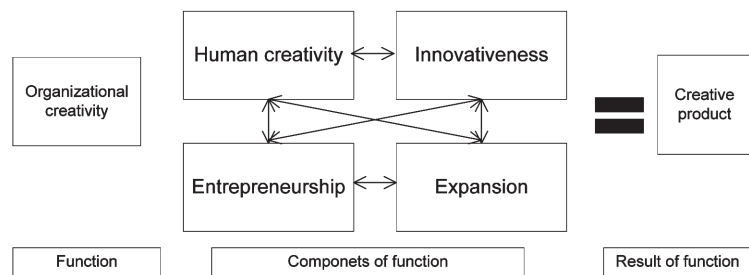
Creativity is a common term, trendy and, at the same time, ambiguous. According to the PWN Polish Language Dictionary (Drabik, Sobol, 2006), someone creative is a person "creating something new or original". A creative person is someone, who is effective in creative thinking.

According to M. A. West, creativity depends to a large extent on a person's cognitive flexibility (West, 2001); in particular, questioning the common beliefs, which often leads to exploring a new reality and to development (Sloane, 2005). As written by E. de Bono, creativity is inspiring, abrupt, consists in searching for otherness, allows discovering the least probable solutions (de Bono, 2001). Creativity concerns not only individual people (it depends on individual personal characteristics and capabilities); there have also been undertaken attempts to measure the creativity level of entire societies (Kaliszczak, 2013). Creativity is "an important feature of all aspects of decision-making in business. It involves stimulating new thoughts, reformulating the past knowledge anew and analysing the assumptions in order to formulate new theories and paradigms or create awareness. It involves (...) discovering, selecting, exchanging and combining facts, ideas and skills".

T. Rickards defined creativity as an "escape from mental stagnation", emphasising the role of creative thinking in the decision-making process and in solving problems (Ricards, 1998). Creative approach also helps solve organisational problems, encourages introduction of innovative solutions, motivates employees and develops their skills, as well as fosters better teamwork (Proctor, 1998). Creativity is also very important in marketing and designing the company's global operational strategy. As a result of continuous flow of ideas concerning new products and services, and thanks to the concept of improvement in the functioning of processes in the organisation, its competitive advantage is also reinforced.

Figure 1 presents the relationships between organisational creativity and human creativity, innovativeness, entrepreneurship and expansiveness.

Fig. 1. Organizational creativity as a function of human creativity, innovativeness, entrepreneurship and expansion



Source: prepared by Authors.

Human creativity precedes innovation; it involves developing and expressing innovative ideas in order to solve problems or satisfy needs (Richards, 2005). In this perspective, it is thus not so much a talent of its own, but rather a purposeful process of producing innovations.

Usually, it is assumed that innovation is a feature of individuals, which refers to their ability to create and implement innovations. It consists in constantly searching for and using in business practice the results of scientific research and research-development works, new concepts, ideas, inventions, improving and developing the used tangible and intangible (services) production technologies, introducing new methods and techniques in the organisation and management, improving and developing the infrastructure and the knowledge resources (Schumpeter, 1960). Innovativeness should also be understood as shaping culture in an organisation, which allows for creating and directing to the market a continuous stream of smaller, evolutionary (marginal) innovations.

Another variable of the creativity function is entrepreneurship. The term is ambiguous, since it is sometimes defined as e.g. the ability to save and raise capital; as transfer of economic resources from the area with lower efficiency, to the area with higher efficiency and higher yield; as the spirit of entrepreneurship that manifests in continuous search for innovations in all operations; as the ability to bear risk and the ability to act in conditions of uncertainty; as searching for changes, responding to them and using them as opportunities; as the ability of the manager to manage teams (Moszkowicz, 2005).

We believe that the contemporary formula of entrepreneurship should be expanded, and treated also as the process of creation in the organisation's culture, which enables rationalisation, restructuring, allocation and adaptation of various organisation's resources to develop creativity.

Another variable of the organisational creativity function is expansiveness. As compared to innovation and entrepreneurship, this term is not as commonly used in organisational creativity management; nor is it unambiguous, since it is used to describe various processes and phenomena from the dimension of politics, economics, culture, nature and sociology. According to T. Pszczolowski, expansion means activation of an entity, expressed by expansion of the area of activity adequate to the possibilities (Pszczolowski, 1978).

In general, we believe that organisational creativity, understood as a process, will always be determined by human creativity, innovativeness, entrepreneurship and expansiveness. They can be thus treated as partial processes, the launch and conduct of which enables formation of creative works.

Organisational creativity as a process of producing creative works

A creative process should be perceived in terms of expression and freedom, which results from the need to try and experiment, from curiosity and the strive to experience the surrounding reality on our own. The dynamics of this process depends on the intellectual potential of the creator, on his/her age, experience and the surrounding environment.

The outcome of a creative process is creation of a product, which is characterised by novelty, originality, generativity and social approval. Originality of a product may be understood as unusually, uniqueness or extraordinariness. However, it should be remembered that an original product is not always creative (return to the 1950s is now trendy and it is original, but not new).

Social conditions may facilitate or hinder the process of creation. Upbringing conditions whether a person becomes a creative individual and whether he/she has sufficient motivation to progress from creative attitude to creativity. When analysing this aspect of creativity, we should emphasise the important role played in this case by the family and school environment, as well as the barriers and myths about creativity imbedded in social awareness.

As noticed by E. Bendyk, a creative act is currently no longer merely the capacity to create things that are new, but also socially recognised (Bendyk, 2010). Therefore, creativity cannot be detached from the culture system, where it is formed, as it would never acquire social recognition and understanding. It does not exist outside the cultural context.

In the systems theory of M. Csikszentmihalyi, creative actions are groundbreaking in the development of a given domain, in which this creativity is based. The author claims that we can witness a constant exchange of: culture, experience and society between the systems, and the exchanged elements are represented, accordingly, by the domain of creativity, the creator, and the area of creativity (Csikszentmihalyi, 2005). In this way, the creative process involves the creator drawing the principles and forms from the domain of creativity, then internally transforming them and generating a novelty, which the creator then gives to the social system in the form of a new product in the area of creativity. Then, the novelty undergoes selection, which embeds the elements valuable for the cultural system into the given domain of creativity.

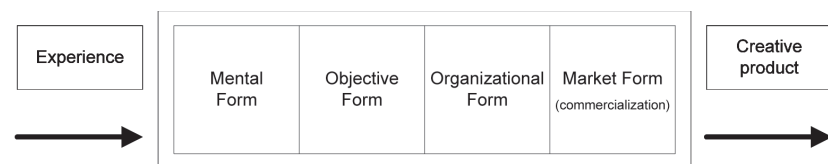
A different view on creativity, with a unique tool dimension, is presented by H. Altszuller, who - after analysing Russian copyright certificates, patents of inventors and innovators - prepared an invention algorithm, understood as a group of operations, logical principles, which when precisely and consequently observed may result in solving a specific technical problem. The proposal of H. Altszuller is an attempt to operationalise the creative process (of invention), as an ordered and logical alternative for the creator's activities based on the trial-and-error and the brainstorm methods. The algorithm developed by H. Altszuller makes it possible to precisely define the line of action of a creative inventor, narrowing down the "research angle", approaching the ideal solution ("ideal machine") in a systemic way, by elimination of technological contradictions (Altszuller, 1975).

The inventiveness methodology and the idea of an algorithm for solving invention-related tasks, presented by H. Altzuller, although cognitively and pragmatically interesting, is only a section of the currently broadly understood process of creation, since it applies only to technical creativity. However, it is worth pointing out that H. Altzuller undertook to develop a theory for solving invention-related tasks (referred to in the literature as the theory of inventive problem solving - TRIZ) (Altzuller, 1983). Currently, TRIZ is regarded as a set of tools, a knowledge base and the basic technological model for creating new innovative ideas and solving problems. TRIZ contains various tools and methods allowing for ordering the process of formulating problems, the systemic analysis, the analysis of errors and possible evolution directions of technical systems (the "is" and "may be" approach). TRIZ, using a different method than "trial-and-error" and "brainstorm", which are based on random generation of ideas, tries to create an algorithm of subsequent approximations, enabling finding of the optimum solution to the problem by improving the existing solutions. It should be emphasised that this improvement must take place by identification and overcoming of technical and technological contradictions.

Organisational creativity as a mental, product-related, organisational and market process

The considerations presented above lead to a conclusion that the notion of organisational creativity should be understood as innovative activity (valuable, useful and new) of a human entity or a group (team) of people, taking the form of a process covering experiences and feelings transformed into creative works in mental, product-related, organisational and market forms (known as commercialisation). This definition is presented in Fig. 2.

Fig. 2. Form the reason, objective, organizational and market-place in organizational creation



Source: prepared by authors.

A feeling, as defined by the dictionary (Drabik, Sobol, 2007), is a mental state of a person resulting from strong stimuli, certain events or situations, leaving traces in human psyche. Description of human feelings is always subjective. Feelings can be also understood in the broad sense, as all mental, intellectual, emotional, aesthetic, volitional and other processes (Kuroń, 2002).

Feelings understood in this way are transformed into creative works in mental, product-related, organisational and market forms. An example of the above may be the design activity of an employee involved in industrial design in a company, consisting in imagining objects that do not exist, and then managing a process that will bring them to life. It also includes identification of the impressions left on customers when touching the products. It is a determination of the general shape and materials,

textures and colours. It also involves cooperation with a group of designers in order to guarantee masterly finish of the final product (Kahney, 2014). Exhibition of the product-related forms is the product prototype, which is supposed to be marketed. In turn, the organisational form is expressed by creation of the organisational structure in the form of a task force, a functional group or a business group. The market form determines the mutual relationship between the organisation and the market environment. The objects of this exchange relationship are valuable, useful and new products, services, technologies, know-how and patents (final creative works).

Creative works created in the course of the organisational creativity process understood in such a way may have any form; it can be a work of art, a discovery, an original machine or structure, as well as an organisational project, a strategy or computer software.

In our opinion, a creative work combines the following features: value, usability and novelty. Creativity, including organisational creativity, is certainly the opposite of ordinariness, stereotypical and repeated activity. The essence of the creative process in the organisation consists in reorganisation of the previous experience and creating on its basis new combinations, new compositions of mental, product-related, organisational and market creations. These compositions constitute the notion of a creative work, which is a finished and organised whole that can be communicated.

A creative work is firmly embedded in a given context of social functioning of the organisation. The criteria of a creative work change along with the changes taking place in the organisation. The role of creativity obviously remains unchanged: creativity in terms of aestheticism is supposed to surprise, and in terms of pragmatics - generate progressive technological changes and be useful for the organisation. On the other hand, the perception of the creative work's value is modified. This means that there is a construct, which - sometimes intuitively - enables estimating the quality of products of the organisational creativity process.

The definition of organisational creativity proposed by us is a starting point for considerations regarding the nature of the creative process. We treat this process as innovative activity of a human entity or a group, covering experiences and feelings, which are then converted into mental creations (idea concept, vision, plan, solution, scientific discovery, model, template), which are in the subsequent phase of the creative process converted into product-related creations (design, prototype, template, strategy).

The works distinguished in our organisational creativity definition proposal, which we call the organisational creations, are a result of combining and transforming the mental and product-related creations. The materials in this process include: task forces and functional groups, which - on the basis of the approved management methods and the possessed knowledge and competencies - arrange preparation activities of the organisational creations for the market needs. In order to better present this process, we can illustrate it with the following example. Based on the design idea, several prototypes were prepared in the creative workshop (in the design studio), which were then evaluated, and one of them was chosen for production. The task force was ordered to prepare a prototype for production. The next phase involves introducing the prototype to mass (serial) production, which is entrusted to a specialised functional group (e.g. production department). The task of another functional group (e.g. legal and organisational department) is to prepare an offer and conditions for introduction of the organisational creation so specified to the market. Both basic groups (the task force and the functional group) are supplemented by reserves, namely organisational units, whose task involves creation of new ideas in the atmosphere of a "garage workshop" (Schlesinger i inni, 1999). The generated ideas

can be quickly verified in such a place. These are the perfect places for direct creation, learning and testing of new ideas.

The final phase of the creative process in the organisation is commercialisation of the organisational creation, which may be done in the form of selling the creative work, granting a license for the creative work, or contributing the creative work in kind to a newly established organisation.

Verification of the construct of organisational creativity

In Poland, empirical research on the organisational creativity is not sufficiently tackled as the object of in-depth reflection and operationalisation, as well as comprehensive empirical verification. That is why we decided to undertake such studies in 2015. One of the adopted research hypotheses was the following statement: the construct of organisational creativity consists of four dimensions: (human) creativity, innovativeness, entrepreneurship and expansiveness. For each of these dimensions, ten detailed questions were prepared, which fully characterised them. The surveys were sent to the group of 115 respondents - leaders, managers and employees employed in various organisations. After preliminary verification, 105 surveys were sent for further statistical analysis.

The respondents were supposed to assess hypotheses pertaining to the organisational creativity process understood in the above way applied in their organisations, on 7-point Likert scale (1 - entirely disagree, 2 - mostly disagree, 3 - somewhat disagree, 4 - neither agree nor disagree, 5 - somewhat agree, 6 - mostly agree, 7 - entirely agree). The obtained results were prepared statistically, which enabled positive verification of the adopted research hypothesis. Detailed analysis of the obtained results indicates that the respondents clearly preferred technical thinking, namely the one adopted by H. Altszuller, who identifies new solutions (inventions) with overcoming barriers. We found it slightly surprising that the respondents selected the statement concerning adaptation of new solutions created beyond the organisation as the key factor of innovativeness in the creative process. Perhaps this is a result of over 25 years of transition of the Polish economy after 1989, which was based on using and adapting the innovative solutions that already existed around the world. On the other hand, it may be a derivative of cultural conditions, which make the Polish economy still belong to the group of "innovation importers" rather than "exporters".

Conclusion

In our opinion, the presented reflections are consistent with the discussion about organisational creativity in management of organisations. This discussion continues to be quite modest, which pushes us to continue the undertaken research and analyses that will make it possible to search for new business solutions, in which organisational creativity will be regarded as the key factor for developing the contemporary organisation.

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IMPACT OF TRADE OPENNESS ON ECONOMIC DEVELOPMENT: CASE FROM SERBIA

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Abstract

The openness of the economy in the global environment is an important driver of economic development. Contemporary theories of international trade, since Smith and Ricardo showed that the country on the basis of their comparative advantages could realize benefits from international trade by means of exchange and specialization, which will lead to their better competitive position and economic growth. Therefore, this study aims to propose and empirically examine impact of import and export trends on economic development measured through GDP growth. The paper will test the correlation of basic indicators of international trade and economic growth.

Key words: trade, openness, economic development, GDP

JEL Classification: F10, O11, F43

Introduction

Today, small and developing economies are increasingly involved in international trade, in order to become more competitive. In this regard, we can say that international economic relations specifically for these countries, such as Serbia, are extremely important. Individual countries status in the world economy is different and no national economy which benefiting equally than other, also amount of growth and development are different. Although most studies have focused on the correlation between openness and growth using different correlation coefficients, few of them are devoted to research on openness and growth in small open economies. The aim of this study is the impact of openness of the Serbian economy, imports and exports to economic growth and development measured by gross domestic product. The subject of researching this article refers to the determination of the impact of international trade on economic growth and development of the Republic of Serbia. In accordance with the defined problem, object and purpose of the research, the work is based on the following hypothetical framework:

***H1:** There is a correlation between economic growth measured by the growth rate of gross domestic product and indicators of economic openness measured by the growth rate of imports and exports.*

Establishing free trade, countries receive multiple benefits, ranging from more diverse goods and services, lower prices, improve product quality. All this leads

Material and Methods

to a general increase of social standards of the national economy, but above all, has a high impact on economic development. Export strategies and orientations countries receive multiple benefits, and trade openness increases gross domestic product by increasing productivity and efficiency.

Grossman and Helpman, 1991 and Feenstra, 1996, predicted that if the free trade system established under the terms of technology transfer in the surveyed economies, the efficiency will be improved productivity and free trade will lead to increased economic growth. Fenstra showed that the system of free trade does not increase the rate of growth of developed economies, and can even cause reduction of growth if it does not happen technology transfer. These theoretical and empirical assumptions have a significant influence to the later research and analysis focused on the impact of economic openness on economic growth.

There are different approaches to dealing with international trade and its impacts on economic development. Since the second half of the twentieth century, world trade has a high impact on economic growth and it was measured via growth rate of GDP and GDP per capita. Today, this topic is still very popular. It was developed different models of growth in an open economy of which are known Solow growth model of open economy, growth model of small open economies (Ramsey growth model and AK model), endogenous model and process innovations Joseph Schumpeter (Schumpeterian growth).

Aghion and Howitt (Aghion, Howitt, 2008) shows how trade can increase the growth and development of the first in all countries and then in one country. Their results illustrate the ways in which trade can increase productivity growth even if countries do not innovate. They showed that if countries have new technology and innovation or are not open, it will have zero growth. When the country opened, the growth rate will be as high as in innovative economies.

Author Lin (Lin, 2012) dealt with strategies for achieving economic growth in terms of free trade during the transition. He pointed out that during the transition, the country may consider some kind of temporary protection of their industries that are not in line with the comparative advantages of the country. It can create dynamic growth in the new liberalized conditions. Dynamic growth in the new liberalized sectors will create the conditions for reform of outdated priority sectors. This strategy is referred to as strategies of access to two tracks (“dual-track approach”). This approach can achieve positive economic growth without losers in the transition process.

Interesting research that can be applied to other countries is the study authors Musil and Yiheyis, (2015) relating to the effects of economic openness to the level of investment and the rate of economic growth in Kenya. Using annual time series data they came to a result of the positive impact the level of investment on economic growth. They are formulated equation of trade policy induced openness:

$$(X+M)GDP=\lambda_0+\lambda_1 \log(\text{Real GDP per capita})+\lambda_2 \log(\text{Population})+e \quad (1)$$

In recent years, several authors have focused on the empirical analysis of the relations between trade openness and economic growth and development in countries that have had a high level of openness and liberalization (Semančíková, J. 2016). In an article published by the European Commission in 2014, 2016 entitled *Free trade is a source of economic growth* is pointed out that trade is one of the most important activities that need to be worked on. Also it is emphasized that trade liberalization is the largest player in the European Union.(European Commission, 2016) This paper focuses on an active trade and investment policy, which alone can contribute to economic growth.

Using the methods of statistical analysis in order to testing correlation it is used: the growth rate of gross domestic product, the rate of growth of import and export growth rate. Considered the annual percentage growth for all of that size, observation period is 2000-2014., based on data downloaded from UNCTAD statistics.

To test the correlation between the size of those parameters it is used the Pearson and Spearman correlation coefficient. In order to measure the strength of the correlation between the coefficients it is used the Statistical Package for the Social Sciences (SPSS). The goal is to measure the correlation analysis between the intensity of three pairs of variables and test the statement that the intensity of higher than expected.

Empirically data showed that the statistical power of the Pearson coefficient is significantly higher than the Spearman, and if the data given interval, preference is given Pearson coefficient, and Spearman is used as a correction.

Table 1 Interpretation of correlation

| Strong negative | Medium negative | Low negative | Negligible | | Low positive | Medium positive | Strong positive | |
|-----------------|-----------------|--------------|------------|---|--------------|-----------------|-----------------|---|
| -1 | -0,8 | -0,6 | -0,3 | 0 | 0,3 | 0,6 | 0,8 | 1 |

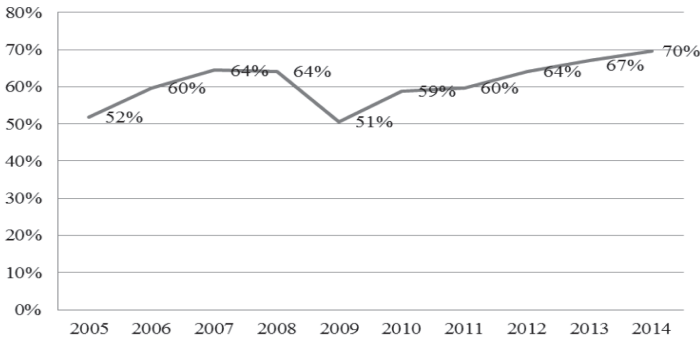
The general rule for correlation means which is the value of the coefficient of the simple linear correlation closer to 1, it is the interdependence between the observed phenomena stronger.

Results and Debate

Openness of the economy

In measuring the openness and competitiveness of the national economy as the most fundamental measure of openness is possible to use the intensity of trade, the share of the sum of imports and exports in gross domestic product.

Chart 1 The coefficient of openness of the economy of the Republic of Serbia

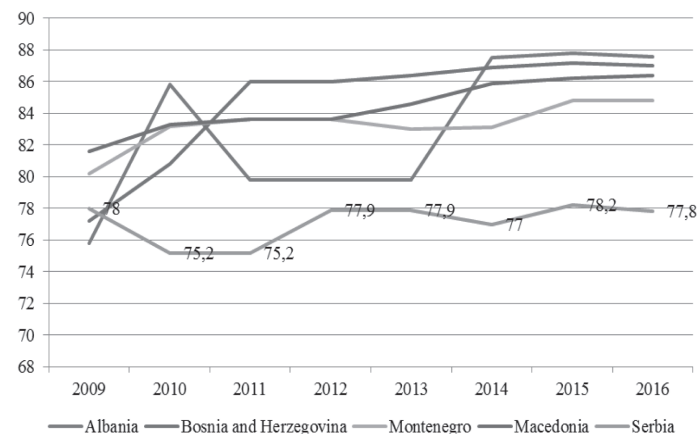


Source: UNCTADstat, 2016.

Based on chart 1 it can be confirmed that the largest intensity of trade in the Republic of Serbia in the period 2005-2014 was in the last year has been observed, 2014. Overall, throughout the period, the relative share of trade activities in the Republic of Serbia was above 50%, and the lowest activity recorded in 2009 (51%).

The openness of the economy and trade can be viewed via the Index of Economic Freedom, which annually publishes Heritage Foundation. In the context of measures of economic freedom Heritage Foundation analyzed 10 qualitative and quantitative factors, grouped in four pillars. One of the pillars also is trade freedom. Each of categories in this pillar is ranked on a scale from 0 to 100.

Chart 2 Trade freedom index of the Republic of Serbia and neighboring countries



Source: Heritage Foundation, *Index of economic freedom*, <http://www.heritage.org/index/explore>, 2016.

Over time, the index measuring the freedom of trade in the Republic of Serbia was recorded in 2002 (88.4) and 2003 (68.4) and after this period there was a break of measurement of the index in the Republic of Serbia to the measurement again been set in 2009, when, in addition to the year 2015 reached the highest level. However, if we look at other countries in the region, it can be concluded that this index is the lowest in the Republic of Serbia in all observed years. Among observed countries, Albania has increase freedom of trade as measured by the composite index of economic freedom, and in recent years in all countries except the Republic of Serbia recorded an increase in this index.

Impact of imports and exports in the gross domestic product

Analysing the data descriptive statistics led to the basic characteristics of the sample shown in Table 2.

Table 2 Descriptive statistics

| | Mean | Std. Deviation | Min. | Max | N |
|---|--------|----------------|-------|------|----|
| GDP growth (annual %) | 3,267 | 3,4531 | -3,1 | 9 | 15 |
| Exports of goods and services (annual % growth) | 12,800 | 12,1432 | -6,9 | 46.4 | 15 |
| Imports of goods and services (annual % growth) | 13,333 | 21,1108 | -19,6 | 78,2 | 15 |

Variable GDP growth has a mean value 3,267 over 15 observed years. It is important that is positive number of average growth. The remaining variables indicate that the minimum growth was -3.1% and the maximum growth of 9%. If looked at export growth, the mean value of that is 12.8; while the highest value quantified 46.4 and the lowest 6.9%. During these years, the import of the Republic of Serbia had a higher mean value than exports, while the minimum value is -19.6 and the maximum 78.2.

With aim to consider confidence the analysis will be analysed Cronbach alpha coefficient:

Table 3 The coefficient of confidence for the observation variables

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|------------------|--|------------|
| 0,713 | 0,832 | 3 |

As Cronbach alpha coefficient shows the correlation coefficient, which represents the estimated average of all correlation coefficients within the test indicates to us that there is a reliable test and internal consistency and research can continue. If the alpha coefficient is above 0.70, then all variables are reliable and the entire test is consistent. If the alpha is low, then at least some of the variables unreliable. In the present case, the alpha coefficient is 0.713, and will continue to explore the strength of the correlation in order to determine the interconnectedness of economic growth, export growth and import growth.

Table 4 Spearman correlation coefficient

| | | | GDP growth (annual %) | Exports of goods and services (annual % growth) | Imports of goods and services (annual % growth) |
|----------------|---|-------------------------|-----------------------|---|---|
| Spearman's rho | GDP growth (annual %) | Correlation Coefficient | 1,000 | 0,491 | 0,732** |
| | | Sig. (2-tailed) | . | 0,063 | 0,002 |
| | | N | 15 | 15 | 15 |
| | Exports of goods and services (annual % growth) | Correlation Coefficient | 0,491 | 1,000 | 0,551* |
| | | Sig. (2-tailed) | 0,063 | . | 0,033 |
| | | N | 15 | 15 | 15 |
| | Imports of goods and services (annual % growth) | Correlation Coefficient | 0,732** | 0,551* | 1,000 |
| | | Sig. (2-tailed) | 0,002 | 0,033 | . |
| | | N | 15 | 15 | 15 |

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

According to the Spearman correlation coefficient, the strength of the connection between GDP growth and exports is 0,491, and the connection of GDP growth and import growth is 0.732. It shows a situation where the correlation is positive provided that the correlation between GDP growth and exports rated as "low positive", while the relationship between the growth rate and imports estimated as "medium positive". It should be noted that all the variables move in the same direction, keeping in mind that a positive correlation indicates that both variables together falling and growth.

Pearson correlation coefficient shows a similar relationship. The strength of the relationship between GDP growth and exports amounts to 0,485 and indicates a positive relationship assessed as "low positive" and the strength of the relationship of the annual GDP growth and imports amounted to 0.552 and is closer to the rank of "medium positive" connection.

The following will be displayed Analysis of variance and regression statistics.

Table 5 Regression Statistics

| Regression Statistics | |
|-----------------------|-------------|
| Multiple R | 0.536794254 |
| R Square | 0.288148072 |
| Adjusted R Square | 0.169506083 |
| Standard Error | 3.317449035 |
| Observations | 15 |

The coefficient of determination (R Square), as an indicator of the quality of regression in the sample is 0.2881, which explains that 29% of the variation in the rate of imports and exports explained the movement of the rate of economic growth. Adjusted determination coefficient is 0.17. These coefficients are not statistically highly significant, as it should be close to 1 in order to better explain the determination by any other factor.

In the following research will be used analysis of variance (ANOVA) with the aim of determining the significance of closer these two variables - the imports and exports growth to GDP.

Table 6 Analysis of variance

| | df | SS | MS | F | Significance F |
|------------|----|-------------|----------|------------|----------------|
| Regression | 2 | 53.45838283 | 26.72919 | 2.42871918 | 0.130118185 |
| Residual | 12 | 132.0656172 | 11.00547 | | |
| Total | 14 | 185.524 | | | |

| | Coefficients | Standard Error | t Stat | P-value | Lower 95% | Upper 95% |
|-----------|--------------|----------------|----------|------------|--------------|------------|
| Intercept | 1.942139647 | 1.350132435 | 1.438481 | 0.1758644 | -0.999546224 | 4.88382552 |
| % Export | 0.06262292 | 0.132532328 | 0.472511 | 0.64503995 | -0.226140216 | 0.35138606 |
| %Import | 0.059654205 | 0.076424084 | 0.780568 | 0.45018042 | -0.106859569 | 0.22616798 |

Dependent variable: %GDP

Since it is now possible on the basis of these values form the equation of the relationship of these variables, it would look like:

$$\text{GDP}\% = 1.942139647 + 0.06262292 (\%E) + 0.059654205 (\%I)$$

In other words, for each percentage increase in exports, gross domestic product growing by 0.06262292, while for each percentage increase in imports, the rate of gross domestic product growing by 0.059654205. This presents a very significant contribution in the form of information and the interaction of these three variables in the economy of Serbia. Why? This can be performed predicting the movements of the

rate of growth of GDP. For example, if export growth is 15% and import growth is 4.4%, GDP growth will be:

$$1.942139647+0.06262292\cdot 15+0.059654205\cdot 4.4=1.942139647+0.9393438+0.262478502=3,14$$

This model represents a simplified analysis of the impact of two factors on the movement of gross domestic product. Of course, represents a significant contribution to test the reality, which can especially be seen in testing the mean value of GDP over 15 years (remember that the mean was 3,267).

Conclusion

For several years, Serbia has dramatically confronted with the consequences of economic crisis. But still is dominate high trade deficit. There was an absolute increase in imports and exports, but export wasn't sufficient to cover import.

Looking at the shown model where GDP growth is dependent variable and the independent variables: the import and export growth, we have come to some conclusions about the ability to manage the rate of economic growth through these two variables, since there is a high correlation. Having in mind that correlation between observed three variables are medium and low positive, it indicates that a hypothesis is confirmed.

This model has been simplified, and it is necessary in future studies to maximize components that could have an impact on the GDP growth rate In this regard, for future research, this analysis can be extended to private consumption (C), investment spending (I) and public consumption (G).

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INOVÁCIE V SAMOSPRÁVE

INNOVATIONS IN SELF-GOVERNMENT

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Abstract

The objective of the paper was to identify and analyse the state and level of implementation of the innovative tools used for increasing of effectiveness, performance and quality of services offered by selected local self-governments in Slovakia. Self-governments realize the importance of innovations for increasing the effectiveness of the working process and quality of the provided services, therefore, they try to create and implement innovations within their financial and personal framework. Within the analysed self-governments, there were presented mostly the innovations of services, innovation of processes and organizational innovations. From the point of view of level of innovations, those are predominantly incremental innovations and from the standpoint of level of originality, those are mainly imitating innovations, which are implemented. Stimuli for innovations come from internal, as well as, from external environment, when the self-governments transfer the knowledge from other self-governments or from abroad. The share of expenditures spent on innovations varies from 1% to 10% of the total budget of self-governments.

Key words: *innovation, implementation of innovations, transfer of knowledge*

Abstrakt

Zámerom príspevku bolo identifikovať a analyzovať stav a úroveň implementácie inovatívnych nástrojov a inovácií pre zvyšovanie efektivity, výkonnosti a kvality služieb poskytovaných vybranými miestnymi samosprávami v SR. Samosprávy si dôležitosť inovovania uvedomujú a v záujme zvyšovania efektívnosti pracovného procesu a kvality poskytovaných služieb, sa snažia o tvorbu a implementáciu inovácií v rámci ich finančných a personálnych možností. V sledovaných samosprávach prevládajú inovácie služieb, procesné inovácie a organizačné inovácie. Z hľadiska úrovne inovatívnosti sa zavádzajú prevažne inkrementálne (prírastkové) inovácie a z hľadiska stupňa originality napodobňovacie inovácie. Podnety k inováciám vychádzajú rovnako z interného prostredia, od zamestnancov mestských úradov a podnetov od obyvateľov, ako aj z externého prostredia, kedy samosprávy preberajú pozitívne príklady z praxe od iných samospráv, prípadne zo zahraničia. Podiel výdavkov na inovácie sa pohybuje v rozmedzí 1-10% z celkového rozpočtu samosprávy.

Kľúčové slová: *inovácie, implementácia inovácií, transfer poznatkov*

JEL Classification: H700, O310, R510

Úvod

Globalizácia a súvisiaca potreba inovácií majú rôzny dopad na regióny v rámci krajiny. Silné znalostne a technologicky vyspelé regióny môžu získať výhody z lepších možností tvorby sietí a vzťahov so zahraničnými partnermi, takže majú vedúce postavenie v rámci krajiny. Naopak v menej vyspelých regiónoch a periférnych oblastiach sa nízka schopnosť produkcie nových nápadov a nevhodne nasmerované politiky môžu premietiť do rozširovania vedomostnej a technologickej priepasti medzi regiónmi (Maguire et al., 2011, MacKinnon et al., 2002). Miestny rozvoj založený na inováciách sa stáva kľúčovým v súvislosti s globálnou konkurenciou, zvyšujúcou sa mobilitou obyvateľstva, technologickým pokrokom a následným vznikom priestorových disparít (Clark et al., 2010). Znalostne a technologicky vyspelé územia môžu získať výhody z lepších možností tvorby sietí, čím vzniká ich vedúce postavenie v rámci krajiny (Jans et al., 2015, Gress, 2015, Clark et al., 2010).

Inovácie sa nachádzajú tam, kde je adekvátna základňa ľudského a fyzického kapitálu a naopak inovácie vytvárajú dynamickú ekonomiku, ktorá takýto kapitál priťahuje. Model endogénneho rastu plne zahŕňa pohľad na inovácie ako na výsledok plánovaných snáh a úplne nové svetlo vrhá na prínos inovácií smerom k pochopeniu dynamického rastu (Crescenzi – Rodríguez-Pose, 2011).

Podľa OSLO manuálu (2014) sa inovácie delia podľa charakteru na technické (inovácie produktov a služieb, procesov, technologické a administratívne inovácie) a netechnické (marketingové a organizačné inovácie). Inovácie podľa motívov vzniku môžeme rozdeliť na inovácie vyvolané prostriedkami (technology push) a inovácie vyvolané potrebami (demand pull). Widrum (2003) pri inováciách vo verejných službách vymedzuje aj inovácie koncepčné, politické a systémové. Franková (2011) ďalej rozlišuje inovácie podľa obsahového zamerania a stupňa originality na napodobňovacie a originálne. Gassman – Enkel (2004) vymedzujú tri typy otvoreného inovačného procesu a to:

- proces zvonka – dnu – zvyšuje inovačnú kapacitu organizácie prostredníctvom integrácie vedomostí z vonkajšieho prostredia s vnútornou vedomostnou základňou,
- proces zvnútra – von – zvyšuje využívanie kapacity organizácie prostredníctvom transformácie vnútorných vedomostí smerom k externým aktérom,
- spojený proces – kobinácia predchádzajúcich dvoch procesov, charakteristická vytvorením pretrvávajúcej aliancie s externými partnermi.

V zásade existuje rozdielny prístup pri implementácii inovačných postupov v súkromnom a verejnom sektore (Jans et al., 2015). Prícom postup vo verejnom sektore je vnímaný menej dynamicky (Christensen et al., 2016). Príčinou tohto stavu môže byť fakt, že stimuly, ktoré vedú k inovovaniu vo verejnom sektore sú skôr výsledkom politických a legislatívnych snáh, ako trhových síl a navyše je ich zavádzanie často sprevádzané nedostatkom finančných a ľudských zdrojov (Rusaw, 2007).

Pod inováciami v územnej samospráve rozumieme úmyselné zmeny, ktoré vedú k novým a lepším službám, postupom či spôsobom organizovania činností na všetkých úrovniach organizácie počas celého inovačného procesu (Valach, 2014). V oblasti služieb sú inovácie interpretované ako proces, v ktorom organizácie robia niečo nové, uvádzajú do života nové postupy, vytvárajú nové tovary alebo služby, zavádzajú nový spôsob vnútroorganizačných vzťahov. Spravidla inovácie vedú k zlepšeniam výstupov, účinnosti, efektivity či kvality služieb. V prípade verejného sektora sa väčšina nových postupov orientuje na zlepšenie efektívnosti a účelnosti

vnútorných riadiacich procesov, komunikáciu s jednotlivcami a organizáciami a na transakcie s jednotlivcami a organizáciami prostredníctvom zlepšovania dostupnosti služieb (Warkentin et al., 2002). Valach (2014) konštatuje, že v prípade samospráv inovácie predstavujú účinný nástroj, prostredníctvom ktorého sa zvyšuje kvalita služieb pre občanov. Pri inováciách by malo ísť o kvalitatívnu a udržateľnú zmenu. Cheah (2016) zdôrazňuje aj význam kvantifikácie najmä ekonomických dôsledkov inovácií, keď tvrdí, že pri nemalých investíciách do výskumu a vývoja, ktoré majú priniesť zmeny v súkromnom aj vo verejnom sektore, je pre tvorcov politik nevyhnutné, aby dokázali implementovať logické nástroje a postupy pri odhade ekonomických dopadov.

Staroňová et al. (2012) konštatujú, že v prípade verejného sektora, skôr, ako na samotnú definíciu inovácie je užitočnejšie zamerať sa na jednotlivé atribúty inovácií, ktoré definujú nasledovne:

- zmena status quo (novosť) – inovácia je označovaná ako zavedenie niečoho nového,
- zmena kvalitatívna – zmena v štruktúre organizácie, ktorá je udržateľná, nová a dosť veľká na to, aby zmenila charakter a fungovanie organizácie,
- zmena úmyselná – úmysel je rozhodujúcim znakom, ktorým sa inovácia odlišuje od ostatných zmien.

Efektívne smerovanie inovačného procesu sa zakladá na troch hlavných predpokladoch: existencia inštitucionálneho rámca pre inovačný proces, určenie prototypov vývojových systémov a existencia vedúcich aktérov inovačného procesu (Fichter – Clausen, 2013). Podľa Nijkampa – Siedschlagovej (2011) sila inovačného systému závisí od väzieb na celý systém, od vládnej politiky a od inštitúcií, ktoré podporujú inovácie. Existencia a podpora kreovania aglomerácií a klastrov je účinným prostriedkom vytvárania väzieb, diverzity, a tým aj inovácií.

V podmienkach decentralizovaných politik, sú to práve miestne samosprávy, ktoré figurujú ako „laboratórium“ pre zavádzanie inovácií v spravovaní (Füglister, 2011). Predpoklady, ktoré miestne samosprávy musia spĺňať na to, aby udržateľne zabezpečovali tvorbu hodnôt a poskytovanie služieb sú:

- udržať produktívny vzťah s ostatnými verejnými inštitúciami a partnermi,
- ľahko a bezpečne vymieňať vedomosti, kompetencie a štúdie s inými za účelom zlepšenia vnútorných procesov a poskytovania služieb občanom,
- spolupracovať s obyvateľmi a inými aktérmi na spoluvytváraní nových služieb (Feller – Finnegan – Nilsson, 2011).

V praxi teda existujú dôvody pre inovácie vo verejnom sektore, a to napr. potreba adekvátnej reakcie na meniace sa verejné potreby, potreba zvyšovania efektivity vzhľadom na rozpočtové obmedzenia, potreba zlepšovania distribúcie a výstupov verejných služieb a potreba maximálneho využívania informačno-komunikačných technológií.

Materiál a metódy

Napriek ich nesporným pozitívnym efektom, možno konštatovať, že inováciám vo verejných službách, verejnej správe a jej podsektoroch je ešte stále venovaná pomerne malá pozornosť. Aj keď reálne kontúry už nadobúda informatizácia verejnej správy (e-Government), ktorá by mala priniesť výrazný pokrok, v praxi však zatiaľ ide len o čiastkové zlepšenia. A práve na stanovenie skutočnosti sa snaží reagovať predmetný príspevok, ktorého hlavným cieľom bolo identifikovať

a analyzovať stav a úroveň implementácie inovatívnych nástrojov a inovácií pre zvyšovanie efektivity, výkonnosti a kvality služieb poskytovaných vybranými miestnymi samosprávami v SR. V rámci prierezovej analýzy bola pozornosť venovaná tiež faktorom determinujúcim vznik, presadenie a úspešnosť inovácií v podmienkach vybraných miestnych samospráv, kľúčové problémy a bariéry blokujúce úspešnú implementáciu inovačných nástrojov a zavádzanie inovácií. Predmetom skúmania boli nasledovné bloky:

A. Podnety k inováciám a typy implementovaných inovácií – pri definovaní typu inovácií sme vychádzali z klasifikácie uvedenej v tabuľke 1.

Tabuľka 1 Klasifikácia inovácií

| | |
|---|---|
| Typ inovácie z pohľadu miesta vzniku podnetu k inovácií | <ul style="list-style-type: none"> • interné • externé |
| Typ inovácie z hľadiska miesta zavedenia | <ul style="list-style-type: none"> • inovácie na MsÚ a v organizačných zložkách bez právnej subjektivity |
| | <ul style="list-style-type: none"> • inovácie v organizáciách zriadených mestom |
| | <ul style="list-style-type: none"> • inovačná podpora mestom v územnej pôsobnosti mesta a podľa sektorov |
| Typ inovácie z hľadiska druhu | <ul style="list-style-type: none"> • inovácie služby |
| | <ul style="list-style-type: none"> • procesné inovácie |
| | <ul style="list-style-type: none"> • organizačné (administratívne) inovácie |
| | <ul style="list-style-type: none"> • koncepčné inovácie |
| | <ul style="list-style-type: none"> • politické inovácie |
| Typ inovácie podľa frekvencie výskytu a úrovne inovatívnosti | <ul style="list-style-type: none"> • inkrementálne (prírastkové) inovácie |
| | <ul style="list-style-type: none"> • radikálne inovácie |
| | <ul style="list-style-type: none"> • systémové inovácie (reformy) |
| Typ inovácie podľa stupňa originality | <ul style="list-style-type: none"> • napodobňovacie inovácie |
| | <ul style="list-style-type: none"> • originálne inovácie |

Prameň: vlastné spracovanie

B. Vzdelávanie a spolupráca v oblasti inovácií – analýza foriem vzdelávania, druhov spolupráce s inštitúciami pri inovačnom procese

C. Finančné zdroje na inovácie – vyčíslenie výdavkov mesta na inovácie a zdrojov ich financovania

D. Inštitucionálny kontext tvorby inovácií a transferu poznatkov – popis inštitúcií/osôb zohrávajúcich úlohu pri tvorbe a implementácii inovácií v meste, popis vzťahov s univerzitami a ich pôsobnosť v združeniach a partnerstvách

E. Zhrnutie – vymedzenie silných, slabých stránok, príležitostí a ohrození v oblasti zavádzania inovácií v analyzovanom meste

Metodologicky sme sa opierali predovšetkým o zdroje domácej a zahraničnej odbornej literatúry skúmajúce problematiku inovácií ako aj o interné materiály mestských úradov, pričom primárny zber údajov a informácií bol realizovaný prostredníctvom riadeného rozhovoru s prednostami mestských úradov vo vybraných 10 mestách SR. Konkrétne išlo o mestá Prešov, Nitra, Trnava, Humenné, Piešťany, Hlohovec, Snina, Svidník, Stropkov a Sobrance.

Výsledky a diskusia

Podnety k inováciám a typy implementovaných inovácií

Hlavným impulzom k inováciám vo vybraných samosprávach je predovšetkým potreba zvyšovania kvality života občanov, uspokojovanie ich rastúcich nárokov, zvyšovanie výkonnosti zamestnancov a efektívnosti pracovného procesu na mestskom úrade, ako aj technologický pokrok a nutnosť samosprávy sledovať nové trendy, zavádzať zmeny a inovovať, predovšetkým v oblasti IKT s dôrazom na efektívne hospodárenie s verejnými zdrojmi.

Podnety k inováciám v mestách prichádzajú vo väčšej miere z vnútorného prostredia mestského úradu, čiže zo strany zamestnancov mesta. Podnety dávajú aj občania, miestni podnikatelia, prostredníctvom vyplnenia dotazníkov a ankiet, ktoré realizujú mestá, prostredníctvom osobných stretnutí s občanmi a predstaviteľmi rôznych záujmových združení. Podnety od občanov prijímajú aj na základe webových prieskumov, prípadne prostredníctvom sociálnej siete.

Pri získavaní podnetov z vonkajšieho prostredia mimo územia samosprávy, mestá získavajú kľúčové podnety prostredníctvom školení, internetu, neformálnych kontaktov a kolegiálnych vzťahov, využívajú odborné poradenstvo na profesionálnej úrovni od externých spoločností, v mnohých prípadoch mestá nadviažu kontakt a zorganizujú exkurziu priamo do podnetného prostredia.

Inovácie však nie sú výsledkom len individuálnych podnetov. Do úvahy berú aj dlhodobšie koncepcie, ktoré udávajú smer rozvoja konkrétneho mesta a sú kľúčové pri realizácii investičných projektov, akými sú napr. výstavba dopravnej infraštruktúry, rozvoj školstva či podnikateľských aktivít.

Z hľadiska druhu inovácií v mestách prevládajú inovácie služieb, procesné inovácie a organizačné inovácie. Jedná sa väčšinou o inkrementálne inovácie s nízkou úrovňou inovatívnosti. Väčšinou sú zavádzané napodobňovacie inovácie (elektronizácia mestských služieb, využívanie aplikácie City Monitor, vytvorenie klientskeho centra či realizácia projektu Mestské zásahy), pri ktorých hlavný koncept bol už úspešne odskúšaný v iných slovenských mestách alebo v zahraničí. I keď prevládajú napodobňovacie inovácie, mestá sa vždy snažia nejakým spôsobom vylepšiť proces ich implementácie a ku konečnému produktu pridať niečo nové.

Ochota a úsilie zamestnancov mesta sú veľmi dôležité v procese transformácie idey do konkrétnej podoby. Nie všetci zamestnanci sú však aj inovátormi. Na niektorých úsekoch (napr. matrika, ekonomika a pod.), ktorých kompetencie sú dané hlavne štátom, zamestnanci vystupujú v pozícii vykonávateľov. Naopak v oblastiach akými sú životné prostredie, kultúra, doprava, či investičný rozvoj sa od zamestnancov očakáva, aby prinášali nové riešenia a návrhy. Samosprávy sa snažia v rámci svojich možností premieňať dobré nápady na inovácie. Niektoré mestá zohľadňujú aktivitu zamestnancov finančnými aj nefinančnými odmenami.

Vzdelávanie a spolupráca v oblasti inovácií

Zavádzanie a implementácia inovácií je dlhodobý proces, ktorý si vyžaduje pripravenosť a vytrvalosť všetkých aktérov. Väčšina inovácií je výsledkom spolupráce viacerých aktérov na rôznych riadiacich úrovniach a z rôznych oblastí. Mestá kladú veľký dôraz na kvalifikáciu svojich zamestnancov a vyzdvihujú aj potrebu samovzdelávania. Kľúčové znalosti v oblasti inovácií získavajú pracovníci prostredníctvom odborných seminárov, prednášok, vzdelávacích kurzov, školení a metodických sedení. Mestá dbajú tiež na to, aby zamestnanci vedeli získané vedomosti aj následne aplikovať do praxe.

Mestá pri zavádzaní inovácií spolupracujú najmä so súkromným sektorom. V oblastiach akými sú IKT (firma CORAGEO), investičná výstavba, či budovanie miestnej infraštruktúry, je kooperácia s podnikateľskými subjektmi nevyhnutná. Čo sa týka spolupráce s inými obcami, vzájomná komunikácia a vymieňanie skúseností síce prebieha, ale mestá realizovali len málo projektov na báze takéhoto partnerstva.

V inovačnom procese je zo strany miest jednoznačne uprednostňovaná spolupráca s regionálnymi inštitúciami, a to najmä z dôvodu poznania hlavných špecifik územia a potrieb občanov. V rámci cezhraničnej spolupráce boli realizované inovácie viazané hlavne na životné prostredie, cestovný ruch a kultúru.

Finančné zdroje na inovácie

Finančné prostriedky na inovačný proces sú získavané najmä z vlastných zdrojov, z ktorých najväčšiu časť tvoria príjmy z daní a predaja kapitálového majetku. Veľký objem financií predstavujú aj dotácie a granty z fondov EÚ. Pri získavaní takýchto prostriedkov sú mestá v posledných rokoch čoraz úspešnejšie, a to najmä vďaka skúseným a iniciatívnym členom projektových tímov. Niektoré inovácie sa mestá pokúšali realizovať aj formou PPP projektov, v ktorých by sa použil kapitál súkromného sektora. Zosúladiť požiadavky mesta a podnikateľov však nie je jednoduché, preto od takejto spolupráce mnohokrát upustili. Percentuálny podiel výdavkov na implementáciu inovácií z celkových výdavkov rozpočtu analyzovaných samospráv je uvedený v tabuľke 2.

Tabuľka 2 Počet obyvateľov mesta a podiel výdavkov na inovačné aktivity z celkových výdavkov rozpočtu mesta v % v roku 2015

| Mesto | Počet obyvateľov | Podiel výdavkov na inovácie z celkových výdavkov rozpočtu mesta (%) |
|----------|------------------|---|
| Prešov | 89 959 | 5-10% |
| Nitra | 78 875 | 5-10% |
| Trnava | 66 219 | 4% |
| Humenné | 33 945 | 7% |
| Piešťany | 27 855 | 2% |
| Hlohovec | 22 079 | 3% |
| Snina | 20 294 | 10% |
| Svidník | 11 289 | 1% |
| Stropkov | 10 762 | 5% |
| Sobrance | 6 212 | 4% |

Prameň: Výsledky riadeného rozhovoru s prednostami mestských úradov vybraných miest, 2015

Inštitucionálny kontext tvorby inovácií a transferu poznatkov

Pri tvorbe a implementácii inovácií zohráva kľúčovú úlohu vedenie mesta s mandátom mestského zastupiteľstva. Na tejto úrovni sa rozhoduje o tom, do ktorých inovácií sa mesto pustí a do ktorých nie, pričom sa do úvahy berie hlavne možnosť technického a finančného krytia. Manažéri projektových tímov sú tiež veľmi dôležitými aktérmi v procese tvorby a zavádzania inovácií. Zamestnanci príslušných útvarov sú potom zodpovední za fyzickú implementáciu zmien a nových zlepšení do života mesta. Sú tiež v pozícii procesných manažérov, ktorí sa zúčastňujú jednotlivých fáz procesu zavádzania inovácií.

Existuje množstvo inštitúcií, či už na národnej alebo regionálnej úrovni, ktoré koordinujú šírenie informácií a znalostí, napr. Únia miest Slovenska, ZMOS, Asociácia prednostov úradov samosprávy, SARIO, oblastné organizácie cestovného ruchu, univerzity, záujmové združenia a mnoho ďalších.

Transfer poznatkov pri úspešne zhmotnených inováciách uskutočňujú mestá prostredníctvom médií, informačných brožúr, či iných publikácií. Propagáciu zabezpečujú konkrétne útvary, ktoré mestá zriadili za účelom zviditeľnenia sa a zvýšenia transparentnosti svojej činnosti.

Záver

Inovácie sú aktuálnou témou nielen v súkromnom sektore, ich význam narastá aj vo verejnej sfére. Samosprávy si dôležitosť inovovania uvedomujú a v záujme zvyšovania efektívnosti pracovného procesu a kvality služieb nimi poskytovaných, sa snažia o tvorbu a implementáciu inovácií v rámci ich finančných a personálnych možností.

Za hlavnú silnú stránku z pohľadu inovácií považujú mestá mobilizáciu obyvateľov a svojich zamestnancov ako inovátorov. Pozitívom pri zavádzaní inovácií je aj tvorba partnerstiev a sietí s rozličnými subjektmi v rôznych oblastiach.

Pri implementácii inovácií sa však mestá musia pasovať aj s problémami a nedostatkami. Nie všetci zamestnanci sú inovátormi a chcú prinášať do mesta niečo nové, či meniť zabehnuté pracovné postupy. Mesto sa tak u niektorých pracovníkoch stretáva aj s neochotou a pasivitou pri realizácii inovačných zmien. Väčšina inovácií vyplýva z projektov a výziev určitých dotácií a grantov z Európskej únie. Tu je ale problémom, že podmienky pri získavaní týchto prostriedkov sú nastavené príliš všeobecne. V mnohých prípadoch nie sú premietnuté reálne potreby samosprávy a niektoré regulatívy sa nie vždy ukážu ako správne a účelné. Vhodné by boli individuálnejšie nastavenia regulatív, aby mesto mohlo viac ovplyvniť to, čo má inovácia v konečnom dôsledku priniesť.

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SOCIÁLNE PODNIKANIE V CESTOVNOM RUCHU**SOCIAL ENTREPRENEURSHIP IN TOURISM**

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Abstract

Effects of tourism development are reflected in all areas of community development - economic, social, cultural and environmental. Social entrepreneurship solves many problems associated with unemployment and exclusion of certain categories of people. The research is aimed at social entrepreneurship in tourism in the European Union. Objective of the paper is an analysis of sectoral focus of social entrepreneurship subjects with an emphasis on the tourism and related areas and formulation of recommendations for setting up this instrument of social policy in Slovakia. Slovakia has reserves to ensure conditions for the development of the social economy (there doesn't exist a specific legal form of social entrepreneurship, there is insufficient institutional support, training and coaching in this area). Slovakia has potential for development of social entrepreneurship in tourism, culture and recreation, agriculture and services, which meet the collective needs and contribute to the development of communities and social capital and in another areas.

Key words: *tourism, social entrepreneurship, European union*

Abstrakt

Účinky rozvoja cestovného ruchu sa prejavujú vo všetkých sférach rozvoja obcí - ekonomickej, sociálnej, kultúrnej a environmentálnej. Sociálne podnikanie rieši množstvo problémov spojených s nezamestnanosťou a exklúziou určitých kategórií obyvateľov. Predmetom výskumu je sociálne podnikanie v cestovnom ruchu v krajinách Európskej únie. Cieľom príspevku je analýza sektorového zamerania subjektov sociálneho podnikania s dôrazom na odvetvie cestovného ruchu a súvisiace oblasti pôsobenia a formulácia odporúčení pre nastavenie tohto nástroja sociálnej politiky v podmienkach Slovenska. Slovensko má rezervy v zabezpečení podmienok pre rozvoj sociálnej ekonomiky (nemá špecifickú právnu formu sociálneho podnikania, neexistuje dostatočné inštitucionálne zabezpečenie, vzdelávanie a koučing v tejto oblasti). Má ale zároveň potenciál pre rozvoj sociálneho podnikania v oblasti cestovného ruchu, kultúry a voľnočasových aktivít, poľnohospodárstva a služieb, ktoré uspokojujú kolektívne potreby a prispievajú k rozvoju obcí a sociálneho kapitálu a iných oblastiach.

Kľúčové slová: *cestovný ruch, sociálne podnikanie, Európska únia*

JEL Classification: L31, L83, O35, O52

Úvod

Rozvoj vidieckeho cestovného ruchu je podporovaný najmä pre jeho pozitívne účinky, ktoré prináša podnikateľom, návštevníkom a miestnym obyvateľom. Tieto účinky sa prejavujú vo všetkých sférach rozvoja vidieckej obce – ekonomickej, sociálnej, kultúrnej a environmentálnej. Podľa Svobodovej (2011) prispieva vidiecky cestovný ruch k zachovaniu kultúry, tradícií vidieka a umožňuje ich prezentovať smerom navonok, predstavuje zvýšenie príjmov pre podnikateľov v obci, stimuluje dopyt miestneho obyvateľstva po službách, podporuje zamestnanosť v obci, podieľa sa na príjmoch podnikateľov a zamestnaných obyvateľov, zvyšuje tlak na udržiavanie krajiny a jej ochranu a tiež tlak na manažment obce, aby koordinoval aktivity cestovného ruchu a aktívne ich podporoval.

Autori Tsephe a Obono (2013) uvádzajú aj ďalšie pozitívne efekty, ktoré súvisia s rozvojom vidieckeho cestovného ruchu v území. Z ekonomického hľadiska prispieva vidiecky cestovný ruch k zamestnanosti, osobitne mladých ľudí žijúcich na vidieku, generuje medzinárodnú výmenu, spôsobuje rast cien pôdy a pozemkov, rast výdavkov domácností, rast dopytu po tovaroch a službách, skvalitnenie verejných služieb, vyvoláva modernizáciu v poľnohospodárskom sektore a v ďalších aktivitách na vidieku, stimuluje malé a stredné podnikanie na vidieku. Zo sociálno-kultúrnych aspektov rozvoja vidieckeho cestovného ruchu zdôrazňujú najmä zlepšenie vzdelania a zdravia obyvateľov žijúcich na vidieku, možnosti kultúrneho vyžitia na rôznych podujatiach, podpora predaja poľnohospodárskych produktov, rozvoj remesiel a zníženie migrácie vidieckeho obyvateľstva do miest.

Tabuľka 1 Pozitívne účinky vidieckeho cestovného ruchu

| Ekonomické | Sociálno-kultúrne | Environentálne |
|--|--|--|
| <ul style="list-style-type: none"> • podporuje podnikanie v obci priamo v podnikoch cestovného ruchu, ako aj v nadväzných a zabezpečujúcich činnostiach, • generuje príjmy pre súkromný i verejný sektor (dane), • vytvára pracovné príležitosti v podnikoch cestovného ruchu ako aj v ďalších podnikoch v obci a jej okolí • zvyšuje kúpyschopnosť miestneho obyvateľstva, prispieva k rozvoju lokálnej ekonomiky - multiplikačný účinok (príjmy a zamestnanosť), • stimuluje investície v obci, | <ul style="list-style-type: none"> • iniciuje zachovanie prírodných a kultúrnych hodnôt územia (obce, regiónu), • rozširuje možnosti trávenia voľného času pre obyvateľov obce, príležitosť pre oživenie tradičných foriem umenia a remesiel, • spomalenie alebo dokonca zastavenie procesu emigrácie obyvateľov z vidieckych obcí, • prevzatie pozitívnych hodnôt a vzorov správania sa návštevníkov, • rast kvality života miestnych obyvateľov | <ul style="list-style-type: none"> • zvýšená starostlivosť o vzhľad obce, • obnova existujúcej infraštruktúry, • výstavba novej infraštruktúry cestovného ruchu (cyklocesty, oddychové zóny, športoviská) • nové využitie objektov, ktoré stratili svoj pôvodný účel využitia, • ochrana a obnova historických objektov v obci, • obnova a modernizácia nevyužitého domového a bytového fondu. |

Prameň: Spracované podľa Jarábková (2010), Lordkipanidze (2002) a Tsephe; Obono (2013).

Vanegas, Moufakkir a Burns (2012) uvádzajú, že cestovný ruch je "agentom zmeny" a globálnym fenoménom, ktorý hrá významnú úlohu v sociálno-kultúrnom vývoji krajín. Existujú prípadové štúdie, ktoré dokazujú pozitívne efekty cestovného ruchu na miestnu komunitu (Mulindwa, 2015).

Cestovný ruch je v mnohých krajinách základným nástrojom na zmiernenie chudoby (Croes & 2008; Laws, 2009; UNWTO, 2004). Nedostatočný prístup k ekonomickým príležitostiam, nezamestnanosť a pod. môžu viesť k frustrácii vyvolávajúcej nežiaduce a deštruktívne správanie na úrovni jednotlivca i na úrovni spoločnosti. Alternatívna teória vývoja uznáva úlohu sociálneho podnikania a mikropodnikov na úrovni komunity v boji proti chudobe tým, že vytvorí pracovné miesta a pomôže zvýšiť príjmy (IFAD, 2010). Ak nie sú ľudia v hmotnej núdzi považovaní za obete, ale za potenciálnych kreatívnych podnikateľov, po absolvovaní vzdelávania sa môžu sami dostať z chudoby (Prahalač, 2005). S cieľom boja proti chudobe vo vidieckych komunitách je cestovný ruch Európskou komisiou a inými autoritami odporučený ako ekonomická aktivita, ktorá má schopnosť spojiť tradičné podnikanie so sociálnym investovaním (IFAD, 2010). Keďže sa investori v Európskej únii čoraz viac snažia dosahovať sociálne ciele a neusilujú sa len o finančné výnosy, v Únii sa vytvára trh so sociálnymi investíciami (Nariadenie 346/2013). Preto sa sociálne podnikanie v Európskej únii v poslednom desaťročí výrazne rozvinulo.

Cieľom príspevku je analýza sektorového zamerania subjektov sociálneho podnikania v členských krajinách Európskej únie s dôrazom na odvetvie cestovného ruchu a súvisiace oblasti pôsobenia a formulácia odporúčení pre nastavenie tohto nástroja sociálnej politiky v podmienkach Slovenska.

Materiál a metódy

Sociálny podnik je základným subjektom sociálnej ekonomiky, ktorého hlavným cieľom je sociálny vplyv a nie tvorba zisku. Funguje na základe produkcie trhových tovarov a služieb. Zisk používa predovšetkým na dosiahnutie sociálnych cieľov. Sociálny podnik je riadený demokraticky, otvorene a zodpovedne. Európska komisia používa pojem sociálny podnik pre označenie typov podnikov, v ktorých bez ohľadu na právnú formu:

- dôvodom pre komerčnú činnosť je sociálny alebo spoločenský cieľ vo forme verejného úžitku, často pri vysokej úrovni sociálnej inovácie,
- zisk je reinvestovaný predovšetkým s ohľadom na dosiahnutie sociálneho cieľa,
- spôsob organizácie či vlastnícka štruktúra odráža poslanie podniku, za použitia demokratických a participatívnych zásad so zameraním na sociálnu spravodlivosť.

Medzi výskumníkmi, ktorí sa zaoberajú podnikaním je všeobecne akceptované, že neexistuje definitívna výskumná agenda pre sociálne podnikanie pretože neexistuje zhoda na význame tohto pojmu (Perrini, 2006; Nicholls, 2009). Nie všetky krajiny Európskej únie majú platnú legislatívu stanovujúcu definíciu subjektu sociálnej ekonomiky alebo sociálneho podniku a jeho postavenie v ekonomickej štruktúre.

Zdrojom údajov pre spracovanie príspevku boli výsledky mapovania sociálneho podnikania vo všetkých 28 členských krajinách Európskej únie, ktoré uskutočnila Európska komisia (2014) a výsledky štúdie OECD „Tvorba pracovných miest prostredníctvom sociálnej ekonomiky a sociálneho podnikania“ (2013). V mapovaní sociálnych podnikov Európskej komisie bola použitá definícia britského Ministerstva priemyslu, ktorá definuje subjekt sociálnej ekonomiky ako "nezávislú organizáciu pôsobiacu za účelom dosiahnutia sociálnych a ekonomických cieľov, a ktorej cieľom je finančná udržateľnosť. OECD vo svojej štúdii skúmalo sociálnu ekonomiku v 14 regiónoch 8 krajín: Belgicka, Talianska, Francúzsko, Luxembursko, Rumunsko, Švédsko, Kanada a Austrália. V rámci štúdie boli dopytovaní pracovníci 651 sociálnych podnikov.

Analyzovali sme právnu formu subjektov sociálnej ekonomiky v jednotlivých krajinách EÚ a ich sektorové zameranie. Je zložitá sociálne podniky zaradiť do štandardnej klasifikácie ekonomických činností. Sociálne podniky zaoberajúce sa reintegráciou na pracovný trh sa primárne nekonzentrujú na konkrétne odvetvie. Spolky a nadácie so sociálnymi alebo charitatívnymi cieľmi sú často automaticky zahrnuté do kategórie zdravotníctvo a sociálne služby, hoci ekonomickou aktivitou je napríklad kaviareň. Do kategórie ostatné služby sú často zaradené aj podniky, ktoré vykonávajú služby v cestovnom ruchu. V niektorých krajinách nie je preto možné presne určiť podiel sociálnych podnikov pôsobiacich v cestovnom ruchu. Na základe údajov z mapovania krajín EÚ sme analyzovali sociálne podnikanie v kategóriách, tak ako ich uvádzali jednotlivé krajiny pri mapovaní, a ktoré sú zamerané na cestovný ruch a to najmä ubytovacie a stravovacie služby, rekreácia, kultúra, voľnočasové aktivity, animačné služby, umenie a umelecké remeslá. Výsledky štúdie OECD boli spracované do analýzy sociálneho podnikania v cestovnom ruchu vo vybraných regiónoch členských krajín OECD.

Príspevok bol spracovaný v rámci projektu VEGA č. 1/0247/14 Integrované prístupy k rozvoju vidieckeho cestovného ruchu v podmienkach SR.

Výsledky

Sociálna ekonomika v Európskej únii

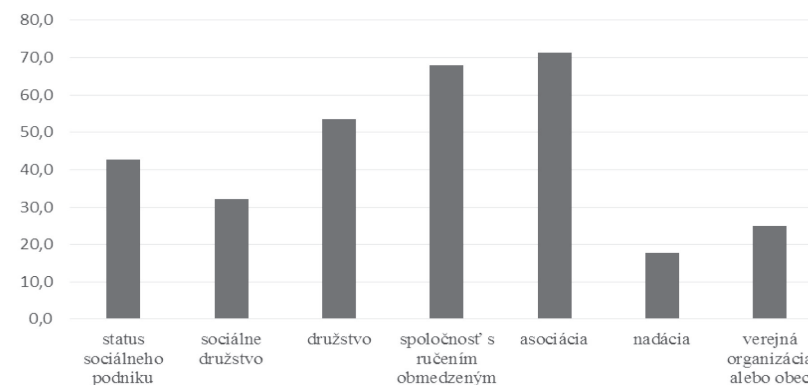
Sociálna ekonomika je v Európskej únii reprezentovaná 10% HDP európskej ekonomiky a viac ako 11 miliónmi zamestnaných, čo predstavuje 4,5% aktívnej populácie. Sociálne podnikanie zamestnáva vo Fínsku 7,5%, v Spojenom kráľovstve 5,7%, v Slovinsku 5,4%, v Belgicku 4,1%, v Taliansku 3,3%, vo Francúzsku 3,1% obyvateľov aktívnych na trhu práce. Vo Fínsku, Francúzsku a Belgicku má jeden z troch vznikajúcich podnikov postavenie sociálneho podniku. Až 10% európskych podnikov pôsobí v sociálnej ekonomike.

Aktivity zamerané na podporu sociálneho podnikania, zlepšenie jeho propagácie a zjednodušenie právneho prostredia v EÚ sformulovala Európska komisia v Iniciatíve pre sociálne podnikanie prijatej v roku 2011. Rámec podpory sociálnej ekonomiky v EÚ tvorí Nariadenie 346/2013 Európskeho parlamentu a Rady o podpore sociálneho podnikania z fondov EÚ.

Právna forma subjektov sociálnej ekonomiky

Sociálne podnikanie, čo sa týka organizačnej a právnej formy, má v krajinách EÚ rôznu podobu. Najčastejšou právnou formou je asociácia (napríklad v Portugalsku až 71% subjektov sociálnej ekonomiky), a spoločnosť s ručením obmedzeným. Družstevná forma sociálneho podnikania má rôzne podoby. Jedná sa o družstvá, ktoré zamestnávajú telesne alebo mentálne postihnutých občanov, profesijne orientované družstvá alebo poľnohospodárske družstvá. V Grécku sú zaujímavosťou ženské agroturistické družstvá založené najmä na príjme z predaja poľnohospodárskych produktov a služieb v cestovnom ruchu, menej na získavaní prostriedkov z prístupu Leader a podporných programov EÚ. Zastúpenie právnych foriem v sociálnom podnikaní v EÚ je uvedené na obrázku 1.

Obrázok 1 Status a právna forma sociálneho podnikania v krajinách EÚ (% krajín)



Prameň: spracované podľa Mapy sociálnych podnikov a ich ekosystémov v Európe (Európska komisia, 2015)

Novými právnymi formami vytvorenými špeciálne pre sociálne podnikanie sú napríklad sociálne družstvá, ktoré existujú v 9 krajinách EÚ, družstevné spoločnosti kolektívneho záujmu vo Francúzsku alebo podniky komunitného záujmu v Spojenom kráľovstve. Nové právne formy umožňujú pôvodne neziskovým organizáciám uskutočňovať ekonomické aktivity (napríklad neziskový inštitút v Slovinsku). Status sociálneho podniku môže získať subjekt s právnou formou, ktorá spĺňa kritériá stanovené zákonom. Iba v 12 krajinách EÚ bol zadaný status sociálneho podniku alebo subjektu sociálnej ekonomiky. V dvoch krajinách, a to Taliansku a Poľsku bol prijatý aj zákon o sociálnych družstvách a aj zákon o sociálnych podnikoch.

Ekonomické činnosti sociálnych podnikov

Európska komisia vymedzila nasledovné perspektívne oblasti sociálneho podnikania: služby v domácnosti, starostlivosť o deti, nové informačné a komunikačné technológie, práca so znevýhodnenými osobami, renovácia budov a verejných priestranstiev, bezpečnosť, miestna verejná doprava, miestny obchod, cestovný ruch, audiovizuálne služby, zachovanie kultúrneho dedičstva a rozvoj miestnej kultúry, odpadové hospodárstvo, vodohospodárstvo, ochrana a údržba prírody, regulácia a monitoring znečistenia ovzdušia a poľnohospodárstvo.

Sociálne podniky majú tendenciu dopĺňať alebo vyplňať medzery vo vybavení infraštruktúrou a poskytovaní služieb zo strany verejného a súkromného sektora. V krajinách Európskej únie sú zamerané hlavne na tri oblasti aktivít: integrácia na trh práce (získavanie praktických zručností a integrácia nezamestnaných a hendikepovaných ľudí), osobné sociálne služby a miestny rozvoj znevýhodnených oblastí. Ďalšími aktivitami sú: recyklácia odpadov, ochrana životného prostredia, poľnohospodárstvo, šport, umenie, zachovanie kultúry, cestovný ruch, veda, výskum a inovácie, ochrana spotrebiteľov a podobne.

Európske sociálne podniky zaoberajúce sa reintegráciou na pracovný trh (WISE – work integration social enterprises) sa primárne nekonzentrujú na konkrétne

odvetvie. Pôsobia vo viacerých odvetviach. Najviac z nich sa zaoberá sociálnymi službami. V Rakúsku sa zaoberajú stravovacími službami, recykláciou odpadov, opravami a údržbou, starostlivosťou o zeleň a podobne. V Litve sa venujú sociálnej práci, výučbe používania informačných technológií, umeniu a remeslám, knižničným službám a archívnictvu a ďalším aktivitám. Vo Švédsku sú hlavnými odvetviami pracovnej integrácie maloobchod a hotelové a reštauračné služby, služby pre domácnosť, stavebníctvo, realitné služby, záhradníctvo, umelecké remeslá, recyklácia odpadu, voľnočasové aktivity a cestovný ruch. V Dánsku, Holandsku a Taliansku sú primárnym zameraním pracovnej integrácie poľnohospodárske činnosti. Vo Francúzsku je 5% podnikov pracovnej integrácie aktívnych v cestovnom ruchu.

Okrem podnikov pracovnej integrácie sa väčšina služieb subjektov sociálnej ekonomiky zaoberá celým spektrom osobných a všeobecných sociálnych služieb (dlhodobá starostlivosť o seniorov a postihnutých, starostlivosť o deti, sociálne bývanie, sociálna integrácia väzňov, migrantov, drogovu závislých a podobne a zdravotné služby). Hlavnou aktivitou jednej tretiny sociálnych podnikov v Írsku je starostlivosť o deti. V Dánsku a Taliansku až 40% týchto subjektov vykonáva zdravotnú a sociálnu starostlivosť.

Miestny rozvoj najmä marginalizovaných území je, ako bolo povedané, ďalšou významnou oblasťou aktivít sociálnej ekonomiky. Veľa sociálnych podnikov v Európe zvyšuje sídelnú kvalitu života tým, že vyrába produkty a poskytuje služby, ktoré uspokojujú kolektívne potreby a prispievajú k rozvoju obce a sociálneho kapitálu (údržba verejných priestranstiev a budov, kino, knižnica, kaviareň, denná starostlivosť, zvyšovanie podnikateľských zručností a vzdelávanie v oblasti zdravého spôsobu života).

Zvyšuje sa počet sociálnych podnikov zameraných na poľnohospodárstvo, záhradníctvo, výrobu potravín, environmentálne služby a ochranu životného prostredia v Českej republike, Malte a Rumunsku, komunitných služieb v Spojenom kráľovstve, Nemecku a Holandsku (napríklad bývanie, doprava a výroba energie) a kultúry, športu, a voľnočasových aktivít (napríklad umenia, remesiel, hudby a čoraz viac aj cestovného ruchu) v krajinách.

Najviac krajín v rámci sociálnej ekonomiky vykonáva sociálne a zdravotné služby, pracovnú integráciu, vzdelávanie a recykláciu odpadov. V cestovnom ruchu je sociálna ekonomika rozvinutá v 14 krajinách EÚ, v oblasti umenia, umeleckých remesiel, kultúry a voľnočasových aktivít v 18. Menej krajín sa zameriava na poľnohospodárstvo. V Grécku sa tieto podniky do veľkej miery venujú včelárstvu, v Slovinsku a Holandsku produkcii organických potravín. Kombináciou poľnohospodárstva, pracovnej integrácie a sociálnej starostlivosti sú tzv. care farms v Holandsku a Taliansku, ktoré poskytujú zamestnanie a starostlivosť hendikepovaným osobám. Niekoľko krajín uvádza aj odvetvie finančných služieb, športu, obchodu a férového obchodu. Zaujímavosťou vo finančných službách je napríklad Cyperská ženská kooperatívna banka (zameraná najmä na pôžičky na začatie podnikania) alebo tradične silné vzdelávanie vo financiách a poisťovníctve vo Francúzsku. Sektorové zameranie sociálnych podnikov vo všetkých krajinách EÚ je uvedené v tabuľke 2.

Tabuľka 2 Odvetvia sociálneho podnikania v krajinách EÚ

| krajina | sociálne služby a zdravotníctvo | integrácia na trhu práce, a chránené dielne a pracoviská | vzdelávanie a rekvifikácia | ochrana životného prostredia, recyklácia, obnoviteľné zdroje energie | umenie, umelecké remeslá, kultúra a voľnočasové aktivity | cestovný ruch | poľnohospodárstvo a potravinárstvo | obchod a férový obchod | financie, poisťenie, reality | šport |
|--------------------|---------------------------------|--|----------------------------|--|--|---------------|------------------------------------|------------------------|------------------------------|-------|
| Belgicko | | | | | | | | | | |
| Bulharsko | | | | | | | | | | |
| Cyprus | | | | | | | | | | |
| Česká republika | | | | | | | | | | |
| Dánsko | | | | | | | | | | |
| Estónsko | | | | | | | | | | |
| Fínsko | | | | | | | | | | |
| Francúzsko | | | | | | | | | | |
| Grécko | | | | | | | | | | |
| Holandsko | | | | | | | | | | |
| Chorvátsko | | | | | | | | | | |
| Írsko | | | | | | | | | | |
| Litva | | | | | | | | | | |
| Lotyšsko | | | | | | | | | | |
| Luxembursko | | | | | | | | | | |
| Maďarsko | | | | | | | | | | |
| Malta | | | | | | | | | | |
| Nemecko | | | | | | | | | | |
| Poľsko | | | | | | | | | | |
| Portugalsko | | | | | | | | | | |
| Rakúsko | | | | | | | | | | |
| Rumunsko | | | | | | | | | | |
| Slovensko | | | | | | | | | | |
| Slovinsko | | | | | | | | | | |
| Spojené kráľovstvo | | | | | | | | | | |
| Španielsko | | | | | | | | | | |
| Švédsko | | | | | | | | | | |
| Taliansko | | | | | | | | | | |

Prameň: spracované podľa Mapy sociálnych podnikov a ich ekosystémov v Európe (Európska komisia, 2015)

V Európe existujú príklady špecifického sektorového zamerania niektorých právnych foriem sociálnych podnikov. Dôvodom je tradičná štruktúra ekonomických aktivít ale aj vhodnosť určitých právnych foriem pre aktivity v konkrétnych odvetviach. Až 13% francúzskych družstevných spoločností kolektívneho záujmu je aktívnych v kultúre a voľnočasových aktivitách. Rovnako vo Francúzsku je tradične silno rozvinuté

zameranie nevládných organizácií, asociácií a družstevných spoločností na odborné vzdelávanie vo financiách a poisťovníctve. Sociálne družstvá v Maďarsku sú hlavnou hnacou silou prenosu sociálneho poslania do komerčných aktivít. Zameriavajú sa na poskytovanie sociálnych služieb, poľnohospodárstvo, remeslá a cestovný ruch na vidieku, v mestách na čistiace služby a údržbu parkov. Talianske sociálne družstvá poskytujú domácu sociálnu a zdravotnú starostlivosť, vzdelávanie a rehabilitáciu a kultúrne aktivity. V Poľsku je táto právna forma sociálneho podnikania charakteristická aktivitami v upratovacích službách, údržbe budov a záhrad (až 76%), reštauračných a stravovacích službách (28%).

Na Slovensku je sociálna ekonomika reprezentovaná sociálnymi podnikmi rôznej právnej formy, chránenými dielňami a chránenými pracoviskami. Register Úradu práce sociálnych vecí a rodiny obsahuje (k októbru 2016) 36 aktívnych sociálnych podnikov a 5265 chránených dielní a pracovísk.

Tabuľka 3 Odvetvové zameranie aktívnych sociálnych podnikov na Slovensku

| ekonomická činnosť | počet podnikov | podiel podnikov |
|---|----------------|-----------------|
| priemyselná výroba | 12 | 33 |
| ubytovacie a stravovacie služby, kultúrne a umelecké činnosti | 11 | 31 |
| služby v sociálnej oblasti, zdravotníctvo a sociálna pomoc | 7 | 19 |
| stavebné práce | 7 | 19 |
| administratívne a podporné služby | 7 | 19 |
| narábanie s odpadom | 7 | 19 |
| čistenie verejných priestranstiev | 6 | 17 |
| údržba kultúrnych a športových zariadení | 5 | 14 |
| maloobchod | 4 | 11 |
| lesníctvo | 2 | 6 |
| komunikácia, tlač, marketing | 2 | 6 |
| vzdelávanie | 1 | 3 |
| oprava automobilov | 1 | 3 |

Prameň: Register sociálnych podnikov (Úrad práce, sociálnych vecí a rodiny SR)

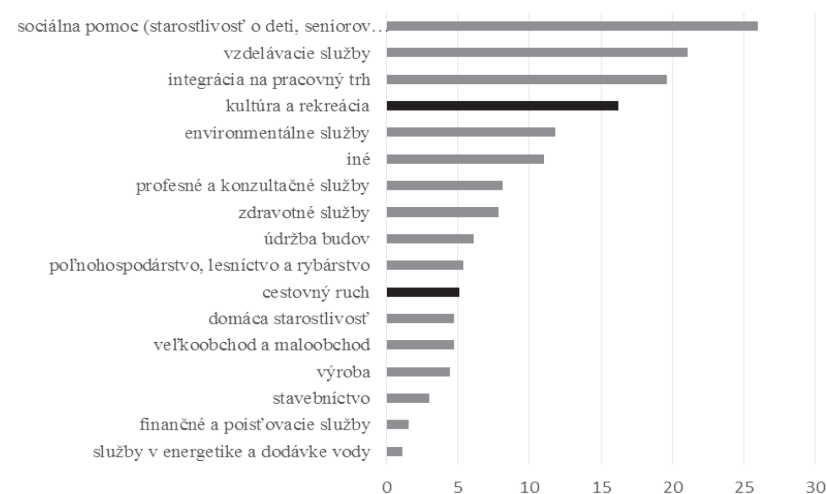
Odvetvové zameranie sociálnych podnikov je na Slovensku špecifické. Najviac sociálnych podnikov sa zaoberá priemyselnou výrobou (výrobky z kože, dreva, kovu). Druhou najviac zastúpenou kategóriou sú služby súvisiace s cestovným ruchom (ubytovacie a stravovacie služby, kultúrne a umelecké činnosti, údržba obecných kultúrnych a športových zariadení).

Sociálne podnikanie v cestovnom ruchu, kultúre a voľnočasových aktivitách

Ako bolo povedané, v odvetví cestovného ruchu podnikajú subjekty sociálnej ekonomiky v 57% krajín EÚ, v oblasti umenia, umeleckých remesiel, kultúry a voľnočasových aktivít v 64% krajín. V týchto oblastiach existujú dve skupiny subjektov: tie ktoré vykonávajú služby pre širokú verejnosť pričom na ich zabezpečenie zamestnávajú osoby hendikepované alebo z iného dôvodu vylúčené z trhu práce, a tie subjekty, ktorých cieľovou skupinou týchto služieb sú osoby hendikepované alebo vylučované. Príkladom druhej skupiny sú sociálne podniky pôsobiace v kultúre a umení s cieľom rekreácie a socializácie v Slovinsku. Tradične je vysoký podiel služieb v cestovnom ruchu v sociálnej ekonomike Grécka, Chorvátska a Malty. Rekreácia a kultúra je hlavnou oblasťou činnosti subjektov sociálnej ekonomiky Švédska. Zvyšuje sa podiel kultúry, športu, voľnočasových aktivít (napríklad umenia, remesiel a hudby) a čoraz viac aj cestovného ruchu v Chorvátsku, Estónsku, Fínsku, Grécku, Maďarsku, Malte a Švédsku. Na Slovensku je, ako už bolo povedané, najviac zastúpenou kategóriou činnosti registrovaných sociálnych podnikov kategória služieb v cestovnom ruchu a kultúrnych a umeleckých činnosti.

Podobný podiel aktivít subjektov sociálnej ekonomiky demonštrujú aj výsledky štúdie 651 subjektov vo vybraných regiónoch krajín OECD (obrázok 2). Najviac zastúpenými boli: sociálne služby (26%), vzdelávanie (21,1%), pracovná integrácia (19,6%) a kultúra a rekreácia (16,2%).

Obrázok 2 Odvetvia sociálneho podnikania v regiónoch krajín OECD (% dopytovaných podnikov)



Prameň: spracované podľa OECD, 2013

Kultúra a rekreácia je štvrtou najrozšírenejšou oblasťou aktivít v skúmaných regiónoch krajín OECD. Týmito aktivitami sa zaoberá 109 (16,7%) zo 651 dopytovaných subjektov. V odvetví cestovného ruchu pôsobí 5,1% dopytovaných subjektov.

Záver

Sociálnu ekonomiku na Slovensku reprezentujú hlavne sociálne podniky a chránené dielne a chránené pracoviská rôznej právnej formy. Definícia sociálneho podniku je sformulovaná v Zákone č. 5/2004 o službách zamestnanosti. Až novela tohto zákona z roku 2016 stanovila definíciu subjektu sociálnej ekonomiky a definíciu sociálneho podniku pracovnej integrácie, tak ako je to v krajinách s rozvinutou sociálnou ekonomikou. Na Slovensku neexistuje špecifická inštitúcia alebo oddelenie štátnej inštitúcie, ktoré by sa zaoberalo sociálnymi podnikmi. Ministerstvo práce, sociálnych vecí a rodiny má v kompetencii riešiť rámec sociálneho podnikania. V našich podmienkach neexistuje podporný nástroj na začatie sociálneho podnikania, ani existujúceho podnikania a ani systém vzdelávania a koučingu v tejto oblasti.

Mapovanie sociálnej ekonomiky bolo iniciatívou Európskej komisie, ktorá pomôže rozvoju predmetnej oblasti. Sociálna ekonomika pomáha v krajinách EÚ riešiť množstvo aj veľmi špecifických problémov sociálneho, ekonomického a environmentálneho charakteru. Z analýzy výsledkov tohto mapovania možno sformulovať niekoľko odporúčaní pre rozvoj slovenskej sociálnej ekonomiky.

Podniky pracovnej integrácie na Slovensku de facto existovali približne od roku 2008, aj keď zadefinované boli až poslednou novelou spomínaného zákona z roku 2016. Primárne sa tieto podniky v Európe nekonzentrujú na konkrétne odvetvie. Najviac z nich sa zaoberá sociálnymi službami. Odlišnosti možno pozorovať medzi jednotlivými krajinami. V Rakúsku sa, napríklad, zaoberajú stravovacími službami, recykláciou odpadov, opravami a údržbou, starostlivosťou o zeleň a podobne. V Litve sa venujú sociálnej práci, výučbe informačných technológií, umením a remeslami, knižničnými službami a archívnictvom. Vo Švédsku sú hlavnými odvetviami pracovnej integrácie: maloobchod a hotelové a reštauračné služby, služby pre domácnosti, stavebníctvo, realitné služby, záhradníctvo, umelecké remeslá, recyklácia odpadu, voľnočasové aktivity a cestovný ruch. V Dánsku, Holandsku a Taliansku sú primárnym zameraním pracovnej integrácie poľnohospodárske činnosti. Vo Francúzsku je 5% podnikov pracovnej integrácie aktívnych v cestovnom ruchu. Uvedenými príkladmi by sa Slovensko mohlo inšpirovať.

V niekoľkých krajinách bola vytvorená špecifická právna forma pre podnikanie v sociálnej ekonomike (napríklad sociálne družstvá, družstvá komunitného záujmu a podobne). Na Slovensku zatiaľ neexistuje špecifická právna forma.

Vysoký podiel sociálnych podnikov v poľnohospodárstve má napríklad v Grécku zameranie na včelárstvo, v Slovinsku a Holandsku na produkciu organických potravín. Na Slovensku sa podobne ako v ostatných krajinách EÚ zvyšuje potreba sociálnych služieb pre seniorov. Príkladom riešenia sú „care farms“, ktoré tento problém pomáhajú riešiť v Holandsku a Taliansku. To by však na Slovensku vyžadovalo zmenu legislatívy upravujúcej sociálne príspevky.

Veľa sociálnych podnikov v Európe zvyšuje sídelnú kvalitu života tým, že vyrába produkty a poskytuje služby, ktoré uspokojujú kolektívne potreby a prispievajú k rozvoju obce a sociálneho kapitálu.

V Chorvátsku, Estónsku, Fínsku, Grécku, Maďarsku, Malte a Švédsku sa zvyšuje podiel služieb poskytovaných sociálnymi podnikmi v oblasti kultúry, športu, voľnočasových aktivít (napríklad umenia, remesiel, hudby) a čoraz viac aj cestovného ruchu. Na Slovensku je, ako už bolo povedané, druhou najviac zastúpenou kategóriou činnosti registrovaných sociálnych podnikov kategória služieb v cestovnom ruchu a kultúrnych a umeleckých činností. Slovensko má potenciál pre ďalší rozvoj sociálneho podnikania v cestovnom ruchu (prenájom a požičiavanie športových potrieb, rekreač-

né aktivity, organizácia gastronomických, kultúrnych a športových podujatí, podujatí založených na tradíciách a kultúrnom dedičstve a podobne).

Slovensko poslednou novelou zákona o službách zamestnanosti položilo pevný základ rozvoja sociálnej ekonomiky. Otázkou ostáva reálna implementácia tohto legislatívneho predpisu a ďalšie podporné opatrenia a nástroje.

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COMPUTER AIDED OF DATA MINING

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Abstract

The article stated the basic concepts of Data Mining (DM) and Computer Aided of Data Mining (CADM). It highlights the diversity of definitions of DM and the relationship of terms DM and Knowledge Discovery in Databases (KDD). Used research methods as analysis, synthesis and of description. Aim is analysis of the current state of companies that focus on DM. We presented two different perspectives on DM and KDD. Currently are used as synonyms. Over the past two years was the highest increase of the number of companies focusing on consulting and also on Big Data. We found that the increasing trend of usage of free tools such as R, KNIME®, Weka, PYTHON™. In 2016 we assume an even greater share of Big Data tools between DM experts and expansion in the entire world.

Key words: *computer aided of data mining, knowledge discovery in databases, information and communication technology*

JEL Classification: C88, D83, O33

Introduction

Popularity of data mining can be proven by the fact that the result of searching the expression "data mining" in the Google (March 2016) - was more than 112 million pages. First terms of data mining are: information harvesting, data archeology, data destilery (Berka 2003, p.8). The term "data mining" is currently also used under other names. In the Slovak and Czech Republic, we encounter these terms for data mining as e.g.: „Knowledge Mining in Databases“ (Berka 2003), „Data mining“ (Turčínek et al. 2013), „Deeply data analysis“ (Terek 2009), „Knowledge Discovery in Databases“ (Paralič 2003), „Gaining knowledge in databases“ (Janošcová & Jurišová 2012). Today the market offers a lot of tools (software systems), which make the data mining more affordable for most businesses. The trend of the last ten years is the integration of specialized software applications of data mining in business information systems. An example for all can be Pentaho Corporation and the acquisition of highly specialized software application Weka. In 2006 Pentaho Corporation acquired an exclusive license to use Weka for BI (Anon 2016). It forms a sub-module for data mining and predictive analytics system for management decisions Pentaho BI Suite.

Material and Methods

Used research methods as analysis, synthesis and of description. Primary aim is analysis of the current state of companies that focus on DM. Other aim is an analysis and shows of the results of the survey of G. Piatetsky-Shapiro about the usage of software systems for real DM projects. It processes and shows the trends of use of selected software tools from 2009 until 2015. The article points out the current process of increasing the value of Enterprise Resource Planning systems (ERP) with innovative DM applications and appointed obstacles on this path and it proposes ways to overcome them.

Paper uses examination of the concept of data mining in relation to computer aided and DM. It provides an overview of trends and frequency of the use of DM software tools. The aim of this article is to appoint barriers to the implementation of innovative applications into ERP and propose solutions and options to overcome obstacles in applying of CADM in enterprises.

Results and Debate

Knowledge Discovery in Databases or Data Mining?

Data Mining is multidisciplinary in nature (statistics, informatics, machine learning, artificial intelligence, enterprise information systems) and therefore definitions vary by the field of action of the author. Computer experts usually look at data mining as a precisely defined part of the process of Knowledge Discovery in Databases (KDD). Many statisticians use data mining as a synonym for the entire process of KDD. Here are some definition of many:

“Knowledge Discovery in Databases, KDD is non-trivial process of identifying valid, novel, potentially useful and ultimately understandable patterns from data” (Fayyad et al. 1996a).

“Data mining is a step in the KDD process that consists of applying data analysis and discovery algorithms that, under acceptable computational efficiency limitations, produce a particular enumeration of patterns (or models) over the data” (Fayyad et al. 1996b).

“KDD is an umbrella term describing a variety of activities for making sense of data. We use the term to describe the overall process of finding useful patterns in data, including not only the data mining step of running specific discovery algorithms but also pre- and postprocessing and a host of other important activities” (Brachman et al. 1996).

“Data Mining is used to discover patterns and relationships in data, with an emphasis on large observational data bases. It sits at the common frontiers of several fields including Data Base Management, Artificial Intelligence, Machine Learning, Pattern Recognition, and Data Visualization” (Friedman 1998).

“Data mining is the discovery of interesting, unexpected or valuable structures in large datasets...As with all data analysis, data mining is a process; it is rarely a case of one step being sufficient” (Hand 2007). An interesting definition of data mining, which professor M. Terek (EU Bratislava, SR) agrees to, is: “Data mining is a process of discovering various models, summaries and derived values from a given collection of data” (Kantardzic 2011). Currently DM may not be focused only on the database as we know them. Ordinary applications are DM in text files or on the web.

Real DM applications based on multimedia content will be added soon (hadoop). Data Mining has to follow the development in the field of data organization. Therefore, we incline to the notion which operate with the term “data”. Term “acquisition of knowledge from databases” (Knowledge Discovery in Databases, KDD) can now be regarded as a synonym of Data Mining (DM) (Chubukova 2006).

Computer aided of Data Mining (CADM)

Currently there are more than 440 companies with a focus on creating tools for data mining on the market, consulting as well as complex introduction of the data mining. These include such companies as Oracle, Statistica, SAS Institute, Microsoft. Data mining tools can be regarded as an integral part of BI-platform in many cases which also includes tools for building data warehouses and data marketplaces, tools for processing of unexpected questions (Question ad-hoc), means of messages tools (reporting) and Online Analytical Processing (OLAP). Data mining tools can be presented either as a standalone application or as supplements to the basic product. Gregory Piatetsky-Shapiro divides them to six groups:

1. Consulting, Training, and Services companies for Analytics, DM, and Data Science;
2. Product companies for Analytics, DM, and Data Science;
3. Bioinformatics companies;
4. Cloud Analytics and SaaS providers for analytics, data warehousing, DM, and marketing;
5. Data Warehousing and OLAP companies;
6. Market Research and Analysis companies (Piatetsky-Shapiro 2014).

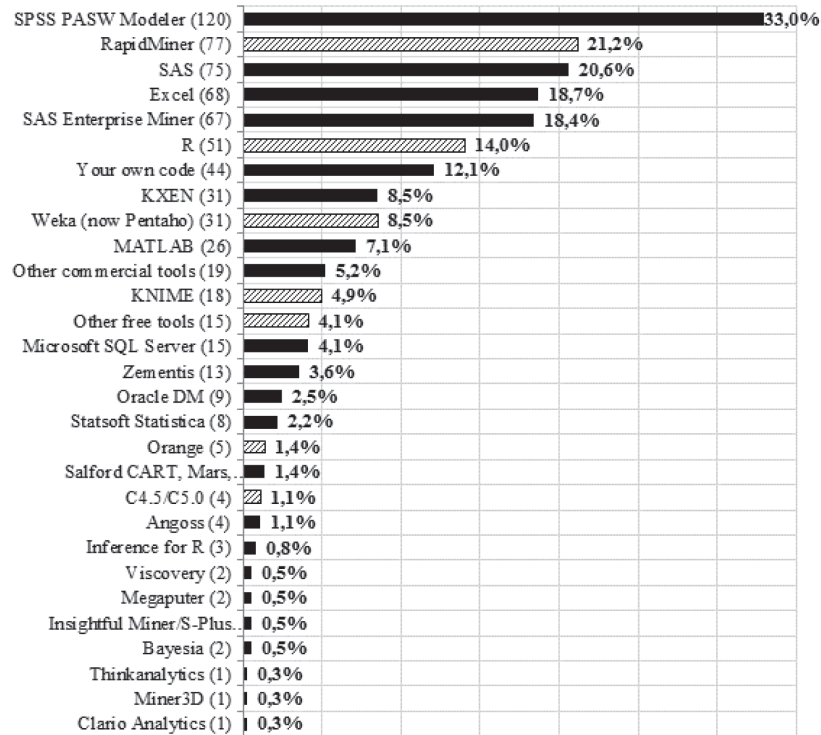
A interesting survey create on your site Gregory Piatetsky-Shapiro and he the names and countries of origin are regularly updated. He focused on the number of companies in Analytics, Data Mining, and Data Science. Here is the group “Data Warehousing and OLAP companies” extended with BI and databses (Big Data). The results of survey show that businesses that focus on data mining create together 447 companies to the 31 January 2016.

When compared to the Janošcová (2014), the number of companies in the field of analytics, data mining and data sciences increased by 40, which is higher for almost 10%, while the highest increase was recorded in companies focused on consulting, training and services for DM Products (increase of 19 companies). Another areas that recorded a high growth number of new companies were the area BI, Database (Big Data), Data Warehousing and OLAP (an increase of 11 new companies).

Development of software systems for data mining deals not only with the best known world leaders, but also with new and rapidly developing companies. The developers of universal statistical packages, in addition to the traditional methods of statistical analysis, insert a certain set of methods Data Mining in the package. These are packages like SAS® Institute (SAS® Enterprise Miner™), Statistica (StatSoft), SPSS (SPSS, Clementine). Some developers of OLAP-solutions also offer a set of methods for Data Mining, for example a family of Cognos products. There are vendors, including Data Mining solutions in database functionality: it is IBM (IBM Intelligent Miner for Data), Oracle (Oracle® Data Miner), Microsoft (Microsoft SQL Server). Market vendors of Data Mining are actively developing. Constantly there are new firms, developers and new tools.

The data of the survey “Tools Data Mining, which you use regularly,” conducted from 2008 as yet at Kdnuggets are very interesting. The results from selected two years (2009 and 2015) are processed and shown in Chart 1 and Chart 2.

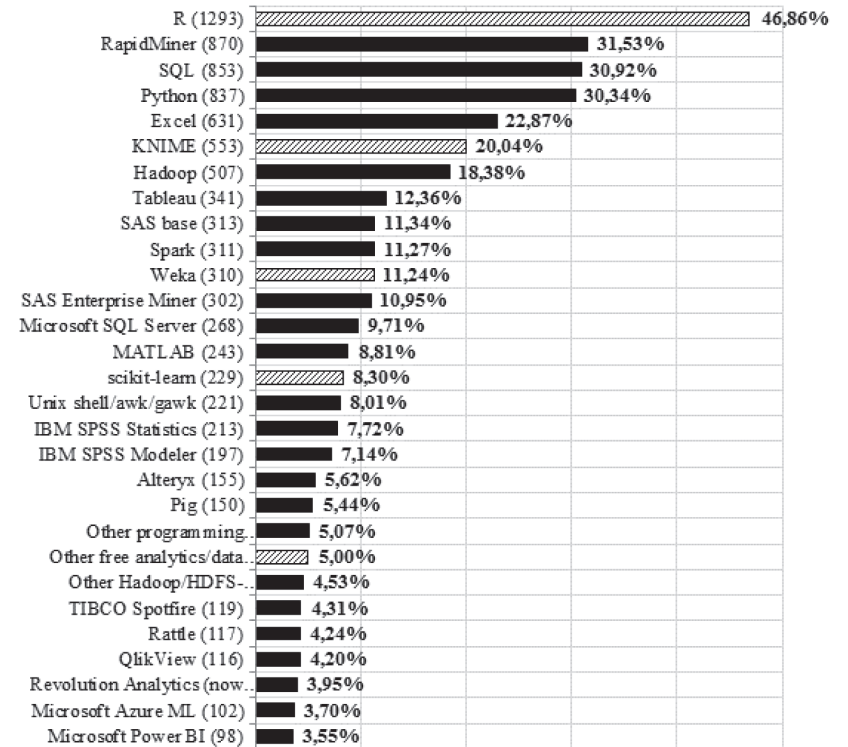
Chart 1 Results of the survey “Tools Data Mining, which you use regularly” (May 2009)



Source: Processed based on the results of the survey conducted in May 2009 at Kdnuggets, <http://www.kdnuggets.com/polls/2009/>

In 2009, the survey involved 364 respondents. They reported 29 software systems for data mining. Free tools with hatched stripe are shown on the graph (e.g. R, RapidMiner, Weka, KNIME®, Orange, C4.5/C5.0). Commercial tools are shown on the graph with black stripe (e.g. SAS®, SPSS, KXEN). The commercial system SPSS PASW Modeler (former Clementine) was on the top. Among the top ten of tools there were three free tools (RapidMiner, R and Weka). The situation gradually changed, and in 2015 more than 3000 respondents indicated 93 different tools for data mining (selected tools are shown on the Chart 3). In the top ten of tools there are two free tools (R and KNIME®). RapidMiner is included among the commercial tools.

Chart 2 Results of the survey “Tools Data Mining, which you use regularly” (May 2015)



Source: Processed based on the results of the survey conducted in May 2015 at Kdnuggets, <http://www.kdnuggets.com/polls/2015/>

Universities and another education organizations, which focus on teaching courses on Data mining, should consider which software system will be preparing their students for practice the best. Anyway, graduates must be excellent at MS Excel, as a commercial tool number one.

On the Chart 3, there are 4 trends of use of seven selected software tools for Analytics, Big Data, DM from 2009 to 2015. Among them are free/open source software tools (R, Weka), commercial tools (Microsoft SQL Server, profi verzion of RapidMiner, IBM SPSS Modeler), Big Data tool (Hadoop) and programming language for analytics/data mining tasks (PYTHON™).

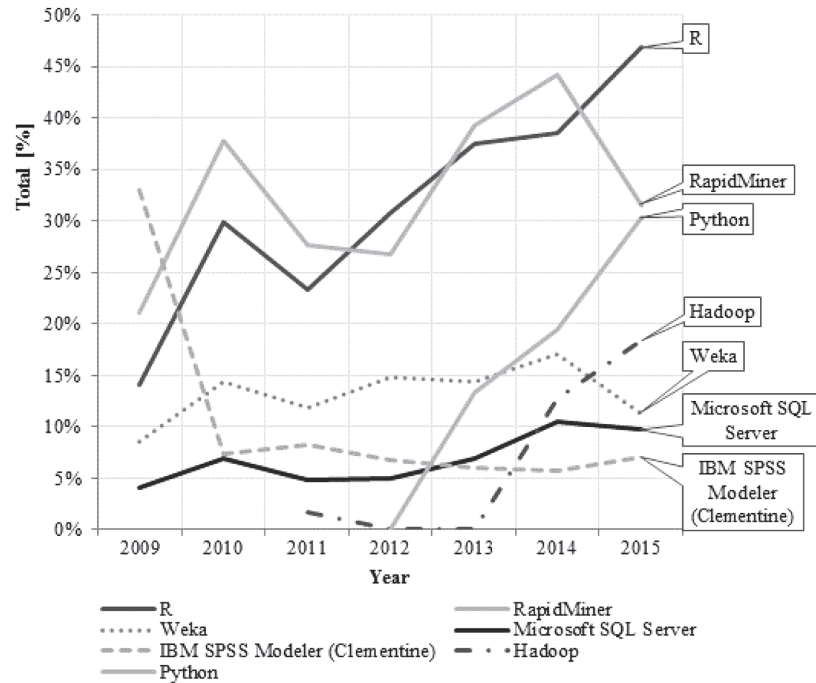
Most popular overall tool among data miners is R. It is a free software environment for statistical computing and graphics (<http://www.rdatamining.com>). Its share was 14% in 2009 and 46,86% in 2015, whose usage share grew over 3-fold during seven years.

Popular tool is also RapidMiner. It is a software environment for DM with free and also with commercial edition (<https://rapidminer.com>). Software poll

KDnuggets ranked RapidMiner in 2015 as a commercial tool. Its share was 21,2% in 2009 and 31,53% in 2015.

Another free software tool Weka (<http://www.cs.waikato.ac.nz/ml/weka/index.html>) is becoming less used as standalone DM system, nevertheless still keeps its fans. Its share was 8,5% in 2009 and 11,24% in 2015. Pentaho Corporation acquired an exclusive license to use Weka for BI which forms a sub-module for data mining and predictive analytics in Pentaho BI Suite.

Chart 3 Trends usage of selected software tools for Analytics, Big Data, DM from 2009 to 2015



Commercial tool Microsoft SQL Server (Relational Database Management System) has a slightly increasing trend the use, but it is still less than other tools (9.71% in 2015). The most popular tool in 2009 IBM SPSS Modeler (former Clementine) fell dramatically in 2010 and at the present its share of use makes up only 7,14% in 2015.

Python is the first most commonly used programming language for analytics/ data mining tasks. Its share was 13,3% in 2013 and 30,34% in 2015, whose usage share grew over 2-fold during three years. Piatetsky-Shapiro (2016) assumes that in the next three years it will reach a share of used tool R. The surge recorded also Hadoop - Big Data tool, which usage grows fastest in Asia. In 2015 there was a notable increase in all Hadoop/Big Data tool usage (e.t. Spark usage share grew over 3-fold).

Conclusion

In the introduction article highlights the fact that now is an age of DM. The reason is that we have too much data and far too little knowledge. Next, we describe the basic concepts and definitions of DM where we presented two different views of DM: Management - informatics and mathematical - statistical. Currently, the two terms of data mining (DM) and Knowledge Discovery in Databases (KDD) are used as synonyms.

We analysed data on the use of CADM for real DM projects. We used annual surveys Gregory Piatetsky-Shapiro on his website KDnuggets. To illustrate, we processed the two results of margin seven years, from 2009 and 2015. We found that the increasing trend of usage of free tools such as R, KNIME®, Weka and Python. It is interesting that there is a decrease of usage of the most popular tool Clementine (now IBM SPSS Modeler) from 33% (2009) to 7,14% (2015). The surge recorded Big Data tools. In 2016, we assume an even greater share of use between DM experts and expansion in the entire world, not just in Asia.

In applying of CADM in enterprises, we point to current process of increasing the value of ERP with innovative DM applications especially in the EIS. Thus, EIS achieves strategic importance for the enterprise and creates competitive advantage. In our opinion, barriers on this path may be:

1. lack of experienced and qualified knowledge managers who are able to obtain and especially correctly interpret the knowledge gained in close collaboration with database experts and application experts,
2. missing, incomplete or incompatible information infrastructure, unmanaged processes of business informatics, absent or incomplete data warehousing and data market places,
3. technical training requirements to successfully implement on a DM study,
4. high costs of software.

We proposed options to overcome these obstacles: cooperation with universities in the area of dual forms of education, investment in education of knowledge workers, implementation, maintenance and improvement processes of business informatics high quality management of data, use of free tools (such as R, KNIME®, Weka) (Janošcová 2014).

The situation in use CADM in the Czech Republic and Slovakia is not mapped in detail, yet we assume that small and medium enterprises use CADM only very sporadically. This would mean to do similar research in this area.

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SPORT ÉS ÜZLET – A GYŐRI AUDI ETO KC PÉLDÁJA

**SPORT AND BUSINESS – THE EXAMPLE OF GYŐRI
AUDI ETO KC**

Nikoleta NAGYOVÁ

Gazdaságtudományi Kar, Selye János Egyetem

Abstract

The main goal of the paper is the analysis of sports, specifically of the ever-evolving activities in the field of marketing, as well as sponsorship and strategies regarding them. The paper contains results of research, in which both qualitative and quantitative research methods were applied. For the purposes of qualitative research we had an interview with the club's head of communications. For the purposes of quantitative research, we chose a questionnaire survey, which was presented to the fans.

Key words: *sports marketing, marketing communication, sponsorship, Győr*

Absztrakt

A tanulmány fő célkitűzése a sportban egyre nagyobb tendenciával fejlődő marketing- és üzleti irányzatú tevékenységek vizsgálata, valamint a szponzorációs tevékenységek és ezzel kapcsolatos tennivalók elemzése. A tanulmány tartalmazza a kutatás eredményeit, amely a szakirodalom feldolgozásával, valamint kvalitatív és kvantitatív felméréssel valósult meg. Kvalitatív kutatás által mélyinterjú készítettünk a klub kommunikációs vezetőjével. A kvantitatív kutatás eszközeként a kérdőíves felmérést választottuk, amely által a szurkolókat kérdeztük.

Kulcs szavak: *sportmarketing, marketingkommunikáció, szponzoráció, Győr*

JEL Classification: L3, M31, Z2

Bevezetés

Az elmúlt időben a sport jelenléte a társadalomban kiemelkedő fejlődési tendenciát mutatott, a gazdasági élet szerves részévé vált, pénzüsszegek milliói forognak a sportágak kínálta lehetőségekben. Ebből adódóan a mai felgyorsult nyereségorientált világban a sportegyesületek és szervezetek csak tervek, vállalkozói ismeretek, kreativitás és a fogyasztók (a szurkolókat úgy kell értelmezni, mint fogyasztók) megismerésével lehetnek sikeresek. A sportegyesületeknek a sikeres működéshez elengedhetetlen a marketing bevonása, hiszen „eladható” terméket/ szolgáltatást kell kínálnia a fogyasztónak és elnyerni az érdeklődést ott, ahol a szükséglet megjelenik és keresletté válik. Ahogy az üzleti vonások megjelentek a klubok részéről, úgy kapcsolódtak be a vállalatok is a sport világába. A sportmarketingben

a fogyasztó a főszereplő, a szponzor pedig a nélkülözhetetlen ágens. További szereplői ennek a modern marketingirányzatnak a sporttermék előállítója, a versenyek szervezői, a létesítmények, az információszolgáltatók, a médiumok és minden egyéb kapcsolatteremtő rendszer. Kutatásunk első lépéseként a témakörhöz kapcsolódó szakirodalmat elengedhetetlennek tartottuk feldolgozni, a megfelelő ismeretek átadása céljából. A cikk további részében kutatásunk eredményeit és az ebből levont következtetéseket ismertetjük. A szakirodalom feldolgozásával és az ehhez kapcsolódó kutatással betekintést nyújtunk a sport és az üzleti élet kapcsolattrendszerébe.

Anyag és módszertan

A tanulmány a szakirodalmi háttér legfontosabb aspektusainak feldolgozását követően primer kutatást tartalmaz, a kutatás eredményeinek elemzésére épül. A Győri Audi ETO KC az egyik legrangosabb kézilabda klubnak számít napjainkban, hosszú múltra tekint vissza. A tanulmány elkészítéséhez a 2016-os évben feldolgoztuk a téma szakirodalmi háttérét a releváns forrásokat alkalmazva, majd egyváltozós mélyinterjú készült a klub kommunikációs menedzserével, valamint egy célzott kérdőív, a szurkolói réteghez. A mélyinterjú által a kezdeti marketinglépésekről, az Audi vállalattal létrejött szerződés utáni változásokról, a jelenlegi támogatói szerződésekről és a jövőbeli célokról kaptunk információkat. Kérdőíves felmérés segítségével a klub által alkalmazott marketingkommunikáció hatásáról informálódunk, továbbá az információátadás minőségéről, a szponzorációs tevékenységekről és a klub egyéb tevékenységeinek szurkolókra való hatásáról szereztünk adatokat. A felmérés online valósult meg és a klub szurkolói egyesületének adatbázisa alapján kerültek kiküldésre a kérdőívek. A kérdések közt egyaránt megtalálható volt nyílt és zárt jellegű kérdés, valamint Likert – skála szerinti kérdéscsoport. A rendelkezésünkre álló adatokat elemezzük.

Eredmények és következtetések

1. Sportmarketing

A marketingtudomány széleskörű bázisába soroljuk a sport marketingjét. Napjainkban a sportban egyre nagyobb tendenciával fejlődő üzleti élet zajlik, pénzüsszegek milliói forognak a sport business-ben. Ennek okán természetessé vált, hogy a marketingszakemberek foglalkoznak az események, élmények, helyek, személyek, vagyon tárgyak, információk, ötletek és szervezetek marketingfeladataival is. Témakörünkre tekintve a felsorolt komponensek közül az esemény lehet pl. a labdarúgó világbajnokság, a személy marketingje lehet bármely sportoló, stb. (Kotler, Keller, 2012) A sportmarketing a termékeknek a sport vagy a sport eredményeinek felhasználásával történő eladásösztönése, a sporttermékek marketingje, a sportnak, mint terméknek a marketingje. A sportmarketing fő irányvonala, hogy a sport témakörébe tartozó termékeket és szolgáltatásokat a sport imázst felhasználva igyekeznek eladni. Valójában ez a marketing elvek és folyamatok speciális alkalmazása a sport jellegű termékek és a nem sport jellegű termékeken keresztül. Ahhoz, hogy sikeres sportmarketing szakember lehessen valaki, rendkívül tájékozottnak kell lennie a sportiparban, valamint ezt meg is kell értenie, ennek függvényében pedig tudni kell alkalmazni a marketing elemeket és folyamatokat a sport kontextusában. (Shank, Lyberger, 2014) Ebben a gazdaságban a gólok száma, a nyereségek és veszteségek aránya, a lefutott kilométerek

száma lehet a meghatározó a kereslet számára. Egy másik megközelítésből pedig nem is az arányok a fontosak, abban az esetben ha a klub tagja egy világhírű sztár sportoló, eltekinthetünk a számtani értékektől és az eszmei értéket veszi át ezt a pozíciót. (Blair, 2012)

A sportmarketingen belül megkülönböztethetünk 2 irányvonalat. Az egyik a sport marketingje, a másik pedig a marketing a sporton keresztül. A sport marketingje alatt maga a sport eladását, propagálását értjük, valamint ide sorolva a sportesemények, klubok, sportolók, a „játék” marketingjét. A sporton keresztül marketingen a különböző vállalatok marketingtevékenységét értjük, amelyet bizonyos sportaktualitások segítségével valósítanak meg. Kiváló mód erre a szponzoráció vagy egy sztár sportolóval kötött szerződés. (Mullin, Hardy, Sutton, 2014)

Az eddig ismert pozíciója a sport csapatoknak, szervezeteknek és sportolóknak napjainkra ártértékelődik, a modern elméletek és gyakorlati tapasztalatok alapján úgynevezett életstílus márkává válnak. A csapatok összekapcsolódnak a fogyasztókban létrehozott emóciókkal és ezen keresztül hozzárendelik a saját márkájukhoz. (Desbordes, Richelieu, 2012) Ezt a nagy világmárkák ki is használták, például a FIFA labdarúgó világbajnokságok esetében, amikor focis reklámok sokaságát készítik el, a focilázból származó haszon érdekében (Blahó, Czako, Poór, 2016).

Nufer és Bühler a sportmarketing részterületeiként a következőket definiálják: Álcázott (ambush) marketing a sportban, Business to Business marketing, Etika, Esemény – marketing, Hospitality marketing, Márkamenedzsment, Piackutatás, Piacszegmentáció, Merchandising, Neuromarketing, Jogok, gazdálkodás a jogokkal, Kapcsolati marketing, Közösségi marketing, Közösségi média, Szponzoráció, Híreségek reklámozása, Jegyiadás, Virtuális reklám. (Nufer, Bühler, 2013)

2. A marketing – mix elemek integrálása a sportmarketingben

A sportmarketing alkalmazza szintén a marketing – mix elemeit, viszont a legfontosabb tényező a kommunikációs mix, ezen belül is a PR és a reklám. A PR túlnyomó többségét a szervezeti arculat, vállalati identitás képezi, vagyis a Corporate Identity. Ide sorolandó a szervezeti design, kommunikáció, szervezeti kultúra és a szervezet „terméke, ill. szolgáltatása”. Mindezek kapcsolódnak egymáshoz. A sportszervezetek szervezeti identitása magába foglalja a szervezet filozófiáját, a szervezeti design-t, a márkát, a szervezeti kommunikációt, a szervezeti kultúrát és a terméket/szolgáltatást. (Voráček, 2012)

A hivatásos sport működtetésének egyik legnagyobb kérdése, hogy rendelkezésre áll – e elegendő forrás a sportolók felkészítésére, versenyztetésére, a megfelelő létesítmények biztosítására és egy olyan szervezet működtetésére, amely képes a szurkolók megszólítására és kiszolgálására. A hivatásos sport piacán minden jelenlévő szervezetnek és egyénnek biztosítania kell a cash flow management. Esetünkben 2 féle bevétel jöhet szóba a fogyasztókra alapozott bevételek csoportjában. Az első csoport a közvetlen fogyasztói bevételek (jegybevétel, merchandising, helyszínen realizálható bevételek), a másik csoport pedig a szervezeti vásárlóktól származó bevételek (közvetítési bevételek, szponzorációs együttműködésből származó bevételek). (Ács, 2015)

A kommunikációs kapcsolat jellegét szakmai sajátosságok határozzák meg, ugyanis a reklám jellegét tekintve „eladási üzenetben” érdekelt, míg a public relations pedig párbeszédben. A piac fejlődésének is köszönhetően napjaink reklámtévékenysége nem csak a közvetlen eladásra hagyatkozik, hanem párhuzamos feladatként tartja számon a látens és potenciális fogyasztók megnyerését, az emberi szükségletek mesterséges fejlesztését és a fogyasztók motiválását, promócionálását

is. A reklámtevékenységeknél a magas költségek miatt a visszacsatolás csak esetleges, ugyanis a rendszeres kutatások a fogyasztók irányában magas költségekkel járnának. Ezzel szemben a public relations tevékenység elképzelhetetlen visszacsatolás nélkül, ugyanis interaktív viszonyról van szó a kommunikátor és az üzenetek címzettjei közt. (Szeles, 1999)

Az integrált marketingkommunikáció nem csak egy eszköz, hanem fontos tényezője annak érdekében, hogy a szervezet sikeres legyen. Szükséges a modern kommunikációs eszközök alkalmazása és a haladás a modern korral. (Varmus, Kubina, 2015)

A sportmarketing egy multidiszciplináris tudomány forma, üzleti életből, marketingből, szociológiából és pszichológiából tevődik össze. Tehát azoknak a multidiszciplináris komponenseknek a jelenléte, amelyek a sportmarketinget képezik, elengedhetetlen és elválasztani sem lehetséges őket egymástól. (Marketing for Sport Business Success, 2012)

3. Szponzoráció

A következő jelentős bevételforrás és egyaránt imázsnövelő folyamat a szponzoráció. A szponzorálás a sportmarketing alapját képezi, valójában a marketing, a reklám és a PR fúzióját jelenti. Egyszeri vagy hosszú távú, folyamatos anyagi vagy ritkán természetbeni támogatást jelent. Nagy előnye, hogy a célközönséget érzelmi és szokásai alapján célozza meg, kedvelt időtöltésük alatt. Célja közvetlen asszociációt teremteni a sportesemény/sportszervezet és a támogatást nyújtó vállalat közt. (A magyar sportmarketing fejlesztésének szükségessége és lehetőségei, 2015)

Az Európai Szponzorációs Szövetség (ESA) az ICC meghatározása alapján a következőképp definiálja a szponzorációt: „A szponzoráció egy olyan, a szponzor és a szponzorált kölcsönös előnyszerzésén alapuló kereskedelmi megállapodás, amely szerződéses formában biztosítja a szponzor pénzügyi vagy egyéb támogatását annak érdekében, hogy a szponzorált imázsával, márkájával vagy termékeivel összekapcsolhassa magát és közvetlen vagy közvetett előnyöket tudjon realizálni cserébe az együttműködésért.” (Ács, 2015, 193.old.)

A szponzorálással a sportban különösen megéri foglalkozni, óriási nézőközönséget hoz. Ez egy kiemelkedő lehetőség, ami segítségével egy szervezet vagy egyéni személyek ismerté válnak az általuk szponzorált klub, esemény vagy sportoló nevével összekötve. A szponzoráció a marketing egyfajta kifejezése a sporton keresztül. Egyúton nevezhető egyfajta imázs transzfernek. (Hoye, Smith, Nicholson, Stewart, 2015) A szponzorálás további eladási- és reklám lehetőségeket kínál a vállalatnak a sport és a vállalati élet összekapcsolódása által. (Časlavová, 2009)

A szponzoráció nevezhető egy kommunikációs technikának, amely lehetővé teszi egy bizonyos esemény, televíziós relációk, publikációk és egyéb megvételét vagy támogatását úgy, hogy a szervezetnek lehetősége van reklámozni a márkajelét, nevét és ismertetőjeleit. (Mura, Lincényi, 2015) A szponzoráció egy nagyszerű lehetőség a vállalat társadalmi felelősségvállalásának (CSR) a híresztelésére, nevezhetjük egy eszköznek a vállalati imázs pozitívumainak a fejlesztésére, ez okból is alkalmazza számos szervezet a szponzoráció különböző formáit. (Plewa, Carrillat, Mazodier, Quester, 2016)

Sok esetben hallunk sportolókról, mint márka. A szponzorálásban is széles spektrumú ismertségre és kedveltségre tehet szert a vállalat, ha egy sztársportolón található meg a márkajelzése. Ezért is sok esetben a sportolók különböző vállalatoktól kapják felszerelésüket, amelyeket a versenyeken viselnek, ezáltal pedig híresbítik a vállalatot. (Preuss, Huber, Schunk, Könecke, 2014)

A vállalatok előszeretettel működnek együtt híres sportolókkal. Mindehez olyan sportolót kell választania a vállalatnak, amely elviekben is azonosul a termékkel és a szervezettel, ezt a mindennapjaiban is át tudja adni a fogyasztóknak, úgynevezett mintaképet is alkot, mint mintafelhasználó. (Vierira, Kato, Brito, Espartel, 2012)

4. A Győri Audi ETO KC marketingtevékenységének elemzése

Primer kutatásunk része a kommunikációs igazgatóval megvalósult mélyinterjú kutatás. Ennek elemzéséből az alább olvasható információk mondhatóak el.

A klub a legnagyobb hangsúlyt az utánpótlásnevelésre és a kiemelkedő sporteredmények megtartására és ismétlésére fekteti. A jövőben is Magyarország és Európa kiemelkedő sportközpontja kíván maradni. Játékosnevelésével a klub kiszolgálja egész Magyarország területén található csapatokat, hiszen azok a játékosok, akik nem kerülnek be az ETO első csapatába, azok vagy az ország további élvonalbeli csapataiban szerepelnek, esetleg európai klubcsapatokban versenyeznek.

A klub mindennapi tevékenységére is hatással volt a fejlődő gazdasági élet követelte fejlesztés, így a marketingtevékenység megjelenése és integrálása a klub életében elengedhetetlen volt. Ahhoz, hogy lépést tudjanak tartani a társadalommal és az üzleti, illetve non-profit szférával egyaránt, a következő lépések elengedhetetlenek voltak: médialista, fotódokumentáció, sajtóesemények szervezése, sajtófigyelés, imázsnövelő tevékenységek, szponzorok meghívása. Ezek a tevékenységek segítik a klubot a marketing magas szintű művészetére, amelyből következtetni lehet a modern követelmények elérésére.

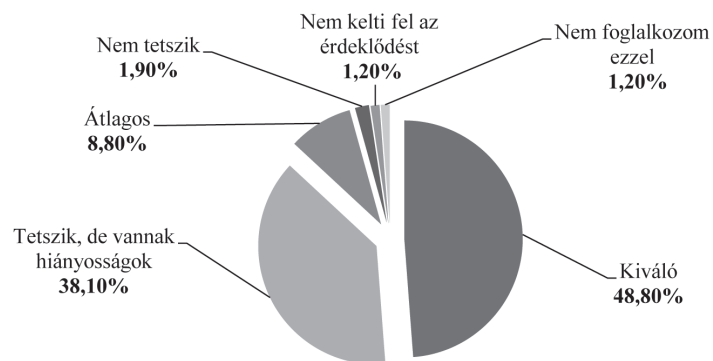
A klub a nagyobb támogatókat megkeresés által szerzi meg, ilyen volt az Audival létrejött szponzorszerződés is, amely a klub részére hosszú évek kitartó munkájába telt. Ebből következtetni lehet arra, hogy a vállalatok hírnevét növeli, ha olyan klubot támogatnak, amely a sportban sikereket ér el, hiszen a nevüket azonosítják egymással. Az Audi Hungaria is abban az időben vált az ETO támogatójává, amikor ez az együttműködés számára is hasznosnak bizonyult. Gazdaságilag előnyös egy sportklub névadó szponzorának lenni, valamint egyéb támogatónak is, hiszen a klub a sikerek által Európa- és világszerte eljuttathatja a vállalatok hírnevét a fogyasztókhoz. Ebből következően a fogyasztók vásárlási szándéka átalakulhat cselekedetté, amely érinti a vállalatot, mivel összevonják a kedvelt klub nevével és ebből a vállalatnak gazdasági bevétele keletkezik.

A klub a jövőbeli céljai közt is számon tartja az új szponzorok akvizitálását, amellyel újabb, mindkét fél számára értékes együttműködésre tehet szert. A klubelnök elmondása alapján a klub bevételei között a fősponzor Audi által biztosítottak (17 %) mellett jelentős a TAO-támogatás (24 %) és az önkormányzat szerepvállalása (23 %), míg a kiadások legnagyobb részét a személyi kifizetések (64 %) jelentik.

Kutatásunk következő fázisa a szurkolóktól kapott visszacsatolásra irányult. Kérdőíves felmérés formájában kerestük fel a válaszadókat, a szurkolói egyesületen keresztül. A továbbiakban elemezzük az eredményeket.

A köztudat alapján feltevésünk szerint a klub kommunikációja a szurkolók felé rendkívül minőséges. A szurkolók és a klub kapcsolatára irányuló kérdéscsoport a mérkőzések alatti és a mindennapi közönségkapcsolatok, a visszajelzések fogadása, az információátadás és a fontosságérzet tényét vizsgálja. A kérdőíves felmérés alapján a szurkolók többsége pozitívan vélekedik a közvetített kommunikációról.

1. ábra A klub marketingkommunikációjának értékelése a szurkolói réteg által

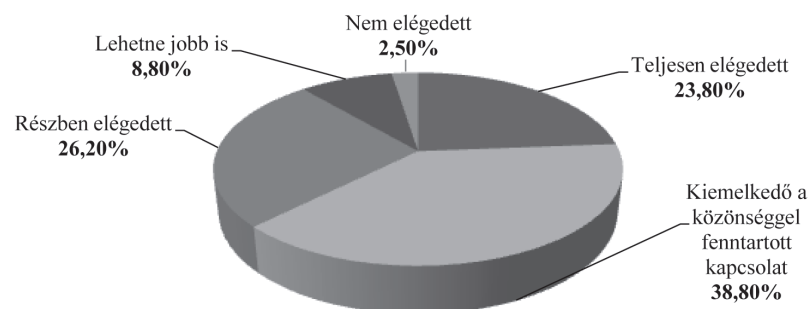


Forrás: saját vizsgálat alapján, 2016

Két csoport a legmeghatározóbb, az első szerint kiváló a kommunikáció, a megkérdezettek 48,8 %-a gondolja ezt. A másik meghatározó csoport szerint (38,1%) is figyelemfelkeltő a marketingkommunikáció, viszont akadnak hiányosságok, de összességében jó benyomást tesz rájuk. Ez a két csoport együttesen a minta nagy többségét, számszerűen 86,9 %-ot tesz ki, tehát a minta 86,9 %-a szerint a klub marketingkommunikációja pozitív. Az elégedettségérzetet tekintve összesen a minta 62,6 %-a elégedett. A kérdéscsoportok szurkolói elégedettségre irányuló, kiragadott része az alábbi ábrán látható.

Egy másik releváns faktor a sportklubok sikerességének a mérésére a szurkolók visszacsatolása a szervezet közönségkapcsolati igyekezeteire vonatkozóan. Az következő oldalon található ábrán mutatjuk be az ETO esetét:

2. ábra Közönségkapcsolatok szurkolói értékelése



Forrás: saját vizsgálat alapján, 2016

Az ábrán látni lehet, hogy a válaszadók legnagyobb hányada (38,80%) szerint a közönséggel fenntartott kapcsolat kiemelkedően pozitív, további 23,8 %-a a megkérdezett szurkolóknak pedig teljesen elégedett a közönségkapcsolatokkal. Ez a

két csoport, összesen a minta 62,6 %-a testesíti meg a pozitív véleményt. A középásvan az a 35 %-a szerepel a szurkolóknak, akik részben elégedettek a kapcsolattartással, amelyet a klub jobban is alakíthatna véleményük szerint. A válaszadók meglehetősen kis hányada nem elégedett a klub kapcsolattartásával, amelyet akár pozitívan is lehet értékelni, számszerűen 2,5 %, amely a 160 válaszadóból 4 személyt jelent.

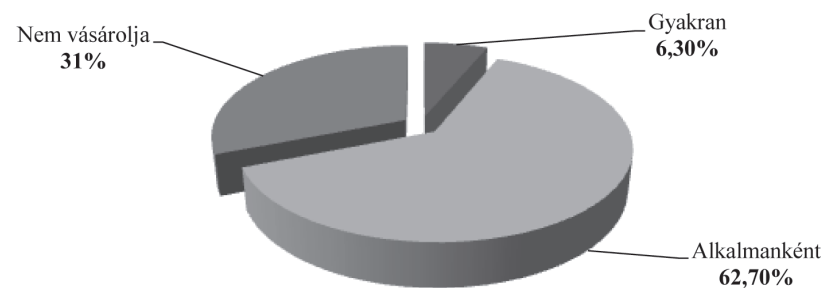
5. A szponzorációs folyamat és a vállalati ismertség kapcsolata a Győri Audi ETO KC példáján keresztül

A kutatások további részében vizsgáltuk a szponzoráció és a vállalati ismertség kapcsolatrendszerét. Megemlíthető, hogy a szponzorációnak is megvan a maga marketingje, amikor is a klubok a vállalatokat marketing jellegű tevékenységekkel ösztönzik a támogatásra.

Állításunk szerint a szponzoráció és a vállalati ismertség közt észlelhető kapcsolat. Az első funkció, amely ide sorolható, az a névadó szponzor esete. Egyértelműen kiténik a kutatásból, hogy a szurkolók az Audi vállalattal azonosítják a klubot. Az Audi Hungaria Motor Kft. nevét a megkérdezettek elsőként kötik össze a klubbal, látható az eredményekből a névadó szponzorálás jelentősége, hírneve a fogyasztókhoz elsőként jut el a klub nevét alkalmazva. A felmérés alapján szinte az összes válaszlehetőségnél az Audi szerepelt elsőként, a 160 válaszadóból 158 helyezte első helyre a szubjektív szponzorismeret szempontjából a névadó szponzort.

További összefüggés az, amely esetben a klub a támogató vállalattal együtt bizonyos rendezvényeket szervez. Ezáltal ez az esemény megmarad a médiában, híre fogyasztók széles skálájához eljut. Erre példa a kérdőíves felmérés alapján a Hajdú sajtó esete, amely rövid ideje támogatja a klubot, viszont a közösen rendezett verseny által a szurkolók tudatában nyomot hagyott és az ismertségi skálánkon a második helyet foglalja el. A felmérés alapján a szurkolók a kisebb támogatókat, amelyek nem vesznek részt különböző hírverésben együtt a klubbal, nem ismerik olyan mértékben, mint a rendezvényekkel összekötött vállalatokat. Mindezen kutatási eredmények tudatában, és a következő eredmények alapján elmondható, hogy a szponzoráció hatással van a szervezeti életre. Ezt az alábbi ábrán is szemléltetjük részben.

3. ábra Támogatók termékeinek vásárlása a mindennapokban

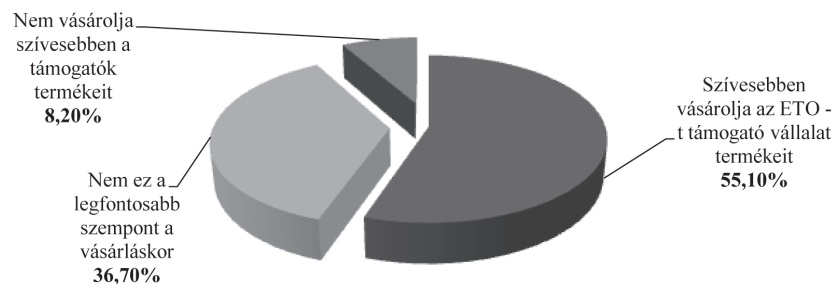


Forrás: saját vizsgálat alapján, 2016

Ha egy szurkoló a kedvelt klubjával összeköt egy vállalatot, szívesebben választja a támogató vállalat termékét vásárláskor. A mindennapi vásárlásokra tekintettel a szurkolók 6,3 %-a rendszeresen a támogató vállalatok termékeit vásárolja.

Ez az arány pozitívan hat a vállalati értékesítésre, viszont növelhető. Összességében a szponzorok részére pozitív eredmény jött létre, az alkalmankénti vásárlásokkal a válaszadók 62,7 %-a jelent bevételforrást a vállalatnak, amely pozitív visszacsatolást jelent, tehát a minta alapján a szurkolók 69 %-a szerzi be mindennapi bevásárlásai alkalmával a szponzorok termékeit.

4. ábra Vásárlói magatartás két azonos termék esetében különböző márkánévvel



Forrás: saját vizsgálat alapján, 2016

Két különböző márkánév esetében a szurkolók 55,1 %-a kifejezetten a kedvenc klubjukat támogató vállalatok termékeit választja, 36,7%-uknak nem ez a legfontosabb szempont a vásárláskor, viszont ha lehetőségei engedik, szívesebben választják a szponzorok termékeit ők is. Az adatok alapján egyértelműen kijelenthető, hogy a klubok támogatása jótékony hatással van az értékesítésre. A kutatás adatai alapján tehát elfogadjuk a feltevést, miszerint a vállalatok szponzorációs tevékenysége befolyással van a szurkolói réteg vásárlási szokásaira.

Befejezés

A tanulmány a sportmarketinget, a marketingkommunikációt, a szponzorálást mutatta be a szakirodalom kutatásával és feldolgozásával, valamint a választott sportklub példáján keresztül pedig empirikus kutatást végezve. A sportnak a közkeletűsége által is hatalmas befolyása van a marketing világra. Gondoljunk csak a híres sportolók által reklámozott termékekre/szolgáltatásokra, amelyekkel a fogyasztók széleskörű csoportját szólítják meg, ennek okán szükséges a sportot, mint terméket elemezni, a szurkolókat pedig fogyasztóként számon tartani. A modern társadalom sportcsapatainak gazdaságilag is sikeres működéséhez elengedhetetlen ennek a szemléletmódnak az alkalmazása. A sport és az üzlet kapcsolata láthatóan egyre nagyobb jelentőséggel bír, pénzüsszegek milliói fognak egyes sportok területén lebonyolított üzleti tevékenységek által, így gazdasági hatása nem kétséges. A sport, mint termék és a marketing - mix sportban használt elemeit bemutattuk, valamint a szponzorációs ismérveket is felvázoltuk. Ismertettük a vállalatok és a sportegyesületek közti kapcsolatot, az egyes felek céljait és előnyeit, érdekeit. A kvantitatív kutatásunk keretein belül egy kérdőíves felmérést készítettünk a klub szurkolóival, amelynek eredményeit összevethetjük a klub kommunikációs vezetőjétől meg tudott adatokkal. A szurkolókhoz készült kérdőívből tudomást szereztünk a klub marketingtevékenységének szurkolói részről történő értékelésről, az egyes

tevékenységek minősítéséről, a szponzor szintű vállalatok befolyásáról. Összességében a kutatás által célunk volt bemutatni egy ismert sportklub marketingtevékenységét a gyakorlatban. Célunk volt a kezdeti marketingtevékenységek felvázolása egy sportklub esetében, egy nagyvolumenű támogatási szerződés hozadékainak vizsgálata, valamint a szponzor és a sportegyesületek kapcsolatának elemzése. A Győri Audi ETO KC sem volt minden időben ilyen mértékben marketingorientált, mint napjainkban. Fejlődését a kor előrehaladásához köthetjük, a klub vezetősége kénytelen volt a marketing széles skálájú eszköztárához nyúlni, valamint az üzleti szférát bevonni a működésbe, ha továbbra is sikeresen fenn akart maradni. Szponzorkapcsolataikat magas szinten ápolják, folyamatos tájékoztatások, rendezvények, kiszolgálás jár a szponzoroknak, ezen felül pedig rendszeresen keresnek új támogatókat. A szurkolók részéről elmondható, hogy elégedettek a klub tevékenységével, mind a sportsikerek és a közönségkapcsolatok terén is. Igaz bizonyos területeken akadnak hiányosságok a véleményünk szerint. Összességében elmondható, hogy a marketing és a business napjainkra a sport szerves részévé vált, elengedhetetlen egy sikeres sport szervezet fenntartásához.

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THE DEPENDENCY OF ONLINE REPUTATION AND FINANCIAL PERFORMANCE OF COMPANIES IN SELECTED INDUSTRY

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Abstract

The presented study examines the online reputation of European companies from the field of the food industry and its relationship to the financial performance ratios. After the scientific scrutiny, an interesting fact emerged, that customers are not influenced by financial performance ratios since the statistics are not significant. Our hypothesis was therefore confirmed, more specifically that the financial performance and the online reputation are two independent areas and are not connected by any means. In conclusion, as we expected, online reputation depends upon values and emotions transmitted by the power as well as the brand.

Key words: *reputation, online, financial performance,*

JEL Classification: M21, M39, G32

Introduction

The main goal of this paper is to find out whether we can prove an existing relation of online reputation and the financial performance ratios through the analysis of a random sample. This sample consists of 60 European public limited companies belonging to the Food Industry. The results show that Performance Measurement Ratios and Online Reputation are independent each others. Our study contributes to the literature in the following way. The Online Reputation has become increasingly important over the past year, either for large and small and medium size enterprises. Our analysis presents an approach to the study of the relationship between Online Reputation and Financial Performance.

In the following section we discuss the theoretical background through the literature and by going into details of the definition of Online Reputation. The third section provides the research methodology and Data analysis. In the fourth section we present the empirical results. The fifth section provides conclusions and comments on the paper. Several suggestions for further research are also presented. In the research we work with the following hypothesis H0: Overall, there is no linear relationship between financial performance ratios and online reputation through the analysis of a random sample of public limited companies belonging to the European food industry.

Background Research and Definitions

Reputation is a concept commonly used in Internet marketing and it generally means an overall presence on the Internet. We can compare it to leaving footprints. All activities are interconnected and complement one another (Janouch. 2011. p. 17). Each company has a reputation or online reputation, whether they want it or not; the reputation does exist (Marsden 2013). If you are running your own business, you should not leave your reputation to chance. It is your ultimate responsibility. Company's reputation is considered to be very valuable asset. As George Washington once said: "With a reputation you can do anything, without one nothing" (Haywood 2002. p. 9). However, if we consider corporate reputation, its definition is a bit complicated (Griffin 2008). Balmer and Greyser (2003) characterize corporate reputation as being created over time, based on what the organization did and how it behaved. According to Bromley (2002), company or corporate reputation only reflects relative standing of the company, both internally with its employees and externally with other stakeholders, in its competitive as well as its institutional environments. Highhouse defines corporate reputation as a global, stable over time, evaluative judgement about a company that is shared by multiple constituencies (In: Helm et al. 2011). It is a pure reaction of customers, investors, employees and other stakeholders. It is a collective judgement of individual impressions (Gottschalk 2011).

Companies have invested large amounts of financial resources and hired agencies and marketing professionals to prepare communication campaigns to support such brand image that would create an incentive for the customers to make purchases (Leboff 2011). This argument is supported by Smaiziene and Jucevicius (2009) who claim that companies prefer to focus primarily on the image and leave the reputation behind. Grant Leboff (2011) mentions that the image is not a guarantee of positive comments and recommendations. These will only be achieved due to good reputation. In other words, the foundation of modern marketing is not the image which the company strives to create, but the reputation which it has actually established. As regards the image and reputation, Bennet and Kottasz point out time dimension (time of creation) as the main characteristics which distinguish these two constructs. In other words, company's image can be created in a short time. Reputation is generated in a longer time frame and therefore cannot be changed or redirected as quickly as the image (In: Smaiziene, Jucevicius 2009). Such an approach is also supported by Jackson (2004) and Cornelissen (2004) who argue that the time of establishment or creation is one of the main differences between the image (short time of creation) and reputation (long time of creation). Fill (2009) perceives reputation as wider set of images. He is also of the opinion that reputation change is more time consuming and difficult while image can be influenced much faster. Therefore, it may be said that reputation and image are not synonymous, as some authors point out, yet they are closely related and interdependent elements.

Walter (2013) argues that reputation in life and business is everything. It means that reputation is very fragile and one mistake may sometimes cause irreversible damage. This is especially true in the digital world where radical transparency and demanding customers have the greatest power. According to Chernatony et al., if the Internet offers consumers a new way to share information about companies and brands, then it also allows the companies to control information about them. Consumers are able to obtain information on potential suppliers and products, but they can also create new content on the Internet which may affect the perception of other consumers and stakeholders of the respective company. Negative comments on the Internet can

quickly and seriously damage the image and reputation of the brand (In: Siano et al. 2011), eWOM (electronic word of mouth) is an important part of online reputation. According to Henning-Thurau (2004), this form of communication may be defined as any positive or negative statement made by potential, actual or former customers about a product or company via the Internet. Jun Loayza (2013) presents basic principles of online reputation management which he divides into various segments such as Quick Fix. Long-Lasting, Content Driven and Relationship Driven.

Material and Methods

The analysis was conducted on the top 20 Public Limited Companies and other 40 picked randomly from the list of all public limited companies belonging to the Food Industry in Europe. We selected the public limited companies with more than 500 employees in the last available fiscal year (2013). These companies were ranked by Sales Revenues. The following is the sampling process which shows the selection criterion: Country - All European Countries, Legal form - Public Limited Companies, Industry sector - NACE Rev.2: 10 - Manufacture of Food Products, Selection criteria - Number of Employees min=500 in year 2014. Second selection criterion is as following:

Table 1

| The first 20 companies | 20 companies randomly | 20 companies randomly |
|------------------------------|--|----------------------------|
| Sales Revenues > 1.000.000 € | 1.000.000 € < Sales Revenues < 200.000 € | Sales Revenues < 200.000 € |

Source: own elaboration

According to the previous table, 60 companies were selected from three brackets: 20 of them achieved Sales Revenues higher than € 1.000 million, other 20 companies between € 200 million and € 1,000 million and the last 20 less than € 200 million. A coding sheet was used for data collection. The coding sheet was developed in Excel spreadsheet and included the name of the company, the country and the 6 financial performance ratios: ROAE, ROE, Current Ratio, Quick Ratio, Debt To Equity Ratio and Funded Capital Ratio. Performance measurement is a topic which is often discussed over the past decades. It can be defined as the process of quantifying action where measurement is the process of quantification and action leads to performance (Healy et al. 1995; Michalski 2010). According to the marketing perspective, organizations achieve their goals - that is they satisfy their customers with greater efficiency and effectiveness than their competitors. The terms efficiency and effectiveness are used precisely in this context. Effectiveness refers to the extent to which customer requirements are met, while efficiency is a measure of how economically the company's resources are utilized when providing the given level of customer satisfaction. This is an important point because it not only identifies two fundamental dimensions of performance, but also highlights the fact that there can be internal as well as external reasons for pursuing specific courses of action. In this paper, we will consider six main effectiveness-related dimensions of performance according to Bragg (2007), which better describe the economic and financial conditions. These ratios are enclosed in the beginning of this paragraph.

In doing so, we examine the relationship between the above mentioned indicators (explanatory variables) and the Online Reputation in order to see if people

generally based their choices on financial information in Food Industry. One of the most commonly used systems for the evaluation of online reputation in Europe is sentiment analysis. This area was previously investigated by Rajzák et al. in order to evaluate online reputation of banks (2010). It records ratings of top 10 results in Google search. After counting sentiment points we achieve a resulting value which is a starting point for the evaluation of the success or failure of a company in a particular segment. In order to minimize the presence of personalized search results via location, search history or cookies, a proxy server has been used to eliminate these personal factors. In order to minimize the impact of subjective representation of the results, the score was prepared independently by three people, and the resulting table is based on average ratings. Search phrase used was in all cases established name of these food companies. The score obtained on individual positions was subsequently counted and the final result, i.e. the total points obtained indicates the strength of sentiment of all ten results in the search engine google.sk for the specific resort. The final score thus represents the final factor for the evaluation of the success or failure.

Table 2

| Sentiment / Position of the result | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| + | 20 | 19 | 18 | 17 | 16 | 15 | 14 | 13 | 12 | 11 |
| X | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| ± | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| - | -20 | -19 | -18 | -17 | -16 | -15 | -14 | -13 | -12 | -11 |

Source: Rajzák, 2010

Results and Debate

The general findings were compared and reported in the below tables. The following are the general statistics on correlation between performance indicators and Online reputation. The online reputation analysis table, which shows the final ranking and points score of selected companies is one of the main input sources of data for following analysis stages, however it is not presented in this paper due to its extensive size.

Table 3 Descriptive Statistics

| | Nobs | Min | Max | Mean | St. Dev |
|------------------|------|--------|-------|---------|---------|
| ONLINE_REP | 60 | 18.00 | 61.00 | 40.9333 | 9.85637 |
| ROA | 60 | .00 | .25 | .0676 | .05041 |
| ROE | 60 | .00 | 2.34 | .1529 | .29912 |
| CR | 60 | .44 | 3.19 | 1.3749 | .57542 |
| QR | 60 | .29 | 2.38 | .9431 | .42632 |
| D_E | 60 | -15.30 | 20.54 | 1.8688 | 3.72939 |
| F_C | 60 | -32.84 | 3.18 | .5807 | 4.41169 |
| Valid (listwise) | 60 | | | | |

Source: own elaboration

Table 4 Correlation Matrix

| | | ONLINE_REP | ROA | ROE | CR | QR | D_E | F_C |
|------------|-----------------------|------------|--------|---------|--------|--------|---------|-------|
| ONLINE_REP | Pearson's Correlation | 1 | .031 | .002 | -.060 | -.086 | .124 | -.002 |
| | Sig. (2-code) | | .816 | .987 | .648 | .513 | .346 | .989 |
| | N | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| ROA | Pearson's Correlation | .031 | 1 | .106 | .486** | .416** | -.094 | .232 |
| | Sig. (2-code) | .816 | | .419 | .000 | .001 | .474 | .075 |
| | N | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| ROE | Pearson's Correlation | .002 | .106 | 1 | -.112 | -.135 | -.629** | -.093 |
| | Sig. (2-code) | .987 | .419 | | .392 | .302 | .000 | .482 |
| | N | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| CR | Pearson's Correlation | -.060 | .486** | -.112 | 1 | .862** | -.106 | .222 |
| | Sig. (2-code) | .648 | .000 | .392 | | .000 | .420 | .089 |
| | N | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| QR | Pearson's Correlation | -.086 | .416** | -.135 | .862** | 1 | -.073 | .171 |
| | Sig. (2-code) | .513 | .001 | .302 | .000 | | .577 | .191 |
| | N | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| D_E | Pearson's Correlation | .124 | -.094 | -.629** | -.106 | -.073 | 1 | .097 |
| | Sig. (2-code) | .346 | .474 | .000 | .420 | .577 | | .461 |
| | N | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| F_C | Pearson's Correlation | -.002 | .232 | -.093 | .222 | .171 | .097 | 1 |
| | Sig. (2-code) | .989 | .075 | .482 | .089 | .191 | .461 | |
| | N | 60 | 60 | 60 | 60 | 60 | 60 | 60 |

** Correlation is significant at level 0.01 (2-code).

Source: own elaboration

As we can see from the previous tables, the Correlation Matrix supports/ confirms our hypothesis in the way that there is no correlation between the online reputation and the performance ratios. The Pearson's Correlation values indicate that each of the performance ratio has no kind of relation with the online reputation. In doing so, we may point out that financial performance and online reputation represent two independent areas.

Conclusion

Results seek to investigate whether there exist a relationship between financial performance and online reputation among a random sample of 60 European public limited companies operating in Food Industry. According to the below analysis, we found that main financial performance ratios (ROA, ROE, Current Ratio, Quick Ratio, Debt to Equity Ratio and Funded Capital Ratio) and online reputation are two separate independent areas which don't interact between each other. The conclusion that can be drawn after analyzing financial data is that, with no doubt, the opinion of a customer is in no way influenced by the financial performance. This demonstrates that individuals are influenced by other factors like the quality of the brand. All this is explained by the correlations performed between the variables of performance ratios and online reputation that shows an absence of statistical significance as well as a dependency relationship. In conclusion, product's reputation is made primarily on the basis of values and emotions transmitted by the brand. A promising way for such research would be assessing other industry sectors to see whether this analysis leads to different results. It would be useful to focus on a multiple countries setting (EU-nations as well as non EU countries) in order to deeply analyze the online reputation and compare findings afterwards.

Furthermore, it would also be useful to consider other performance indicators in addition to six analyzed above as well as exploring different set of indicators from different perspectives such as customers, supply chain operations, employees, corporate social responsibility etc. in order to assess whether there exists a relation of dependency. There is room for further empirical research along the lines of the Online Reputation discussed and analyzed above. However, we think it would be helpful if we could somehow find a way to consider additional performance indicators which could be connected to online reputation. In addition to continued empirical research based on accounting data we also need better integration between different types of research. In addition to accounting data, we need to encourage high quality surveys, more wide ranging interview studies, and a more thorough development of the theoretical foundations of accounting choices.

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PUBLIC FUNDED INSTRUMENTS OF SUPPORT FOR THE INTERNATIONALISATION OF INNOVATIVE ENTERPRISES - A CASE STUDY OF POLAND AND SLOVAKIA

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Abstract

The article presents an analysis of the public funded system instruments supporting internationalization of enterprises. Poland and Slovakia were compared as beneficiaries of a system service of the project Enterprise Europe Network. The effectiveness of the support services has been identified as one of the most important success factors of the goals of internationalization of enterprises.

Key words: *internationalization, innovation, SMEs, public support*

JEL Classification: O14, O11, O31

Introduction

In line with the Lisbon Strategy, the European Union economy is the most competitive and dynamic knowledge-based economy, capable of sustainable economic growth. In this aspect, it is important how and what forms of internationalization to apply in the enterprises. Particularly interesting seem to be behaviours and forms of internationalization used by small and medium-sized enterprises, because they represent the vast majority of enterprises operating in the internal market of the European Union.

International studies of the ability of companies to expand abroad indicate that only few companies manage to reach such a form of internationalization (Mayer, Ottaviano, 2007). In developing countries, the basis for the internationalization of companies are strategic innovations and marketing, and to a lesser extent, technological or cost advantage. The cause may be their unique – compared to the competition – ability to acquire the market, supported by an effective management skills, success in establishing cooperation with other enterprises, and the ability to learn and identify market opportunities. Foreign expansion of enterprises favours building a competitive advantage and increases access to resources and the effectiveness of cooperation in managing them (NBP, 2016).

The literature mentions various forms of entry into foreign markets, which can also be described as the forms of internationalization of enterprises. The most commonly applied include the following: import and export, licensing, franchising, management contracts, investment contracts, subcontracting contracts, joint ventures,

strategic alliances, mergers and acquisitions, foreign affiliates, foreign production plants and companies (Gorynia, 2007; Wiktor, Oczkowska and Żbikowska 2008). The undertaken internationalization processes in enterprises are affected by many factors (internal and external).

A particularly important factor in the functioning of the enterprise in the international arena is the entrepreneurial orientation. It plays a vital role in both making the decision to enter international markets, and in running business in these markets, thus determining the effectiveness of the cooperation in the process of internationalization (Torres, Clegg et al. 2016). Literature shows that entrepreneurial orientation is an important function of the enterprise's survival (Covina, Slevin, 1991; Anand, 2015; Wu, Wang, Hong et al. 2016). An important variable, which determines the internationalization of the enterprise, is also the possibility of using public instruments to support the entry of enterprises into foreign markets.

An analysis of the literature shows that the lack of research on the instruments supporting the decision of the enterprise's internationalization, which would come from public funds other than the national budget and EU structural funds. However, the issue of the impact of public funds supporting the internationalization undertaken in the research presented in this paper is not a new subject. The literature includes studies raising the issue of evaluation of government programs supporting internationalization of public enterprises.

Material and Methods

The driving force behind economic development in the entire European Union (EU) is innovativeness (Urbanciková, Burger, 2009; Žižek, 2012). In the area of innovation support at the level of the European Commission (EC) launched were system instruments aimed at stimulating innovation and internationalization of the small and medium-sized enterprise sector (Nesterak, 2013). The Enterprise Europe Network (EEN) has been created as part of the implementation of the Competitiveness and Innovation Framework Programme (CIP) 2007-2013 (Walczyk-Matuszyk, 2008). The network's centres are run by different organizations supporting economic development, such as chambers of commerce or industry, or regional development agencies, business support centres, technology transfer centres, etc. The main aim of the network is to offer micro, small and medium-sized enterprises (SMEs), comprehensive services aimed at increasing their potential and innovative capacity. The objectives of the network have been grouped into four areas:

1. Development of internationally competitive enterprises (facilitating their access to the market and building transnational cooperation/partnership)
2. Simulation of innovation (building innovative capacity)
3. Supporting policies and programs of the EU and of the merging companies, in particular small and medium-sized enterprises, in EU policy making.
4. Building and promotion of the integrated network of excellence.
5. The objectives of the network are accomplished by the centres distributed throughout the European Union and many other countries. The centres create regional consortia operating in a given area.

The study is based the authors' research in the form of empirical data analysis and participant observation as an EEN consultant providing information and advisory services. The subject of the research was external factors, in particular the public instruments supporting internationalization of innovative enterprises in Poland

and Slovakia in the years 2008-2014. Reviewed was domestic and foreign literature in the field of institutional instruments supporting the internationalization of innovative enterprises. Analysed and compared were the results of services in Poland and Slovakia. The study uses a descriptive method and the results are presented in tabular and graphic form, combined with a verbal description.

Institutional system support of internationalization in the years 2008-2014

Internationalization can be broadly defined as “expansion abroad, in geographical locations that are new to the company” (Hitt, Hoskisson, Ireland, 1994). This definition was adopted deliberately, because depending on factors such as the company size or type of business, enterprises can adopt a different strategy of internationalization.

Table 1 Overview of the European Commission programs supporting internationalization of enterprises in the years 2007-2013

| No. | Support instrument | Characteristic |
|-----|---|--|
| 1 | Instrument for Pre-Accession Assistance (IPA) | Since January 2007, the Instrument for Pre-Accession Assistance (IPA) replaced a number of instruments for candidate countries (PHARE, ISPA, SAPAR). The IPA consists of five different components: assistance during the change and institution building, international cooperation, regional development, human resources management and rural development. The beneficiary countries are divided into two categories: EU candidate countries, which are eligible for all five IPA components and potential candidate countries of the Western Balkans, which are eligible only for the first two components. The European Commission provides indirect financial support to SMEs in countries eligible for the IPA components through access to loans, leasing and equity operations, as well as through cooperation with international financial institutions (EIB and EBRD). Financial intermediaries in the candidate countries must be significantly involved in the development of SMEs' activity. |
| 2 | The Neighbourhood Investment Fund | The Neighbourhood Investment Fund supports e.g. the private sector, mainly through risk capital operations targeting the SMEs. The total budget for this initiative in the years 2007-2013 amounted to 745 million euro. This amount was supplemented by direct contributions from Member States and the proceeds of a trust fund managed by the European Investment Bank. |
| 3 | Investment Program in the East | The total budget for this project for the years 2010-2013 amounted to 7 million euro. The main objective of the investment program in the East was to support the economic development of the region (Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine), as well as improving the business environment. The program supports SMEs in the internationalization process, improves the exchange of information, and promotes the development of trade. |
| 4 | The funding program of the EU/EBRD in SMEs | The program provides financing of SMEs in 11 countries in Central Europe, including the acceding countries and the new Member States. Funding is provided through local banks, leasing companies and private equity funds. Available funding from the EBRD amounts to 847 million euro, of which the European Commission's contribution amounts to 130 million euro. |

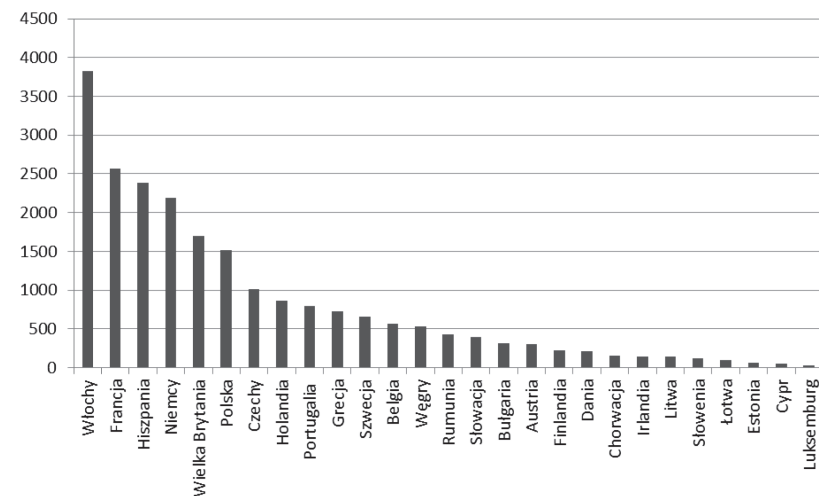
Source: Own study based on EC (2012).

At the local level, support for internationalization is offered by the European Commission through the Enterprise Europe Network (EEN). It is the largest European network of business and innovation support, providing high quality integrated services to SMEs. The idea of the EEN is to provide integrated information, business cooperation, innovation and technology transfer in support of small businesses and innovative SMEs.

The sector of micro, small and medium-sized enterprises in Poland and Slovakia

In recent years, you will notice significant changes in the sector of micro, small and medium-sized enterprises (SMEs) in Poland and Slovakia, which had a positive impact on the economic situation of both countries. Therefore, it is significant from the point of view of the benefits resulting from European integration to the condition of SMEs to present data on the condition of small and medium-sized enterprises in Slovakia, and to compare them with the data of the SME sector in Poland (Chart 1).

Chart 1 Number of enterprises in selected EU countries in 2012 (in thousands).



Source: Report on the condition of small and medium-sized enterprises in Poland in the years 2013-2014, Polish Agency for Enterprise Development (PARP), Warsaw 2015, p.15.

In comparison with other EU countries, Poland takes the sixth, and the Slovak Republic the fifteenth place in terms of the number of enterprises. In total, approx. 22 million entities run a business operation in the EU, mostly in Italy, France, Spain and Germany. A similar number of companies as in Poland operates in the United Kingdom (1.7 million), however the sheer number of enterprises, while important, is not enough when it comes to assessing the entrepreneurial potential of the country in the context of the number of companies. A better indicator is the reference of number of companies to the population in a given country. It turns out that the result of 40 companies per 1,000

inhabitants gives Poland a 19th place in the EU. The highest value of this indicator is observed in the Czech Republic (96), Portugal (75), Slovakia (74). The least number of businesses per 1000 inhabitants is run in Romania, Germany and the UK (PARP, 2015). As Poland, the Slovak economy is as highly dependent on the SME sector. In 2013, small and medium-sized enterprises generated 72% of employment here, compared to the EU average of 67%. Also the added value produced by SMEs exceeded the EU average by 6.5%, reaching 67%. This means that a large share in the Slovak economy belongs to companies specializing in high-tech the production and knowledge-based services.

Rapid adaptation of European enterprises to the highly competitive conditions in terms of innovation has left Polish SMEs far behind the EU average. The areas, which indicated the ability of Polish enterprises to innovate has significantly differed from European standards even in 2010. Reports of studies carried out on European SMEs (European Commission, 2014) indicate low product and marketing innovation of Polish companies, their limited ability to cooperate in the field of innovation and little desire to train employees. The best results achieved by Polish SMEs were in terms of turnover in e-commerce, which, according to the Center for Research on Retail Market will rapidly grow in Poland in the coming years.

A study on the innovativeness of Slovak enterprises carried out within the framework of the Small Business Act (SBA), indicates less interest in innovation in the SME sector in Slovakia than in the European Union. The proportion of small and medium-sized companies introducing product or process innovations is much lower than the EU average (38.4%), and amounts to 26%. Equally low, compared with enterprises in the EU, is the indicator of SMEs implementing marketing or organizational innovations (SK: 27.25%, EU: 40.3%). Compared to EU entrepreneurs, small and medium Slovak entrepreneurs also show less interest in innovation within the company, as well as in cooperation in terms of innovation with other entrepreneurs or institutions (European Commission, 2015). Despite the low focus on innovation, companies that choose to innovate, achieve success in the market more often than other companies in the European Union, and their sales are higher by 9%.

Results and Debate

With the accession to the European Union in 2004, Poland, Slovakia and other countries of Central and Eastern Europe have become part of the single European market. This enabled the companies in these countries a tariff and non-tariff barrier-free access to the markets of the countries, which make up the internal EU market (Komor, 2014).

In the research, analysed were three periods of public funding of activities aimed at building international relationships for the company. The study included periods:

- 2008/1/1 - 2010/12/31,
- 2011/1/1 - 2012/12/31,
- 2013/1/1 - 2014/12/31,

In each of the periods analysed were the following parameters:

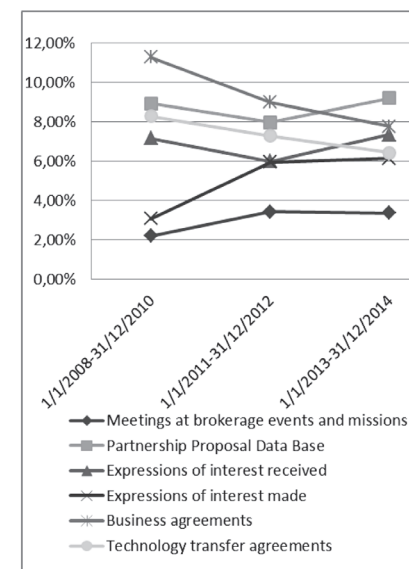
- *meetings at brokerage events and missions*- brokerage meetings accompanying fairs and exhibition events, aimed at establishing international cooperation,
- *partnership Proposal Data Base* - a database of international offers of cooperation, run in English by the European Commission through the Enterprise Europe

Network (EEN). It contains profiles of companies from over 60 countries in which EEN centres operate and allows entrepreneurs searching for business partners to establish contacts with e.g. foreign producers, distributors, sales representatives and subcontractors. The database also contains technology offers. It allows searching for a cooperation partner in the field of technology transfer (e.g. sale/purchase of modern machinery and equipment, licenses), knowledge (know-how), and R&D (e.g. research and implementation of new technologies/products)

- *expressions of interest received,*
- *expressions of interest made,*
- *business agreements,*
- *technology transfer agreements.*

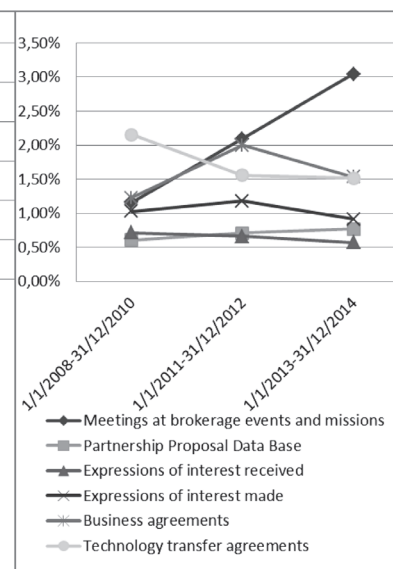
The analysis included data characterizing the Polish and Slovak companies against global data. Charts 2 and 3 illustrate the change in the share of business agreements in Poland and Slovakia in the total number of business agreements broken down by: meetings at brokerage events and missions, partnership Proposal Data Base, expressions of interest received, expressions of interest made.

Chart 2 Participation of Polish enterprises in different cycles of funding



Source: Own study based on the data from the ENTERPRISE EUROPE NETWORK ACTIVITY REPORT 2008-2014 Poland

Chart 3 Participation of Slovak enterprises in different cycles of funding



Source: Own study based on the data from the ENTERPRISE EUROPE NETWORK ACTIVITY REPORT 2008-2014 Slovakia

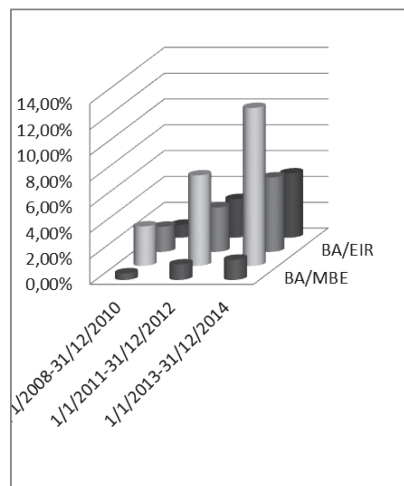
Comparing changes in the considered period, noteworthy is a significant dynamic of the participation of enterprises in Slovakia in meetings at brokerage events and missions in the next funding period. Both the Polish and Slovak companies signed far less business agreements in the recent funding period than in the first one.

The following percentage indicators were determined for both compared countries:

- BA/MBE (Business agreements / Meetings at brokerage events and missions),
- BA/PPDB (Business agreements / Partnership Proposal Data Base),
- BA/EIR (Business agreements / Expressions of interest received),
- BA/EIM (Business agreements / Expressions of interest made),
- TTA/MBE (Technology transfer agreements / Meetings at brokerage events and missions),
- TTA/PPDB (Technology transfer agreements / Partnership Proposal Data Base),
- TTA/EIR (Technology transfer agreements / Expressions of interest received),
- TTA/EIM (Technology transfer agreements / Expressions of interest made).

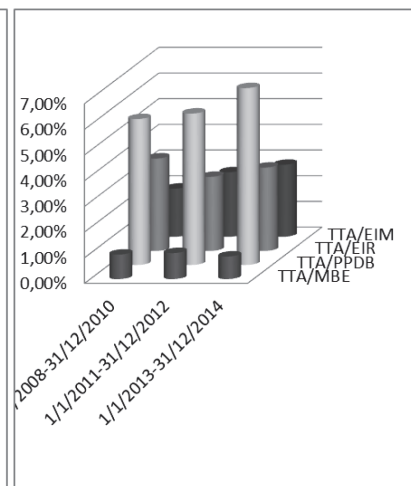
These indicators characterize the efficiency of international cooperation, measured in the number of signed agreements in relation to activities undertaken in the earlier stages (Chart 4 and 5 - the effectiveness of all countries, Chart 6 and 7 - the efficiency of enterprises in Poland, and Figure 8 and 9 - the efficiency of enterprises in Slovakia).

Chart 4 The effectiveness of co-operation measured in the percentage of business contracts signed in different phases, for all the participants in all three analysed periods.



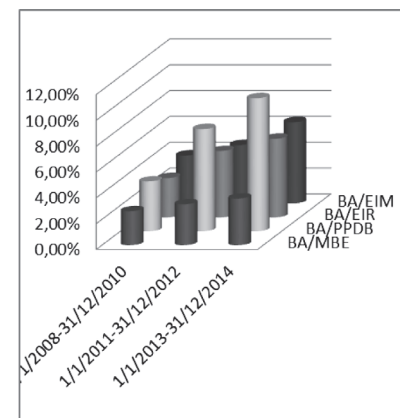
Source: Own study based on the data of the European Commission

Chart 5 The effectiveness of co-operation measured by the percentage of transfer contracts signed in different phases, for all the participants in all three analysed periods.



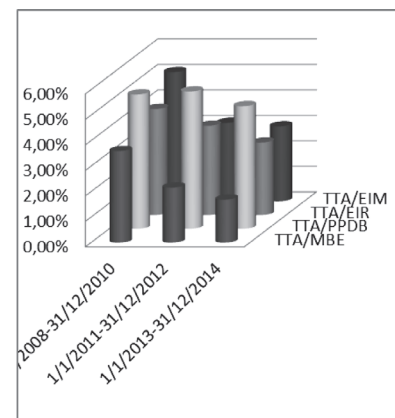
Source: Own study based on the data of the European Commission

Chart 6 The effectiveness of co-operation measured by the percentage of business contracts signed in different phases by Polish partners in all three analysed periods.



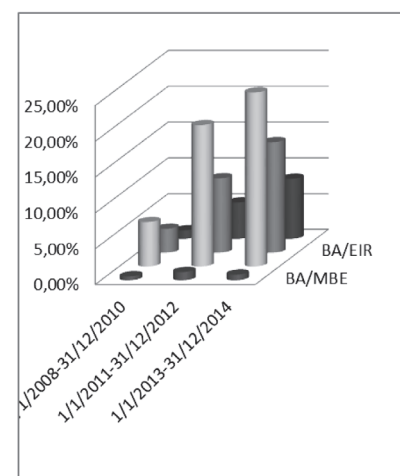
Source: Own study based on the data from the ENTERPRISE EUROPE NETWORK ACTIVITY REPORT 2008-2014 Poland

Chart 7 The effectiveness of co-operation measured by the percentage of transfer contracts signed in different phases by Polish partners in all three analysed periods.



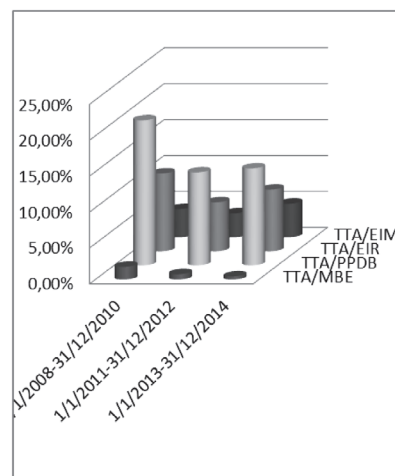
Source: Own study based on the data from the ENTERPRISE EUROPE NETWORK ACTIVITY REPORT 2008-2014 Poland

Chart 8 The effectiveness of co-operation measured by the percentage of business contracts signed in different phases by Slovak partners in all three analysed periods.



Source: own study based on the data from the ENTERPRISE EUROPE NETWORK ACTIVITY REPORT 2008-2014 Slovakia

Chart 9 The effectiveness of co-operation measured by the percentage of transfer contracts signed in different phases by Slovak partners in all three analysed periods.



Source: own study based on the data from the ENTERPRISE EUROPE NETWORK ACTIVITY REPORT 2008-2014 Slovakia

Conclusion

Supporting the process of internationalization of enterprises requires diversified actions and engaging the instruments of public support. The availability of high quality information, consulting and training services, provided on the basis of standardized procedures is an important instrument of support for companies in the SME sector (Gródek, 2010). The offer of EEN, which includes, among others: analysis of foreign markets, a search for foreign partners, preparation of commercial and technology offers to foreign markets, a publication of the company's offer in the international bases, or organization of foreign business missions, participation in trade fairs or bilateral meetings with selected companies is a unique combination of services in a one-stop-shop formula.

The authors provide at least two directions for further research. One of them is systematic verification of the structure of the causal relationships between the implementation of innovative processes in the company and the increase of its competitiveness and economic attractiveness in international markets. The second is enhancing further empirical research while extending the geographical scope of the analyses.

Thus obtained characteristics, both quantitative and qualitative, of the process of system support of internationalization of SMEs in the researched region will allow a comparative analysis enabling to identify and develop good practice.

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THE IMPACT OF EXTERNAL ECONOMIC FACTORS ON THE LEVEL OF THE ENTERPRISES' EFFICIENCY IN POLAND IN THE CONTEXT OF BUSINESS RISK

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Abstract

The paper illustrates the economic conditions in which the company operates daily, in particular the emphasis on the political and legal environment, which has one of the biggest influences on the activities of the organization. Paper intention is to show the most relevant economic factors having an impact on the effectiveness of, and to show their importance from the point of view of the entity. Therefore, the main aim of this article is to develop econometric models that will determine the significance of the various economic factors that affect the level of efficiency of the company. To achieve that there were carried out research tasks, such as discussion of the essence of the company's efficiency and identify external factors affecting it, and to provide indicators and methods of measuring effectiveness.

Key words: *economic efficiency, risk, external economic factors*

JEL Classification: C100, G320, G390

Introduction

Any enterprise operation is associated with doing repetitive tasks involving the continuous incurring certain input that appropriately transformed leads to receiving assumed results. This is reflected both in the company as a whole, as well as to its individual areas. The condition allowing for the use of category of efficiency is expressing the category of input and results in measurable units (Biuletyn 2007). Basic indicators of the company's functioning are development, innovation, value and efficiency. These determinants are very sensitive to the environment - both immediate and distant. Performance management through the development of the organization, which has become an indispensable condition for achieving it, forces companies to change the results they reach, as well as to verify the relationship that occurs in relation to the environment" (Kaczmarek, 2015).

It is necessary to distinguish two terms - risk and uncertainty. Uncertainty is a broader concept than risk. When we consider uncertainty it is possible to identify the source of potential failure, but it is not possible to determine the likelihood of its fulfillment. Risk is uncertainty that can be characterized by numbers (Kamińska, 2013). In every company very important is risk management, it can be defined as making decisions in a way that ensures the highest level of security. It can be done by reducing the impact of anticipated factors on the functioning economic entity. In general risk

management focuses on the prevention and mitigation of losses (Ostrowska, Mazur 2015). There are many methods used for risk assessment that support multi-criteria decision making process, like fuzzy analysis and recently, fuzzy cognitive maps (FCM), extended fuzzy cognitive maps (E-FCM) and analytical network process (ANP), mostly with purpose to derive the relative priorities of risk factors and only to cost and duration as main criteria, while other criteria are ignored. According to the literature the development in risk management is focused in risk assessment and modelling area (Bucar, 2016).

The operations of enterprises is conditioned by many variables. Each of these variables is burdened with risk that affects the company, and thus its effectiveness. The concept of risk is ambiguous and complex. Often identified with "uncertainty" .. The risk is the uncertainty of achieving future income (Tarczyński, Mojsiewicz, 2001 |). The level of risk increases with the uncertainty of determining the result, which grows over time. There is a relationship between them, because the greater the uncertainty the risk increases (Jajuga, 2007). Willett said that "The risk is objectively correlative of the subjective uncertainty [...] The risk is objectified uncertainty of the occurrence of an undesirable event. The risk varies along with the uncertainty, and not with the probability degree" (Dziawgo, 1998). Therefore, in case of uncertainty we deal with changes for which the assessment of the probability of their occurrence is impossible. Bodie and Menon use the term of uncertainty when one is not sure what will happen in the future, whereas they define risk as the uncertainty that affects the well-being of stakeholders (Wójcik, 2012).

"In this interpretation the risk means the possibility of obtaining a result that is different from what was expected" (Jajuga, 2007). In conclusion, "The risk means a threat for obtaining by the owner of the capital the expected economic results. The potential threat are the factors affecting the achievement of assumed results. They are the source of risk. They can come from within the organization or its environment, therefore can be referred to as internal and external threat factors." (Michalak, 2007) Under the above definition the result depends on the threats that affect it and interfere with or prevent its implementation. The features of the investment can be named as internal threads: these are long duration, capital intensiveness, uniqueness, complexity, innovation of human resources, the size and nature of the business, existing security measures. These threats result in specific risk. Whereas, the second group of threats - external - are those that come from the environment and are independent of it. These are mainly economic, political and social factors that cause a systematic risk. Therefore, external economic factors can be considered the key variables that affect the functioning of the company.

The way we will respond to economic factors and risks they are subjected to determines the effective operations of the company. The risk can be divided into several categories due to the accepted criterion. When facing such multiple risks it becomes necessary to perform a detailed analysis of the external economic factors affecting the company as well as its effectiveness, and to assess the level of risk associated with them (Parkitna, 2008).

1. Business efficiency and its factors - the essence, the definition of the economic efficiency

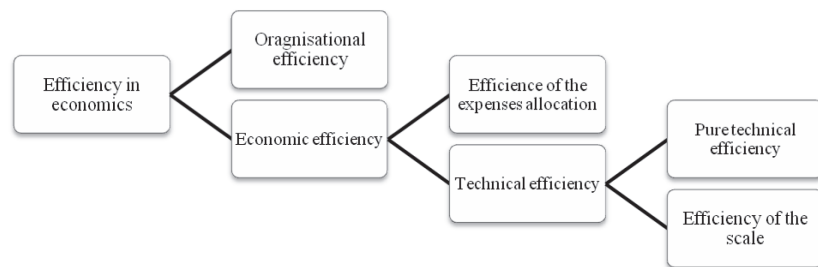
One may very often meet with the statement that the aim of running a business is profit. But this is not the full truth. The condition for achieving this goal is efficiency, because business is considered effective when it brings profits in the long run to the person (entity), who leads it (Jaki, 2012). One may talk about the effectiveness

when there is no longer a situation where one could reorganize operations in order to improve the situation of some players in the market, while not worsening the situation of the others.(Zebicki, 2014). When reviewing the literature, one can see a number of recurring concepts related to efficiency, in particular the use of limited resources, rationality, productivity and effectiveness. | (Poskart, 2014). According to Dudycz, efficiency is inextricably linked to operations of all business units and is significantly important because its proper measurement and evaluation allow to: identify those areas of the company where invested resources bring most significant profits, build assessment systems of the company, identify potential risks(Dudycz, 2006)

The concept of efficiency cannot be interpreted separately. It should be combined with the management, rationality, performance and effectiveness. Only this combination allows for full utilization of efficiency in business management(Polaczek, 2008).

When discussing efficiency one mainly takes into account the results caused by the economic operations of enterprises. An effect is a kind of result, regardless of whether it is a positive or negative result from the company's point of view. It is important to qualitatively distinguish between relevant effects, as well as isolate them and quantify. There are measurable effects (easily measurable) in both physical and quantitative terms, as well as immeasurable effects (difficult to quantify), characterised by qualitative nature or significant distraction, or rare occurrence of a probabilistic character. In the group of measurable effects one can distinguish additional results that are expressed in the accounting in financial terms, as well as effects that are not recognized in financial accounting. The measurable effects are connected with, also important from the perspective of evaluating the optimisation, the differentiation of efficiency according to the internal effects, i.e. those affecting the company directly, and external effects related to other entities in the company's environment(Bojarski, 2001). Economic efficiency - provide the basis for the evaluation of the company. It results from, among others, the comparison of results of operations with the expenditures(Hamrol, 1992). The efficiency is a positive result of skills, effectiveness and performance. It is associated with costs and expenditures, as well as the relationship between the objectives and expenditures. It is regarded as a key aspect allowing to raise the level of competitiveness of the company(Skrzypek, 2012). It is simply a reflection of the management rationality.

Figure 1 The definition of efficiency in economics



Source: Ziębicki, 2014

This study oscillates around the concept of economic efficiency, which is the criterion that has crucial importance from the point of view of a business unit. It means such a way of meeting the needs of an unspecified level that would be the maximum in the context of limited resources, and as a result this action will be effective(Dresler, 2012).

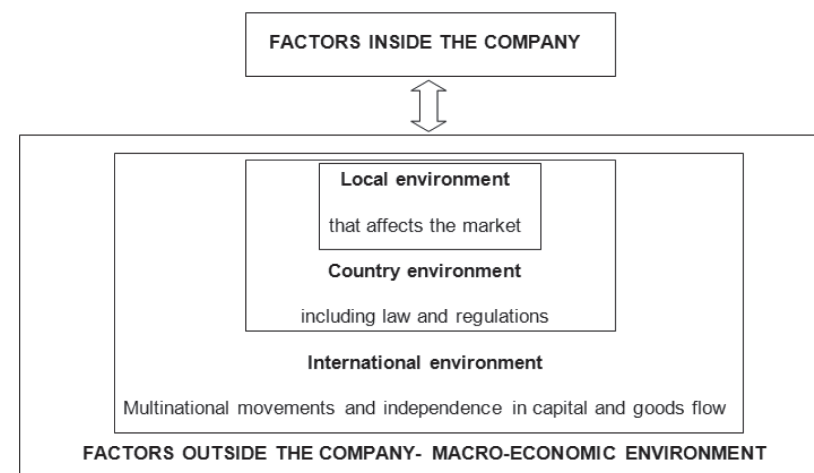
Economic efficiency is one of the most important methods to determine the effectiveness of management. It is considered to be a limit that is determined by obtaining the best results. An important feature of efficiency is the expedience of operations. The term economic efficiency changes over time, there is a possibility of discussing within its aspect the ratio of the results to the expenditures, as well as the relationship between company's goals and measures that are required to achieve them(Skrzypek, 2000).

2. The factors of economic efficiency

The factors of economic efficiency can be divided into two major groups - external and internal. External factors are all those elements the company cannot influence or this influence is limited. Whereas internal factors are those which the unit can control and has direct influence on them.

Adjusting to the demands of the environment and continuous efforts towards development and adaptation will allow businesses to not only achieve tangible benefits in the form of capital increase and profit, but will also allow for the continuous development and the increase of the enterprise efficiency | 9Mitek, Miciuła, 2012).

Figure 2 The factors influencing the enterprise efficiency



Source: Mitek, Miciuła 2012

In principle, if we discuss the risk in the company we refer to the possibility of failure of two things: the net profit or planned cash flow, which is in other words - the desired result. It is very important from the point of view of the company how and when the risk appears on the market.

From the company's point of view the risk management becomes legitimate since it brings many benefits, such as:

- Reduction of costs of financial difficulties and bankruptcy,
- A reduction in tax payments.
- Effective monitoring and control over managers and employees,
- Supporting making decision regarding capital budgeting,
- Stabilising the payment of dividends,
- Reduction in earnings volatility,
- Maximizing value for shareholders,
- Ensuring financial security.

The value of the company must be indicated as one of the key effects of business. Hence, to increase the efficiency - value of the business - it is important to adequately mitigate business risk.

The results of management operations that protect against the risk its management are four value determinants:

a) cash flows. The impact of risk on cash flows is reflected in opportunities to minimize taxes, which is a result of the income stabilisation. This leads to increased cash flows and growth of the company's value. The company has the opportunity to achieve higher operating margins for revenues, and therefore increase the cash flows.

b) the growth rate of cash flows. Cash flows are expected values estimated using assumptions related to revenue, its growth, future margins, or using a probability distribution. When the leadership use the tools associated with risks security and management, they would get rid of the factor lowering re-investment. It results in obtaining a higher rate of re-investment and a higher expected rate of growth.

c) the discount rate. The cost of equity is higher along with the increase of market risk measured by beta coefficient. Thus, protection against specific risk will not impact the cost of capital. On the other hand, protecting against market risk will reduce the cost of capital and the cost of equity.

d) the refund period. If a company has a high growth and outstanding return rates it will be worth more, if it is able to merit the growth period. This type of managing results in a reduction of the variability of cash flows, which leads to a reduction of value variance of the company(Kuziak, 2011).

Each model used in the enterprise may be risky. Each model risk may be defined in different manners. The most common definitions of model risk they say that it can be defined as the risk:

- that results from errors in the theoretical model of the real world.
- of generating loss resulting from using the model,
- of loss resulting from a significant discrepancy between the results we receive and actual - the market one
- of the possibility of incurring loss due to the use of a wrong model for the valuation of financial instruments and risk measurement (assuming that the model is properly used).
- of measurement error of the estimated risk measures because of the imperfections of the model.
- of inaccurate estimation of the likelihood of future loss(Kuziak, 2011).

3. Indicators and measurement of economic efficiency

When determining the efficiency the attention is paid to its three main characteristics - performance, effectiveness and benefit. Relative measures are used for measurement (i.e. measures of return) and absolute measures (measures used to

determine value). Another way to measure the efficiency is to use measures classified on the basis of information they use in calculations, and thus show the different characteristics of efficiency. These are the following measures: market, financial, and accounting(Kaczmarek, 2015).

A significant number of indicators that can be used to evaluate the company's efficiency caused that one meets in literature different combinations of indicators for this purpose. Selecting the right indicators is the key to an effective and proper assessment of the company's condition. The correctness of the analysis depends on several factors such as the number, quality of the information that analysts are able to obtain, and proper interpretation of the data. A very important issue is to unify the content of indicators that will allow for a comparison with other companies. This need resulted in creating a list of indicators that are used on an international scale. They refer to four main areas of the assessment of the company(Kaczmarek, 2015):

1. Profitability;
2. Financial liquidity - both static and dynamic terms;
3. Indicators of the efficiency of the use of assets;
4. Position of the company on the capital market - capital market indicators.

There are many different ways of measuring economic efficiency. They can be distinguished according to the approach they're used with: parametric, non-parametric and indicative.

The **parametric approach** is based on the production function, used in microeconomics. This function determines the technical relationship between production and expenditure. As a result, information is obtained on the optimal amount of product that can be manufactured with an assumed level of input. This approach refers to the tools used in the classic econometric estimation. However, when using this method one should take into account that creating the calculus based on the production function and covering all categories of efficiency is very limited due to lack of necessary data. Therefore, these analyses are usually fragmentary. The **non-parametric approach** is based on linear programming. It ignores the relationship between input and outcome, as well as between a random factor and efficiency of the studied object. The last approach is the **indicative one**, which is based on determining the relations between examined quantities. For this purpose the indicators of productivity, profitability and cost effectiveness are used. In this analysis, it is important to properly identify the measures adopted and interpret of results (Szymańska, 2010).

4. The impact of external economic factors on the level of efficiency of enterprises in Poland - research

In order to analyse the impact of external economic factors on the efficiency of enterprises the information from the Notoria database has been collected. The collected data related to companies operating on the Warsaw Stock Exchange. From the obtained pool of the companies' financial, we selected those that met the assumptions of the research. The main criterion for the selection was the period of operation on the WSE. Companies selected for the research were required to have been operating on the stock exchange for at least 10 years. The period of 2005-2014 was for the research. Another criterion that was used in the selection of the sample for the study was the currency in which financial statements had been prepared. All the companies' values had to be defined in Polish zloty.

The impact of external economic factors on the level of business efficiency was determined with the use of econometric models. In this model, the quarterly

average values were adopted as the dependent variables: Profit per a single share - as a measure of economic efficiency.

Firstly, the purpose of the research was established, which was to determine on which of external economic factors the tested indicators describing the efficiency of enterprises depend. A hypothesis was formulated assuming the existence of the impact of external economic factors on the level of business efficiency. All models have been developed and verified with the use of Gretl software. Data was transferred as a time series. The method of least squares was used to develop the models.

The first step was to calculate the correlation coefficient between the dependent variable and the independent variables, as well as between the individual independent variables. The calculations were made with the use of Excel. A correlation matrix was created and the critical value of the correlation coefficient was defined. These actions allowed to establish defining variables that have a significant effect on the defined variable. This procedure also allowed to eliminate the correlation between the defining variables, which had quite a significant value. The next step was performed with the use of Gretl software and led to the development of individual models. The model was classified as valid when the coefficient of determination exceeded 60%, autocorrelation, heteroscedasticity and an unusual distribution of residues were not detected. The detailed descriptions of the performed procedure are presented below.

5. The Model of the impact of external economic factors on the companies' profit per a single share

Developing an econometric model is largely based on appropriate selection of defining variables, and verification of data to confirm their correctness. These operations are performed by testing a number of hypotheses to determine the correct selection of variables paying special attention to the explanation of the studied phenomenon. Verification also aims to eliminate the relationship between the independent variables. During this procedure some tests were performed:

- F Test - a test on the significance of the model's coefficients
 - o H0- y does not depend on any variable xj
 - o H1 - y depends on at least one variable xj
- t Test - a test on significance of a specific coefficient:
 - o H0- y does not depend on a given variable
 - o H1 - y depends on the variable
- White's Test - a test for heteroskedasticity of the model. This test contains the following hypotheses:
 - o H0- heteroskedasticity of residues does not occur
 - o H1- heteroskedasticity occurs
- A test for a regularity of distribution of the residues, with the following hypotheses:
 - o H0 - a random component has a regular distribution
 - o H1- a random component does not have a regular distribution
- Durbin-Watson's Test - a test for an autocorrelation of a random component:
 - o H0 - there is no autocorrelations of a random component
 - o H1 - there is an autocorrelation of a random component.

As shown in the analysis of literature a company, in order to be effective, needs to grow, and thus make a profit. In the companies operating in the stock market, one of the indicators of this value is profit per a single share.

The development of this model started from the calculating the correlation for all of available defining and defined variables, as well as the value of the t-student statistics and the critical value of the correlation coefficient. The following formulas were used:

- t- Student Statistics

$$t^* \left(1 - \frac{\alpha}{2}\right)$$

- The critical value of the correlation coefficient

$$r^* = \sqrt{\frac{(t^*)^2}{n - 2 + t^*}}$$

Where α is the level of significance for the work accepted as 0.05. The values of these two parameters are fixed for subsequent models and are as follows: $t^* = 2.0243$ and $r = 0.3120$ * for forty observations (quarterly data from 2005-2014). Then a correlation matrix was developed. It is presented in the Table 14. Based on the values of correlation and the critical correlation coefficient independent variables were selected, those that were most closely correlated with the dependent variable, with the simultaneous weakest correlation with other defining variables. The selection procedure was based on finding the greatest correlation coefficient between independent variables and a dependent variable, and then in relation to an identified variable checking its relationship with other independent variables and rejecting those from the model, for which the correlation was greater than the critical value of the correlation coefficient. These operations were repeated until all values were examined. The values of coefficients for these variables are marked in grey (Table 1).

Table 1 The Matrix of correlation between the profit per a single share and identified economic factors.

| | Zysk | X19 | X1 | X2 | X9 | X13 | X12 | X11 | X4 | X5 | X6 | X15 | X14 | X17 | X3 | X7 | X8 | X16 | X18 |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|-------|
| Zysk | 1,000 | | | | | | | | | | | | | | | | | | |
| X19 | -0,279 | 1,000 | | | | | | | | | | | | | | | | | |
| X1 | -0,019 | -0,306 | 1,000 | | | | | | | | | | | | | | | | |
| X2 | -0,004 | -0,057 | 0,082 | 1,000 | | | | | | | | | | | | | | | |
| X9 | 0,366 | -0,226 | 0,139 | 0,335 | 1,000 | | | | | | | | | | | | | | |
| X13 | 0,535 | -0,369 | -0,168 | 0,349 | 0,695 | 1,000 | | | | | | | | | | | | | |
| X12 | 0,608 | -0,021 | -0,025 | -0,287 | 0,173 | 0,108 | 1,000 | | | | | | | | | | | | |
| X11 | -0,199 | 0,154 | -0,040 | 0,585 | 0,113 | 0,076 | -0,509 | 1,000 | | | | | | | | | | | |
| X4 | -0,496 | 0,292 | -0,317 | -0,049 | -0,512 | -0,487 | -0,459 | 0,067 | 1,000 | | | | | | | | | | |
| X5 | -0,495 | 0,265 | -0,293 | -0,058 | -0,510 | -0,472 | -0,496 | 0,077 | 0,993 | 1,000 | | | | | | | | | |
| X6 | -0,524 | 0,291 | -0,300 | -0,055 | -0,522 | -0,498 | -0,484 | 0,082 | 0,994 | 0,996 | 1,000 | | | | | | | | |
| X15 | -0,389 | -0,206 | 0,314 | 0,163 | -0,022 | -0,130 | -0,727 | 0,275 | 0,226 | 0,287 | 0,252 | 1,000 | | | | | | | |
| X14 | 0,437 | 0,077 | -0,147 | -0,271 | 0,083 | 0,041 | 0,873 | -0,400 | -0,320 | -0,373 | -0,344 | -0,891 | 1,000 | | | | | | |
| X17 | -0,114 | 0,130 | -0,082 | -0,170 | -0,275 | -0,338 | 0,260 | -0,170 | 0,081 | 0,055 | 0,061 | -0,295 | 0,325 | 1,000 | | | | | |
| X3 | 0,569 | -0,157 | 0,060 | -0,281 | 0,375 | 0,241 | 0,893 | -0,595 | -0,606 | -0,631 | -0,623 | -0,534 | 0,728 | 0,111 | 1,000 | | | | |
| X7 | 0,126 | 0,111 | 0,165 | -0,158 | 0,191 | 0,106 | 0,016 | 0,000 | -0,074 | -0,077 | -0,100 | -0,050 | 0,056 | 0,026 | -0,065 | 1,000 | | | |
| X8 | 0,043 | 0,097 | -0,010 | -0,001 | 0,001 | 0,020 | 0,286 | 0,060 | -0,031 | -0,031 | -0,014 | -0,265 | 0,330 | 0,012 | 0,117 | 0,042 | 1,000 | | |
| X16 | -0,158 | -0,114 | 0,043 | 0,272 | 0,223 | 0,071 | -0,123 | 0,063 | 0,060 | 0,054 | 0,071 | 0,064 | -0,022 | -0,134 | -0,012 | 0,026 | 0,040 | 1,000 | |
| X18 | 0,113 | -0,080 | 0,091 | -0,146 | -0,001 | -0,048 | 0,224 | -0,091 | -0,003 | -0,022 | -0,006 | -0,064 | 0,108 | 0,069 | 0,156 | -0,011 | 0,073 | -0,204 | 1,000 |

Source: Own research

Table 2 The report on verification of the model of the profit per a single share.

| No | Selected variables | The significance of individual variables | Is factor important? | Coefficient of determination | Taper factor | Value p for test F | Is arrangement is important?* | | | | | |
|-----|--------------------|--|----------------------|------------------------------|--------------|--------------------|-------------------------------|-----|--------|--------|----------|-----|
| 1 | X1 | 0,5189 | NO | 0,6337 | 0,3663 | 0,000015 | YES | | | | | |
| | X7 | 0,5808 | NO | | | | | | | | | |
| | X8 | 0,2586 | NO | | | | | | | | | |
| | X12 | 1,87e-05 | YES | | | | | | | | | |
| | X13 | 0,0001 | YES | | | | | | | | | |
| | X16 | 0,2697 | NO | | | | | | | | | |
| | X18 | 0,8925 | NO | | | | | | | | | |
| | X12 | 5,95e-06 | YES | | | | | | | | | |
| | X13 | 6,56e-05 | YES | | | | | | | | | |
| | 2 | MODELS AFTER APPLYING PERIODIC VARIABLES | | | | | | | | | | |
| X1 | | 0,6000 | NO | 0,7397 | 0,2603 | 7,07e-08 | YES | | | | | |
| X7 | | 0,2573 | NO | | | | | | | | | |
| X8 | | 0,0112 | YES | | | | | | | | | |
| X12 | | 4,31e-06 | YES | | | | | | | | | |
| X13 | | 3,57e-06 | YES | | | | | | | | | |
| X16 | | 0,2229 | NO | | | | | | | | | |
| X18 | | 0,6306 | NO | | | | | | | | | |
| Dq1 | | 5,33e-05 | YES | | | | | | | | | |
| Dq2 | | 0,1605 | NO | | | | | | | | | |
| Dq3 | 0,0111 | YES | | | | | | | | | | |
| 3 | X8 | 0,0166 | YES | 0,7769 | 0,2231 | 3,44e-10 | YES | | | | | |
| | X12 | 5,86e-07 | YES | | | | | | | | | |
| | X13 | 1,85e-06 | YES | | | | | | | | | |
| | Dq1 | 1,68e-05 | YES | | | | | | | | | |
| | Dq3 | 0,0287 | YES | | | | | | | | | |
| | 4 | MODELS AFTER APPLYING PERIODIC VARIABLES | | | | | | | | | | |
| | | X1 | 0,6000 | | | | | NO | 0,7397 | 0,2603 | 7,07e-08 | YES |
| | | X7 | 0,2573 | | | | | NO | | | | |
| | | X8 | 0,0112 | | | | | YES | | | | |
| | | X12 | 4,31e-06 | | | | | YES | | | | |
| X13 | | 3,57e-06 | YES | | | | | | | | | |
| X16 | | 0,2229 | NO | | | | | | | | | |
| X18 | | 0,6306 | NO | | | | | | | | | |
| Dq1 | | 5,33e-05 | YES | | | | | | | | | |
| Dq2 | | 0,1605 | NO | | | | | | | | | |
| Dq3 | 0,0111 | YES | | | | | | | | | | |

* The decision after the F-test and p-values for comparison factor (column 3) the accepted level of significance $\alpha=0,05$

** The decision after the F-test and comparison p-values for the test (column 7) the accepted level of significance $\alpha=0,05$

Source: Own research

The variables selected in this way have been entered into Gretl software and thus the first model for profit per a single share was generated, which was subjected to further verification, in line with the assumptions of the econometric model. The taper factor was calculated, based on the following formula:

$$\varphi^2 = 1 - R^2$$

A factor for the determination of the model was determined as well, based on the values obtained with the use of Gretl software. As shown in the table, the model No. 2 accepted for further analysis has a determination coefficient at a level of 60%. This means that it explains the volatility of the profit per a single share to this extent. The taper coefficient explains that that approx. 40% of the data is not translated by the obtained model. Despite the poor matching of the data it was decided to carry out its further verification. For a better clarity the results are presented in the Table 20. Model 1 is a model presenting variables selected by determining the correlation coefficients. Although the correlation matrix indicated that all the variables have an impact on profits per a single share, but some of them had to be eliminated.

The next step defined the significance of individual factors, as well as the overall system of coefficients in the obtained model. The F-test and the t-test were used for this purpose.

Nevertheless the obtained model had some variables that were insignificant from the point of view of further verification. Therefore it was subjected to further modifications, during which other insignificant variables with the highest values of the variation coefficient were rejected one by one. This way the following model was obtained:

$$y = -181,274 + 2,67727e-05 \cdot X_{12} + 1,73676 \cdot X_{13}$$

The verification was carried out for the selected model.

The results of the conducted tests are presented in the table below. The first line shows the form of the model adopted for verification. Like in case of the F and t tests $\alpha = 0.05$ was adopted as the level of significance. Each of the tests described in the table are available for execution in Gretl software. By selecting the right function p-value is obtained for the test, which needs to be compared with the accepted threshold of significance. If this value is greater than the adopted α there is no reason to reject H_0 statistics, and thus it is recognized and accepted as a correct one.

Table 3 Tests carried out to verify the model

| y = -181,274 + 2,67727e-05 * X ₁₂ + 1,73676 * X ₁₃ | | | |
|--|------------|---|--|
| Test | Value | The adopted hypothesis | The conclusion |
| White's Test | p=0,260549 | p> α No basis to reject the hypothesis H ₀ | In the model, there is no Heteroscedasticity |
| Durbin- Watson Test | p=0,94178 | p> α No basis to reject the hypothesis H ₀ | No autocorrelation |
| Test for normality distribution of residues | p=0,1914 | p> α No basis to reject the hypothesis H ₀ | Random component has a normal distribution |

Source: Own research

Although the tests were accurate, there was no autocorrelation or heteroskedasticity in the model and a random component had a regular distribution, it turned out that a phenomenon of seasonality occurs in the model. In order to eliminate it additional periodic variables 0-1 were introduced. They reflected various quarters in the period. Their purpose was to check whether for some variables there was no change similar to the corresponding quarters in the following years. This way the following variables occurred:

- dq1- adopting a value of 1 for the first quarter of the year, and zero for the remaining quarters
- dq2- having a value equal to 1 for the second quarter next year and zero for the remaining quarters
- dq3- value of 1 for the 3rd quarter, the others-0
- dq4- 1 for the 4th quarter, the others-0.

In this manner, the model defined as the model 3 in the table 20 was obtained. When analysing the variables the same way as in the beginning, i.e. checking their level of significance and discarding insignificant variables the following model was obtained:

$$y = -163,752 - 0,0356225 \cdot X_8 + 2,53738e-05 \cdot X_{12} + 1,71450 \cdot X_{13} - 3,17295 \cdot dq_1 - 1,39785 \cdot dq_3$$

This is the model No. 4 in Table 20. The introduction of periodic variables also resulted in improving the coefficient of determination to the value of 77% and decreasing taper factor to the level of 23%. Owing to this a satisfactory match was obtained, as well as the level of explanation to the studied phenomenon by the defining variables. This model was further verified.

Table 4 The tests conducted to re-verify the model of profits per a single share

| y = -163,752 - 0,0356225 * X ₈ + 2,53738e-05 * X ₁₂ + 1,71450 * X ₁₃ - 3,17295 * dq ₁ - 1,39785 * dq ₃ | | | |
|---|-----------|---|--|
| Test | Value | The adopted hypothesis | The conclusion |
| White's test | p= 0,3178 | p> α No basis to reject the hypothesis H ₀ | In the model, there is no Heteroscedasticity |
| Durbin- Watson Test | p= 0,5257 | p> α No basis to reject the hypothesis H ₀ | No autocorrelation |
| Test for normality distribution of residues | p= 0,8393 | p> α No basis to reject the hypothesis H ₀ | Random component has a normal distribution |

Source: Own research

As the above table shows, the model adopted for verification meets all of these assumptions. This means that it is correct, and thus allows to determine which external economic factors have a significant impact on profits.

To sum up, developing the model of companies' profits per a single share share allowed to determine that the factors having an impact on the profits in the companies operating on the Warsaw Stock Exchange in Warsaw are:

- X8- the official exchange rate for Euro in the National Bank of Poland
- X12- domestic demand
- X13- consumption

Additionally, the model revealed the existence of the variables' seasonality in the first and third quarter.

Conclusions

Summing up the research, there is no doubt that there are economic factors impacting the level of efficiency reached by companies. The conclusion was reached based on the developed econometric models. Their development and verification for correctness, which was determined by the lack of autocorrelation, regularity of the distribution and occurrence of residues homoscedasticity, helped select the external economic factors, indicators that have a direct impact on the efficiency of the company.

The development of econometric models allowed to select factors demonstrating a linear impact on efficiency of greater or smaller significance level. Determining the correlation between individual variables proved that 85% of the previously identified economic factors have some effect on the efficiency. These include among others: domestic demand, gross domestic product, inflation, employment rate, consumption, unemployment rate, export and import of goods, the official exchange rate for Euro and US dollar, the rediscount rate. Some of these indicators repeated in all of the developed models. These are: the official Euro exchange rate, domestic demand and real income to gross disposable income in the household sector. A relationship based on the value of the correlation coefficient was showed between these indicators and profits per a single share. However, with the assumptions adopted to the model, the impact of some factors turned out to be irrelevant, which meant that the number of indicators decreased.

Table 5 Factors impacting the individual indicators determining the efficiency based on the correlation coefficient.

| Model | X1 | X2 | X3 | X4 | X5 | X6 | X7 | X8 | X9 | X11 | X12 | X13 | X14 | X15 | X16 | X17 | X18 | X19 |
|--------|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Profit | X | | | | | | X | X | | | X | X | | | X | | X | |

Source: Own research

Table 6 Factors impacting the individual indicators determining the efficiency after conducting the tests of significance.

| Model | X1 | X2 | X3 | X4 | X5 | X6 | X7 | X8 | X9 | X11 | X12 | X13 | X14 | X15 | X16 | X17 | X18 | X19 |
|--------|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Profit | | | | | | | | X | | | X | X | | | | | | |

Source: Own research

Some of the developed models have the level of determination of less than 60%, and thus they did not bring a sufficient level of explanation for the analysed problem. This is due to the fact that the research represents a fragment of an argument

on the intensity of the impact and dependency of the economic factors impacting the efficiency of the company. Therefore, it cannot be stated with 100% certainty that such a relationship does not occur.

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**OBCHODNÉ CENTRÁ NA SLOVENSKU –
MINULOSŤ, SÚČASNOSŤ, BUDÚCNOSŤ.**

**TRADE CENTERS IN SLOVAKIA –
HISTORY, TODAY, FUTURE**

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Abstract

The submission deals about the trade centers in Slovakia – historical development, actual layout, but also prediction of development. Trade centers are the specific trade formats. Theirs development, amount and structure come to up historical and social conditions in the society. Their number until now grows, but their structure changes. Slovaks are spending increasingly of their free time with utility lifestyle in this multifunction objects. They allow not only variously arts of goods and services, but also forms of amusement for all age categories.

Key words: *Distribution, distribution chanel, retail, trade format, trade centers*

Abstrakt

Príspevok je zameraný na obchodné centrá na Slovensku – historický vývoj, súčasný stav ako i predikcia vývoja. Obchodné centrá sú špecifickým obchodným formátom. Ich vývoj, rozsah i štruktúra zodpovedá historickým a spoločenským podmienkam vývoja v spoločnosti. Ich počet zatiaľ narastá, mení sa štruktúra. Nový fenomén v podobe obchodných centier spôsobuje, že Slováci trávia čoraz viac svojho voľného času konzumným spôsobom života v týchto multifunkčných objektoch, poskytujúcich nielen rôzne druhy tovarov a služieb, no i formy zábavy pre všetky vekové kategórie.

Kľúčové slová: *Distribúcia, distribučný kanál, maloobchod, obchodný formát, obchodné centrá*

JEL classification: M11, M31, M39

Úvod

Dnešné obchodné centrá so svojou históriou siahajú až do čias orientálnych trhov, bazárov a trhovísk, ktoré už v stredoveku predstavovali sústredený zhluk ponuky tovaru, služieb a kultúrnych zážitkov. Za historicky prvé veľké obchodné centrum sveta sa považuje Veľký bazár v perzskom Isfaháne (súčasný Irán). Niektoré zdroje hovoria o jeho založení v 10. storočí. Okolo 15. storočia vznikli ďalšie historické nákupné centra. Jedným z najväčších na svete je Teheránsky bazár dlhý 10 kilometrov

alebo Veľký bazár v tureckom Istanbule, ktorý sa skladá sa z 58 ulíc a má 4 000 obchodov (Kremský, 2007). Dnešné nákupné centrá sú vlastne len modifikovanou formou štyri tisíc rokov starých trhov. Nákupné centrá sa naprieč storočiami začali vo svojej tradičnej forme rozširovať do takmer všetkých vyspelejších krajín sveta.

V súčasnej odbornej literatúre našej i zahraničnej sa môžeme stretnúť s problematikou zamieňania pojmov: obchodné centrum/obchodné stredisko, nákupné centrum/nákupné stredisko, obchodno-zábavné centrum/obchodno-spoločenské centrum a ďalšie. Pre správne a ľahšie pochopenie totožnosti uvedených pojmov si uvedieme zopár ich definícií podľa viacerých autorov.

Obchodným centrom je priestor v centre väčšiny hlavných a veľkých miest, v ktorom prevládajú komerčné aktivity. V obchodnom centre je hodnota pôdy a nájomného najvyššia v celom meste, keďže obchodné a finančné kruhy sú ochotné zaplatiť vysokú cenu za výhodné a veľmi ľahko dostupné lokality (Viestová a kolektív, 2006). Podľa Poliačikovej (2007) obchodné centrá predstavujú ucelené obchodné koncepty, ktoré z hľadiska sortimentnej štruktúry možno prirovnať k obchodným domom, odlišujú sa však v obchodnej politike (každá z predajní platí nájom, ale má vlastnú produktovú, cenovú, distribučnú a komunikačnú politiku) a v doplňujúcich službách, smerujúcich k naplneniu potrieb zákazníka (okrem rozsahu služieb v hypermarketoch i čajovne, kaviarne, kiná, miesta na oddych).

Nákupné centrum (Shopping centre, Einkaufszentrum) je územná koncentrácia maloobchodných podnikov a podnikov, ktoré poskytujú služby (Mínárová, Malá, Sedliačiková, 2015). Sú obvykle naplánované, realizované a riadené ako celok, vybavené vlastným parkoviskom a slúžia na uspokojovanie zákazníkov z viacerých širokého okolia, špeciálnej klientely (čo závisí aj od hustoty predajných bodov v okolí centra). Prijemná atmosféra a celková multifunkčnosť, ktorá je typická pre nákupné centrá tvorí dobré predpoklady pre maximalizáciu dĺžky pobytu zákazníka v nákupnom centre. S tým je samozrejme spojené zvyšovanie výdavkov, ktoré zákazník utratí za nákupy a služby (Mitríková, 2008).

Obchodné centrum predstavuje postupným vývojom vzniknutú či koncepcie vytvorenú združenú ponuku tovarov a služieb, zloženú z maloobchodných jednotiek a prevádzkarní služieb v centre veľkých aglomerácií alebo na ich okraji – na zelenej lúke, ktoré by malo byť vždy v súlade so spoločensky zodpovedným podnikaním (Musa, Musová, Debnárová, 2015). Sú spravidla navrhované a projektované jednotlivcom – podnikateľom alebo podnikateľskou spoločnosťou ako komplexná jednotka, ktorej predajná plocha sa prenája jednotlivým obchodným organizáciám. Sú riadené centrálné a majú takú štruktúru, že ich spotrebiteľ berie ako jeden celok, k čomu prispieva i spoločná reklama, sú dobré prístupné z hľadiska dopravy, sú aktívne a majú zodpovedajúce veľké spádové územie, pretože konzumentovi ponúkajú výhodu „One-Stop-Shopping“.

J. Kita (2010) definuje termíny nákupné stredisko a obchodné stredisko identicky a spoločne ako rozsiahle ucelené obchodné komplexy, ktoré združujú veľký počet rôznych typov nezávislých predajní, poskytujúcich tovar v rôznych cenových reláciách vrátane prevádzok, poskytujúcich služby, napr. reštauračné zariadenia, banky, čistiarne, opravy obuvi, kaderníctva, kozmetiku, cestovné kancelárie i poštové služby. Bývajú veľkoryso architektonicky riešené s rozsiahlou zeleňou, s miestami na posedenie a oddych, ale aj miestami na rozptýlenie a zábavu.

Obchodno-spoločenské centrum je predstaviteľom poslednej vývojovej etapy foriem maloobchodu v našich spoločensko-ekonomických podmienkach a je výsledkom koncentrácie predajnej plochy a plochy určenej pre rôzne typy, spôsoby využitia, trávenia voľného času, plochy určenej pre administratívne účely, kombinácia nákupu, zábavy a odpocinku (Malá, Musová, 2015).

V súčasnosti je známa snaha o nastolenie jedného všeobecného termínu pre danú problematiku, avšak na druhej strane je kontraproduktívne nástožiť na používaní len jedného z uvedených názvov. Za vhodný termín považuje Viestová (2006) obchodné centrum preložené doslovne z anglického „shop“ – obchod, „centre“ – centrum, aj keď „to do shopping“ – nakupovať, čiže „shopping centre“ – nákupné centrum. V našom príspevku budeme využívať identické termíny obchodné centrum alebo nákupné centrum.

Material a metódy

V nasledujúcom príspevku sa zameriavame na obchodné centrá na Slovensku. Ich vývoj, rozsah i štruktúra je výsledkom historického a spoločenského vývoja ako vo svete, tak i na Slovensku. Cieľom príspevku je v prehľadnom prevedení – formou spracovaných tabuliek, v krátkosti zdokumentovať historickú postupnosť výstavby obchodných centier na Slovensku s charakteristickými rysmi jednotlivých subjektov v čase a súvislostiach. Vychádzame z dostupných sekundárnych zdrojov. Využívame pritom metódu historicko-logickú cez analýzu a syntézu získaných údajov. Uvádzame ako historický vývoj, tak i súčasný stav v tejto oblasti s predikciou predpokladaného ďalšieho vývoja.

Výsledky a diskusia

Výstavba obchodných centier sa do SR dostala až s určitým omeškaním a rovnako aj obdobie socializmu ovplyvnilo formáty obchodných objektov vo všetkých regiónoch Slovenska. Vývoj nákupných centier u nás prebiehal v rámci niekoľkých období a zopár významných rokoch, ktoré sú stručne charakterizované v tabuľke 1.

Tabuľka 1 Historický vývoj obchodných centier na Slovensku až po súčasnosť

| | |
|-----------------------|---|
| rok 1931 | V Bratislave, hlavnom meste SR, vyrástol prvý obchodný dom. Bol to päťpodlažný Dom služieb českej obuvníckej firmy Baťa. Svojou, v tej dobe modernou, architektúrou vyvolal u konzervatívnych Bratislavčanov značný vzdor. Najväčší hnev v nich podnietil tým, že zastrel dovtedy voľný pohľad na jednu z dominant Bratislavy – Michalskú bránu. |
| roky 1964-1974 | Išlo o výstavbu nákupných centier na tzv. „zelenej lúke“ mimo obytných zón, teda najčastejšie za mestom. |
| roky 1974-1980 | Výstavba obchodných pasáží sa premiestnila do centier miest, kde sa stavali veľké presklené objekty a sústredoval sa v nich maloobchod, zameraný na predmety dennej potreby. Na Slovensku sa začali objavovať tradičné obchodné domy Prior, lokalizované do centier miest. V tomto období bol postavený aj prvý slovenský obchodný dom módy Dunaj v Bratislave. |
| roky 1980-1990 | Prebiehala transformácia nákupných centier na spoločensko - obchodné centrá. |

| | |
|-----------------------|--|
| roky 1990-1997 | Odborné obchodné centrá ponúkali v tomto období celú škálu produktov a služieb. Po roku 1990 odkúpila časť OD Prior americká sieť supermarketov K-Mart a neskôr ich predala britskému konkurentovi Tesco. Zvyšné obchodné štát sprivatizoval a dodnes ich zväčša pod názvom Prior prevádzkujú slovenské firmy ako prenájom priestorov (napr. sieť obchodných domov Prior Stred) |
| od roku 1997 | Začali sa budovať mestské nákupné galérie. |
| rok 2000 | Na Slovensku otvorili prvé moderné nákupné centrum Polus v širšom centre hlavného mesta. V tomto období sa stavali obchodné domy najmä na okrajoch miest. Dôvodom boli najmä lacnejšie pozemky, jednoduchší povoľovací proces a možnosť vybudovania lacného parkovania. Developerov k tomu viedla aj zúfalá dopravná situácia v Bratislave najmä v čase dopravných špičiek, čo predlžovalo príchod a odchod z nákupného centra aj o hodinu. Polus napríklad premenil poloprázdnú výpadovku Vajnorskú ulicu na rušný bulvár, ktorému sa vodiči v špičke radšej vyhýbajú. |
| roky 2001-2005 | Dynamika rozvoja bola v nasledujúcom období na nízkej úrovni, do roku 2005 bolo na Slovensku otvorených iba 10 nákupných centier. Obľúbenou lokalitou pre výstavbu centier bolo miesto pozdĺž diaľnice, pri letisku M. R. Štefánika, kde stojí nákupné centrum Avion, lemované ďalšími veľkými jednotkami - IKEA, Hornbach a Kika.23 Nákupné centrá sa vybudovali mimo centra aj v iných väčších slovenských mestách. Za zmienku stojí napríklad nákupné centrum Dubeň v Žiline, alebo Optima a Cassovia v Košiciach. V roku 2001 bolo postavené aj obchodné centrum Aupark pri Sade Janka Kráľa s dvojnásobným počtom predajní ako Polus. |
| rok 2010 | Kulminovala výstavba a otváranie nákupných centier na Slovensku, po ktorej došlo k výraznému prepadu a prejavom ekonomickej krízy aj v tomto odvetví hospodárstva. Plány developerov, zamerané na výstavbu nákupných centier, boli priradené a čiastočne modifikované v zmysle redukcie veľkosti pôvodných projektov. |
| roky 2011-2012 | V týchto rokoch developerov lákali centrálné mestské zóny menších miest. Tieto lokality sa zdajú aj dodnes byť dvojnásobne výhodné - nižšie ceny pozemkov doplnené nižšou konkurenciou často krátko navýšia zisky aj pri menšom objeme zákazníkov. |
| rok 2013 | Nákupné centrá sa na území Slovenska koncentrovali do hospodárskych centier a do lokalít so zvýšenou koncentráciou obyvateľstva, šlo prevažne o krajské mestá. Špecifickú pozíciu mala Bratislava s najväčšou koncentráciou nákupných centier na Slovensku s viac ako štvrtinovým podielom. Najmenšia koncentrácia nákupných centier bola príznačná pre Banskobystrický kraj. |

| | |
|-----------------------|---|
| roky 2014-2015 | V roku 2014 sa otvorilo obchodné centrum - Bory Mall v Bratislave s veľkosťou 53 000 m ² hrubej prenajímateľnej plochy a obchodné centrum The MALL Trnava na viac než 14 000 m ² predajnej plochy. V treťom resp. štvrtom kvartáli roku 2015 boli otvorené obchodné centrá City Arena v Trnave (24 000 m ²), Forum v Poprade (23 000 m ²) a Galéria Lučenec (10 000 m ²). |
| súčasnosc | Slovenský retailový trh v súčasnosti ponúka približne 1,54 mil. m ² plochy, z ktorej viac ako tretina sa nachádza v Bratislave. Pri rozdelení na obchodné centrá a retailové parky, patrí obchodným centrom takmer 80% z celkovej maloobchodnej plochy Slovenska. Štatistika realitnej spoločnosti CBRE uvádza, že na každých tisíc obyvateľov pripadá v tuzemsku až 286 m ² obchodných priestorov, čo predstavuje v rámci krajín V4 najvyššie nasýtenie. Aktuálne sa nájomné v hlavnom meste v nákupných centrách pohybuje v rozmedzí 50 - 85 eur/m ² . |

Prameň: Vlastné spracovanie podľa Kremký, 2007; Hesková, 2005; Križan, Bilková, 2014; J. Kuklová, 2015; Pilc, 2015; Kunc a kolektív, 2013; Suchý, 2015.

Na Slovensku sa v súčasnosti nachádza vyše 50 nákupných centier vo viac ako dvadsiatich mestách. Do rebríčka desiatich najväčších slovenských obchodných centier, ktorý zostavil Denník N s developerskými a poradenskými spoločnosťami CBRE, Colliers International a Cushman & Wakefield, sa dostali len tri mimobratislavské centrá - Atrium Optima Košice, Madaras v Spišskej Novej Vsi a košický Aupark. Kým Optima patrí medzi väčšie, Madaras a Aupark v Košiciach sú o niečo menšie, no pre náš trh veľkosťou typické nákupné centrá. Ako môžeme vidieť v tabuľke 2, veľkých moderných nákupných centier, definovaných prenajímateľnou plochou 40 000 a viac m², je na Slovensku len šesť a všetky sú v Bratislave a Košiciach. Oveľa rozšírenejšie sú malé nákupné centrá s plochou 5 000 - 19 999 m² a stredne veľké centrá s prenajímateľnou plochou 20 000 - 39 999 m². Naším najväčším nákupným centrom je Avion Shopping Park Bratislava, ktoré by aj bez švédskeho obchodného domu s nábytkom bol našim najväčším nákupným centrom.

Tabuľka 2 Najväčšie nákupné centra na Slovensku podľa plochy na prenájom

| Názov obchodného centra | Plocha na prenájom v m ² | Počet obchodov | Počet parkovacích miest |
|--------------------------------|-------------------------------------|----------------|-------------------------|
| Avion Shopping Park Bratislava | 103 000 | 172 | 3600 |
| Aupark Bratislava | 58 000 | 240 | 1837 |
| Eurovea Bratislava | 55 000 | 179 | 1324 |
| Borry Mall Bratislava | 54 000 | 181 | 2400 |
| Atrium Optima Košice | 53 300 | 150 | 1600 |
| Polus City Bratislava | 40 300 | 166 | 1683 |
| Central Bratislava | 36 000 | 150 | 1300 |
| Madaras Spišská Nová Ves | 36 000 | 95 | 950 |
| Shopping Palace Bratislava | 35 000 | 89 | 2000 |
| Aupark Košice | 33 830 | 140 | 1100 |

Prameň: Vlastné spracovanie podľa Čimová, 2015.

Typické slovenské nákupné centrum má podľa CBRE prenajímateľnú plochu 15-tisíc m², čiže spadá do kategórie malé obchodné centrum, má 50 až 60 obchodov, z ktorých viac ako polovica je väčších, s plochou nad dvesto štvorcov, nachádza sa v meste s počtom obyvateľov od 50000 do 100000. Až 86 percent regionálnych nákupných centier spadá do kategórie malých.

Budúcnosť nákupných centier úzko súvisí s nastupujúcimi trendami v tejto oblasti, ktoré vystupujú do popredia už aj v súčasnosti. Najvýznamnejšie trendy a predpoklady vývoja obchodných centier na Slovensku a zmeny v tejto oblasti, ktoré už prebiehajú alebo nás ešte len čakajú sú bližšie rozvinuté v tabuľke 3.

Tabuľka 3 Budúcnosť obchodných centier na Slovensku

| Trend | Popis |
|--|--|
| zvyšovanie počtu nákupných centier | Informácie z druhého kvartálu roku 2015 naznačujú, že v nasledujúcom období pribudne na Slovensku viac ako 103-tisíc m ² nových nákupných priestorov. Tým by sa naša krajina stala absolútnou jednotkou v prepočte predajnej plochy na počet obyvateľov, t. j. 300 m ² obchodných priestorov na tisíc obyvateľov, oproti aktuálnemu stavu 286 m ² . Ide tak o nastúpený trend z minulého roka, kedy na Slovensku pribudlo najviac nových nákupných centier v rámci strednej Európy. Reálne kontúry výstavby na Slovensku do budúcnosti má 26 centier, ak by sa však postavili všetky centrá, pre ktoré sú už nakúpené pozemky, tak by Slovensko malo do siedmich rokov viac ako 100 obchodných centier. Trend vo výstavbe ďalších obchodných centier smeruje k tomu, že sa ich postaví viac, ako je reálne treba. |
| presúvanie obchodných centier do menších miest | Súčasným trendom na Slovensku aj do budúcnosti je presúvanie obchodných centier do menších miest, čo môžeme pozorovať na otvorení trnavskej City Areny, popradského Forumu a lučeneckej Galérie. |
| zmenšovanie plôch obchodných centier | Väčšina plánovaných a nedávno otvorených obchodných centier má výmeru okolo 20- až 30-tisíc m ² , čo poukazuje na postupné zmenšovanie plôch obchodných centier a bude tomu tak aj v budúcnosti. V Bratislave je plánované postavenie ďalších nových obchodných centier, avšak na komplexne vybavené obchodné centrá s 40- až 50-tisíc štvorcovými metrami už priestor v hlavnom meste nie je, ale vzhľadom na výstavbu nových sídlisk a rezidenčných zón vzniká potreba menších nákupných stredísk, v ktorých ľudia urobia rýchlejšie bežný nákup. |
| sústredenie obchodných centier do prémiových lokalít v centre miest | Kúpna sila v regiónoch, spotrebiteľské správanie a nákupné zvyky vytvoria v tomto roku priestor skôr pre kompaktné centrá v prémiovej lokalite v centre miest. Obchodné centrá na okrajoch miest bez blízkosti väčších sídliskových lokalít v regiónoch historicky veľmi neuspeli, respektíve nenaplnili maloobchodný potenciál mesta |

| | |
|---|--|
| rekonštrukcia, remodeling a rozširovanie obchodných centier | Badateľná je rekonštrukcia, modernizácia a kompletný remodeling už existujúcich obchodných centier a rozširovanie ich častí. Za samozrejme je už vnímané zapojenie zelene, používanie prírodných materiálov a vytvorenie prirodzeného prostredia pre návštevníkov. Po tradičnom zhruba desaťročnom období od otvorenia prešiel premenou bratislavský Aupark, Avion aj Polus, nadstavuje sa Európa (Banská Bystrica) s cieľom rozšírenia ponuky. |
| zmena formátu obchodných centier | Ďalšou novinkou je zmena formátu obchodných centier, ktoré sa z jednoduchých nákupných centier menia na nákupné centra s dôrazom na trávenie voľného času. Jednu z kľúčových úloh majú gastronomické prevádzky a ďalšie predajne spojené s jedlom a pitím. |
| sústredenie nových obchodných centier do nedostatočne pokrytých oblastí | Najväčšia hustota obchodných centier je pochopiteľne v hlavnom meste, v Bratislave, v Žiline a celkovo na západnom Slovensku, pričom smerom na východ ich počet klesá. Vzhľadom na to by sa v budúcnosti mali plánovať a realizovať nové projekty právne na strednom a východnom Slovensku, ktoré budú pre investorov viac atraktívne. Nedostatočne pokryté je napríklad tretie najväčšie mesto na Slovensku Prešov. |
| vzájomne odlišenie sa existujúcich i v budúcnosti postavených obchodných centier | Silnejším trendom v budúcnosti a čiastočne začínajúcim už v súčasnosti je vzájomné odlišenie sa jednotlivých nákupných centier v dôsledku zotrújúcej sa konkurencie. To sa týka nielen už existujúcich nákupných centier, ktoré prechádzajú modernizáciou, ale bude sa to dotýkať obchodných centier, postavených v budúcnosti. Dôležitým aspektom bude vhodne zvolená lokalizácia obchodného centra spolu so spádovou oblasťou a správne zostavený mix ponúkaných obchodných značiek pokrývajúcich všetky segmenty. Nemenej dôležitým faktorom sa stáva aj príjemná atmosféra nákupného centra a ponuka doplnkových služieb a celková kvalita projektu. |

Prameň: Vlastné spracovanie podľa Čimová, 2015; Odkladal, 2015; Petránky,

Záver

Dnešné obchodné centrá so svojou históriou siahajú až do čias orientálnych trhov a bazárov, sú vlastne len modifikovanou formou štyri tisíc rokov starých trhov. Nákupné centrá sa naprieč storočiami začali vo svojej tradičnej forme rozširovať do takmer všetkých vyspelejších krajín sveta. Na začiatku 20. storočia sa obchodné domy stali základným kameňom moderného veľkomesta, symbolom mestského bohatstva a pokroku a magnetom na nadšených zákazníkov aj turistov. Už prvé obchodné centrá si uvedomovali, že je nutné zákazníkovi ponúknuť viac než len miesto pre nákup, je nevyhnutné vytvoriť určitú pridanú hodnotu k bežnému nákupu. Nákupné centrá postupom času začali predstavovať pre zákazníkov spôsob trávenia voľného času, stali sa nástrojom kultúrneho i zábavného vyžitia sa.

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THE ANALYSIS OF THE ORGANISATIONAL AND TECHNICAL CONDITIONS IN THE NURSING STAFF'S WORKING ENVIRONMENT

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Abstract

Management by shaping the conditions of the working environment means the subjective roles attributed to the human being in the work process, taking into consideration the fact that it affects the employees' attitudes contributing to the increase in the organisation efficiency. The identification of the rate of acceptance of the organisational and technical working conditions and their adaptation to the psychological and physical possibilities of the nursing staff became the subject of this article, in the light of empirical studies. They were considered in the following problem groups: material working environment, technical equipment, work organisation.

Keywords: *organisational technical factors, working conditions*

JEL Classification: I11, M54, O15

Introduction

A lot of attention has been paid to the problem of the nursing staff's work for the last few decades. As a result of the active work of the nursing staff's organisations and associations, among others International Council Nurses, a lot of scientific studies were conducted confirming the significant influence of the working environment conditions on the treatment results, medical mistakes, undesired events, time of the patients' hospitalisation (Nordgren et al. 2004), mental and social charges, professional burnout (Jennings 2008). The World Health Organisation presented the profile of the modern nurse characterising with the work professionalism, endeavour to develop permanently, flexibility towards dynamic changes occurring in the competitive and further surrounding of the organisation (Ostrowicka, Walewska-Zielecka, Olejniczak 2013). They should participate in the decision-making processes, in the processes of the improvement in the organisation functioning, express opinions concerning the work freely, possess analytical, interpersonal abilities facilitating the communication both with the external surroundings (patients, patients' families) as well as in the internal surrounding which is required at work in the interdisciplinary treatment team (Franek, Łukasz-Paluch, Cholewka 2012). The requirements towards the persons performing the occupation of the nurse have increased significantly. They have stopped being the auxiliary staff and have become the equal partners in the treatment team. Simultaneously, the interest in the job of a nurse has decreased among young people and the lacks of staff in the nursing positions have appeared, arising, above all, from the migration of the staff and from the demographic changes (Bińkowska -Bury

et al. 2010). The foreseen demographic changes will not only affect the number of the nursing staff resource but also the number and structure of patients taking advantage of medical entities. As the statistical data published by OECD show, the indicator of the number of nurses employed directly at the care of a patient in Poland is quite low in comparison to the other highly developed countries (this indicator amounted to 5.4 per 1,000 residents in 2012). Moreover, it is assumed that the number of nurses in Poland will decrease to 4.1 per 1,000 residents in 2035 (Ogólnopolski Związek Zawodowy Pielęgniarek i Położnych 2015). Furthermore, the data published by the National Council of Nurses and Midwives show that the mean age of nurses in the country amounts to 44.24 at present (Naczelna Rada Pielęgniarek i Położnych 2010).

Material and methods

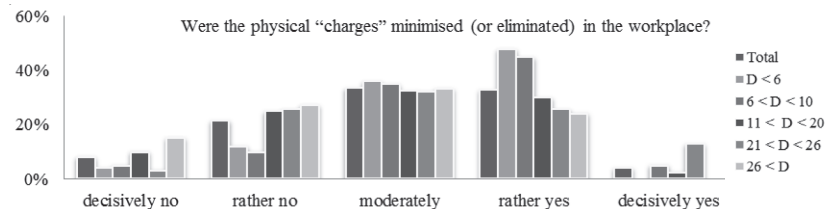
This article constitutes the continuance of the preliminary, pilot empirical studies referring to the identification of the factors shaping the nursing staff's working environment (Pytel-Kopczyńska 2015b, 2015c). The research covered the nurses working in public hospitals. 160 respondents took part in the study whereas 156 questionnaires of the completely filled surveys were taken to further statistical analysis. The representative group consisted of randomly selected nurses working in hospital in the city Częstochowa and Częstochowa district. The choice of Częstochowa hospitals to the stage of studies described in this article depended on, among other things, the value of the indicator of nurses per 1 thousand residents which is one of the highest in the Śląskie Province in the country. As it is known that similar problems occur both in the Częstochowa district as well as in other regions of the country. They refer to, among others, aging of the staff and lacks in the nursing staff and the forecasts drawn up by the specialists are quite worrying. The study was anonymous, voluntary, constitutes a small part of preliminary studies. The method of the diagnostic survey with the technique of the survey was used in the study. The author's survey questionnaire constituted the research tool. The selection of the environment factors was performed on the basis of own experiences and consultations with experts- academic workers of universities and representatives of the health entities managerial staff. The five grade Likert scale was used to analyse the level of employees' acceptance of the organisational and technical working conditions and the level of the nursing staff's integration with the medical entity. The tested group consisted of women in 100%. The influence of such variable as work experience of respondents was taken into consideration in order to describe the test group and for the statistical analysis. The tested group differentiated concerning their age, the nurses at the age 40-49 constituted the biggest group. The work experience was also differentiated. The biggest group concerning the work experience comprised the nurses working in the profession for 11-20 years (27%), then the persons working over 26 years (22%), work experience from 21 to 26 years (20%) of all respondents, less than 6 years (18%), from 6 to 10 years (13% respectively). All respondents were employed in the system of shift work. Analysing the organisational and technical context of working conditions, the attempt was performed to identify the work features connected with the physical, chemical, biological working conditions, work features referring to the material conditions connected with the complicity of the work process, features of work specifying the contents of work, tasks performed at the positions, used methods of work, cooperation between employees. Additionally, the survey questionnaire was completed with the questions referring to the culture of safety and ergonomics as well as good practices of management in this area.

Organisational and technical working conditions - Results

Features connected with physical, chemical, biological working conditions

The first part of the analysis referred to the questions connected with physical, chemical and biological working conditions. Analysing the answers given by the respondents referring to the physical charges (e.g. inappropriate level of noise, lighting, air temperature, harmful radiation, electromagnetic field) existing in the workplace, it is possible to notice that the majority of nurses (71%) claim that they were minimised to the acceptable value. Moreover, it is worth emphasising that the indications "decisively yes" constituted only 4%. Whereas the percentage of the surveyed who complained about the existence of the physical charges amounted to 29%. The nursing staff mentioned among the physical factors which affect the nursing staff at first noise, then ionising radiation. Taking into consideration the groups of respondents according to their work experience, it is possible to notice a dependence. Thus, the percentage of the surveyed assessing the influence of physical factors in their workplace negatively increases with the length of the work experience, respectively, this percentage fluctuated from 15 to 16% among nurses with the work experience below 6 years and from 6 to 10 years, whereas it amounted to 42% in the group of the oldest nursing staff (compare chart 1).

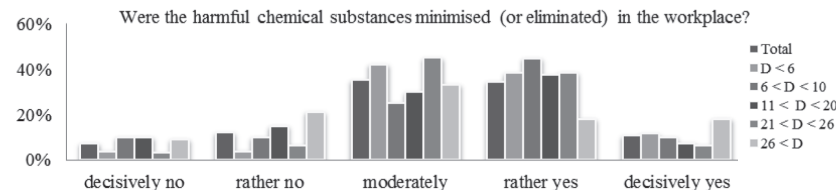
Chart 1 The structure of responses to the question: referring to the existence of physical charges in the work process with the consideration of the work length in years (marked with D)



Source: self study

The majority of the surveyed nurses confirmed the properly shaped conditions of the working environment referring to the chemical factors. The data presented in chart 2 show that according to 81% of respondents the dangers connected with the existence of harmful chemical substances were minimised out of which 46% of indications presented positive opinion. Among the chemical dangers existing at work the harmful action of antiseptics, then cancerogenic substances and latex were mentioned. The analysis with the consideration of the work experience shows that as many as 30% of nurses working the longest in the profession assessed the working conditions connected with chemical dangers negatively (see chart 2).

Chart 2 Structure of responses to the question referring to the existence of harmful chemical substances in the work process with the consideration of the work length (marked with D)



Source: self study

The nurses confirmed that they meet various biological factors in the work process whereas the vast majority of respondents (80%) expressed the opinion that the risk connected with the biological dangers is acceptable. It is worth noticing that the work experience fails to be the variable which differentiate the obtained results in a significant way, they are similar for particular groups to the data presented for the whole tested population of the nursing staff. The surveyed nurses emphasised that the existence of bacteria (93% of indications), then viruses (61%) and fungi (the percentage amounted to only 6%) comprise the biggest biological dangers in their work (compare chart 3).

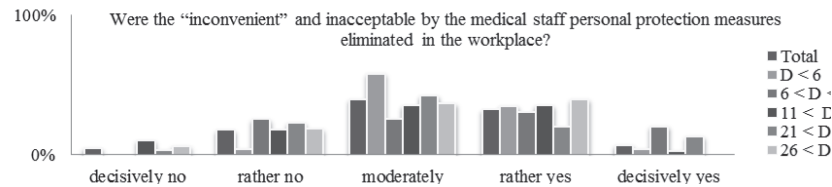
Chart 3 Structure of responses to the question referring to the existence of biological dangers in the work process with the consideration of the work length (marked with D)



Source: self study

The distribution of responses given to the next question referring to the staff's opinion about the personal protection measures is presented below in chart 4. It is worth noticing that quite high percentage because as many as 22% comprised the employees who are dissatisfied with the level of work comfort arising from the individual protection measures provided by the employer. Only 7% of all respondents claimed that the non-ergonomic, inconvenient measures providing protections from dangers in the work process were eliminated.

Chart 4 Structure of responses to the question referring to the existence of "inconvenient" personal protection measures in the work process with the consideration of the work length (marked with D)

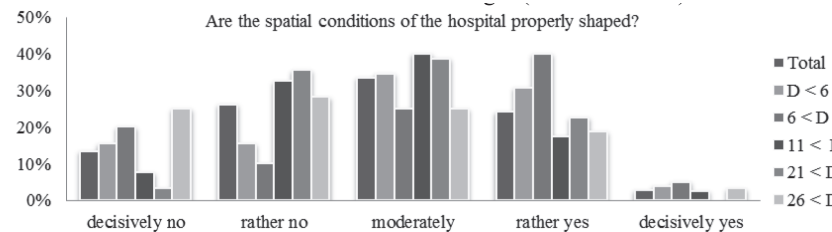


Source: self study

Work features connected with the material working conditions

The attempts to obtain the assessment of the working conditions from the tested group of nurses with the consideration of material factors was also considered in the study. Thus, the general question was asked which referred to the properly shaped spatial conditions of the hospital (ergonomic architectural solutions, appropriate social background). As many as 39% of respondents noticed the existence of this problem in the workplace (13% of indications "decisively no" and 26% "rather no", respectively). Whereas, only 3% of nurses in the analysed population assessed the ergonomics of architectural and building solutions of the hospital in which they are employed decisively positively. Analysing the structure of given answers with the consideration of the division into the length of the work experience, it should be noticed that the percentage of employees perceiving the spatial conditions of the hospital negatively changes with the length of years. The biggest number of negative opinions is characteristic for the group of staff employed in the profession over 26 years (58% of indications). The distribution of indications is presented below in chart 5.

Chart 5 Structure of responses to the question referring to the proper shaping of spatial conditions with the consideration of the work length (marked with D)

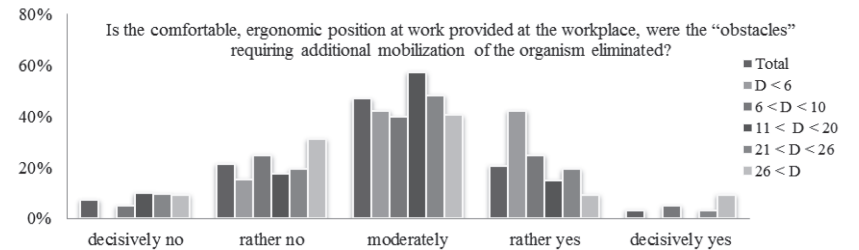


Source: self study

The next question was to obtain the answer to the question concerning the provision of the comfortable, ergonomic position at work, elimination of "obstacles" requiring additional mobilisation of the organism. The percentage of positive (24%) and negative responses (28%) did not differ significantly. However, analyzing the responses in the groups according to the criterion of professional experience, it is possible to

notice that „the obstacles“ in taking comfortable, ergonomic position at work requiring additional mobilization of the organism were given at first by the nurses working over 26 years (40% of negative opinions) and between 21 and 26 years (39% of critical indications, see chart 6).

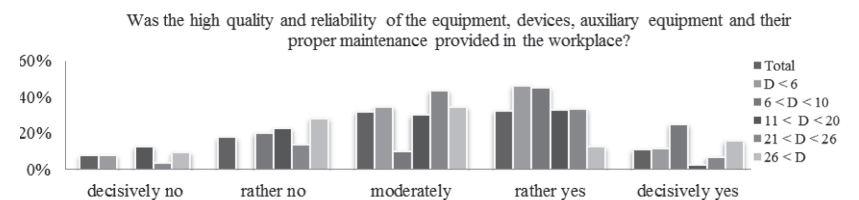
Chart 6 Structure of responses to the question referring to the provision of comfortable, ergonomic position at work, elimination of "obstacles" requiring additional mobilisation of the organism with the consideration of the work length (marked with D)



Source: self study

The following question from the area of issues connected with the material working conditions asked in the performed survey was to provide high quality and reliability of equipment, devices, auxiliary equipment and their proper maintenance. Analysing the given responses, it may be noticed that 43% of nurses expressed clearly positive answer and 32% of surveyed persons gave the moderate answer. Whereas the percentage of persons indicating the negative assessment for the whole population amounted to 25%. The data presented in chart 7 show that the biggest number of respondents who declare that the used technical equipment is reliable, ergonomic, safe constituted two youngest groups of respondents, with the work experience below 6 years (58%) and with the work experience from 6 to 10 years (as many as 70%). Whereas this percentage constituted only 29% in the group of the persons employed in the medical profession over 26 years (compare chart 7).

Chart 7 Structure of responses to the question referring to the high quality and reliability of the equipment, devices, auxiliary equipment and their proper maintenance with the consideration of the work length (marked with D)

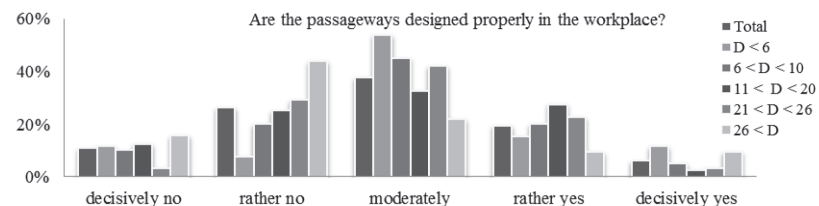


Source: self study

Analysing the answers given by the respondents to the next question (see chart 8), it should be emphasised that only 25% of the tested nurses confirmed that

the passageways in hospital are shaped properly, 38% assessed their ergonomics as moderate. Whereas, 37% of respondents complained about the failure to adapt the communication infrastructure to the needs existing in the workplace. The difference may be noticed in groups created according to the length of work. The percentage of persons who expressed the positive opinion among the group of the youngest respondents was similar to the value for the whole analysed population (27% and 25% respectively), whereas the percentage of indication confirming the ergonomics of passageways fell significantly (18%) in case of the tested group working over 26 years.

Chart 8 Structure of responses to the question referring to the properly designed passageways with the consideration of the work length (marked with D)

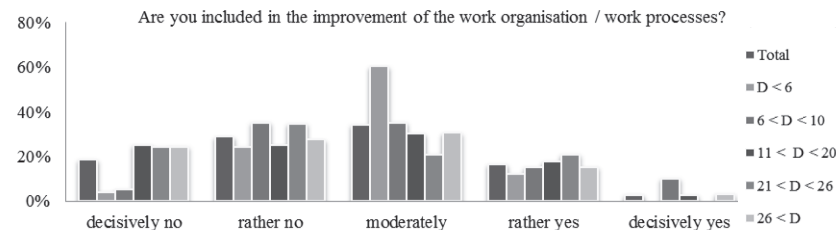


Source: self study

Work features connected with the work organisation, methods and contents of work

The next part of the analysis focuses on the selected work features connected with the work methods and work contents i.e. with the tasks performed at the work position. The aim of the properly designed work organisation is to make the effective performance of tasks which brings satisfaction with the possibly lowest biological cost possible for the performer. Thus, the question was asked whether the respondents are included in the process of work organisation process. The surveyed persons answered in the following way: only 3% of nurses in the analysed population chose that "decisively yes", 16% of respondents indicated the response "rather yes", 34% "moderately" and almost half because as many as 47% indicated that they do not participate in the facilitation of the work processes. Taking into consideration the division into groups (similarly as in case of some previous questions), it is possible to notice the connection between the given responses and professional experience. Thus, the percentage of respondents indicating that they are not included in the improvement of work processes increases proportionally to the number of years worked in a medical profession (from 28% to 58%). The distribution of indication is presented below in chart9.

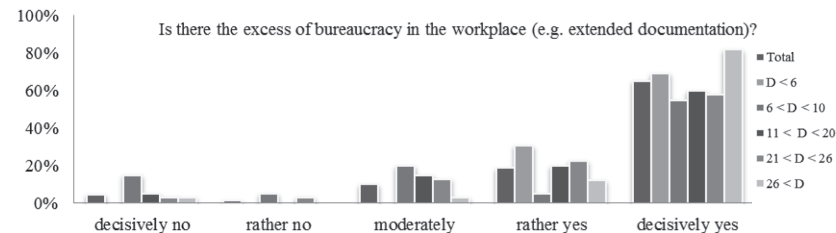
Chart 9 Structure of responses to the question referring to the employees' participation in the improvement of the work organisation with the consideration of the work length (marked D)



Source: self study

It is vital to add the necessity of filling in frequently extended documentation which accompanies the reorganisation processes of which the healthcare system has been subject for the last decades to the description of the nursing staff's working conditions. It is possible to notice from the results presented in chart 10 that it is a significant problem because the percentage of respondents indicating the response "rather yes" and "decisively yes" amounted to 84%. Only 6% of the nursing staff in the tested population did not indicate too big number of filled in documentation instead of spending their work time to nurse the patient. Analysing the structure of responses according to the criterion of the work experience, it is possible to notice the difference in expressed opinions. In the group of the staff working in the profession from 6 to 10 years the percentage of employees for whom filling in the extended documentation constituted additional charge amounted to 60% and this percentage in the group of the oldest respondents amounted to 94%.

Chart 10 Structure of responses to the question referring to the excess of bureaucracy with the consideration of the work length (marked with D)

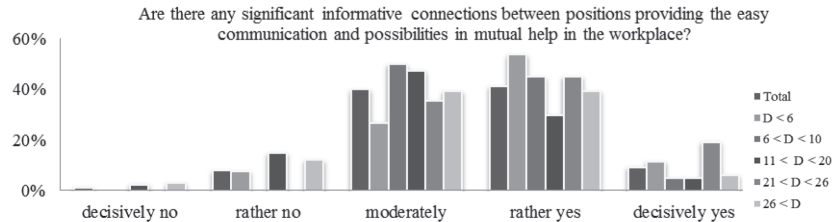


Source: self study

Nursing staff participating in the study also expressed their opinion referring to the existence of efficient informative connections between the position in the work process providing easy communication and possibilities of mutual help. According to the data obtained from the study, the percentage of confirming responses amounted to as many as 90% whereas it is necessary to emphasise that the clearly positive opinions amounted to 50% ("rather yes" 41%, "decisively yes" 9%). Analysing the structure of given responses with the consideration of division into the length of work, it is

necessary to notice that both the group of nurses working between 11 and 20 years the same as with the experience over 26 years complained about the effective use of significant informative connections between the work positions in the workplace in the biggest rate (compare chart 11).

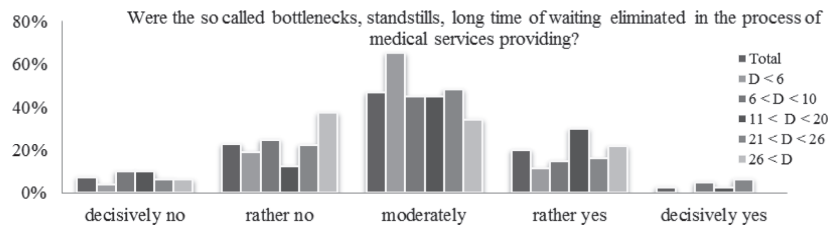
Chart 11 Structure of responses to the question referring to the significant informative connections between the work positions with the consideration of the work length (marked D)



Source: self study

The respondents were also asked in the survey questionnaire whether the so called bottlenecks, standstills, long time of waiting were eliminated in the process of medical service provision. As the study shows the decisive number of the surveyed persons (70%) declared that the so called bottleneck affecting the liquidity of the work processes were minimised or eliminated, whereas the responses "moderately" amounted to as many as 47%, "rather yes" 20% and "decisively yes" only 3%. However, 30% of the tested ones noticed the problem of so called bottlenecks, standstills. The same analysis with the consideration of such a variable as work experience does not differentiate the given answers and the highest percentage of the positive answers were noticed in the group of respondents characterising with the length of work from 11 to 20 years (33%, compare chart 12).

Chart 12 Structure of responses to the question referring to the elimination of so called bottlenecks, standstills, long time of waiting with the consideration of the work length (marked with D)



Source: self study

The attempt was also taken in the study to obtain the subjective opinion from the group of tested nurses about the culture of work safety and ergonomics. The general question was asked whether the hospital takes care of the culture of work safety and

ergonomics. Almost half of the surveyed ones (49%) expressed their dissatisfaction with the level of the culture organisation in the area of workplace ergonomics and shaping the safe attitudes and behaviours in the professional work. Only 20% of respondents answered this question positively whereas 4% of answers constituted the answers "decisively yes". The significant percentage of respondents (31%) is moderately satisfied. It is possible to notice clear differences in the groups created according to the length of work. Then the percentage of respondents indicating that the medical entity in which they are employed takes care of the proper level of safety culture and ergonomics increases proportionally to the number of years worked in the medical profession (from 28% to 57% which is the same as the structure of the responses to the question referring to the employees' participation in the improvement of work organisation). The distribution of the indications is presented below in chart 13.

Chart 13 Structure of responses to the question referring to the work safety culture and ergonomics with the consideration of the work length (marked with D)



Source: self study

Organisational and technical working conditions -Debate

The properly organised workplace affects the safety and quality of work. In general, it is possible to assume that shaping the working environment refers to the area connected with the human being as well as the area connected with work (Pytel-Kopczyńska 2013). Considering the area connected with the human being, it is possible to distinguish such factors as: qualifications, experience, discipline, work culture, approaches and motivation, mental and physical charges. Whereas in the area connected with work, it is possible to distinguish such factors as: workplace equipment, material working environment, and work organisation. Shaping the work environment is connected with the issue of the employees' acceptance of these conditions, determining the level of the nursing staff's integrity with the medical entity strongly. The human body adapts to the organisational and technical working conditions only in some parts, thus the ergonomic actions to adapt the working conditions to the limited possibilities of human body are very important. (Pytel-Kopczyńska 2015a). In the reality of Polish healthcare entities functioning, the working conditions of the medical staff generating the level of work process charge, despite continuous improvements, are quite difficult. There still are non-ergonomic architectural solutions, insufficient space to work, too high bed occupancy, overcrowded wards, no place to rest for the employed staff in the healthcare entities. Additionally, reductions in the employment of the nursing staff and auxiliary staff, thus, the increased scope of duties arising from the decreased staff at the ward, especially in the afternoon and at night, results in frequent failure to observe the

provisions of law concerning the permissible charges at work requiring a lot of physical effort on one hand (no possibility to take advantage of other nurses' help) and on the other hand, the necessity to fill in the extended documentation instead of spending work time on taking care of the patient (Pytel-Kopczyńska 2014). Moreover, despite a lot of hospital investments, building adaptation and modernisation, public hospitals existing in Poland are situated mainly in object built in 20th century or even in 19th century, the biggest number of them was built in 1970's. It is necessary to emphasise that the recommended life of a hospital building is usually specified for 50 years, which results from the functional and technical efficiency of installations and quality standards of the staff's working environment and the safety of hospitalised patients and what is more due to the changes in technologies, norms, medicals procedures, it is assumed that the hospital object should be modernised every ten years (Orłowski, Walkowski, Złowocki 2010). There is a range of academic studies confirming the existence of correlation between the nursing staff's working environment conditions and the level of medical care safety (Kazanjian et al. 2005; Laschinger, Leiter 2006; Carayon, Wood 2010; Aiken et al. 2011). The worldwide sources of literature show that the process of the patient's care is fully connected with the patient's safety, which means that work in difficult conditions and inappropriate number of staff increases the risk to make mistakes (Institute of Medicine IoM 2004). The results of the report published in 2000 by the Institute of Medicine (IoM), entitled "To Err Is Human: Building a Safer Health System" contributed to the fact that the patient's safety was included in the strategies of the medical entity activity (Institute of Medicine IoM 2000). The frightening data indicated that as many as 58% cases of patients' death connected with the medical mistake could be prevented in the USA and that about 40,000 people died in hospitals in the UK every year due to the lack of safety and inappropriate quality of medical care (Baylina, Moreira 2011). Thus, the improvement of the quality in the healthcare sector which also means the improvement of the patient's safety is based on the assumption that the healthcare is provided in a safe, effective way which is focused on the patient and efficient and is provided in time as well as is fairly available. Patient's safety which is connected with the optimal conditions of the medical staff's working environment constitutes the foundation on which the quality of the medical care is shaped (Sainfortet al. 2001).

Summarising, the results of the own studies at the pilot analysed population of nurses indicate that the staff assesses the working conditions connected with the physical and chemical and biological factors quite positively (which is connected with the assessment of the professional risk). However, in case of the work features connected with the material work conditions the percentage of the surveyed who perceive the widely understood "ergonomics" of the workplace negatively increases (which is confirmed in the literature). It is also worth noticing that the length of work constituted the variable which differentiated the obtained results in a significant way. It is possible to notice a dependency, thus, the percentage of negative opinion increased with the length of time worked in the medical profession (the exception constituted the answers referring to the biological factors). In case of the analysis of factors shaping the organisational work conditions almost half of nurses in the tested population indicated that they do not participate in the facilitation of the work processes and the majority complains about too big amount of filled in documentation in comparison to the time spent on taking care of the patient. The similar structure of responses was obtained about shaping the safety culture and ergonomics. The percentage of respondents indicating that the healthcare entity in which they are employed does not care for the appropriate level of the safety culture and ergonomics in a proper way increased proportionally to

the length of work. The issues referring to the elimination of bottlenecks from the work process and the efficiency of the informative connections between positions featured with the high percentage of positive opinions.

Conclusions

Pursuant to the performed analyses of the literature and own studies, the following conclusions were drawn:

1. the peculiarity of factors specifying the organisational and technical conditions of the working environment by the failure to adapt the work to the human being is visible by negative consequences for the nursing staff's safety, work quality which is reflected in the level of patients' safety.
2. the majority of factors determining the working environment conditions should be modified by the employer, direct management and the implementation of good practices in this scope should be an aware participation of well educated nursing managerial staff as well as the whole nursing staff.
3. identification of the factors shaping optimal organisational and technical solutions at the nursing positions contributes to: obtaining information about the level of the work organisation system (organising work in teams, in individual forms); obtaining the information about the technical condition and ergonomic quality of the workplace equipment, ability to use, rate of use; decreasing the work arduousness concerning the physical and mental effort, improvement of the material environment conditions including the conditions of work safety; improvement and development of the work processes in accordance with the work humanisation rules; elimination of not planned breaks and standstills at work due to the lack of work process synchronising, facilitation of the interpersonal communication system; revitalisation of organisational culture and the culture of safety and ergonomics included in it.

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EEG ŠTÚDIE VPLYVU HLUKU NA PROCES VEDOMÉHO UČENIA

EEG STUDIES OF THE EFFECT OF NOISE ON THE PROCESS OF CONSCIOUS LEARNING

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Abstract

This study focuses on the influence of ambient noise and, vice versa environment free of noise, on the process of conscious learning. Perception, reception and remembering new information is crucial for most activities that a human performs. The process of conscious learning is most evident in the school. The goal of this study is to verify the influence of the school noise on students and the effectiveness of the protection from this noise. One of the possible practical application of neuromarketing is to contribute to greater effectiveness of learning, so that the remembering is as efficient as possible.

Key words: *Eye Tracking, neuromarketing, conscious learning, brain EEG, noise*

Abstrakt

Táto štúdia sa venuje vplyvu okolitého hluku a naopak prostredí bez hluku na proces vedomého učenia. Vnímanie, prijímanie a zapamätanie nových informácií je kľúčové pre väčšinu činností, ktoré človek vykonáva. Proces vedomého učenia je najviac viditeľný predovšetkým v škole. Cieľom tejto štúdie je overiť vplyv školského hluku na študentov a účinnosti ochrany pred týmto hlukom. Jednou z možností praktickej aplikácie neuromarketingu je prispievať k vyššej efektívnosti učenia, tak aby zapamätanie si učiva bolo čo najefektívnejšie.

Klíčová slova: *Eye Tracking, neuromarketing, vedomé učenie, EEG mozgu, hluk*

JEL Classification: D87, M00, M31

Introduction

This paper focuses primarily on the area of neuromarketing research, especially on linking of research methods such as eye tracking and brain EEG. Combining of several methods of neuromarketing research can help to determine the more complex results and data, which is addressed in this study as well. This study focuses on the influence of ambient noise and, vice versa environment free of noise, on the process of conscious learning. The process of conscious learning is most evident in

the school, where is most often the need to memorize a greater amount of information and an environment in which learning takes place can influence this process. In the wider use, the learning process, however, takes place every day, not only in school, but also for example in shopping behavior or generally in marketing as such. Perception, reception and remembering new information is crucial for most activities that a human performs. Study in laboratory is dedicated to the part of this process, with particularly focuses on the effect of noise on learning process, while using a combination of modern research methods.

Practical applications of neuromarketing gradually gains on importance also in the Czech Republic. One of the possible practical application of neuromarketing is to contribute to greater effectiveness of learning, so that the remembering is as efficient as possible. Likewise, the learning process is also evident in the field of advertising, marketing and purchasing behavior. This is just one of the broad directions of potential applications, which are discussed in this article.

Neuromarketing Research

The notion of neuromarketing began to appear around 2002, when American society as SalesBrain and Brighthouse started offering services related to neuromarketing research (MORIN, 2011). Neuromarketing is a new field of marketing, which studies sensorimotor, cognitive and emotional response of consumer to marketing stimuli (ROEBUCK, 2011). It is a multidisciplinary field related to the application and linking of neuropsychology, cognitive psychology and neuroscience into the environments of marketing decision (VYSEKALOVÁ, 2014). In summary, neuromarketing can be understood as an interconnection of application of biomedical engineering and marketing research (TICHÝ, ROSENLAGHER, JÁNSKÁ, 2015). Thanks to this interconnection e.g. the consumer learning process can be verified or the effectiveness of marketing communication tools before their application and find the potential of the particular marketing tool.

Methodology of the Investigation

Following the set target its own investigation was carried out, which used methods of brain EEG, eye tracking, intelligence subtest WAIS-R. Research and data collection took place in several stages - the choice of initiative, characteristics of respondents, data collection and their analysis, recall test.

It has been proposed that bioethics discourse and ethical decision making can provide the medium for acknowledging the human participant, not as a mere consumer or client, but as an agentic human being with dignity to be protected from intrusion to autonomy, from violations of confidentiality and privacy, from misuse of niche groups by respecting nonmaleficence and beneficence (ULMAN, CAKAR, YILDIZ, 2015).

Selecting of initiative - to prepare the survey a news article was chosen as initiative according to the following selection criteria. The first criterion of the article was to choose a neutral topic, so that it is relatively close to all respondents. The second criterion was the content of numerical data and local names, so that article is readable for the types of respondents focused on "hard and soft data". The third criterion was that the article contained a table with data that respondents tried to remember. At the

same time, this the criterion approximates the text to the teaching material. The fourth selection criterion was the length of the article, set to a maximum of 3000 characters. Selected article contained 2537 characters so that the text of the article was displayed on one side of A4 in full view on a computer monitor. Selected article meets all criteria, while its content discusses about the weather and record temperatures in summer. Article and its structure is shown in figure 1.

The selection of respondents - for this survey students of fourth class of Podkrušnohorské gymnásium in Most were selected. The sample size was 20 respondents. By pre-test their learning ability was firstly investigated. Pre-test was performed on 28th April 2016, through performance subtest WAIS-R. This is a test of numbers and symbols, which respondent assigns to each other according to the system, within a time limit of 120 seconds. Custom coding process involves not only learning a new task, but also its visual-perceptual organization, including coordination of sensomotors. The test also monitors a certain endurance and speed of solution. Thus, the aim was to select respondents with relatively the same associative learning abilities, including working memory performance, which, among others, significantly influences school performance of students. There were 27 respondents chosen and respondents with borderline results achieved in the test (too outstanding results or, conversely, very weak) were excluded from the selection sample - a total of seven respondents. The raw subtest WAIS-R scores of individuals were transferred to the weighted scores, i.e. to performative IQ due to the fact that the administration of this subtest should be used only to find research sample of respondents with broadly similar cognitive performance.

Research methods - to collect biomedical data was used brain EEG and a method of Eye Tracking. Electroencephalography (EEG) detects bioelectric activity of the brain, which takes the form of several brain waves, each of which has its own course and frequency reported in Hertz (Hz). Individual brain waves then correspond to a specific behavior of humans, for example BETA brain waves associate with mental activity, thinking and considerable effort due to focus on the challenge. Brain waves called SMR (sensorimotor) waves have a relationship to the movements, the physical motor skills of humans, or are activated when we imitate the actions of others. Gamma waves are related with significant emotional experiences. Based on these brainwaves respondents' level of attention and intensity of their emotional responses was investigated in the research conducted (HRONOVÁ, ROSENLACHER, 2015).

Eye Tracking - A method of eye tracking allows to track eye movements using an eye camera and at the same time register where the person looks e.g. on a text field (ZURAWICKI, 2010). Graphic outputs are so called heat maps (maps) from which you can trace the places to which the person watched the longest (POPELKA, BRYCHTOVÁ, VOŽENÍLEK, 2012). Also tracks of eyes and identified time delays at various points can be specified, that means it is possible to designate specific "areas of interest". The method allows testing of prints, advertising materials or plain text, magazine, or other material. Using this method throughout the research the track of eyes of respondents was monitored, which made possible to determine which visual stimuli during the research respondents watched. A "visual behavior" of respondents when reading the article, including strategies of reading individual passages of text can be identified and evaluated.

Data collection - Data gathering was carried out in the Laboratory of neurotechnology at University of Finance and Administration in Most, while all 20 respondents were invited to participate individually. The task of the respondent was to remember as much information as possible from submitted news article, while the

article was shown three minutes. News article was projected on a computer screen, where an eye camera monitoring eye track of respondents was fixed. At the same time through EEG respondent's brain activity of the prefrontal lobes was monitored - according to EEG standard 10-20 were specifically points Fp1, Fp2, Fp7 and Fp8. Brain wave SMR, beta and gamma were monitored and subsequently processed. Within one second 192 statistically processable EEG data for each respondent were measured. Within the whole research 691,200 data expressing the brain activity of the respondents were collected. 10 respondents completed the research with earplugs in their ears, 10 respondents completed the research without earplugs in their ears, in the environment of noise from the school corridor, which was simulated using stereo headphones and audio recordings of noise from the school hallway.

Respondents were invited separately to avoid their mutual influence. Each respondent was seated in front of the 22-inch Full HD monitor Philips, to which a static eye camera Gazepoint GP3 Eye Tracker using the technique of light display of pupils was attached. Equipment Gazepoint GP3 contains Firefly MV mono USB 2.0 camera with micro lenses and infrared (IR) filter and a compact infrared LED light, it contains two USB 2.0 ports (one for power and the other offers 8- and 16-bit data output). Used 0.3MPx camera includes a 1/3 "Micron MR9V022 CMOS image sensor with a pixel size 6 µm x 6 µm, global shutter with the frame rate of 60 frames per second (fps) at a resolution of 752px x 480px. The output data are in the specified XML format (RADECKY, SMUTNY, 2014).

Operation of instrumentation was placed at a sufficient distance behind the respondent so that it does not disturb, and so that it wasn't in the respondent's visual field during data collection. After respondent took a seat a calibration of pupils by nine calibration points followed, to ensure accuracy of measuring. Once calibration of pupils was successfully carried out, a three minutes aforementioned news article was screened to the respondent.

Recall test - as a final phase of the investigation recall test was conducted, immediately after finishing reading of the article. Through the recall test in the form of individual detailed interview the quantity or volume of memorized information from the presented article was determined. The task of the respondents was to summarize in their own words the content of the article, including figures or local names.

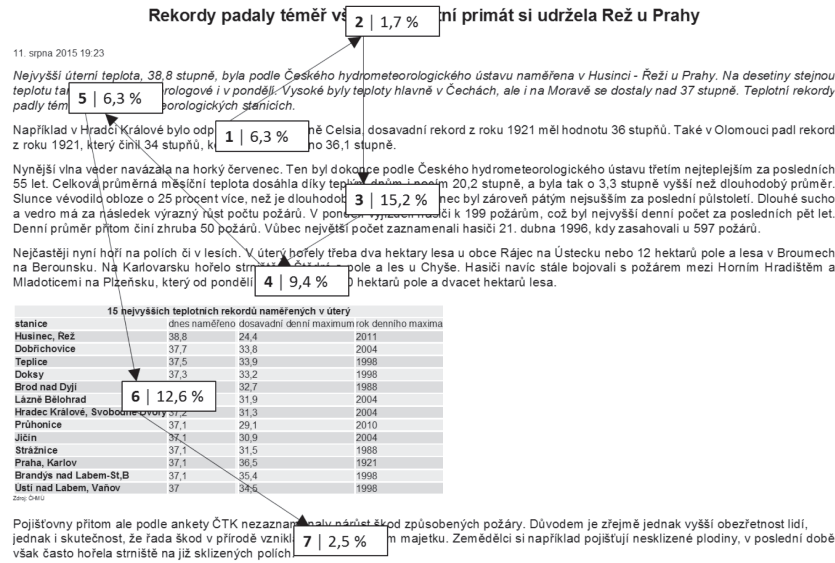
Results

Data obtained through EEG and Eye Tracking were further processed using software Gazepoint Analysis and SPSS Statistics. When processing EEG signal the SMR and beta brain waves were within the mathematical- statistical processing merged, the result is a curve of attention. Values of brainwaves gamma depicts the curve of emotional responses while reading the news article. Evaluation and interpretation of the data was carried out for a total of 3 minutes and also for the last 5 seconds of reading the article, which may be more prominent in the effort to repeat some parts of the text or the text reading strategies. From the data obtained using Eye Tracking summary heat maps were created and further so called maps of the path through the text of article were compiled, which are based on mathematical-statistical processing of the results of Areas of Interests (AOI) in the article. The results are processed separately for respondents with ear plugs in their ears and respondents without earplugs, who were disturbed when reading the article by simulated school noise.

Map Of The Path Through The Article - Summary For 3 Minutes

An integer values in the maps determine the order of monitored parts of the text; percentages indicate the percentage of total time of 3 minutes respondents focused their attention on the part of the text. These figures are based on an analysis of AOI, which focus on individual parts or paragraphs of text.

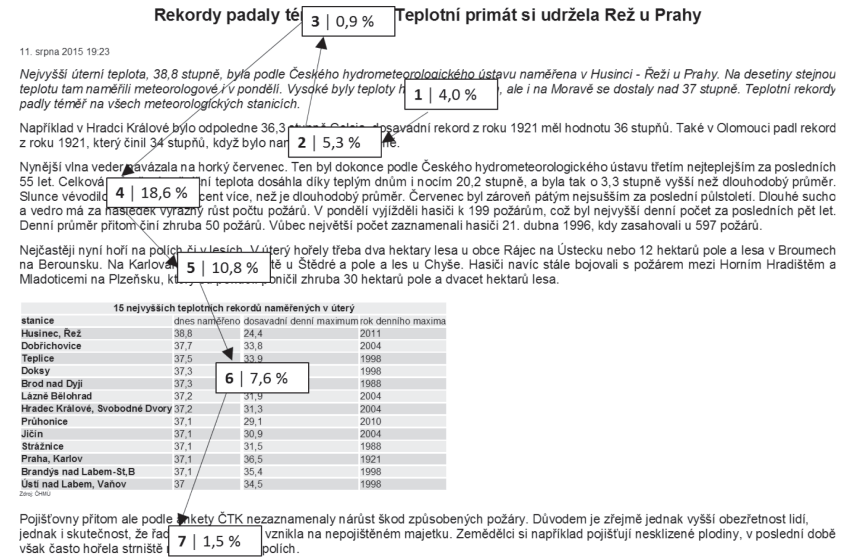
Figure 1 Map of the path through the article - the respondents with earplugs



Source: authors

Map of the path through the article for the overall three minutes shows how gradually respondents with earplugs in the ears (i.e. without interference with the background noise) read the news article submitted. The data show that the article title was not observed as the first, but as a second in the ranking. It is also noticeable that respondents focused their gaze for almost identical time to the third paragraph of text and a table with numeric data (12.6% of the time).

Figure 2 The map the path through the article - respondents without earplugs



Source: authors

Figure 2 embedded above shows the map of a path through the article of respondents who did not use earplugs and were thus exposed to noisy environment. Comparing the results from both maps (Figures 1 and 2) shows that respondents who did not use earplugs and were disturbed by noise, focused their attention on individual sections of text shorter than respondents who could thanks to ear plugs concentrate better on reading of the article thereby learn quicker. This is particularly apparent in the third paragraph of the article or in a table with numeric data.

Heat Maps - Summary For 3 Minutes

The focus of attention of the respondents within the used eye camera (Eye Tracking Methods) was also evaluated by the so-called. Heat maps. Heat map shows the areas of a news article that were the most focused by respondents. Heat maps make up the colour spectrum according to the length of focus of respondents, while the more-monitored parts of the advertisement are marked in shades of red, and the less-monitored areas are Marked in blue (HAI-JEW, 2015).

Figure 3 Heat map of the article - the respondents earplugs

Recordy padaly téměř všude. Teplotní primát si udržela Rež u Prahy

11. srpna 2015 19:23

Nevyšší úterní teplota, 38,8 stupně, byla podle Českého hydrometeorologického ústavu naměřena v Husinci - Reži u Prahy. Na desetiny stejnou teplotu tam naměřili meteorologové i v pondělí. Vysoké byly teploty hlavně v Čechách, ale i na Moravě se dostaly nad 37 stupně. Teplotní rekordy padly téměř na všech meteorologických stanicích.

Například v Hradci Králové bylo odpoledne 36,3 stupně Celsia, dosavadní rekord z roku 1921 měl hodnotu 36 stupňů. Také v Olomouci padl rekord z roku 1921, který činil 34 stupňů, když bylo naměřeno 36,1 stupně.

Nynější vína veder navázala na horký červenec. Ten byl dokonce podle Českého hydrometeorologického ústavu třetím nejteplejším za posledních 55 let. Celková průměrná měsíční teplota dosáhla díky teplým dnům i nocím 20,2 stupně, a byla tak o 3,3 stupně vyšší než dlouhodobý průměr. Slunce vévodilo obloze o 25 procent více, než je dlouhodobý průměr. Červenec byl zároveň pátým nejsušším za poslední půlstoletí. Dlouhé sucho a vedro má za následek výrazný růst počtu požárů. V pondělí vyjžděli hasiči k 199 požárům, což byl nejvyšší denní počet za posledních pět let. Denní průměr přitom činí zhruba 50 požárů. Vůbec největší počet zaznamenali hasiči 21. dubna 1996, kdy zasahovali u 597 požárů.

Nejčastěji nymí hoří na polích či v lesích. V úterý hořely třeba dva hektary lesa u obce Rájec na Ústecku nebo 12 hektarů pole a lesa v Broumce na Berounsku. Na Karlovarsku hořelo strništé u Štědré a pole a les u Chýše. Hasiči navíc stále bojovali s požárem mezi Horním Hradištěm a Mladoticemi na Plzeňsku, který od pondělí poníčili zhruba 30 hektarů pole a dvacet hektarů lesa.

| stanice | dnes naměřeno | dosavadní denní maximum | rok denního maxima |
|--------------------------------|---------------|-------------------------|--------------------|
| Husinec, Rež | 38,8 | 24,4 | 2011 |
| Dobřichovice | 37,7 | 33,9 | 2004 |
| Teplice | 37,5 | 33,9 | 1998 |
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Pojišťovny přitom ale podle ankety ČTK nezaznamenaly nárůst škod způsobených požáry. Důvodem je zřejmě jednak vyšší obezřetnost lidí, jednak i skutečnost, že řada škod v přírodě vznikla na nepojistěném majetku. Zemědělci si například pojišťují nesklizené plodiny, v poslední době však často hořela strništé na již sklizených polích.

Source: authors

Above embedded heat map (Figure 3) shows that most visual attention for the overall three minutes of reading of the article was devoted mainly to the text part, less then to the last paragraph of the text.

Figure 4 Heat map of the article - respondents without earplugs

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Source: authors

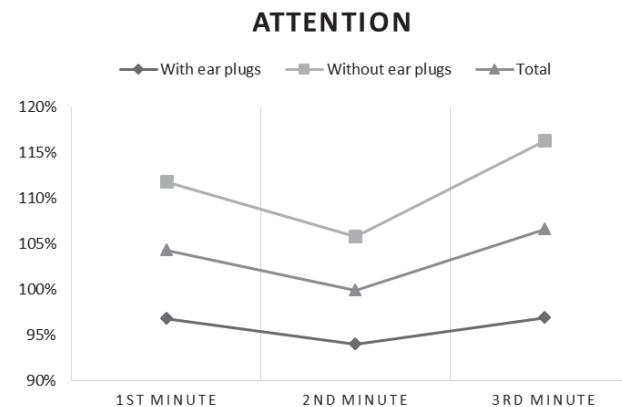
Heat map on Figure 4 shows in a digest form which parts of news articles were focused by respondents who did not use earplugs and were thus exposed to noise. The comparison shows that respondents who did not use during the reading of the article earplugs had to focus more intensively their gaze at the presented text of the article, as evidenced by larger volume of red and orange areas in the heat map (see Figure 4). It is evident that respondents repeatedly passed with their eyes more areas of the text, it may indicate the higher need for repeating of the read information.

Level of attention detected by Brain EEG

Using the method of EEG, the brain activity of respondents was monitored in the course of reading the news article, over the entire three minutes of reading the article. On this basis it was possible to determine how much attention respondents had to spend on reading the article and also to which extent the article provoked emotions of respondents.

The graph below (Figure 5) shows the level of attention of the respondents after each minute of reading the article. The red curve shows the level of attention of the respondents without ear plugs, blue shows the level of attention of respondent with ear plugs in ears (freed from noise) and green indicates the aggregated values of all respondents. The data source is EEG measurement of brain waves SMR and beta. The values in the graph indicate by how many percent the attention changed comparing to standstill respondents before starting reading the article. The higher the level of attention was measured, the more the respondent had to concentrate on the text.

Figure 5 Level of attention when reading the article (EEG)

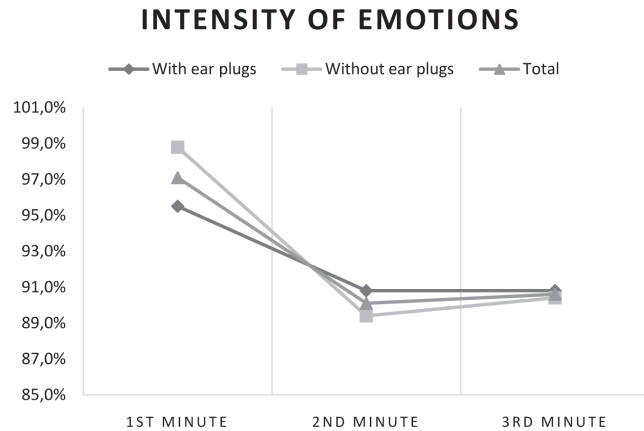


Source: authors

Further, also intensity of emotional reactions was detected, based on the monitoring of EEG, specifically gamma brain waves. Using that were determined not only emotional response to the article itself, but also to simulated school noise (especially in the group of respondents who did not use earplugs). The values in the graph (Figure 6) indicate by how many percent the intensity of emotion reactions changed comparing

to standstill respondents before starting reading the article. The higher values were achieved, the more intense emotions respondents experienced.

Figure 6 Intensity of emotional reactions when reading the article (EEG)



Source: authors

From the data measured it is evident that respondents who did not use during the reading of the article earplugs had to spend a greater amount of attention compared to respondents with earplugs. It is therefore evident that respondents who were not able to break free from outside noise, had to make greater effort to concentrate on the text. Noise impact is also evident in the intensity of experienced emotions when respondents without earplugs experienced in the first minute more intense emotional reactions compared to the other group. This finding highlights the efforts of the respondents to somehow cope with ambient noise that interfered with them and eliminate it.

Assessment Of Recall Test

Recall test was conducted through individual depth interview and was individually carried out with each respondent immediately after finishing reading of news article. The respondents' answers were recorded on a dictaphone, by which respondents' answers were recorded in non-redacted form. The respondents' answers were then transcribed and evaluated both quantitatively and qualitatively.

When evaluating verbal answers, the ability of respondents describe the contents and nature of the article was assessed, and especially recall of numeric data (such as the outside temperature, damage by fire or selected data from the table) and local names (places with temperature records or areas with fires in hot weather). For each of this correct answer respondent gained a point, these points were then summed and compared through cross-analysis (Figure 7).

Figure 7 Scores achieved in the recall test

| | Without earplugs | | With the earplugs | | Total | |
|---------------------|------------------|------|-------------------|------|-------|-------|
| Numeric data | 29 | 40 % | 44 | 60 % | 73 | 100 % |
| Local names | 25 | 42 % | 34 | 58 % | 59 | 100 % |
| Total | 54 | 41 % | 78 | 59 % | 132 | 100 % |

Source: authors

The results of the recall test show that respondents who used earplugs, remembered more details, whether figures or local names, which shows an overall score - respondents without earplugs have reached the sum of 54 points and respondents with earplugs 78 points, it means they remembered more information.

When comparing the results obtained by using the method of eye tracking, EEG (level of attention and intensity of emotional reactions) and the results of the recall test, it is obvious that respondents who did not use earplugs and were thus exposed to school noise incurred higher degree of attention while reading the article, which can manifest the effort of respondents to focus their attention to just the news article, which is the noise more difficult and requires more energy. It is also obvious that these respondents who were exposed school to noise more intensively focused his gaze on the news article and their eyes were darting at it and went through more areas of the text, which shows a heat map in Figure 4. This may indicate a certain impact of simulated school noise on respondents, which is through investigation apparent also by the intensity of emotions, when respondents exposed to noise reported in the first minute of the investigation the highest emotional reactions and subsequently leads to their decline, which is due to the effort to deal with the noise. These results are also followed by data from recall test where it is clear that respondents exposed to noise remembered less numeric data and the local names of the news article, although they expend more energy on sustaining of concentration.

Conclusions

The investigation carried out shows that the interconnection and combination of methods Eye tracking, EEG and recall test may help to determine more comprehensive picture of the matter solved. Using these methods it is possible, in an objective way, to obtain data relating not only to the method and efficiency of processing of information by respondent, but these findings may be taken into consideration, for example in the field of marketing as a whole, but also to individual attributes or objects that advertisements creates and thereby contribute to its greater efficiency.

The carried out neuromarketing research on the impact of earplugs to measure students' attention can be summarized in the following findings.

Respondents who didn't use earplugs and were thus exposed to simulated noise school: 1) They must focus their eyes on a text for longer period, compared to respondents who used earplugs and could calmly concentrate on the text. 2). Must more intensively focus their gaze on the presented text of the article and their eyes darted more at individual sections of the text, which may reflect a greater need to repeat the read information. 3) They pay higher attention on read text, which means

they develop a greater effort to sustain attention over a read text. 4) They keep trying to break free from outside noise, which provokes more intense emotional reactions. 5) They remembered less information from the submitted news article.

This study is focused on the areas of information processing and learning process of the respondents. To ensure standardization, pre-test was also used to select respondents with relatively the same performance in the process of associative learning. At the same time, a combination of modern techniques such as eye tracking and EEG, which are also amongst other used in neuromarketing research, was used. This made it possible to obtain a detailed picture of the progress of selected physiological responses during learning of presented text, which was in the conclusion of the study complemented by so called recall test. This test can be regarded as a form of control phase of the investigation, through which it was possible to ascertain the number of remembered information from the news article. Although modern research methods were used, it is also necessary to consider the possible limitations of these methods, for example of the EEG. Information obtained, however, provide a basic picture of the course of conscious learning in noisy or vice versa quiet environment. It is also necessary to remark that the learning process and observed results can also be influenced by a number of other factors, such as e.g. selected individual personality traits or habits and learning strategies of respondents. The results, however, suggest some influence of noise on the process of memorizing information, which is useful not only in the school environment, but also in other areas where the process of learning takes place, for example in shopping behavior, promotion or marketing. It would be possible to carry out more widespread study that, using neuromarketing research, would examine the influence of environment on the effectiveness of selected marketing tools. At the same time, in such a survey other analytical tools could be used, such as correlation analysis. Likewise, the interconnection of eye tracking method with other methods to increase the informational value of the identified data can be considered, while it may be just the interconnection with traditional research methods, but also with other neuromarketing methods.

Paper in specific research was supported by the Internal Grant Agency of the University of Finance and Administration, Faculty of Economic Studies 2015-2016 named „Propojení Eye Tracking s neuromarketingovým výzkumem“, no. 7770.

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THE IMPORTANCE OF REGULAR ASSESSMENT IN THE HIGHER EDUCATION OF HUNGARY

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Abstract

In the last 25 years, the Hungarian higher education went through an enormous change. In the process the trend of education has changed from an elite training to the so called “mass production” of people with bachelor degree.

Every corporation demands some kind of degree from their applicants, because of this most of the young adults study in higher education. While in the nineties students tended to have intrinsic motivation, nowadays they only have external motivation. Previous researches among the students of Keleti Faculty of Business and Management at Óbuda University showed that more than half of the them don't know what they want to achieve in their life or after their graduation.

Unfortunately, most of them don't know how to deal with their “freedom” and have to learn the hole curriculum at the end of the semester. The purpose of this research is to prove how the frequency of assessment – changing from two a semester to a weekly regularity - influences those “wandering” students' performance based on data gathered over the years among hundreds of students.

Keywords: *higher education, continuous assessment, Óbuda University*

JEL Classification: A22, I20, I23

Introduction

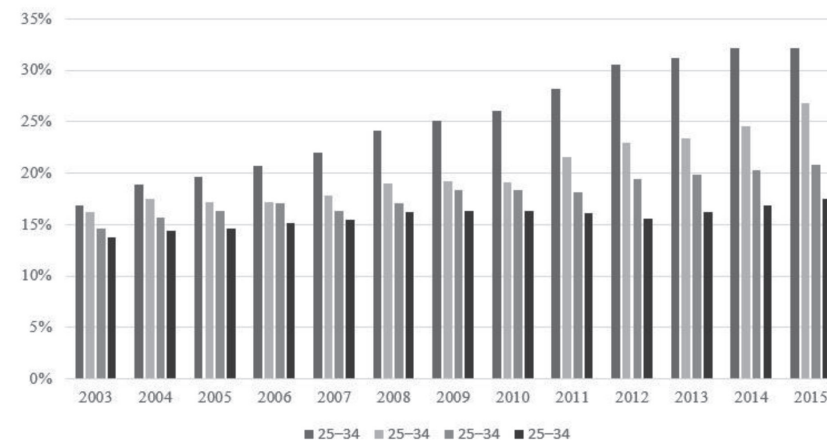
In line with the CEDEFOP (CEDEFOP, 2008) report knowledge is to determine the future wealth and wellbeing of societies. Public education, including higher education has a strategic role in the development and economic growth of the countries (Csiszárík-Kocsir, Medve, 2009). The educational system is responsible for transferring and developing competencies, which are very important on the labour market (Csiszárík-Kocsir et al,2009; Borzán, 2010). Post-secondary education is promoted all over the world. Consequently, the number of students in higher education and those on the labour market with higher educational degree is ever growing, although in the recent two years this growth has slowed down in Hungary. Unfortunately, the increase of the educational niveau of the population has not been accompanied by a drastic increase in employment rate (Lazányi, 2014). Furthermore, the relative unemployment of those with higher education has even worsened in the 21st Century (KSH, 2013). The possible explanation of this contradiction is that the skills and competences offered by those with higher than secondary education do not match with the demand of the prospective employers (Lazányi, 2014). Another probable justification might lie in the ever decreasing level of knowledge of those with tertiary education. On the basis of the Hungarian Statistical Office's data the

number of those completing their tertiary education on schedule decreases year by year, even though, as presented above, the number of new students enrolled is still increasing (KSH, 2014). Accordingly, the increase in quantity is accompanied by a decrease in quality of students in higher education. The number of students enrolled in some kind of higher educational institution between 1990 and 2010 has been around 915 thousand, but only 65% of them (approximately 595 thousand) managed to graduate between 1993 and 2013.

The main question is, are the students in higher education lacking such competencies that those enrolled had in tertiary education in the previous decades. Previous research showed (Szikora, 2011 a) that in tertiary education only a small percentage of students really sees the point of studying. Around 60% of them only knows that they want to be in a higher educational institution, but when asked about what the reason behind their decision is, they do not know the answer. Another 20% enrolled, because some kind of external force, such as their parents or employers, forced them to enroll. A few students, only 5% of all of them wish to build and utilise social connections and networks, and only 15% of them is really willing to study and develop their skills. Another research (Szikora, 2011 b) showed that only 30% of female and 34% of male students are dedicated, or eager to be involved in something other than studying, within the bounds of their HEI. Therefore, the majority of the students in higher education in is not motivated enough to gather new skills and competencies, but they wish to prolong their carefree life style, like before.

According to this, higher educational institutions should reconsider their approach on education and performance measurement and create a system that matches the characteristics of the new generation of students (Szikora, 2015).

Graph 1 The ratio of those with higher than secondary education within various age groups



Source: KSH, 2016

Theoretical Background

To understand the students' behavior, we have to carefully look into what motivates them every day to attend their courses, and whether they are motivated at all?

Students' motivation is especially important during the university years because this phase also represents the last formal education many students receive before competing for work. During these years spent in higher education their sole purpose would be to develop their abilities and match them with specific needs of the labour market. For this reason, education and along these lines motivation of students during these years is of particular importance (Brewer, 2005).

A lot of people get enough satisfaction from their work and take great pride in it. However, it seems students in higher education just do not seem to be motivated at school. Most of them simply see it as a nuisance and only study to survive and not to drop out of university. The reason behind such behaviour is motivation, or in this case the lack of it (Afzal et al, 2010).

It is a well-known fact that almost nothing can be learned unless students are motivated on a consistent basis (Williams, Williams, 2010.). In order for teachers to be able to create a drive for learning they must be well trained, to be capable of monitoring the whole educational process and dedicated enough to be responsive to their students (Palmer, 2007, van Dinther, et al, 2011). Also they must have the opportunity to improve themselves to perform better at their work, and this will affect the students' performance too (Shoshani, Eldor, 2016). The notion of motivation has been studied by management theorists and social psychologists for ages, in an attempt to identify successful approaches to management. Motivation is a theoretical construction representing the reason for individual needs, desires and actions. In line with this, a motive is what makes an individual to act in a certain way, or at least develop an inclination for that specific behaviour (Pardee, 1990). Motivation theories can be classified in a number of ways, like Natural vs. Rational; Content based vs. Process based; or Intrinsic vs. Extrinsic.

Douglas McGregor's (1960) theory of X and Y type employees is a content based approach that incorporates both natural and rational, intrinsic and extrinsic motives. This theory introduces two different way of workforce motivation used in an organizational setting. According to McGregor, when employees like their work and job, and are willing to take responsibility their leaders do not necessarily supervise their subordinates for effective performance. Therefore, such (Y type) employees' leaders should grant them independence, higher responsibility for work and opportunities for self-actualisation. In this kind of system, created for Y type subordinates, when provided with enough resources, trust and the right organizational circumstances employees will strive to work well, and their interests will be the same as the organization's.

This kind of approach is what most higher educational institutions are using currently (Borzán, 2005). Typical university teaching structure incorporates lectures and seminars, where students are introduced to both theoretical and practical knowledge. In order to support students' work (in this case their study), universities should provide optimal conditions, such as classrooms, beamers and computers, libraries, labs, study halls. In return, students are responsible for their performance and knowledge acquisition. Although this would be expected, as it seems, this system does not function properly. This might be because of the false assumptions about the students' behaviour and motivation. To keep on using the introduced terminology of McGregor, there is a high possibility that students in higher education are not type Y.

Those who dislike or are not satisfied with their work and hence are inherently lazy, are different from those Y type people. McGregor labelled them as X types, thus to be productive, they require objectives, they have to rely on the threat of punishment to increase their inclination towards collaboration.

In line with this, the Hungarian students should be regarded as X type people, when they are at a higher educational institution officially to increase their knowledge and develop their skills. They perceive their student status as a necessity, something they have to bear with, in order to receive some extrinsic motivation, like pocket-money from parents, or an appointment to a higher position in case of employees. „However, some forms of controlled motivation such as introjected (e.g., wanting to please the teacher) and extrinsic motivation (e.g., being rewarded by a good grade), can also be instrumental for achieving learning goals.“ (Malmber et al, 2015) In this case there should be something (or someone) in the organization, for example in a HEI, that makes them to do their job, study and prepare for the lectures. However, this external motivation that is necessary for X type people are not prevalent in most HEI.“ (Szikora, 2015)

The management style, likewise the teaching style of university teachers, are heavily influenced by the beliefs and assumptions about what motivates those they have to lead or teach: teachers think that if students detest studying, they will tend toward an authoritarian style of teaching with normal lectures and tight control. On the other hand, if they assume their students like to study for their own sake and take pride in it, then they will tend to adopt a more participative approach with conversations and joint projects (Jordan, A., Charlie, O., Stack, 2008). All in all, a major change is needed in the organization's processes if they want to increase the niveau and effectiveness of their study programs when the number of X type students enrolled is increasing. Therefore, the aim of this treatise is to identify the group of students who attend higher educational institutions and can be referred to as X types, and provide a solution for their lack of motivation for studying.

Results and Debate

The first round of the research

“Different aspects have to be taken into consideration while creating different analysis, which can be described by grouping of different data and information received from the connection to them.“ (Pató, 2014) In order to be able to determine, whether the majority of the students really belongs to the X type of people, a 7 years long experiment has been introduced to test the reaction of participating students on continuous assessment.

A subject, called “Vállalatgazdaságtan” (Business Economics) has been involved in this test, where usually more than 50% of the students failed to get a grade at the end of the semester. This subject was assessed in two rounds. First, students could be rewarded with a signature, based on their performance during the semester. Then those with a signature might sign up for and take the final exam (or retake it not more than twice in a given semester).

In the first two years of the test period, students have been assessed only twice during the semester, which is 14 weeks long. Firstly at midterm and a second test at the end of the term. These assessments were the basis of acquirable signature. Students had to reach more than 60% in the combined score of the two tests, if that was achieved they

could get the signature. Under such circumstances only 34% of the students could pass the subject with at least a pass in 2009 and 2010. Out of 207 students, only 97 managed to get the signature, but even from them 28 failed to graduate from the course. (For further details see Table. 1.)

In the third year, in order to decrease the number of those failing the subject, weakly written test have been introduced as the first step of continuous assessment. Students had to reach 60% on average (not on each of the tests) to deserve the signature. With this change, the ratio of those who did not manage to get a signature dropped by 5%, and in the following year with another 17%. In addition to this the number of those who did not manage to get a grade, despite (on the basis of the 14 weekly and 2 larger tests) deserving a signature fell to 1 in each year (third to fifth year). At this point, a conscious decision has been made to keep on with the weekly assessment of the students from this subject. However, after the fourth year, in order to reduce the burden of the continuous assessment has put on the teachers the written test have been substituted with online tests (Szikora, 2015), where students immediately after their test could get a feed-back on their current level of knowledge. The main point in informing them in an instant, was to make them work harder for the coming test through making them realise, if their previous performance was not enough to reach the 60% of the tests' average at the end of the semester.

The online testing system's help has been proved to be successful so far, the ratio of students getting signature could further be increased. More than 70% of the students were able to meet the 60% requirement and the only 11 of the 226 them failed to get a grade in the last three years. This is a 13% increase even compared to the results of the weekly paper-based tests on the average. Although, the last year's results were worse than the previous few years' in terms of failure on the semester's final test. The summary of the results is presented below, in table 1.

Table 1 Results of the 7 years long experiment on assessment and student performance

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|----------------------|-----------------------------------|------------------------------|------|------|------|------|
| | 2 tests per semester | Paper-based continuous assessment | Online continuous assessment | | | | |
| Number of students | 115 | 92 | 83 | 65 | 53 | 63 | 110 |
| Could get signature | 56 | 41 | 43 | 45 | 39 | 48 | 85 |
| Could not get signature | 59 | 51 | 40 | 20 | 14 | 15 | 25 |
| Failing grade (1) | 23 | 5 | 1 | 0 | 1 | 2 | 8 |
| Sufficient (2) | 8 | 5 | 14 | 10 | 12 | 25 | 38 |
| Moderate (3) | 10 | 18 | 11 | 14 | 16 | 12 | 21 |
| Good (4) | 8 | 7 | 12 | 16 | 12 | 5 | 11 |
| Excellent (5) | 10 | 5 | 8 | 5 | 1 | 7 | 7 |
| Not failing students | 36 | 35 | 45 | 45 | 41 | 49 | 77 |
| Ratio of students did not fail (%) | 31% | 38% | 54% | 69% | 77% | 78% | 70% |
| Ratio of students getting signature (%) | 49% | 45% | 52% | 69% | 74% | 76% | 77% |

Source: Own data

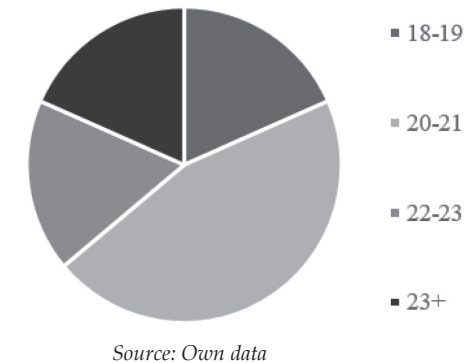
To sum the results up, as it is clearly visible from above, the continuous assessment managed by the online system's direct feed-back possibly increased the efficiency of the continuous assessment further.

The meaning of this is, when students facing a system operating on McGregor's X type's assumptions, their performance is far better than in a system, where evaluation of performance is not continuous and they should study regularly and develop their skills for their own sake. It is an important question, whether this data collected from only one subject is enough to measure the students' real performance, and is it a solid proof that students are being X type of people rather than Y types. Whether they are aware of the fact of their X type behaviour or not, it is up to further investigation, as well as with this mentality they provoke corresponding behaviour from their teachers. This paper also describes this matter from another perspective, which might be the possible reason behind this passive attitude of the students'.

The second round of the research

The previous research showed an interesting result. Between 2013 and 2014 the number of students passing the subject did not increase significantly and was stagnant. In the last year, as it was stated above, the ration even decreased. Therefore, it was time for a different type of investigation that inspected the students' motives in studying. This research has been initiated in February 2015 among students of Business Economics, and continued in March 2016 including students from a subject called Organisational Behaviour in Practice. The research is not accurate regarding the ratio of students which subject they were attending, because it has not been asked in the questionnaire. The response rate was high due to the questionnaire has been filled during the seminars, it was over 90% (N=256). 34% of students were male (N=87) and 66% were female (N=169). Their age distribution of participants of the research is displayed on Graph 2.

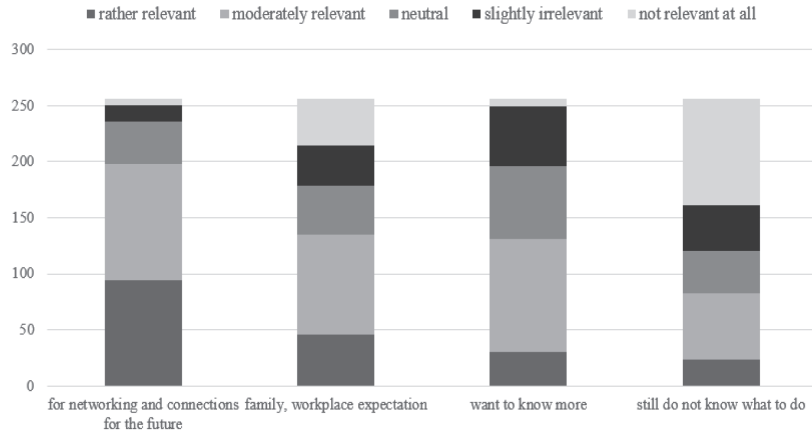
Graph 2 Age distribution of respondents



According to their motivation it was surprising to see that the first reason for them for being at the university – from rating family, workplace expectation; wanting to know more; networking purpose; and still not know what to do – was networking

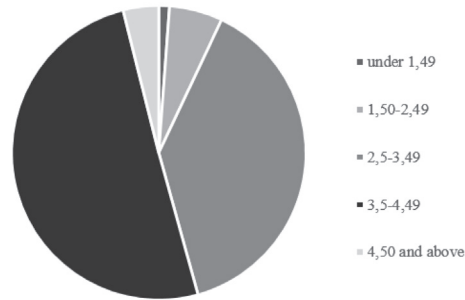
as the most important. Unfortunately, more than 30% (N=83) of the students answered that it is true or partly true that they do not know what they wanted from life and they were attending university without any goal. (For further details see Graph 3.)

Graph 3 Motives of students for attending HEI



Source: Own data

Graph 4 Cumulative average of respondents



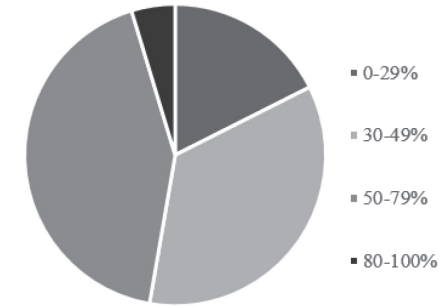
Source: Own data

Their average (cumulative average calculated from every grade of every semester prior to the one the research has been made) was in accordance with their (lack of) interest, it was 3,5. Slightly more than 45% of the students' had an average worse than 3,5. Fortunately, there were around 4% (N=10) who were above 4,5, meaning that they took their studies seriously. For additional details, see Graph 4.

Unfortunately, if we look at their scientific and social activities, the picture is more disappointing. Only 8 of them has been involved in one or more scientific

research in the university, and 20 of them in any kind of social task, such as advocacy or representation. However, in line with their motivation displayed on Graph 3, a relative big portion (42%) of them planned to be in a research, and a smaller one (9%) in student advocacy or representation in the future.

Graph 5 The respondents' performance on the first 4 tests

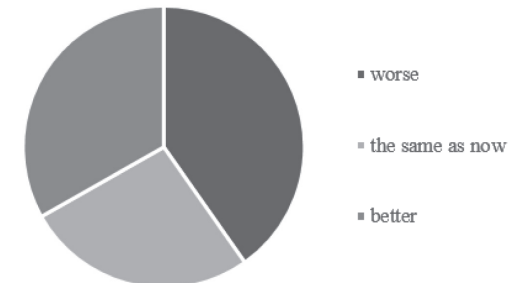


Source: Own data

The students were also very diverse when it came to their performance on the weekly tests based on the first 4 weeks' data in both semester (Graph 5). More than half of them could not perform above 50%, which is the minimum level for the signature on the first 4 tests. What is more, a significant number of students in the research (17,5%) did not manage to perform on their test above 29%, to be precise it was 45 students. The reason for this unfortunate fact might be found in the confession of the students attending these subjects, on whether they were continuously studying for the weekly tests. 41% (N=106) of them did answer honestly – owing to the anonym nature of the research – that he/she did not prepare for the tests on a weekly basis.

In order to test, whether the students are able and willing to reflect on their studying habits, there was a question that asked, what would be their performance without the weekly assessment. Interestingly, 40% of the students realised that the continuous assessment helped them in improving their level of knowledge and their performance (Graph 6). In addition to this, if only the first years is taken into consideration, this ratio was at 50%.

Graph 6 Respondents' opinion of their potential performance without continuous assessment



Source: Own data

The same conclusion can be drawn, if we regard their opinion on how many tests and assessments there should be in a semester in the two subjects for the best result. The majority of them preferred the weekly tests (47%), and surprisingly the second most favoured answer, which was that they should write 4 tests in a semester, was also picked by quite many people.

Conclusion

As it is well illustrated by the previous two researches introduced shortly in this article, students are rather X type people. Most of them do not possess intrinsic motivation for studying, and requires the external motivation. The majority does not even know why they attend higher education, or they only do it because of some kind of expectation of their family or employer. Their performance is better, when assessed continuously.

Interestingly, they are able to view themselves as students without interests and motivations, moreover, they are aware of the fact that without continuous assessment they would perform more poorly, or even fail, because of failed preparation for classes. This means, even those who possess characteristics of the Y type are happy, when being forced to study more frequently and do not ask for more responsibility in relation to their studies. Naturally, there are exceptions.

Present paper highlights the fact that although higher education is aimed at self-motivated, young adults and not underage youngsters, the prevalence of an outer force is unfortunately necessary in higher educational institutions. That is why, the system and the methodology of teaching and appraisal has to be modified, in order to meet the demands of the new generation of students.

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Názov publikácie: ACTA OECONOMICA UNIVERSITATIS SELYE

Vedecký recenzovaný časopis

Editor: Ladislav MURA

Autori:

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Rok vydania: 2016

Toto číslo vyšlo v mesiaci december 2016.

Ročník: 5

2. číslo

Periodicita vydávania: 2 x ročne

Vydavateľ: Univerzita J. Selyeho, Bratislavská cesta 3322, 945 01 Komárno, www.ujs.sk, IČO 37961632

Tlačiareň: Tribun EU s.r.o., Brno

Grafická príprava: GF KNIVES s.r.o.

ISSN 1338-6581, EV 4538/12 MK SR

Cena výtlačku 12,- EUR