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ANALYSIS OF THE MODIFICATIONS OF THE GLOBAL ALTMAN'S MODEL 2014

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Abstract. Businesses have always had to face global risks. Globalization has increased the speed of cooperation and thanks to international trade, trade has become more competitive. The amplified scale of globalized operations is corresponding to the increased level of a different types of risks. The threat of bankruptcy is the most severe of them. Early recognition of the threat of bankruptcy is therefore even more important. One approach is the use of bankruptcy models that would allow to predict the evolution and routing of the financial health of the company in the upcoming period and forecast whether the company goes to bankrupt or survive. The aim of this paper is to modify Altman's model (Altman, 2014) and compare new variations of this model with original model. The modified models are created and tested on a sample of Slovak companies. Until recently, it was not easy to get to relevant data about the Slovak enterprises. Since 2014, however, is possible to obtain data from the register of the financial statements (register). The register was established with the aim of improving and simplifying the business environment and reducing the administrative burden of the business. The register also improves accessibility and quality of the information about the accounting entities.

Keywords: default, financial distress, default prediction model

JEL Classification: G17, C52, C53

1. Introduction

When Altman created the first multidimensional bankruptcy model, he gave impetus to the worldwide spread of this approach to modeling of default. It has become an important tool for bankers, investors, rating agencies as well as companies themselves to wonder at risk of bankruptcy. Model Z was the prototype for many internal models of banks to determine capital adequacy, particularly after Basel II. But its assumptions homoscedasticity, normality, and collinearity are often not met in financial models. This was one of the reasons why the logistic regression began to favor. Logistic regression, also called logit model, does not need meet these conditions. It is particularly useful in models that have continuous independent variables and a binary output. It is worth noting that for small datasets MDA may be more useful, however, for larger samples logistic regression is more appropriate (Cisko & Kliestik, 2013).

The importance of financial risk assessment and bankutpcy prediction highlight also Belas et. al. (2015). One of the most important and the most demanding requirements when creating any prediction model is to obtain a suitable sample of data. In case of bankruptcy prediction model it is a sample financial statements. Until recently, it was not easy to get to relevant data about the Slovak enterprises. Since 2014, however, is possible to obtain data from the register of the financial statements (register, http://www.registeruz.sk). The register was established with the aim of improving and simplifying the business environment and reducing the administrative burden of the business. The register also improves accessibility and quality of the information about the accounting entities. Register is free and allows to view and download available financial statements and other documents published in the register. From the perspective of mass data collection is a big advantage an existing interface for automated downloading of data from the public section. Necessity to build application communicating with a given interface is a disadvantage or limitation.

Large number of available financial statements in the registry is big advantage. But this advantage of mass processing is compensated by a lack of clear determination of whether the company is in bankruptcy. Therefore, we used the Act. 431/2002 Coll. on Accounting, as amended, to determine the status of the company. It defines company in debt: "... the value of its liabilities exceeds the value of its assets.". For the purposes of our modeling and testing the difference between assets and liabilities expresses state of company, where a negative value classifies company as being in debt (bankruptcy) (Kocisova & Misankova, 2014).

Altman in his paper (Altman et al, 2014) presented a new MDA model and 7 variants of Logistic regression model. He used data from 31 European countries, Colombia, China and the USA. The sample included companies whose total assets reached in the period under review at least once a minimum of 100 000 €. For training model was used 2 602 563 healthy companies, 38 215 have gone bankrupt, for testing it was 3 148 079 respectively 4 3664 companies. Slovak companies were represented in the training group of 7 856 respectively 120 companies and in the testing sample 7 788 respectively 124 companies. Data were from the years 2008, 2009 and 2010. Altman used to measure the quality of the model method of the AUC (Area Under Curve), which is the area under the ROC curve (receiver operating characteristic). The AUC for each model for Slovakia ranged from 0.769 to 0.811.

Predictors used in Altman model 2014:

X1 = Working capital / Total assets,

X2 = Retained earnings / Total assets,

X3 = EBIT / Total assets,

X4 = Equity / Total liabilities.

Altman used four financial ratios in his last models. The choice of these predictors proved to be very good and the models achieved very good results even with newer data. In this paper we have attempted to use these predictors in other types of prediction models in order to determine their information value when used with other methods.

2. Metrics

Although Altman compared the performance of the models using the AUC, this method automatically does not guarantee a quality of the model. For example, there are situations where the sensitivity is in the range of only a few hundreds, and the specificity is over 90%, and the AUC is still above 0.8. There are many other ways to determine the performance of the model, unfortunately, each has its drawbacks, which are necessary to be considered. (Kliestik et al., 2015)

The most frequently used criteria: maximum (Sensitivity + Specificity), maximum (Kappa), maximum (PCC), the minimum (ROCdist), (PredPrev = ObsPrev) and (Specificity = Sensitivity). PCC (percent correctly classified) is the percentage of correct classifications. ROCdist is the distance ROC curve from the upper left point (0,1). (PredPrev = ObsPrev) (Predicted prevalence = Observed prevalence) is equality of percentage occurrence of actual and predicted indebted companies. Kappa is a level of agreement between observations and predictions defined by the following equation:

$$\kappa = \frac{p_0 - p_e}{1 - p_e} \quad (1)$$

where
p_0 = TP + TN,
p_e = (TP + FN)(TP + FP) + (FN + TN)(FP + TN),

TP – true positive, TN – true negative, FP - false positive, FN – false negative are from confusion matrix.

Kappa value less than 0.2 is considered as poor agreement, values above 0.8 are a sign of high correlation.

3. Models

The paper presents models of Decision tree, Neural Network, Random Forest

3.1 Neural network

Neural network (more precisely Artificial neural network) is defined by the inventor of one of the first neurocomputers, Dr. Robert Hecht-Nielsen as: "...a computing system made up of a number of simple, highly interconnected processing elements, which process information by their dynamic state response to external inputs. The first conceptual model of an artificial neural network was developed in 1943 by neuroscientist Warren S. McCulloch, and logician Walter Pitts.

Neural networks are algorithms or hardware similar to the neuronal structure of a brain. Neural networks are organized in layers which are created from interconnected nodes. They contain a series of mathematical equations that are used to simulate processes such as learning and memory. Neural network repeatedly makes a random estimates of the outcome. After each estimate network sees how far answer is from the expected result and makes an appropriate adjustment to its connection weights. (Iturriaga & Sanz, 2015)

Neural network models can implicitly detect complex non-linear relationships between independent and dependent variables, neural network models have the ability to detect all possible interactions between predictor variables and can be developed using multiple different training algorithms. Unfortunately, neural networks have limited ability to explicitly identify possible causal relationships. A disadvantage is also that neural network modeling requires greater computational resources and models are prone to overfitting. (Tu, 1996; Spuchlakova et al. 2014)

3.2 Decision tree

Although decision trees are a simple, there are powerful form of multiple variable analysis. Decision trees are recursive splitting models which uses tree graphs for splitting a data set into branch-like segments. A decision tree consists nodes and branches. Each internal node represents a test on a predictor and each branch represents the outcome of the test. End nodes (leafs) represent class labels. The paths from root to leaf represents classification rules.

Decision trees are simple to understand and interpret and can be built quite quickly. Trees can be visualized, requires little data preparation and are able to handle both numerical and categorical data. By contrast e.g. an artificial neural network, the result is much easier to interpret. (Misankova et al., 2015; Misankova & Kral, 2015)

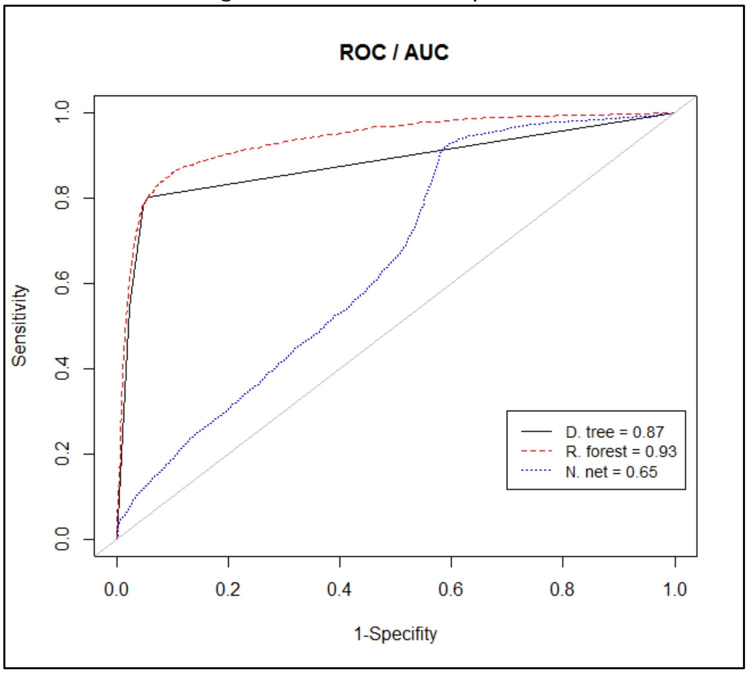
Main disadvantage of decision trees is their property that small change of data can have huge effect on their performance. Also there are very prone to overfitting.

3.3 Random forest

To improve the performance of a decision tree we may choose the best from several tree classifiers. We can choose it by voting (for example using function based on Kappa) or averaging. But if we just build many multiple trees on the same data we will just get the same results. Therefore, they are used (usually simultaneously) two methods. In the first method trees are built on slightly different sets of rows sampled with repetitions from the original set. This method is called bagging. Second method of randomness is the use of a different subsets of columns in each decision tree. A random forest model is typically made up of tens or hundreds of decision trees. (Bou-Hamad et al., 2011; Lin et al., 2015)

For training we had financial statements of 60,298 companies from 2015, which were divided in the ratio of 70:15:15 (42,208; 9,044; 9,046) for training, validation and testing. 14, 236 of them was classified as being in debt (risk of bankruptcy). Models are created in “R”.

Figure 1: ROC and AUC for models



Source: Self-processed

The results achieved on the testing set are displayed in Table 1. From confusion matrices can be seen that decision tree and random forest outperformed neural network model.

Table 1: Confusion matrices for models

		Predicted								
		Decision tree			Random forest			Neural network		
		0	1	error	0	1	error	0	1	error
Actual	0	6595	337	0.05	6601	331	0.05	6913	19	0.00
	1	470	1644	0.22	468	1646	0.22	2023	91	0.96

Source: Self-processed

4. Conclusion

In the paper we presented three prediction models created using neural network, decision tree and random forest methodology. As predictors we used the same variables as in Altman model from 2014.

Table 2: Model metrics

	Decision tree	Random forest	Neural network
Kappa	0.745	0.748	0.060
Sensitivity	0.778	0.779	0.043
Specifity	0.951	0.952	0.997
Accuracy	0.911	0.912	0.774
AUC	0.872	0.932	0.654

Source: Self-processed

Table 2 shows individual metrics for models. Decision tree model and random forest model show good performance. As expected, random forest achieved slightly better results than decision tree model. Neural network has failed, and it seems that it is not suitable for such task. It is worth noting that despite the poor performance, some of its metrics (Accuracy, AUC) are not completely bad.

Acknowledgment

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THE INFLUENCE CORPORATE CULTURE OF KNOWLEDGE ECONOMY ON FINANCIAL PERFORMANCE OF SMALL AND MEDIUM-SIZED ENTERPRISES

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Abstract. Globalization with its socio-economic consequences has a major impact on small and medium-sized enterprises. In the process of globalization, the importance of human resource management and its parts is increasing. A new approach to human resource management is associated with the entrance to the knowledge economy. Corporate culture is an integral part of human resource management. However it can be often perceived as unimportant by managers. The corporate culture (together with an atmosphere, which it creates) can have a positive or a negative impact on all activities in the enterprise. Corporate culture and its management in today´s society is becoming a world trend, which helps to maintain the competitiveness not only in the local market, but in the international environment. The paper investigates the existence of a relationship between corporate culture and financial performance. The paper deals with corporate culture, which is expressed through G. Hofstede's cultural dimensions and explores the existence of its influence on financial performance of the surveyed companies. The aim of the paper is an analysis of relationships between cultural dimensions and selected indicators through statistical methods. Power distance, Individualism vs. Collectivism, Masculinity vs. Femininity, Uncertainty avoidance and Short-term vs. Long-term orientation belong to the cultural dimensions of corporate culture and these cultural dimensions can be used for diagnostics of corporate culture. Selected indicators are: profitability ratios, Asset Turnover Ratio, etc. It can be concluded that desirable cultural dimensions of corporate culture may help enterprises to increase and maintain competitiveness.

Keywords: cultural dimensions, corporate culture, globalization, knowledge-based economy

JEL Classification: M14, M12, M49

1. Introduction

Many authors states that the world is entering a “new economy” – “the knowledge economy” - associated with processes of globalization. According to Barták (2007) every modern organization must be able to face changes - especially social, economic and technological changes. However the new is a permanence, dynamics, increasing frequency, complexity and the globalization of changes in an increasingly tougher conditions, expanding and growing competition. "*Globalization catalyzes a different kind of pressure in organizations: economic* *and national borders dissolve favors rush new markets in order to survive. To achieve a global vision is no question of the importance of using organizational culture"* (Muscalu, 2014).

The corporate (organizational) culture is a model of basic and crucial ideas that were found or created, exposed and developed within a certain group which turned out to deal well with problems of external adaptation and internal integration and which are seen as generally valid (Bedrnová, Nový et al., 2007). Corporate culture and its management in today´s society is becoming a global trend, which helps to maintain the competitiveness not only in the local market, but in the global environment. Desirable corporate culture is a crucial factor in the successful development of the enterprise and according to Krninská (2002) the corporate culture will be a primary element of modern management for the future of the knowledge society, contributing to control and motivating employees. Kotter in Gibson (2007) states that we know that it is possible to have a culture that does not hinder the forward progress, but it helps to adapt. Thus, if we count with several other decades of rapid changes, we will have to learn how the organizational culture does something that will not be a brake. But what will be support instead of the brake to adapt companies.

Culture is ambiguous, often difficult to measure, qualitative approaches are preferable (Acar & Acar, 2014). Each of its typology is simplistic and has many restrictions. However, the typology has positive practical importance, because it represents an ideal model to which it is possible to approach, or vice versa, which should be avoided (Bedrnová, Nový et al., 2007).

According to Vetráková & Smerek (2016) "*diagnostic of corporate culture can be classified into three groups:*

a) Dimensional approaches (Hofstede & Hofstede, 2005; Sagiv & Schwartz, 2007.
b) Interrelated approaches (Homburg & Pflesser, 2000; Deshpandé & Farley, 2004).
c) Typological approaches (Deal & Kennedy, 2000; Goffee & Jones, 2003; Cameron & Quinn, 2006)."

In some researches it has been proved that corporate culture creates a competitiveness. It has even been found that the type of culture may affect the success of the organization (Acar & Acar, 2014). Corporate culture is a crucial determinant for innovation and it can accelerate the process of innovation, or it can cause an absence of innovation in the enterprises It was also proved that flexibility has a positive impact on performance, as well as external orientation of the company, but mainly in combination with values as flexibility, creativity, risk-taking attitude, and freedom (Naranjo-Valencia et al., 2016). "*Culture is the glue which keeps organization together as a source of identity and distinctive competence"* (Bass in Yildrim & Birinci, 2013). Culture also has its significant impact on knowledge management (Zheng et al., 2010). *"The results indicate that the organizational culture and knowledge conversion have a positive effect on corporate performance"* (Tseng, 2010).

"True diagnosing of organization culture, the determining of strategy, politics, and human resource practices in accordance with organizational culture will enable the organization to reach desired organizational efficiency dimensions on the condition depending the stability or variability of internal and external environment" (Aktaúa et al,, 2011).

"*Excellent corporate culture has special function of encouragement, instruction and limitation. It can motivate and unite staffs to improve the long-term performance of the organization"* (Li & Chan, 2006). Culture influences organizational effectiveness by satisfaction and control expenses, but this influence is not direct. The results indicate that the culture affects employee attitudes and these affect the outputs of enterprise (Gregory et al., 2009). Well-managed companies use their corporate culture as an effective tool for managing and leading their collaborators (Hitka et al., 2015).

"*The present research also shows that corporate culture and organisational commitments have an impact on performance. This means that the type of corporate culture and organisational commitment could provide organisations with better performance or success"* (Abdul Rashid et al., 2003)."*With few notable exceptions, the finance literature has ignored the role corporate culture can play"* (Guiso et al., 2015).

1.1 Corporate culture according Hofstede's cultural dimensions

According to Hofstede & Hofstede (2005) we perceive values as a general trend to differ some facts from other states, and thus it is possible to define the core of the culture. Values are associated with feelings that have a specific direction, a positive or a negative aspect, they provide the possibility of orientation in the world by the fact that the social reality is structured in terms of importance and corresponding hierarchy. For an easier understanding of the different indexes and cultural dimensions that are included in these contradictory indexes, the authors present a simple overview in Tab. 1, taking the bold dimensions, which are, according to the authors, desirable for corporate culture in the knowledge economy.

Table 1: Overview of the indexes of contrasting cultural dimensions with relevant values

Name of index	Value of dimension	
	Lower than 50	Higher than 50
Power distance (PDI)	**Small distance**	Big distance
Individualism vs. Collectivism (IDV)	**Collectivism**	Individualism
Masculinity vs. Femininity (MAS)	**Femininity**	Masculinity
Uncertainty avoidance (UAI)	**Acceptance of risk**	Uncertainty avoidance
Long-term vs. Short-term orientation (LOT)	Short-term orientation	**Long-term orientation**

Source: Krninská & Duspivová (2013)

Cultural dimensions according to Hofstede (1999), Hofstede & Hofstede (2005), based on similar contradictions, will be described in detail in this study. Hofstede created four-dimensional mode in 1980 and five- dimensional model in 1991 (Minkov & Hofstede, 2010).

1.1.1 Power distance (PDI)

The small power distance is the desirable cultural dimension to reach the knowledge economy. It can express a cohesion between subordinates and superiors, and enables the development of the human capital in the direction of the process of self-realization.

It generally allows contributing ideas to the development of the company and working with an innovative potential of the company to all employees. It also supports the transfer of information and it is a prerequisite for their better utilization (Krninská, 2014).

Within large power distances superiors and subordinates consider one another to be existentially unequal. It is felt that the hierarchy of power is based on this existential inequality (Hofstede & Hofstede, 2005).

1.1.2 Individualism versus Collectivism (IDV)

Collectivism is the desirable cultural dimension of corporate culture in the knowledge economy, which is opening a possibility of cooperation and teamwork, since the individual is encouraged to give their unique individual abilities for the benefit of the society (Krninská &

Duspivová, 2014). The teamwork opens new ways to work together not only with explicit but especially with tacit knowledge and therefore with the development of human potential in a new way and with the possibility of innovative approaches (Krninská, 2014).

The employees in an individualistic society are considered to be act in accordance with their own interest and the work should be organized so that their interest and the interest of the employer match.

1.1.3 Masculinity versus Femininity (MAS)

Feminity is the desirable cultural dimensions of organizational culture for knowledge economy, opening the care of mutual interpersonal relationships guaranteeing an openness and trust as a precondition for self-knowledge and self-development processes. It is therefore an essential precondition for the development of the human capital. An atmosphere of openness and trust are the strongest factors that ensure continuity and transfer of knowledge. And thus they have an influence on the performance of the organization. Caring for the quality of the environment is also associated with a responsible attitude towards the concept of corporate social responsibility (Krninská, 2014).

In a masculine society men are socialized in the direction of assertiveness, ambition and competition (Hofstede & Hofstede, 2005).

1.1.4 Uncertainty avoidance (UAI)

The small uncertainty avoidance, change management and risk are a desirable state of the cultural dimension of the knowledge economy, allowing easier dealing with discontinuous changes in a global society (Krninská, 2014).

In an environment in which people avoid uncertainty there is a number of formal laws and informal conventions that determine the rights and obligations of employers and employees (Hofstede & Hofstede, 2005).

1.1.5 Long-term versus Short-term orientation (LOT)

Long-term orientation is the desirable cultural dimension of corporate culture for the knowledge economy, fulfilling the principles of sustainability (replacement of immediate profit by optimal profit) and related with objectives and long-term perspective of business, which is based primarily on invest to the human capital development and its potential (Krninská, 2014).

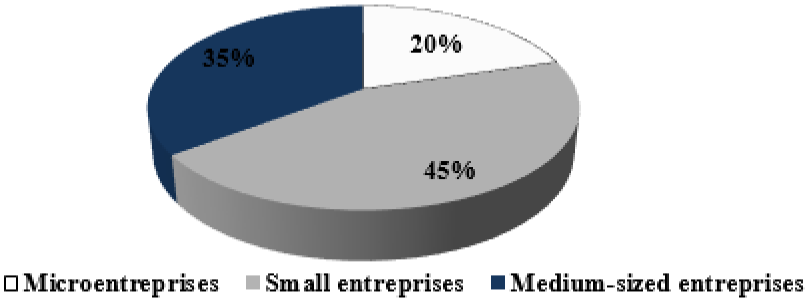
Considering short-term orientation, extreme personal peace and stability can discourage from initiative, exploration risk and willingness to change, which requires from the entrepreneur to rapidly change market conditions (Hofstede & Hofstede, 2005).

2. Data and methodology

The aim of the paper is an analysis of relationships between cultural dimensions and selected indicators through statistical methods.

The research sample included 1 075 enterprises selected on the basis of economic data traceability. Each of these companies (1 075) received a questionnaire in electronic format. Of the 325 questionnaires returned, 23 were excluded because of incomplete answers. Enterprises were divided into microenterprises (0-9 employees), small enterprises (10-49 employees), and medium-sized enterprises (50-249 employees). These categories of enterprise sizes defined by the number of employees were determined by Commission Regulation No. 800/2008. Further analysis of corporate culture was done via the questionnaire VSM 94 (Hofstede, 1994) and data about financial performance was gained. The distribution of companies in the survey sample (Fig. 1) is as follows: 20% of microenterprises, 45% of small enterprises and 35% of medium-sized companies.

Figure 1: Distribution of the sample by size of enterprises



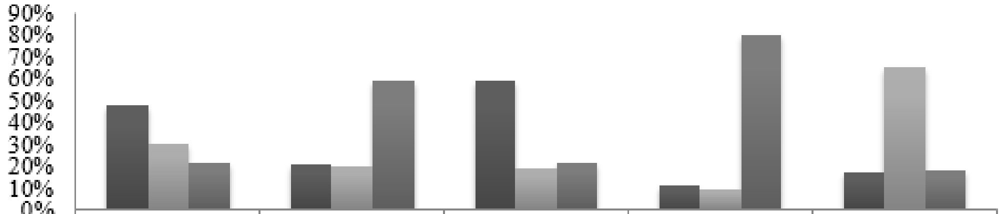
Source: elaborated by authors

Canonical correlation analysis was used as a statistical method. It explores the relationship between two sets of variables. One set of variables is consisted of the cultural dimensions (these define corporate culture) and the second one is consisted of selected financial indicators. Chosen indicators are: Return on Assets (ROA), Debt Ratio, Asset Turnover Ratio, and Current Ratio.

3. Results and discussion

Figure 2 shows the results obtained by using the VSM 94, which show the current condition of small and medium-sized enterprises. Here it is noticeable that in this research sample clearly prevails the cultural dimension of small power distance (48%), femininity (59%). Long-term orientation (65%) is in the grey zone. Absolutely clear is the inclination to the cultural dimension of uncertainty avoidance, to which 80% of surveyed small and medium-sized enterprises incline and which is related to problems with adapting to changes of the globalized society, avoiding the uncertainty and fear of risk-taking, but also blocking the path to the knowledge economy. The need for certainty is nowadays absolutely prevalent. It may be due to recent and to some extent ongoing crisis in the economy. But it is more than obvious that in today's global, turbulent society full of rapid changes, companies must orientate themselves in these changes. Even when divided according to their size, enterprises tend to the same dimension characteristics as the entire sample.

Figure 2: Percentage distribution of SMEs in particular cultural dimensions and their interval



	PDI	IDV	MAS	UAI	LOT
Desirable dimension	48%	21%	59%	11%	17%
Transition zone	30%	20%	19%	9%	65%
Opposite dimension	22%	59%	22%	80%	18%

Source: elaborated by authors

There is a correlation between sets of variables (R = 0.44963) but not statistically significant (p = 0.67745).

Table 2: Correlation between variables

Variables	PDI	IDV	MAS	UAI	LOT
ROA	0.1819	0.1504	-0.1129	0.0684	0.2306
Debt Ratio	0.1089	-0.0148	-0.0506	-0.1561	0.0950
Asset Turnover Ratio	0.1725	-0.0305	-0.1447	0.0873	0.1574
Current Ratio	0.0179	-0.2595	-0.1074	0.0745	-0.0031

Source: elaborated by authors

Table 2 shows correlation between variables, the most significant correlation is for example between ROA and Long-term orientation, ROA and Power distance, Asset Turnover Ratio and Power distance, Asset Turnover Ratio and Long-term orientation. A lot of variables have a negative correlation.

4. Conclusion

For knowledge economy the desirable cultural dimensions are **small power distance, collectivism, femininity, acceptance of changes and long-term orientation.** The surveyed small and medium-sized enterprises tend to the desired cultural dimensions only partially. It can be concluded that in most cases the companies incline to the two desirable cultural dimensions (small power distance and femininity).

There is a correlation between sets of variables but not statistically significant. Recommendations for further research: qualitative research, using new Hofstede’s dimensions, using other typology of corporate culture for comparison and cluster analysis of variables.

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INTERNATIONAL COMPARISON OF THE LIBERALIZATION OF THE POSTAL SECTOR

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Abstract. No society in the world lives completely separate from the others any longer. In the current age of globalization, we can observe rapid development and strengthening of the international economy, especially in the EU countries. However, up to the 90s of the 20th century some sectors were protected against the competition by the governments of Member States of the EU because of their economic and social importance. There were changes related to the entry of the Slovak Republic into the EU in the Slovak postal market. The new Directives required obligation for Member States to harmonize their national legislation with EU law. A wave of reforms was launched in order to ensure the sustainable provision of universal postal services in the required quality, with a fair price and under the same conditions to all areas in the Slovak Republic. This article dealt with the issue of the steps of liberalization in the postal sector and provides an international comparison of developments in this sector. It was focused on trends and currents of economy within the EU and their connection with the specific conditions in the Slovak Republic. The main aim of the article was to highlight the importance of liberalization in the postal sector and its impact on changes, which the current of economy brought on an international and national scale.

Keywords: liberalization, postal sector, universal postal services

JEL Classification: F69, K23, O19

1. Introduction

Last decades brought many changes in the economic development of the EU countries. Economic integration and the creation of a single currency contributed to a gradual expansion of the area of free movement of goods, services, people and information. In the globalizing economy with increasing communication, the importance of postal services as an essential tool for development of communication and trade began to grow gradually (Achimský & Tomová, 2002). But the conditions of its providing, the scope of the universal postal service and the overall regulation of the postal market were different in EU countries and inequality also reflect in differences of quality or availability of the povided services. In several countries, the universal service providers were companies where the State was full or majority shareholder and their internal legislation did not allow the growth of competition in the postal market. In solving, the important issues of development of the single European market the European Commission concluded that sustained, effective and quality provision of postal services can only be guaranteed in a fully competitive environment. In the late 20th century by use of its directives EC – started vigorously promote the liberalization of the postal market and reduce postal monopoly by gradual opening of the postal sector also for the other postal operators

(Jaag, 2011). The entry of Slovakia into the EU also brought changes in the Slovak postal market. The new Directives required an obligation for Member States to harmonize the national legislation with EU law, including Slovakia. A wave of reforms has launched in order to ensure the sustainable provision of universal postal services in the required quality, at a fair price and on the same terms even in the most secluded countryside.

2. The trends and streams of liberalization

Economic liberalism is based on the assumption that all economic activity takes place in conditions of economic freedom and more general and free competition in the market is, the more sophisticated it works. An essential part of economic freedom is freedom of business, free movement of capital and labour, freedom of trade, etc. By liberalism, the enforcement of these conditions enables efficient development of production while minimizing costs and prices. The essence of economic liberalism are free competition, the existence of private ownership, free pricing, free business activity and maximum reduction of state intervention in the economy. (Michník, 1995) Čunderlík (1996) explains the concept of liberalism likewise and sees it as *"an economic doctrine which claims that the best, or least bad is the economic system, which guarantees free-playing of individual initiatives of economic subjects."* Followers of economic liberalism related to the specific history of development of market economy believed that the system of economic freedom can bring the greatest possible well-being of society. At the time of monopolies and government intervention – economic liberalism modified some of the principles of economic development and in the 30´s of the 19th century resulted in formation of neoliberalism. (Michník, 1995)

Neoliberalism represents an important direction of economic science, representing the German form of neoclassical economics and preferring free competition and the market mechanism. (Michník, 1995) Neoliberalism proposes new forms of state intervention in the economy and at the same time the broadest possible scope for automatic self-regulating influence of market forces. According to the neoliberals, effectively functioning economy requires the existence of private property, without which neither free competition nor the entrepreneurial initiative or freedom of rates setting can exist and - ultimately, neither individual human and thus the entrepreneur freedom can be realized. According to neoliberalism, the economic activity of the state should not focus on process management of existing forms of market economy but on their support and development.

Current understanding of trade liberalization represents a specific type of economic and trade policy, which is characterized by progressively removing barriers of goods and services movement. The liberalization of economic relations is the opposite of protectionism that protects the domestic economy against foreign competition, duties, import restrictions, etc. Despite the fact, that in recent decades the world economy can observe the various elements of protectionism, in the long term the onset of liberalization of economic relations is the defining tendency – in the global economy.

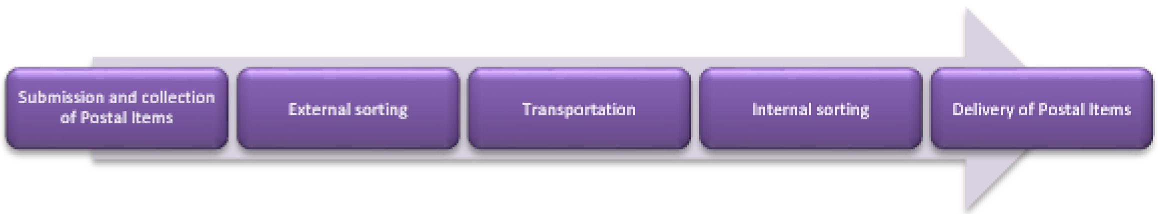
State with its steps in economic policy promotes or creates conditions for the development of social division of labour on an international scale. Economically strong countries always emerge as supporters of liberal trade that try to expand trade through foreign sales markets for their products. Liberalization processes encourage, in particular, the fact that the incentives for economic development are strengthened by them because foreign competition forces domestic economic actors to strengthen their own competitiveness and thus contribute to the efficient development of the national economy as a whole. (Broussolle, 2009) Current coexistence of liberalization of economic relations and protectionism in the world economy reflects two opposing trends therein enforced: *globalization of production* (mainly advocated by transnational corporations and the associated obligation to allocate production sites with the lowest production costs) and *state intervention* (aimed at regulation of economic relations, for example in business relationships on the conclusion of agreements establishing minimum and maximum level of mutual interstate exchanges introduction of customs duties, subsidies, technical barriers to trade etc.; economic policy of the most advanced countries contains liberalization efforts in the area of export, which purpose is to support domestic producers, whereas the import of these countries takes all sorts of measures to protect their own producers). (Michník, 1995)

3. Public postal network

Welfare nature of many services is also apparent from the provision and use of their infrastructure. Energy, transport and communications networks are the backbone of the single market and their extensive infrastructure assures fast, affordable, free movement of people, goods, energy or data. Like many public interest services, postal services are based on the so-called a network organization representing the technical and organizational infrastructure in the postal sector known as the ***postal network*** (de Bas & van der Lijn, 2008).

One of the basic characteristics of the liberalization of the postal market is to allow access for alternative postal operators to the public network of the universal service provider. Postal network is defined by law as an organization and a set of devices that are used by postal operator for providing postal services like ***collection*** (comprising administering and picking of consignments), and ***distribution*** (comprising its sorting, transport, and delivery). Postal transport process consists of several phases that are shown in the Figure 1.

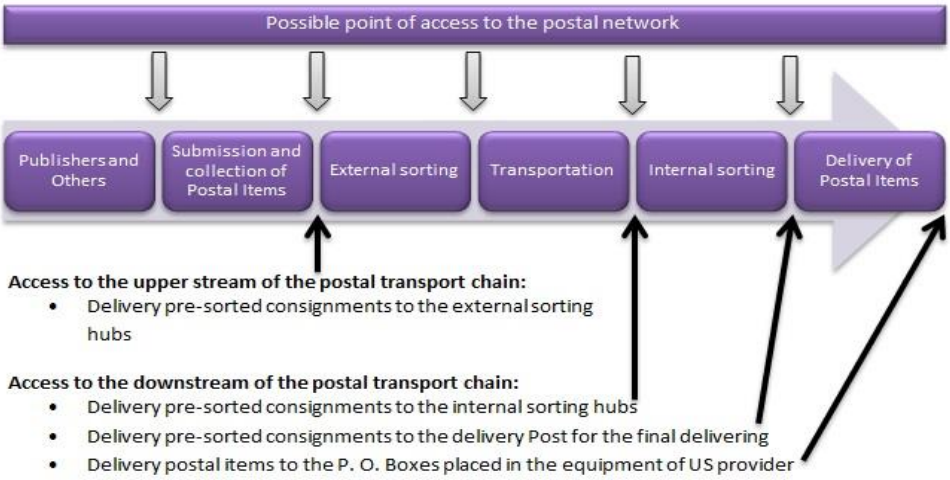
Figure 1: The phases of postal items transport chain



Source: Author based on Čorejová et al., 2006.

A qualitative requirement of universal service is the territorial availability of access and contact points of the public postal network. *Access points* are buildings and stationary technical equipment available to the public for the provision of postal services. They include, in particular, post offices, postal and delivery boxes, mailboxes and public accessible places for the collection and distribution of postal items or the provision of postal payment. (Law No. 324/2011 on Postal Services and on amendments). *Contact points* represent places of postal network used for collection and delivery of postal items and the provision of postal payment services for example mobile technical equipment, e-mail addresses, access points, employees of postal operator or other persons who are under contract with the postal operator authorized to collect and deliver postal items. (Law No. 324/2011 on Postal Services and on amendments) *Regulation of access to the postal network* is not precisely determined by European directive, but in individual member states is determined by national legislation. Subject to regulation are access points of postal chain and also the prices for individual access points. The composition of the postal chain provides access to the public postal network in its upper and downstream, as is shown in the Figure 2.

Figure 2: The phases of postal items transport chain



Source: Author based on Čorejová et al., 2006.

The European postal market in recent decades has undergone several significant changes. With increasing globalization that reflects more intensive requirement on international communication, correspondingly increase the importance of ensuring the proper functioning of postal services between nations. (Tabak & Kastela, 2010) The bilateral agreements at the time of the technological and economic growth, however, were not longer sufficient and there was emerged the need of a collective agreement binding a number of countries that would simplify and normalize the market of postal services at the international level.

The first organization coordinating postal policy internationally was created in 1974 by establishing the General Postal Union in Bern, where representatives of 22 countries signed Berne Convention that shall be binding on member states. The basic idea behind its creation was to arrange the organization and improvement of postal services and to promote the development of international cooperation in the postal sector. Its membership base has expanded rapidly. Later in the 1978, it was renamed on *Universal Postal Union (UPU).* (Kilfoyle & Richardson, 2015) Currently over 190 countries are members of the UPU.

4. Legal framework of opening up of the postal market in the EU

Integration processes of countries and political cooperation were intensified, especially in Europe. The signing of the Maastricht Treaty in 1991 launched the most extensive reform of economic development. The unification of Europe, the gradual removal of barriers of international trade and the creation of single European currency gradually intensified the movement not only of goods, labour and services, but breaching the borders between Member States and opened the way for new technologies, know-how and foreign investment. Relations between national economies required more intensive communication. It was the incentive for international market to emphasize the importance of the postal sector. (Tochkov, 2015) On the Member States postal market was dominated a monopoly situation and non-uniform rules of providing postal services. In order to complete the EU single market, strengthen economic and social cohesion and the elimination of inequalities between Member States, the European Commission so vigorously opposed the monopolies and promoted liberalization of services in general interest. An important objective of the Community was still to support competitiveness of the European economy and ongoing efforts to provide consumers more choice at a lower price. (Jaag, 2014)

Nations around the world recognize postal services as critical to their societies and economies. Despite development of new communication tools, direct and transactional mail remains important and relevant. Until recently, governments supported provision of a universal postal service by granting a monopoly to a universal service provider (USP). (Rodrigues & Domingues, 2010) Over the last decade, while USPs have seen decreasing overall volumes of mail, governments have gained experience from the liberalization of other industries. This experience led to alternate approaches to providing universal postal service, while allowing for greater competition in the marketplace. Countries are reducing or even eliminating postal reserved areas, those areas in which the national USP has a monopoly. Instead, governments rely increasingly on the market to provide postal services, while implementing “flanking” measures to manage and secure this transition. International experiences and lessons learned the EU provides one example of this trend in postal liberalization. Since 1994, the EU member states have implemented legislation to liberalize the postal market, specifically to allow for the creation of scaled operators. The governments have two, inter-related objectives – to eliminate all postal reserved areas by 2013 and to promote universal services through market forces supplemented by other measures as needed.

The Third Postal Directive added a requirement that Member States must allow all postal operators access to elements of postal infrastructure, such as address databases and post office boxes, when necessary to protect the interest of users and/or to promote effective competition. Member States have not developed a consensus on how to implement this provision. However, at least 7 member states have made significant progress in providing non-discriminatory access to the postal infrastructure (Geradin & Humpe, 2002).

4.1 Additional ensure of sustainable development of the postal market in the EU

Already The First Postal Directive required the member states to create one or more independent regulatory authorities for the postal sector. To promote close cooperation and coordination of activities between accrued national regulators the European Regulators Group for Postal Services (ERGP) was established in 2010. The role of the newly established body was to continue with activities that were developed during the past decade by the European Committee for Postal Regulation (CERP). ERGP works on the issue of financing the universal service obligation and monitors satisfaction of postal users and market outcomes in order to form a single postal market. The contents of postal directives are also statues to ensure high quality of universal service, while the Commission monitors the way they are implemented. For this reason, the Commission has launched a Forum of postal services users, which met for the first time in December 2011. The main idea was to track evolving customer needs in a changing information and communications environment with promoting sustainable development of the postal sector. This aim should be based on meeting of end-users, postal operators and representatives of relevant departments. (European Commission, 1998)

4.2 Implementation of the EU postal directive into the Slovak national legislation

Slovakia's accession to the EU started the process of economic, political and social changes that were the result of a gradual harmonization of national legislation with the EU policy. As in all economic sectors, also in the postal sector there was a wave of reforms relating in particular to the gradual opening of postal sector to competition. Law no. 507/2001 Coll. on postal services, which subsequently amended the Act. 15/2004 Coll., was the first important result of this harmonization process as the reaction on the Postal Directive No. 97/67/EC. Another important step within the meaning of the Directive was the establishment of a national regulatory authority for postal services – the Postal Regulatory Office (PRU) based in Žilina in 2002. In January 2013, the PRU was merged with the Telecommunications Office and it was created the ***Regulatory Authority for Electronic Communications and Postal Services*** (RAECPS), with main location in Bratislava. RAECPS, the state administration body with nationwide coverage in the area of electronic communications and postal services, performs many functions. As the main can be mentioned: state regulation of postal services and postal payment service, state supervision over the provision of postal services and postal payment service, international cooperation in the area of postal services at the level of regulatory authorities, function of notification body in the area of state regulation in relation to bodies of the European Union and to relevant bodies of the member states of the EU and to relevant bodies of the member states of the European Free Trade Association etc. (SysCom, 2015). In accordance with its mission, it supports the development of fair competition in the postal market to the decision by the EU anti-trust policy and liberalization of the postal services and creates equal business conditions for businesses that operate in the postal market.

5. Comparison of the access to postal infrastructure in the EU countries

The Postal Directive (article 11a) requires the member states to give all postal operators access to the elements of postal infrastructure (in the meaning of facilities and information resources used in providing postal services) whenever necessary to protect the interest of users and/or to promote effective competition. Six elements of postal infrastructure are specified explicitly but not exclusively – postcodes, address database, post office boxes, delivery boxes, change of address database, redirection and return services. In the WIK study (2013) 63 member states reported only one authorised and active postal operator, but it was not always clear whether or not this referred to the USP itself, thus implying an absence of competition. These questions elicited the most heavily qualified answers of any in the questionnaire and the highest level of disagreement between national regulator authorities and USPs. The results are shown in Table 1. The table reports the status of access to the postal infrastructure. An asterisk (*) indicates a negative answer to the same question by the USP. The first six rows are the categories of access listed in the Postal Directive. The last two rows indicate whether the national authorities have any authority to compel two other types of access to the postal infrastructure. Equal downstream access refers to authority to require the USP to provide equal access to all parties if the USP has granted downstream access to one party. Required downstream access refers to authority to require the USP to grant access even though the USP has not provided similar access to any other party. Mandatory access might be considered appropriate where, for example, the USP has a market dominant position in a particular geographic area. It should be noted, however, that in many member states, the USP grants downstream access to its network, even non-discriminatory access, without legal obligation.

Table 1: Access to postal infrastructure ensured by Member States)

Type of access	**Member states**	**No answer**	**Number**	**% survey market**
Access to post codes	AT, BE*, BG, CY, CZ, DE*, DK, EE, FI, FR, HU, LT, LU, MT, PL, SE, SI, UK	IS	19	78%

Access to post office boxes	CY, CZ, DE, DK, EE, FR, IT, LT, LU, LV, MT, NL, PL, SE, SI	AT, IE, IS, HR	15	59%
Access to delivery boxes	AT, BE*, BG, CY, DE*, DK, ES, FR, HU, IE, IT, LT, LU, PL, PT, SK, IS*	HR	17	65%
Access to address database	CY, CZ, DE, DK, EL*, FR, LT, LU*, SI, UK	AT, IE, HR	10	64%
Access to change of address database	AT*, CY, CZ, DE, DK, EL*, FR, LT*, LU*, SI	IE, HR	10	47%
Access to USP redirection and return services	CZ, DE, DK, EE, EL*, FR, LT, LU, MT, SI	IE, LI, HR	10	43%
Equal downstream access	CZ, DE, EE, ES, HU, IT, LU, PL*, PT, SI, UK		11	58%
Required downstream access	AT*, CZ, DE, EE, IT, LT, LU, MT, PL*, PT, SI, UK		12	55%

Source: Dieke et al., 2013[1]

5.1 Access level and conditions

Access to downstream services of an incumbent postal operator can be reasonably granted at specific access points. Table 2 describes activities on commonly used access levels. Points of entry for access mail are usually the inward and outward sorting centre. Access may not be granted to all theoretically available access levels. In some cases, access does not enhance the overall efficiency of the mail sorting process, e.g. access to a local delivery office.

Table 2: Description of access levels

Access level	**Description**
Bulk mail access points	Bulk mail access points are specific access points for business users with middlesized volumes. Typically, only consignments up to a certain quantity can be handed over there. There are far more bulk mail access points than mail centres in countries where these access points are established (BE, FR). Alternatively, USP collect bulk mailings (depending on its size) directly from the customer.
Outward mail centre	Mailings that are consigned at the outward mail centre usually have to be pre-sorted at least basically. The minimum requirements at the outward mail centre.

[1]Note: Some additional noteworthy points which could not be presented in the table include the following: Ireland is the only member state without a post code system, the Swedish address database exists independently of postal operators and a change of address database is operated by the Swedish State (all postal operators have access to both), Czechia, Netherlands, Sweden, and Slovenia regard delivery boxes to be in private ownership, so the member state cannot grant access. While the high degree of qualification and inconsistency make it difficult to draw firm conclusions, it appears (relying upon the answers of the national regulators Czechia, Denmark, Germany, France, Lithuania, Luxemburg, and Slovenia have made significant progress towards ensuring a non-discriminatory access to the postal infrastructure (granting access in 6 or more categories). In Belgium, Bulgaria, Spain, Finland, Croatia, Ireland, Latvia, Nederland, Romania, Sweden, Slovakia, Island, Norway, and Switzerland, the national regulators´ capacity to implement mentioned article may be questioned since they assure access in 2 or fewer categories. The other member states fall in between these poles.

Inward mail centre	Access to the inward mail centre means that users transport mail to the mail centre of destination where it is prepared for delivery. Access to the inward mail centre can involve detailed mail preparation by users, e.g. by: • Postal code • Delivery offices • Group of delivery routes • Delivery routes • Delivery sequence

Source: Dieke et al., 2013.

6. Conclusion

Postal services continue to play a vital role across the European Union, although the nature of that role is changing as new technologies are driving both e-substitution and an increasing volume of online purchases. The ability to send letters and parcels to arrive within a specified time at a definite price to all parts of the European Union remains a fundamental contributor to social, economic and territorial cohesion and the development of the single market. The huge potential of e-commerce means that affordable and reliable parcel delivery services are more important than ever to help realise the potential of the Digital Single Market.

National Regulatory Authorities continue to fulfil a crucial role underpinning and overseeing the application of and ensuring compliance with the Postal Services Directive in Member States. They are increasingly combined with Regulators for other communication services (e.g. electronic communication services, broadcasting). The European Regulators Group for Postal Services (ERGP), established in 2010, has improved consultation, coordination and cooperation among the National Regulatory Authorities at the European level. Historically National Regulatory Authorities have tended to focus on letters. Given the decline in letter volumes and growing number of parcels driven by e-commerce sales, stronger regulatory oversight of and more comprehensive data on the parcel market is needed to gain a full and accurate picture of the overall postal and parcel markets and to develop the full potential of the Digital Single Market.

In this article, it was pointed to the possibility of access to the postal transport network in conditions of liberalized postal sector in the EU. The issue of liberalization is far more comprehensive and can be within to pay attention to many other aspects of liberalization in international comparison.

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GLOBALIZATION AND THE UNIFICATION OF TERTIARY EDUCATION

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Abstract. The article gives a difference between globalization of forms and globalization of the rules. The first one leads to the uniformity of higher education. Unification in the frame of Bologna Process has forced the EU to build an education system on the Anglo-American model, which violates the sovereignty and traditions. Proposed here another type of globalization, the sameness of rules, does not violate the sovereignty, preserving the features of shape, but offers a universal adherence to the rules, filling the old form by different content. The article examines the 4 rules of the globalization of higher education: academic freedom, employment security (tenure), university autonomy and internal democracy. We have got a global principals and a variety of forms from country to country. These rules are functionally interrelated principles of education management. Academic freedom without reliable procedures of selective screening of persons that able to engage in scientific work, will lead to the stagnation of the scientific process. But once granted academic freedom needs to be protected by employment security (tenure). Tenure, in turn, is a condition of the formation of scientific schools, ensuring the continuity of cooperation of scientific work that is not possible with short-term employment contracts and the constant movement of scientists between universities. Internal democracy and appointment by-election allow controlling the university administration. We need to return to four interrelated concepts to be successful in concurrence. Compliance with the rules while maintaining the traditions and cultural features of university management allows us to maintain the process of reproduction the diversity as a basis for true unity.

Keywords: academic freedom, tenure, reform of educational management, globalization of rules.

JEL Classification: I28, I23, D730, H52.

1. Introduction

Globalization of the labor market has led to the globalization of professional education. In 1999, the Bologna process of unification of the forms began: the credit system, the division of education at undergraduate and graduate, the creation of opportunities for students to move between universities. There were not forgotten and principles - above all the principle of university autonomy, which seems paradoxical against a background of the requirements of European unification that abolish the autonomous right to choose the forms of organization: Bologna Process requires that ‘European universities be empowered to act in line with the guiding principle of autonomy with accountability y (and) y confirm their adhesion to the principles of the Magna Charta Universitatum of 1988 and, in particular, academic freedom' (EUA, 2001). True unity occurs when universities on their own initiative use the best experience, considering it useful. The result is a temporary uniformity, until better experience appeared. So it was with the University of Humboldt, when many universities from different countries began to copy the experience based on the rule of academic freedom, and the governments did not prevent them from doing so. The Bologna Process - a bureaucratic imposition of unity from top instead the initiative of universities themselves. (Mika, 2011) One can only wonder why the Russian government was involved in the Bologna process, having a reliable system of 5 years of higher education, which included 3-year study of Sciences, plus two years of professional skills. Uniformity of the form laid down by law, will not lead to the emergence of the new Humboldt University. Therefore, a correct policy is legally enforceable rules with freedom of choice the forms of organization, as is done in the United States, where even the exam assessment system is not standardized and differs between universities.

Four rules of the globalization of higher education are: academic freedom, employment security, university autonomy, democracy within the university, particularly the election of the Rector. These rules have even been proposed as a university health indicators as part of the international rankings (Karran, 2007). Compliance the rules instead of compliance a uniform form of university management allows as to store features and traditions and above all to maintain the diversity as the basics for true unity.

These rules or otherwise principles operatively interconnected. Therefore it is impossible to follow one of them while rejecting others. Academic freedom without reliable procedures of selective screening those who are able to engage in scientific work, will lead to the stagnation of the scientific process. But once granted academic freedom needs to be protected by job security. Job security, in turn, is a condition of the formation of scientific schools, ensuring the continuity of cooperation of scientific work that is not possible with short-term employment contracts and the constant movement of scientists between universities. Democracy inside the university allows to control of the action of the upper levels administration.

2. Academic freedom and autonomy of university

Academic freedom as a function depends on its possible limitations from the church and the state, the university management, the majority of the collective (as conservatism source).

Academic freedom for many centuries in the history of Europe was persecuted, especially by the church. Suffice it to recall Giordano Bruno. The state also has put his hand to excessive regulation. The main reason for stagnation in universities until the XIX century was a restriction the academic freedom by the state, the demand of political loyalty, which in turn led to unprecedented control of universities from the government.

The breakthrough came when the principles of autonomy and academic freedom have been applied in the management of the Humboldt University. XIX century can be called the golden age of German universities, where was flourishing academic freedom that caused admiration in many countries, including Russia.

In relation to the external environment, the university is like a company, but the internal environment is fundamentally different. In relation to the external environment, the university is like a company, but the internal environment is fundamentally different. To support academic freedom of the professorial collegium in what and how to teach and to protect against illegal demands of university administration it needed job security and institutional self-governance. Autonomy is the institutional form of academic freedom. In a market environment, the administration of universities is objectively interested in generating income and preserving underachieving students, which reduces the quality of teaching. And academic freedom in the internal environment of the University must confront this trend. The mission of the university is not to make a profit at any cost, but in the provision of quality education.

University Administration violates academic freedom when it views university staff as production line of workers on the knowledge-factory floor. Of course, the market autonomy can be without academic freedom, as, for example, at any plant or factory with line management structure. But there cannot be effective scientific work without academic freedom and the autonomy of the researcher is only one of the conditions of freedom. To protect the academic freedom it is required compliance with all four rules.

Collective majority (as a source of conservatism) is another threat to academic freedom, both within the university and in the global scientific community. But there has not yet been found the counteraction mechanisms except the academic freedom of individual researchers.

3. Internal democracy

Since universities in some cases are run by former scientists degenerated into administrators, they set their goals higher than a goals of science development in higher education system. They therefore consider themselves above scientists and the last are treated exclusively as a means to support their administrative position. As soon as the election of administration by scientists will be replaced from appointment from the top, that is, scientists will be deprived of control, the degeneration of the organization's goals will not take long. Everyone knows D.I. Mendeleev, but apart from historians no one will remember the name of the rector, that forced him to retire before time. And it was when in compliance with the new statute of the Imperial University in 1884 the elections of rectors has been replaced by their appointment by the Ministry.

The absence of democracy within the university leads to restriction of academic freedom, by university officials. Odious rector monopoly leads to a blatant disregard of professorial collegium. University administration is beginning to think that they can do whatever they want. The order, the execution of the order, the penalty for non-compliance, the promotion of the implementation. Academic freedom is replaced by coercion to unnecessary operations on drawing up documents for inspection. The true purpose shifted toward the goals for the performance of indicators, many of which need to formal control of work. Using power, university bureaucrats begin to reduce the proportion of teachers in the fund of wages and to increase the share of administrative personnel. Abuse by the management as a substantial underpayment is accompanied obtaining of bureaucratic rent.

Participation of all professors in decision-making - is a special form of academic freedom. This is not a democracy in the full sense, when the minority subordinate to the majority by voting. It should be a form of consensus-building, rather than a form of struggle with the victory of one of the parties. Failure to follow the rules of internal democracy causes the relationship of confrontation between the teaching staff and administration. The error lies in the removal of teachers from decision-making.

4. Autonomy

The autonomy of universities is constantly in the field of view of researchers (Karran, 2007), (Enders et al., 2013). Strengthening the role of the state in higher education tends to centralization of management. With the increasing centralization going on simplification of the system, it becomes primitive. But the matter is that the system that simplified by centralization is not capable to spontaneous adaptation, because it do not have what lies at the basis of adaptation. It cannot, moreover, to develop itself. This system has no freedom of the primary elements - academic freedom of faculty members. Having received from the Ministry similar centralized guidance in excessive amounts, university administration operates only one way - increases the pressure on subordinates, requiring them to greater efforts to implement development programs. They do not understand that there is another management option, namely the delegation of rights to the level of structural units This option restores the diversity that only one capable of creating true unity, the unity of diversity, able to move towards the natural goals of improving the sciences and education. (Ogunnaike, et. al., 2014) All that is needed from the administration - is to support initiatives and approval of the various ways to solve, rather than centralized programs, and absurd uniform performance evaluation parameters. The fact is that the main suppliers of knowledge are devoid the independence. Bureaucracy needs constant equilibrium and simplifying management of the elements of the uniform structure of the managed object, but the development is a departure from the stability and balance. And so the whole system, having lost the key subject of independence, forced by the bureaucracy to stagnate, loses an incentive to development. As an example we can recall the persecution of the new direction in his time in science, the persecution of genetics in the Soviet Union. Familiar old techniques are alive in the minds of managers. But the use of the centralization leads to the same disastrous results, as in Soviet times. There is a deepening contradiction between the employer, limiting professorial board autonomy and a collective desire to be independent, because each professor understands that it’s not administration who creates a product research and teaches students. Thus, the greater the pressure on the professorial board, centralization and simplification the more professors will have hidden, and then clear resistance to leadership of the University officials.

By and large, the scientist does not need cooperation and leadership from the top. The incentive to work is the process of cognition. He needs care and encouraging by approval. To encourage scientific process it does not require to scientist the enforcement by organizations and officials, which put the authorizing signature and take reports, give him a variety of orders and control all the things that do not require this type of control.

Control of the scientific process is needed in another positive way - the teacher control over student, colleagues control and user control of scientific knowledge. All three types of control have a positive feedback, and allow each scientist forced to adapt to an environment of cooperation, at the same time contributing to the common business sometimes small, sometimes unexpected innovations.

With the centralization of power, scientists are on the bottom rung of the social hierarchy. The purpose of the reform should be a transfer of power, financial solutions and plans in the hands of the professors association, ie Academic Council, where the administration plays the role of attendant without voting rights. The election to the post of rector and deans should be carried out only from the members of the Academic Council, who have been working at the university for three or more years. Unproductive use of government intervention methods should give way to a return of power to those who educates students and conducts research.

5. Tenure

American Association of University Professors back in 1915 set out the principles of academic freedom and tenure. In its present form in USA academic tenure is defined as follows: 'After the expiration of a probationary period, teachers or investigators should have permanent or continuous tenure, and their service should be terminated only for adequate cause, except in the case of retirement for age, or under extraordinary circumstances because of financial exigencies' (AAUP, 1940 Statement). Similar formulations are given by Lutter, M. and Schröder, M. (2016), Ugboro, I. O. and Obeng, K. (2015), Wronowska (2015).

In Japan, the tenure provide by the fact that the professors were in the public service. But now the government has announced the reduction of expenditure on education each year by 1% and the transformation of universities into corporations, which will lead to the dismissal a lot of the teachers.

In Russia until 1917 the occupation of ordinary professor positions at the Imperial University was limited to 25 years and it was the civil service. After 25 years of service, professor retired with a pension, which was equal to the salary. In modern Russia until 2012 employment after election lasted for 5 years, after which a new contest was being announced. But in fact it was life-time employment. In 2012, the Government refused to job security, by tenure, replacing it with a so-called effective contract with an annual contest for the post. This in the long run leads to a decrease in supply in the labor market of teachers and in the near future, I hope, it will be canceled as a wrong decision, dictated by the need to reduce budget expenditures.

Thus, we see a variety of forms, while maintaining job security rule. Renunciation of the rule leads ultimately to a reduction in the number of those who wish to be teachers.

In theory, human capital is the first and most important resource of the organization. Other resources can be destroyed in different circumstances, but the availability of human capital will create a significant guarantee of renewal. Before we give a guarantee of employment, it is necessary to organize an objective mechanism of selection of the best teachers. In USA the probationary period should not exceed seven years, including within this period full-time service in all institutions of higher education (AAUP, 1940 Statement). In Russia, until 1917 it was not precisely defined in time, but included the writing of a doctoral dissertation and teaching positions assistant professor and extraordinary professor. In modern Russia, the applicant for the position of professor usually has to write a doctoral dissertation after writing a dissertation - analogue PhD. But then the job security provided only a shortage of applicants in the labor market.

The advantage of the university in staffing is the ability to update staff by attracting the former best students. This feature eliminated the low salary of teachers. As a result, the best go into other sectors of the economy.

Top academic graduates are divided into three types according to their usefulness for inclusion in the staff. 1. Scientists those are able to teach. This is the most valuable asset of the university. 2. Scientists those are not able to teach in general, or on the level of the first one. 3. Teachers who are not able to research. Since all three categories are the best product selection, we have no right to restrict the employment by giving work only to the first category. In accordance with normal probability distribution curve the number of high school graduates, corresponding to the first category, is about 2-3%, and to all categories - 16% of the issue. Inclusion in the staff on the condition of tenure is a guarantee of academic freedom of professors, which is provided by the inability of their dismissal by the Administration will, because they are not in the full sense of the hired personnel, and themselves are a collective employer.

For the second category are the positions of researchers in scientific laboratories. The Russian experience of research in universities has shown that the success achieved those universities where research laboratories were organized. In them engineers and researchers in the conditions of full employment were employed together with the teachers. Working together allowed researchers to concentrate in certain areas of research, and teachers were introduced into the scientific process detailed knowledge of the subject, as they annually repeated material in training courses.

The third category is represented by teachers, so to speak, on grab - by tutors of student colleges, lecturers without the requirement for them to do scientific work.

The mechanism of distribution of these three categories of applicants has its own peculiarities in different countries, but the general concept is a trial period with the periodic evaluation of the results.

Guaranteed employment, in turn, has the disadvantage, because it creates an agency problem when teachers who have been given a guarantee of employment, start to work less. But the lack of tenure can start the mechanism of adverse selection, as described by Dengov V., Gregova E. (2015), Gadow F., O´Brien P., MacDonald J. (2016), Pashkus V., Pashkus N., Pashkus M. (2015), Kliestik T., Lyakin A., Valaskova K. (2014).

Marginal case of the solution of agency problem of procrastination among tenured professors, is a Russian innovation for the abandonment of job security through the teachers transfer to the contract system with an annual re-election with the contest. Transfer teachers on an annual contract, ie the replacement of stable employment of temporary positions with the expectation of the emergence of competitors every year, destroy work team. Loss of individual teachers in team composition makes a coherent whole ineffective. People are starting to think about the short-term decisions, giving up a reserve for the future. Professors in Russia receive less than 8 - 9 thousand dollars per year, while in the United States - 60 to 120 thousand, in 8-9 times more. No wonder that the best in the absence of job security go abroad. Job security could keep them at home.

Another way to solve the problem of reduction efforts at work is a permanent contract with no end-date. This type of loss of employment threat offers less opportunity for sabotage, and more consistent with social justice goals, even though permanent staff members can be fired at any time.

The third way is the post-tenure review. Several researchers have noted its negative implications for job security, health educators (Lutter & Schröder, 2016), breaking a psychological contract between the tenured professor and institution and the institution that granted it (Ugboro & Obeng, 2015). Review, in particular the annual, creating unattractive academic career initially distorts incentives in the process. Interview reduces variability of tasks and affects the psychological attitudes of individuals. Failure to comply with the principle of job security also raises the problem of migration to developed countries, what become easier in the conditions of globalization of the labor market (Pongrácz, 2015). Thus, post-tenure review creates more negative consequences than has positive effects. Loss of scientists is a result of permanent monitoring instead of job guarantee. In the long-run period a trail of permanent evaluation turns into a shortage of scientific personnel due to other career preferences.

Thus, it is possible to use different forms of control in conditions employment security, but the guarantee of employment remains a key principle for staff performance.

6. Conclusion

Compliance with the university management rules instead of compliance with sameness form allows us to save features and traditions and above all support the maintenance of diversity as basics to true unity.

Globalization, interpreted as a form of standardization is not a promising direction of inter-country cooperation in the field of higher education. Preferably, as shown by our analysis is the country a variety of forms with a single policy rule.

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GLOBAL POLITICAL AND ECONOMICAL PROCESSES, MONETARY POLICY OF THE BANK OF RUSSIA AND DEVELOPMENT OF THE RUSSIAN ECONOMY

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Abstract. Russia is an example of one of negative globalization effects expressed in domination of the developed countries and their largest corporations to the prejudice of the national interests of less developed countries. The economic policy pursued by the Government and the Bank of Russia aggravates negative consequences of foreign policy complications. Transition to inflation targeting and currency market liberalization resulted in multiple ruble depreciation in 2014-2016, which became one of the reasons of inflation processes intensification in spite of the restrictive monetary policy. Attempts to suppress the non-monetary inflation (primarily induced by the growth of the natural monopolies' rates) by monetary methods are inappropriate and lead to the consequences negative for the economy and the society. Inflation targeting policy requiring introduction of the floating exchange rate, is disastrous for the Russian economy. In the condition of highly volatile prices for primary commodities, floating rate intensified effect of financial sanction on the Russian economy. Monetary policy shall contribute to economic growth but not serve as a weapon against the inflation. In contrast to developed countries, Russian economy has a huge growth potential connected with domestic development sources. Growth source shall be represented by the infrastructure component ensuring significant growth of the domestic market, which is primarily focused on production of domestic manufacturers. Import substitution policy caused by the aggravation of the foreign policy situation and economic sanctions, cannot be effective without powerful financial system and adequate money injections into the economy.

Keywords: monetary policy, inflation, exchange, economic growth.

JEL Classification: E31, E42, E52, E58

1. Introduction

After entering into the phase of severe restrictions, Russian economy plunged into recession record in terms of its duration since the first half of the 90's: the recession lasts for the seventh straight quarter. Anti-crisis measures of the government seem to be differently directed and non-systematic. Illusion regarding macroeconomic policy compliance with the problems of the national financial system threatens its economic security. In these conditions, the idea of revision of the monetary policy role in the structural reorganization of the Russian economy and choice of a new industrialization model became of current concern.

Globalization processes contributing to the growth of the national economies interdependence (Kramarova & Valaskova, 2015), new requirements for global competitiveness (Pashkus & all, 2015), intensification of controversies in the global community development (Tokarova, 2015), increase of dependence of the national economies on the limited number of transnational corporations (Harumova, 2015) is no small share in the challenges which Russian economy experiences. Despite the ambiguity of the “globalization” category definition, in the modern theoretical economics (Novy, 2015), most authors share opinion that it not only bears positive opportunities for the global community, but also bears risks and threats for its development (Soltes & Stofko, 2015). One of the negative globalization results is domination of the developed countries and their largest companies in the prejudice of the national interests of the less developed countries, and Russia is a vivid example of this.

2. Restrictive monetary policy and its consequences for the Russian economy

Worsening of the economic situation did not induce our monetary authorities to initiate a stimulating monetary policy, while confining only to the increase of the tax burden on the business in the combination with the administrative pressure. Globalization processes also undergo changes with the core shifting to the national interests protection by the regional and the geopolitical characteristics. Followers of globalization and free trading, guided by the Ricardo’s theory of comparative advantage and currently by the Washington consensus theory, are pursuing policy of developed countries domination in the prejudice of the national interests of less developed countries. Until quite recently, Russia was in line with this ideology, destructing its domestic manufacture, specializing in raw materials export and falling into dependence on the western financial system. The globalization result was currency liberalization, which increased the external risks due to the low level of financial system development.

Openness of the Russian financial system, in the result of lifting major restrictions for operations with the capital and Central Bank transition to full convertibility of the ruble in 2006, presses the currency rate and intensifies action of financial sanctions on the Russian economy. In such a manner, in December, 2014, in the result of the oil crisis, reduction of economy growth, introduction of economic sanctions from the EU countries, USA and Canada, ruble became devalued by 45% (Shavshukov, 2015). «Liberal» currency law introduced for free capital circulation and the argument regarding refusal from the use of the currency control elements for future strengthening of international positions of the national currency in the financial restriction environment, requires certain revision.

Any economic policy is doomed, in case it is left at the mercy of the currency market environment. Freedom given to capital circulation, produced a destructive impact on the currency market, and thus, increasingly swinging the currency rate, did not contribute to the investments growth and the economic recovery, but led to its destabilization. Financial openness became the source of macroeconomic instability reinforcement. Strict monetary policy combined with the liberal capital circulation policy in the conditions of high volatility on the primary commodity market leads to the speculative capital movements.

New growth model requires formation of the appropriate monetary policy. Upon preservation of the previous development model, the threat of complete system development into structural crisis peculiar by multidirectionality of its reforms arises.

Within the frames of the economic policy, an important and challenging task of any state is a search for the most efficient mechanism of interaction of the fiscal and monetary regulation for the purpose of conditions formation for the stable economic growth.

Assessment of the role of monetray policy, its influence on the economy became the issue of discussion between the liberal mainstream followers represented by the the pisition of Central Bank and the Ministry of Finance and the alterantive group of representatives of the Stolypin‘s club — informal association of entrepreneurs, economy scientists.

Liberal model of primary commodities export development, based on the exchange of commodity valuables for non-commodity valuables, economic depletion of our country, deindustrialization, dependence on the foreign capital and foreign shocks, resulted in the large-scale capital export from the country (Gubanov, 2016), and Russia's occupation of the first position in the world among dollar billionaires per capita, whereas almost fourth part of the population lives below the poverty line. Liberal approach in carrying out macroeconomic policy is limited to the usual calls for institutional changes, achievement of low inflation target and expectation of a regular growth of the oil prices.

One of the most debating issues in their theoretical opposition is the issue of money issuance. Liberal mainstream followers place an equal mark between money issuance and inflation. Such approach requires critical revision. Inflation problem in Russia is fetishisized, and inflation fighting tools are counterproductive.

In the existing situation, inflation rates reduction by means of monetary compression in spite of the forecasts of financial authorities, leads not to the investment activity growth, but to its decline (Lyakin, 2013). In the result of the interest rate increase, the investment opportunities of entrepreneurs decrease. Monetary policy targeted only at inflation reduction by limitation of the aggregate money stock, contradicts to the national interests, while blocking credit resources extension. For the purpose of inflation repression, governmental authorities compensate the outrunning growth of rates for the natural monopolies services by means of sterilizing monetary policy restricting money supply. Thus, they try to suppress the non-monetary inflation by monetary methods by means of final demand limitation, thus scarifying interests of the economy internal sector.

Russia, with its low standards, households consumption structure and underfunding of investment projects, is still too far from primary needs satisfaction: level of accommodation and motor vehicles provision is three-four times lower than in the economically developed countries, durable goods provision became significantly lower, gap in the transport infrastructure development is multiple, gap in consumption of some essential food stuffs also remain quite significant (Kotsofana, 2007). In this regard, the idea of aggregate demand effective management is especially important, since prolonged economic growth is impossible without its extension and investments increase.

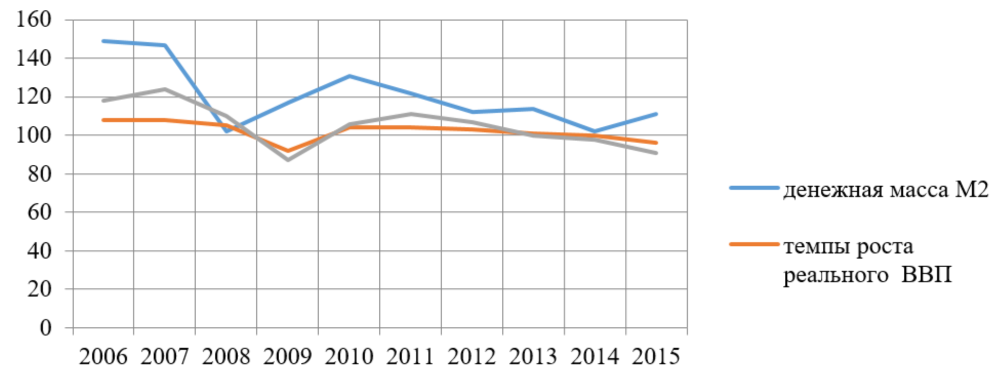
In the conditions of hunger for investments, decreasing consumers' demand, real sector is able to accumulate the money issuance without any pressure on the currency and the consumer market. However, we observe the permanent restriction of money supply from the Bank of Russia, while in the most developed countries the governments and central banks provide systematic assistance to their economies in the form of money injections and provision of the government guarantees (Ruscakova, 2015). Along with that, they see deflation, not inflation, as a primary threat of the economies stability (Jary, 2015).

Experience of economic reforms in Russia under recipes of monetarism resulted in the financial capital accrual next to and above the manufacture, but not in its foundation, which contributed to formation of unhealthy market primarily serving for enrichment of a few. Recommendations for economy recovery concerned financial-monetary sector, leaving real economy sector without due attention. Analyzing monetarist attempts of financial stabilization and their consequences, it is necessary to emphasize, that along with that the ideas of sufficient markets competition lying in the basis of this approach had not been taken into account. Indeed, absence of competitive environment, poor financial market development and lack monetary regulation tools made the monetary policy if not knowingly ineffective, but extremely expensive. As D. Stiglitz noted: „Many communistic countries mostly turned to the capitalism, but some of them chose a corrupted version of the market economy. They changes their god Karl Marx by the new Milton Friedman. But this new religion does not serve them well" (Stiglitz, 2011).

In the Stolypin's club, the program "Growth economy" implements Russian version of the moderately soft monetary policy (Basov et al., 2015). Within the frames of the Central Bank project funding system, refunding of small and medium business crediting, mortgage and large infrastructure projects, money injections are offered through the issuance in the amount of 1.5 trillion rubles per year. From the viewpoint of the Stolypin's club, unavailability of credits and volatility of the ruble rate are the essential elements of the poor investment climate, much more important in the current conditions than development institutions and inflation (Danilov-Danilyan, 2016). Among the negative factors affecting the Russian market of credit resources, can also be considered symptoms adverse selection (Dengov & Melnikova, 2012). Central Bank monetary issuance under financial liabilities of the Government, formed by the target infrastructure projects, will not affect the inflation.

Soft monetary policy of the Central Bank of Russia in 2000–2008, when the stocks of money grew annually by 40–50% and the real interest rates for non-financial sector were within the negative range, determined high rates of the economic growth. Within the acute crisis phase from July, 2008 till January, 2009, the money stocks decreased by 18%. Credit reduction in 2009 contributed to the investments reduction, which resulted in GDP reduction by 7,8%. Since 2011, Central Bank again returned to the restricting monetary policy, having reduced the rates of the money stocks growth below the expected growth rates of the nominal GDP (Altunyan, 2012). Instead of money supply extension for the economic growth crediting, Central Bank actively withdraws them from the economy, thus restraining the economic growth. Slowing down of the money stocks growth rate occurred from 22,1% in 2011 to 12% in 2012 году, money stocks increase in 2013 amounted to 15 %, in 2014 it grew by 2%, and in 2015 – by 11%.

Figure 1: Dynamics of money supply M2, investments and GDP growth in % in contrast to the previous period

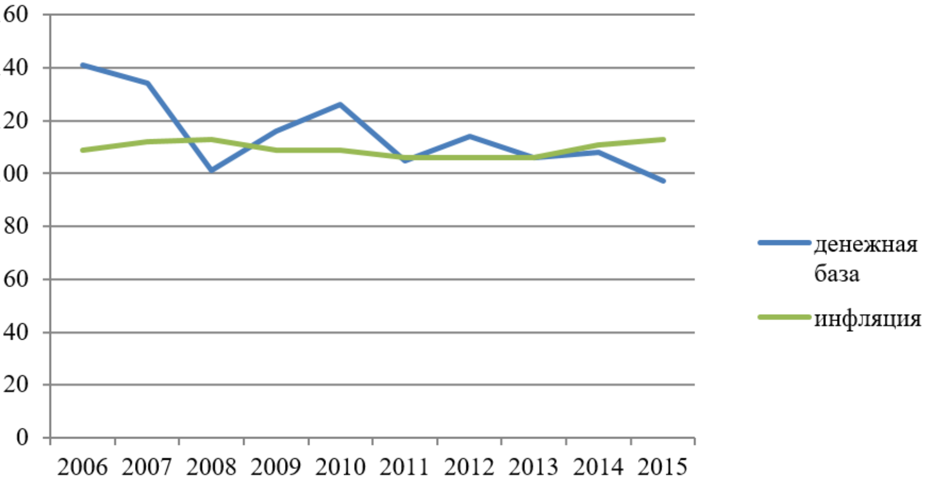


Source:http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/accounts/# (14.04.2016)

Within the recent 2 years, money stock in real terms decreased by 20% with account of the inflation. Along with that, the target of low inflation achievement is declared, which shall lead to the interest rates reduction and the investment growth. However, low inflation as such cannot guarantee the investments growth. Some researches exist, which prove that correlation between the inflation and the economic growth is not significant, especially in the long-term perspective (Bhaduri, 2015). Declaration of achievement of 4% inflation level by 2018 is destructive for our economy, since inflation is the result of the structural disbalance of the economy, and is not caused by the monetary component. The inflation reason was devaluation of the national currency and, as a result - the transition effect.

Since 2014, rates of the monetary base extension are behind the inflation, therefore, demonetization of the Russian economy occurs, which, in its turn, aggravates the restrictive measures of the foreign financing and intensifies the production decline.

Figure 2: Dynamics of monetary base change and inflation in % in contrast to the previous period



Source: http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/finance/#(14.04.2016)

After restrictions introduction from the West, the Bank of Russian became the only source of economy financing. Issuance activity of Central Bank is far from the real sector needs. Such practice leads to the economy monetization reduction. Due to this, its liability and role in pursuance of the monetary policy increased, as well as degree of its tools influence on the economy. Central Bank is carrying out active “reorganization” of the bank sector, depriving of the possibilities of bank services and economy crediting.

Table 1. Coefficient of economy monetization and inflation level

Year / Parameter	2008	2009	2010	2011	2012	2013	2014	2015
Moentization coefficient (M_2/GDP), %	31.2	39.3	43.2	43.8	43.7	47.0	47.1	46.0
Cash in circulation (MO/M_2), %	29.2	26.4	25.3	24.3	23.5	22.2	22.3	20.2
Cinsumer price index, %	13.3	8.8	8.8	6.1	6.6	6.5	11.3	12.9

Source: Bulletin of Banking Statistics.2016. no. 4.

According to “Major patterns of the uniform state monetary policy”, Central Bank targets inflation which merely indirectly influences the economic activity in the country. Achievement of a low inflation level is considered as a primary target of the monetary policy for support of the long-term economic growth. However, an important parameter for the economy is not inflation but real interest rates for non-finance sector and the volume of non-finance sector crediting (Domashcenko, 2016), which grows proportionally to the money stock. It means that these variables essential for the economy do not depend on the inflation at all. It is necessary to extent and cheapen crediting not being afraid of inflation acceleration. In regard to dependence between money stock growth rates and consumer inflation rates, it shall be noted that money stock growth causes consumer inflation reduction (Altunyan, 2015).

Taking into account non-monetary character of inflation in our country, it will be senseless to fight against it by the methods of monetary restriction, and the inflation targeting task set by the Bank of Russia is especially ineffective. Moreover, it requires to introduce a free floating exchange rate. In the conditions of high volatility of prices for the primary commodities, choice of floating rate aggravates the situation in the national economy, as it happened in 2015.

Due to this, the most appropriate way for our country will be choice of a flexible exchange rate with non-strict inflation targeting (Ryazanov, 2013). Acceptable option in such case will be interest rate targeting. Inflation targeting, reduction of the state budget expenses, reduction of the state budget gap to 3% within the frames of the priority target of the monetary policy, leads to the national economy compression and production decline.

It is necessary to extend the national finance system by means of the national debt growth and not to be afraid of the state budget shortfall. Absence of the internal state debt market causes financial system weakness. Federal loan bond market is currently quite limited in its scales – about 7% of GDP. It does not allow to rely on it as a source of money issuance refunding. This important tool of money supply regulation does not work. It is required to organize a large-scale issue of the bond loans. The internal debt of Russian Federation is currently achieving about 7 trillion rubles or less than 10% of GDP, which is one of the lowest indicators, the external one is about 50 billion USD or 3.5 trillion rubles. (Fadeev, 2016).

Focus of our economy on primary raw materials, its dependence on the external funding sources aggravated crisis consequences in our country. Refusal from foreign investments substitution with the internal investments narrows down funding opportunities of the Russian economy and contradicts national interests of our country. Thus, in regard to the American debt crediting amount, as of April 1, 2016 Russia occupied the 16th position with 86 bln USD. Along with that, capital outflow from our country only in 2014 amounted to 152 bln USD according to Standard & Poor. (Tuzova & Qayum, 2015).

3. Conclusion

The existing pattern of the monetary policy in the conditions of foreign sanctions failed to achieve the set targets: inflation reduction, national currency stability, economic growth. On the opposite, the result of the inappropriate monetary policy became the inflation growth, national currency devaluation, capital outflow, GDP decline. Key patterns of the monetary policy improvement for the economic growth achievement as a basis of the national economic security are as follows:

- it is the time for the monetary stimulation of growth, but nor for the support of non-productive monetary and budgetary restriction. Monetary policy shall contribute to the economic growth but not serve as a means of fighting against inflation. Macroeconomic policy of fighting against inflation aimed at money stock and credit compression, makes the system less resistant to the external shocks impact. Monetary policy implementation shall be tightly linked with the industrial priorities. There are some reasonable concerns that in the existing situation the inflation reduction will by all possible methods lead to the inhibition of the potential economic growth.
- strict focus of the monetary policy only on one purpose of inflation targeting is implemented not in all countries at all. Attempt to suppress all short-term price shocks by the monetary

policy in the conditions of export-oriented economy cannot be successful, since it will be as ineffective as the attempt to compensate all short-term economic growth delays by this policy. Inappropriate current policy of Central Bank in the conditions of economy slowdown can contributed to declines of the economic activity, which, in its turn, will result in the increase of the long-term inflation level. In this regard, it is reasonable for Central Bank to adhere to the link between possible inflation range and the economic growth.

- national economy shall foremost rely on the domestic demand as a primary growth source. Russian economy, in contrast to the developed economies, has a huge growth potential connected with the domestic development sources. The growth source shall be represented by an infrastructural component ensuring significant increase of domestic market primarily focused on the products of domestic manufacturers.
- the strategy of financial breakthrough is required, the main role in which shall be played by the investments growth by means of the interest rate reduction. Introduction of sanction measures stimulated import substitution policy, which cannot be developed without powerful finance system. High crediting rate can hardly help in import substitution. Economy financing increase without capital circulation restriction and stable rate of the national currency can cause an irreparable damage to the economy.

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IMPACT OF GLOBALIZATION ON THE QUALITY OF LIFE IN THE SR

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Abstract. The impact of globalization on the quality of life has become an actual problem in recent years. Many experts discussed only about its global manifestation, especially from an economic point of view, because in this area it represented the complete revolution of relations and of course, change in the financial flows. Its methodological framework is developed through the creation of various forms of indexes with high cognitive value, such as updated the Maastricht index, the new index of globalization or the KOF index. Through them we can conclude at manifestation of the whole process, but also the situation in each country. However, only a few researches are focused on studying the effects of globalization on the quality of life, particularly in the post-totalitarian countries, in which came into, last 25 years, the qualitative changes also in the social differentiation of population. In our paper, therefore, we focus on the changes in the quality of life in the Slovak Republic on basis of data from the EU-SILC (EU Statistics on Income and Living Conditions), with using three models, characterized by different processes of saturation, for which we consider preserve model, economical model and luxury model.

Keywords: quality of life, models of quality of life, preserve model, economical model, luxury model

JEL Classification: A13, A14, D33, J24

1. Introduction

Globalization has become the second actual problem in the social sciences after the integration process in EU, particularly during outbreaks of the various forms of financial crisis to the crisis of values. In terms of research, we can say that represents the complicated phenomenon whose manifestations we can observe on the different levels of society and within countless of indicators (Domonkos & Ostrihoň, 2015, pp. 881-905). Its methodological framework was developed through creation of the various forms of indexes with high cognitive value, such as the updated Maastricht index, the new index of globalization or KOF index of globalization, through which we can deduce the intensity of globalization in each country.

However, a few researches are focused on studying the effects of globalization on the quality of life, particularly in post-totalitarian countries, where here had come for the last 25 years to the qualitative change in the social differentiation of population. Therefore, we set up the main goal of our paper to assess the intensity of globalization in the Slovak Republic and to identify its implications on selected factors of the standard of living within the preserve model, economical model and luxury model of the quality of life.

2. Research Background

2.1 Quality of Life

When we started to orient on the quality of life 15 years ago, in Slovakia there did not exist the precision or sophisticated theory about that phenomenon, as is now. Today we can draw from the immense quantity of definitions and the methodological elaboration from aspect of the different disciplines such as medicine, sociology, psychology, economics, and so on. However, the current situation can be diagnosed as a too much fragmented in perception of extend and content of category itself as well as in methodology of quantification.

The differences in perception of the extent of quality of life lie in the research purpose, which can be from different levels, namely:

1. mega level (EU, USA, etc.),
2. macro level (national level),
3. mezzo level (region or group of people: Roma, middle-age generation, elderly, youth, etc.)
4. individual level (individual and family).

Extend of research of the quality of life is relating also to perception of its content. For example in mapping of the quality of working life on mega level, we will use other indicators as for the quality of life of the physically disabled people. Differences in perception of the quality of life are also determined by very specific scientific approaches. Some authors accepted the socio-economic concepts of the quality of life, others the psychological concepts or the applicate concepts relating to the medical approaches to quality of life in various diseases. There exist also models that synthesize the quality of life, such as model used by the WHO, Eurofound and University of Toronto.

From our point of view, we mention the definition of the quality of life, of which we are basing our analysis. It is I. Laluha's identification, who considers it as "degree and character of reproduction and development of the human existence, which not only enables the full-featured material and the spiritual life of human - his self-development - but evokes the concrete individual feeling of happiness and satisfaction (Antalová, Bednárik, Laluha & Tkáčiková 2010, p. 11)."

We have chosen this background because the author underlined in it not only process of the human needs satisfaction, but also focuses on the living activities, the living conditions and the broader social environment in which these activities are performed.

In mapping of the globalization implications on the quality of life we are forced to narrow the width of the whole issue and to focus only on some factors that are part of the standard of living. For an explanation we note, that we consider the standard of living as a sub-category of the quality of life, underlining the saturation process. Satisfaction or level of satisfaction of the selected needs will be analyzed in the concrete period, on the basis of changes in the various models of the quality of life, created by I. Laluha in the preserve model, the economical model and the luxury model through comparison years 2005 and 2012.

2.2 Globalization

One of the greatest promoter of globalization is regarded T. Levitt (1983), who its term was used as early as 1944 year. Today the phenomenon is developing by experts from various disciplines, not only in terms of economics but also of policy, culture, communication, and environment. Turbo-capitalism - called according to E. Luttwak (2000, pp. 1-50) developed capitalism - is becoming only one possible form of social existence.

From a research point of view, we must judge, that there exists the same situation as in the quality of life – we do not have the single definition. The OECD identificates this phenomenon as "the process, dues to which markets and production become more dependent in the different countries, due to the dynamics of trade in goods, services and the mobility of capital and technology" (OECD, 2005, pp. 16-17). For the major global actors are considered the various world's economic and political organizations, associations and communities that operate transnationally and their work is focused on forming the quality of life in countries around the world. Currently, globalization is focused on the basic human rights and poverty reduction, based on which we could conclude that the phenomenon should be positive for people, its goals moral and humanistic. The present situation, however, reveals the addition of the strong positives and also the strong negatives (Morvay, K. 2005, pp. 5-32, Morvay, K, et al., 2013, pp. 767-845).

As positives we can considered increasing the supply and quality of goods and services, decreasing of produced prices, creation of the new jobs, increasing of the living standard, greater and freer access to information and expanding possibilities of communication. Negative aspects of globalization are possible to seen in collapses of the world economy, in the growth of economic, ecological and political migration and in growth of the economic and political influence of the transnational corporations (Jeníček, 2002, p. 142).

From the point of our research purpose, we will map narrower problematic oriented at our country, consisting in response to a question whether globalization by its significant societal impact, also significantly determines the daily lives of our citizens, in what measure and in which specific areas.

3. Methodological Framework

3.1 Approaches to Measuring the Quality of Life

As we mentioned earlier, investigation of the quality of life we will focus on some selected factors in the standard of living, which are parts of the quality of life. Our analysis, we will build on the EU SILC (EU-Statistics on Income and Living Conditions), from resources of the Statistical Office in SR. We focus on analysis of two essential partial indicators, namely:

1. the economic situation of households,
2. the quality of housing.

The object of our research will be household, which can be considered as a married couple, partnership, complete and incomplete family. Measurement of the selected partial indicators we shall analyze in three models of the quality of life that were created by I. Laluha (Antalová, Bednárik, Laluha & Tkáčiková, 2010, pp. 40-41) and which are characterized as follows:

The preserve model represents the real poverty. It concentrates mass of human tragedies as well as a strong social tensions in society (Mysková, Večerník & Želinský, 2015, pp. 555-575). In Slovakia here is a specific problem in the quality of life of Roma. In this model the state benefits have a strong role.

The economical model is internally structured. The upper part aspires to the luxury model, the lower part is pushed towards the preserve model. The financial capacity of households oscillates around the average wage; specifically, they are found just below the limit. This model creates the starting basis for the middle class of society.

The luxury model of the quality of life in Slovakia shows elements of prestigious consumption. It differs significantly from the luxury models in countries with the strongest economies (Rod, Rais & Schwarz, 2015, pp. 451-464; Harmadyová & Bunčák 1998, pp. 9-46).

Current models of the quality of life represent a result of process of differentiation of population (Pitoňáková, 2015, pp. 837-852) since 1989 year. Also today, we have only poor information, therefore we interested in which of them the globalization manifested from the most negative aspect, and which measure.

For identification the preserve zone, or "poor class" we used the same criteria as was selected for poverty and we chose 60 % of median of the equivalent disposable income. For definition of border of the economical model, that represents the quality of life of the middle class, we used criteria of the OECD - above 60 % of median of the equivalent disposable income until to 150 % of median of the equivalent disposable income. Criterion for the luxury zone we used also indicator of the OECD - households above 150 % of median of the equivalent disposable income.

Selected problems of the quality of life - economic situation of households and quality of housing - we shall compare in two years, 2005 and 2012, during which globalization was manifesting in full its extent. (Azudová, 2005, pp. 79-91, König & Dovaľová, 2016, pp. 238-259).

3.2 Approaches to Measuring Globalization

We will measure impacts of globalization on the quality of life in two ways:

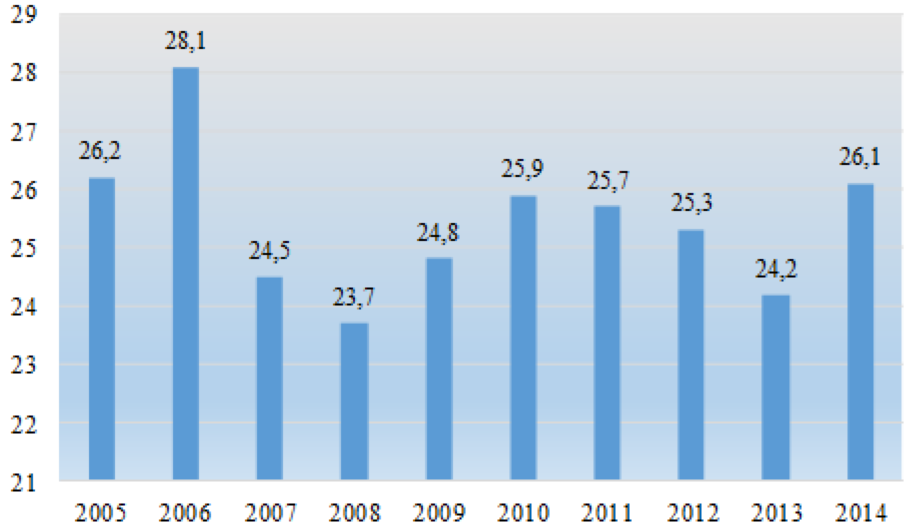
1. Through structure and dynamic analysis of the globalization phenomenon on basis of the KOF index, during years 2005 - 2012. In this period is possible sufficiently to evaluate all evolution tendencies in Slovakia.
2. Through the EU SILC (EU-Statistics on Income and Living Conditions), where we'll compare the selected indicators of the quality of life (economic situation of households and quality of living) in 2005 and 2012 year and judge new changes in all models – preserve, economical and luxury.

Table 1: Households in SR According to Income Zones (2005 and 2012)

Households	2005	%	2012	%
Preserve model	243 256	13,3	246 516	12,9
Economical model	1 339 705	72,8	1 353 636	71,1
Luxury model	256 113	13,9	303 662	16,0
Suma:	**1 839 074**	**100,0**	**1 903 814**	**100,0**

Source: EU SILC, processed according to P. Strhár (2014, p. 79) Households after date standardization.

Figure 1: Gini Coefficient in SR in 2005 – 2014 Years



Source: ŠÚ SR, EU SILC UDB 2005-2014

We will build our analysis on the following two theses:

1. There exist the significant differences between individual models of the quality of life during period of years 2005 – 2012 that were by globalization changes deepened.
2. Each of the models is manifesting by the specific evolution trends.

We justify selected years for our comparison by the specific development of the Gini coefficient. In 2005 and 2014 year, it has reached the same value (2,005-26.2, 2014 to 26.1), under which it might be expected that within 10 years, during which the financial crisis was reflected, there were not the significant changes in the social differentiation of population, what means also no significant changes in individual models of the quality of life. 2012 year we consider for the comparison as the most stable, in years 2010 - 2012 value of the Gini coefficient remained practically unchanged.

To the best-known indexes for the globalization measuring belong: updated Maastricht Globalization Index, New index of Globalization, and KOF index. Each of them consists of the several partial indexes. Our analysis will be based on quantification of globalization on the basis of the KOF index, which consists of three major partial indexes that are: economic globalization, social globalization and political globalization.

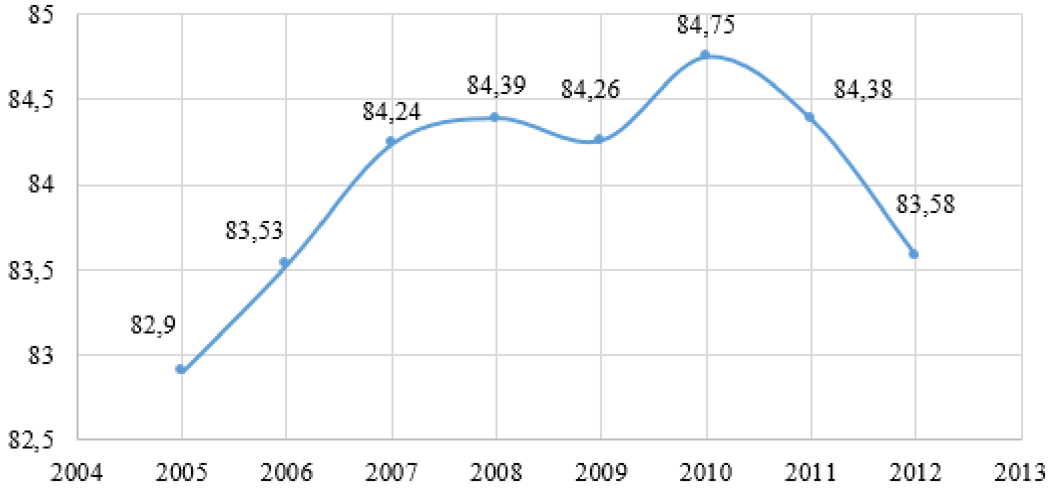
4. Investigation Results

4.1 Globalization in Slovakia in 2005 - 2012

The phenomenon of globalization in the Slovak Republic we investigated in the period 2005 – 2012 years. Its analysis will allow us to give in relations its manifestation with implications on selected areas of the quality of life.

According to information, we can deduce that from 2005 until 2008 year globalization expanded, with less reflected stagnation in 2009 year. But in 2010 year, the value of the KOF index increased by 1,85 points. In last two years, 2011 and 2012, within the scope of our research, it reflected as dampening.

Figure 2: Globalization in Slovakia in 2005 – 2012



Source: http://globalization.kof.ethz.ch

The economic globalization - one of the component of overall globalization - had a different course. While in the years 2005 - 2007 was sharp increased (from value 85,3 to value 86,34), in years 2008 and 2009 we can assess the situation as attenuation (2008: 84,85, 2009: 84,89), but in 2010 year began again process of increasing (86,39). Past period until 2012 year we judge situation as attenuation (2011: 84,77, 2012: 83,26).

The social globalization reached its top in the years 2008 - 2009 (83,92, 83,9), and it was in period when in Slovakia the economic globalization was lowered. Since 2010 year, the social globalization began to decline. If we compare its value between 2005 and 2012 years, in 2012 year its value was increased by 0,7 point.

The political globalization has developed relatively stable. Its growing trend in 2005 year from value of 80,77 was slightly disturbed by years 2009 and 2012, when the political globalization came to slight decline. Phenomenon reached the highest value in 2011 year (85,19).

If we compare the situation in Slovakia with post-totalitarian countries (Hungary, Bulgaria, Czech Republic, Romania and Poland), Slovakia was placed in 2012 on 3rd place after the Czech Republic. The highest value of the KOF index of globalization achieved during the reporting period Hungary.

4.2 Impact of Globalization on the Economic Situation of Households

The economic situation of households, we monitored through three questions related to finances. One of them was focused on survey of enough money during the reporting period, the second expressed the ability to have money for unexpected expenses, and the third was aimed at mapping the lowest monthly income sufficient for living.

By comparison of the preserve, economical and luxury model in both investigated years, we came to conclusion that problems with money (big difficulties, difficulties and certain difficulties) in 2005 year had majority of households in all three models of the quality of life. 85,7 % of households mentioned the problems in the preserve model, in the economical model 82,4 % of households these problems declared and in the luxury model up to 89 %. If we this detected fact compare with 2012 year, we can conclude, that in the preserve model there the financial problems are covered by broader range of households – 92 %, while in the economical model number of households had a slight decreased – 79 % and the most significant decline we can see in the luxury model of the quality of life within which there declared the financial difficulties only 49,6 % households. In the preserve model also the highest number of households (34,7 %) are fighting with big difficulties to make do with the money. In the economical model there are only 10 %.

The ability to face unexpected financial expenses, there was a significant positive shift. In the preserve model in 2005 year there were only 24,4 % of households, which had enough money for the financial burden, and in 2012 year this situation was declared by 33,8 %, (came to 9,4 % increase). In the economic model there have been bettering in 28,5 % of households and in the luxury model in 17,1% of households.

Table 2: Ability to make do with money in 2005 a 2012

Answers:	Preserve model		Economical model		Luxury model	
	2005	**2012**	**2005**	**2012**	**2005**	**2012**
With big difficulties	24,8	34,7	12,0	10,0	2,8	2,7
With difficulties	22,3	30,8	20,7	24,0	7,6	10,4
With certain difficulties	38,6	27,2	49,7	45,5	41,5	36,5
Relatively easy	11,3	7,1	14,8	17,5	33,8	39,4
Easy	2,4	0,2	2,3	2,7	10,9	9,3
Very easy	0,6	0,0	66	0,4	3,4	1,8

Source: ŠÚ SR, EU SILC 2005, 2012, own processing

Through issues-oriented question of research about the lowest revenue needed to cover expenses in household, we found a significant shift towards higher value, in the economical and luxury model. In the preserve model the heads of households declared need of lower finance. While in 2005 year, the lowest income recovered to 928 EUR in 2012 year to 913 EUR. In the economical model in 2005 year, households needed the least - 959 EUR and in 2012 year already 1 036 EUR. In the luxury model they demanded in 2005 year 1 241 EUR in 2012 year 1 387 EUR.

4.3 Impact of Globalization on Quality of Housing

Quality of housing, we monitored on the basis of variables that were focused on the number of rooms in household, maintaining adequate heat in living areas and also to detect substandard conditions relating to leaky roofs, damp walls or inappropriate floors.

Table 3: Number of Rooms in Household according to models of Quality of Life in %

Number of Rooms	Preserve model		Economical model		Luxury model	
	2005	**2012**	**2005**	**2012**	**2005**	**2012**
1	21,58	11,15	13,32	5,53	4,42	3,60
2	24,17	23,45	23,32	19,08	15,67	14,09
3	35,56	38,41	39,61	40,69	42,53	44,10
4	11,19	14,88	14,37	18,88	20,50	19,80
5 + more	7,51	12,11	9,38	15,82	16,88	18,3

Source: ŠÚ SR, EU SILC 2005, 2012, own processing

In all models, there was the most households with housing of 3 rooms, while their number for the investigated period increased because there was a shift from one-room housing in the preserve model, in the economical model as well as in the luxury model to dwelling with more rooms. It was also manifested trend of 4-rooms and more of housing, in all types of households.

Substandard housing manifesting by leaking roof, damp walls or unsatisfactory floors, were declared in 2005 year in the preserve model by 17,16 % of households. In 2012 year, there have been negative tendencies in increasing this type of problems by 0,46 %. The opposite trend occurred in the economical and also luxury model. In both types there were significant increased the quality of housing (in the economical model - 5 % and in the luxury model - 5,73 %).

Significant improvement was also reflected in the adequate heat. In the preserve model there were number of households increased from 2005 - 2012 year from 17,16 % to 84,59 %, in the economic model from 13,61 % to 94,24 %, and in the luxury model from 9,91 % to 96,95 %.

5. Conclusion

By comparison of the globalization intensity, in Slovakia and in other post-totalitarian countries of the Central Europe, we have to say that its manifestation expanded during the reporting period. In 2012 year, was placed in order after Hungary and the Czech Republic. Its development was greatly reflected by both as positive and as negative in people's daily lives, particularly in the economic situation of households as well as in the quality of housing.

The economic situation of households in the preserve model, in the economical model and in the luxury model has changed in a specific manner for each one. Our thesis that "there are significant differences between models of the quality of life that were deepened by changes of globalization in the years 2005 - 2012", was confirmed. In the preserve model, there the number of households has increased that have struggled with big financial difficulties (from 24,8 % to 34,7 %) or with difficulties (from 22,3 % to 30,8 %).

We can also confirm our second thesis, because "each of model of the quality of life developed in the specific evolutions and trends" in all surveyed areas. In the economical model was created the unstable situation, manifested by a decrease but even increase. The number of households with big financial difficulties decreased (from 12 % to 10 %), but increased the number with the financial difficulties, from 20,7 % to 24 %, and decreased with some difficulty (from 49,7 % to 45,5 %). In the luxury model here has demonstrated the positive trends in financial problems. Also we underlined, the increase of the lowest revenue needed to cover expenses of households in all models of the quality of life during investigated period.

In all models of the quality of life there were added the households with 3-room dwelling. However, substandard housing with leaky roofs, damp walls or unsatisfactory floors resulted increase in the preserve model. The opposite situation occurred in the economical model and also in the luxury model. Strong positive trend was observed in area of the adequate heat in all models of the quality of life.

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THE VALUE ENGINEERING DEVELOPMENT IN THE MARKET INFRASTRUCTURE OF CIVIL CONSTRUCTION IN THE CONTEXT OF GLOBALIZATION IN RUSSIAN FEDERATION

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Abstract. Infrastructure development of construction works, services and the value engineering are required for the formation of new economic relations in conditions of globalization. Value engineering is a field of activity for the production cost calculations and justification at all stages of investment project implementation, which determines the economic relations among the participants of the construction market. This explains the relevance of the study in which the authors draw on scientific work of Russian and foreign authors, legal, regulatory and methodical documents. The purpose of the study is theoretical and methodological substantiation of the development of value engineering at all stages of investment project implementation in market infrastructure of urban development in the Russian Federation in the conditions of globalization. Factors that determine the development of value engineering in urban construction, are the subject of the author's research. The price of construction products in the different stages of the investment project is the object of the study. The proposed approach has a reliability, versatility in the determination of resource requirements throughout the project lifecycle through the application of the value engineering methods to achieve certain results in investment in urban construction project. The results of the author's approach testing had proved the feasibility of its use in the process of reforming of the pricing and budget normalization system in construction of the Russian Federation.

Keywords: value engineering, project investment, pricing

JEL Classification: D450, R320, E310

1. Introduction

In the conditions of globalization, increasing competition at the global market, cost management issues of investment and construction project become especially important. Transition to market relations in construction in Russia has led the reform and improvement of the estimate and regulatory base of pricing system, methods of calculating of construction products cost, mechanisms of formation of the contract value with the use of modern information technologies, establishment of organizational forms and management structures adequate to market conditions, implementation methods and management tools projects (ProjectManagement).

In modern practice engineering is recognized as a form of business efficiency, the essence of which is to provide research services, design and engineering, computational and analytical, production nature, including preparation of reasons for investments, development of recommendations in the field of production organization and management, as well as product sales. In the area of pricing talking about cost engineering.

Most important benefits of cost engineering systems include:

- increase, with other things being equal, investment soundness in connection with emergence of real levers of impact on the estimate (budget) of the project;
- reducing terms of work performance and production costs;
- appeal to customers of consolidation prospect in one hands of necessary set of the services connected with implementation of investment projects;
- emergence of real prerequisites for transition to effective professional management in connection with concentration in hands of engineering company of technical and cost project information;
- decrease in investment and other risks for the company using system of engineering;
- increase in competitiveness on domestic and foreign markets in connection with recognition by the corporate world of efficiency of use of engineering.

In this connection, authors of the articles put and solved the following problems:

1) reasons for relevance of a problem of cost engineering development in market infrastructure of city construction of Russian Federation in the conditions of globalization are provided;
2) the analysis of systems of cost engineering from line items of management of investment project cost and system of pricing and estimate regulation in a construction is carried out;
3) gives an overview of best practices and international experience in the light of the use and development of value engineering principles.
4) the review of the advanced practice and foreign experience in use and development of the principles of cost engineering is executed.

Results of approbation of author's approach prove feasibility of its use in the course of reforming of pricing system and estimate regulation in construction of Russian Federation.

2. Cost engineering of investment-construction projects in the conditions of globalization of world economics

2.1 Concept and structure of cost engineering of investment projects of market infrastructure of a city construction of the Russian Federation

Control project cost at all its stages based on the analysis of assessment of the size of future costs, estimates, cost control of the cost level and the project budget in general engineering is cost.

Cost engineering is a sphere (area) of activities for production of cost calculations (reasons) at all stages of implementation investment – the construction project, determining the economic relations among its participants.

Cost engineering is a complex of methods and controls of investment cost and construction project at all stages of its lifecycle including:

- forming of the project budget (budgetary planning of the project);
- efficiency evaluation of investments;
- estimate pricing;
- examination (check of reliability of determination) of the estimated cost of a construction;
- forming of a construction cost;
- cost control of implementation process of the project;
- analysis of actual costs (cost).
- The main features of implementation of investment and construction projects are:
- long production cycle;
- project implementation is enabled, mainly, at the expense of investors;
- significant amount of the entities of various specialization is involved.

The investment and construction project contains the real estate object which is directly connected with the parcel of land which has the term of lifecycle.

The life cycle cost of a real estate object is a settlement size of monetary value of the total costs of ownership of the building including expenses on accomplishment of installation and construction works, the subsequent servicing, operation during the term of their service, repair, utilization of the object created as a result of performance of work (elements of the building or building entirely).

Average costs for lifecycle of a real estate object constitute:

- designing – 6%;
- construction – 15%;
- operation – 75%;
- utilization – 4%.

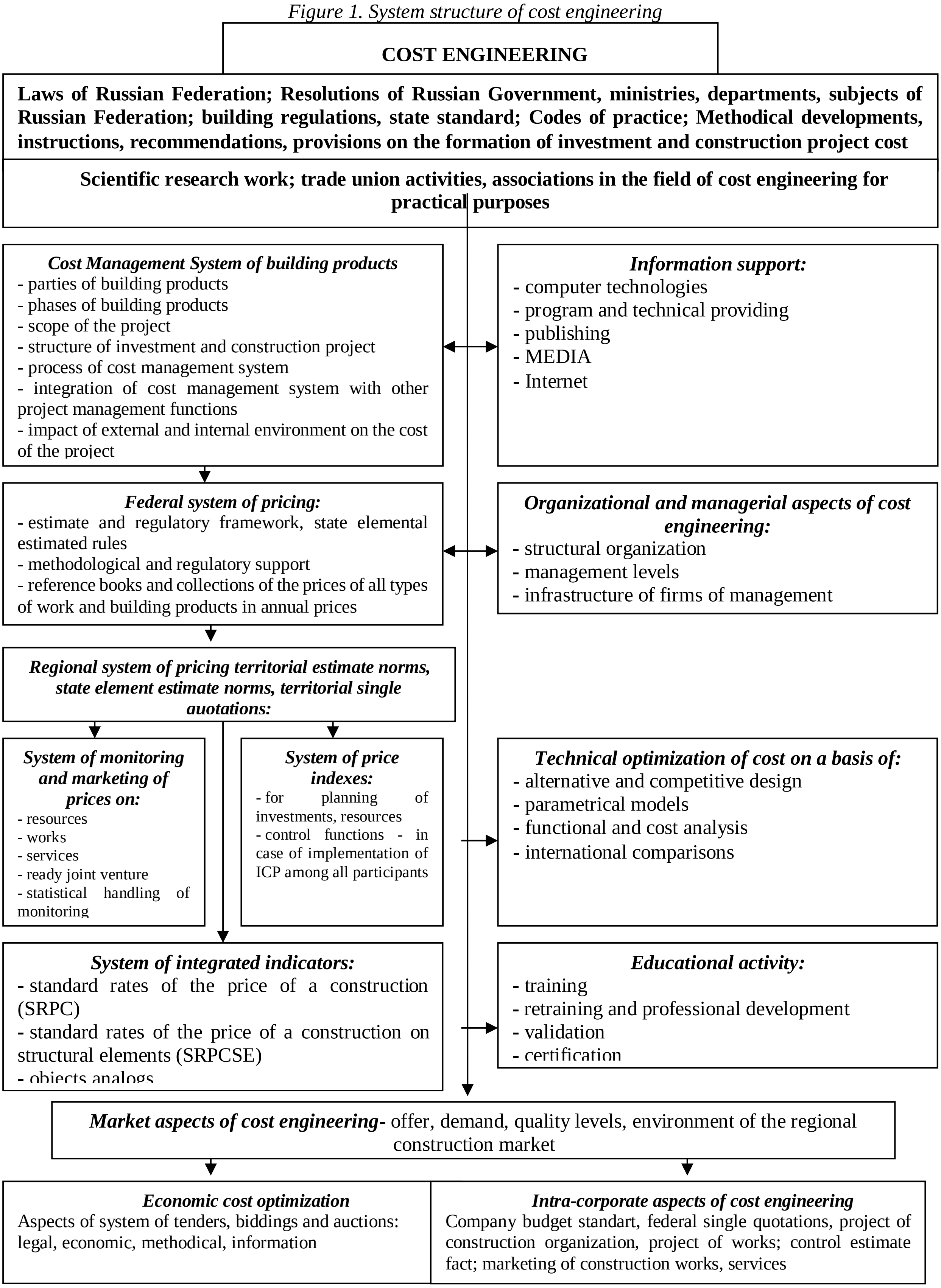
Most steady in time is infrastructure of the urban environment which is provided by the real estate objects created by town-planning activities. On the existing streets building is updated several times.

Fixed growth in volumes of construction products, first of all, amounts of input of housing as one of the priority directions of social and economic development of the country in the conditions of globalization, requires enhancement of the existing systems of cost engineering.

2.2 Analysis of cost engineering systems

Cost engineering as a field of activity is based on the legal, regulatory and methodological documents produced as a result of scientific - research work, trade union activity, taking into account the transfer of knowledge of the market economy countries (Fig. 1).

Figure 1. System structure of cost engineering



The structure of cost engineering includes the following systems:

1. Cost management system (CMS) as a part of the investment-construction project (ICP). It is one of the main branches of cost engineering which is functionally operating on all phases of investment–construction project for all its participants.
2. Pricing system in construction is the second main branch of the cost engineering and consists of the following levels: federal, regional, sector, corporate individual. System of prices monitoring of all types of resources, System of indexes and System of integrated indicators enter into structure acting in the regional construction market of works and services of regional system of pricing.
3. Market aspects of cost engineering affect the cost of construction products, sold through auctions and tenders, which optimize the cost performance of construction products offered by tenderers.
   Market pricing model focuses on consumer interests, when demand determines the price of construction products and production volume when market prices as much as possible take into account the consumer characteristics of construction products, when the motive of activity of all participants of the investment - the construction process is making a profit in the conditions of self-financing, complete economic independence and independence of in-house planning.
4. Organizational - administrative aspects.
   Non-compliance of the existing level of investment - building activities to market conditions and requirements becomes a brake of effective mechanism of mutual relations of construction participants. The main directions of improvement of the organization and management of the construction should include:
   - changes of organizational structures and forms, structure and scale of the organizations and entities, change of the organization and management (one link, decentralization, specialization, professional management, new functions, requirements);
   - creation of information technologies, systems, models and control software investment – construction activities at all stages of implementation of the investment project;
   - creation of corporations, consortia, integration of blueprint stages and construction, implementation of professional construction management and Project management throughout all investment cycle;
   - training of specialists which could taking into account market requirements take the responsibility and work professionally in firms of the customer, contractor, engineering firms and other firms of infrastructure of the market of construction works and services;
5. Technical optimization of cost of construction products is performed at all stages of investment – construction project from preproject researches, outline and working drawings, use of effective technologies, materials, means of mechanization to service conditions of buildings and constructions taking into account the minimum expenses.
6. System of information support unites and differentiates all previous systems, promotes productive activities of the Cost engineer.
7. System of training of Cost engineers shall include all types of educational activities.

Training of the Cost engineer shall be in this row, and the foundation of specialization needs to be laid in higher education institution.

All methods of training of personnel are pertinent: advanced training, retraining, training, receipt of second higher education, etc.

2.3 Foreign experience of use and development of cost engineering principles

In the west, specialized companies that usually are called "the engineering company" are engaged in cost engineering. In most cases, even the usual construction contractors are classified engineering companies, and here it is not just in the names and in the service package they offer to customers.

The consequence of this is that Western company's income is higher than Russian. This is largely due to the fact that the companies predominantly work in formats EPCM (engineering, procurement, construction, management - control engineering, procurement, construction). In these formats turnovers on designing, consulting, purchases, contracts pass through counteractors. The second and more important reason is due to the fact that Western companies are able to conduct an engineering business. It has quite a large part of the economy of Western countries.

In 1956 the international organization AACEI (International association of development of cost engineering) which is the largest professional community in the field of cost engineering has been created.

AACE International - a global non-profit professional society that produces standards, rules and regulations, codes of knowledge and skills, recommended practices, built on a sector basis or type of ongoing projects; conducting the certification in the field of integrated cost management, time and risks in projects. AACEI provides its members with all the resources necessary to increase the level of productivity and secure future growth in the profession. AACEI also organizes series of educational programs aimed at improving the professional and technical skills, annual meetings, seminars, exhibitions, presentations and social programs. Organization has its own professional edition «Cost Engineering Journal» (Magazine "Value Engineering"). Today AACEI has more than 7500 members in more than 80 countries.

Russian branch AACEI (MARSI) was opened in 2008, but vigorous activity of the organization began in the middle of 2011. Today, MARS (international organization of Cost Engineering) operates on the basis of group of companies PMSOFT and Eurasian center of project management, bringing into its membership specialists in cost engineering, quantity surveyors and designers of Russian project-oriented companies.

3. Conclusion

Cost engineering is an integrating process in conditions of globalization.

For all lifecycle the developer at first create the building, exploits it, makes repairs and reconstruction, and then takes down. At the same time at each stage of lifecycle the enclosed investments are considerable and to dispose them correctly it is necessary to exercise control over operational expenses and profit of the project, to estimate efficiency of alternative projects.

Summing up the results of the aforesaid, it is possible to state that the concept of cost engineering is based on four bases:

- basic processes of general cost management (general cost management, management of strategic assets, projects implementation control);

- functional processes of strategic management by assets (planning of strategic assets, projects implementation, efficiency evaluation of strategic assets);
- auxiliary processes of general cost management (accounting of a human factor, management of information flows, quality management, cost management);
- functional processes of projects control (planning of implementation project control, implementation of the plan control, an efficiency evaluation within control process).

Thus cost engineering - is art of leadership in coordination of human and material resources throughout the project life cycle through the use of modern methods and techniques of management in order to achieve certain results in the project on the composition and scope of work, cost, time, quality and satisfaction of the participants.

In the context of globalization and Russia's entry into WTO construction industry face the goal of developing a regulatory pricing framework standards in construction, taking into account international experience and foreign trade.

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NEW VALUES FORMING AMONG RUSSIAN ENTREPRENEURSHIP UNDER THE INFLUENCE OF GLOBALIZATION

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Abstract. The fastening speed of globalization processes resulting in the processes of international market generation influence greatly the trends and the essence of development stages of national organizations in the local areas. The globalization makes new markets and changes old ones, creates new players on different markets to compete with. The competition in turbulent business environment is like a race which results are often unpredictable. As a result the number of entrepreneurial firms in Russia which close every year increases more and more in comparison to the appearance of the new ones. The share of small and medium business accounts for about 20% of GDP in our country, while abroad this figure reaches 50%.only for small business. The priority of Russian organizations development has been given to the matters of supply and demand in the markets of human resources, educational services, scientific research and development. But the task of innovative development still remains unachieved for a great number of organizations, especially in remote regions. Innovations are considered as a major force in economic growth, the force which helps to overcome any crises and to develop. The most important precondition for the innovation economy is the innovative thinking. Thus the main task of this research work is to define the basic values of effective entrepreneurship in the global world and assess the level of accepting these new values among the entrepreneurs of Samara region and their readiness for the constant development and changes.

Keywords: globalization processes, changes, entrepreneurship, values.

JEL Classification: O30, O31, O10

1. The impact of globalization on the entrepreneurial values

Nowadays we live in the world of innovations. Everything around us is innovative. The innovation is a process and a result of transferring an idea or invention into a good or service that creates value or for which customers will pay. Innovations are considered as a major force in economic growth, the force which helps to overcome any crises and to develop. The most important precondition for the innovation economy is the innovative thinking.

Several researchers (Christensen,1997), (Farrell, 2014), (Marginean, 2015), have come to conclusion that together with efficiency (doing things right) and effectiveness (doing the right things), innovation, or doing something new, is fundamental to business improvement.

Innovations have always been important, but the last decades have shown that there is not any effective development without a constant forward movement. Information technologies have formed global markets where the competition can come from any side and whoever sees new opportunities and use them first, wins (Archbugi, 1995), (Fisher, 2003).

The globalization makes new markets and changes old ones, creates new players on different markets to compete with (Scott, 2003), (Wade, 2004), (Munteanu, 2014). The competition in turbulent business environment is like a race which results are often unpredictable. For companies it is a challenge of sustainability: resources they used to take for granted deplete, and the other things which were consider as something not relevant become major business factors (Radaev, 1993). So, it’s really a good time for some fresh thinking (Ponosciakova, 2015).

Innovations can be different: what is new for one organization may be used by another for a long time. They can be evolutionary and revolutionary, explosive and supporting etc. The key point for many companies is not the creation of something new, but the constant development and readiness for change.

Our life bombards us with information. To grow, to develop we need to accept something new. But the human nature is so, that we usually reject everything which is unknown, new for us. People don’t like changing. Each of us has his /her own comfort zone. Everyone has own goals and objectives. But to achieve them, to realize our plans we need to leave this comfort zone.

The life beyond this zone or on the edge is always brighter, more interesting and spicy, more delicious. But of course, firstly we should know (understand) why we want to leave our comfort zone. We should perceive our real goals and intentions.

Exactly this readiness for change should be one of the most important qualities in the business world as well on the individual as on the organization level. The readiness for change is an integrative characteristic, a complex construct consisting of 4 basic elements: information; objective; motivation; activity.

It means: if we want to change, first of all we should know what is happening around us, what are the modern trends, what direction we could choose for our development (Masteikiene, 2015). Change management and the problem of readiness to changes was investigated by Ansoff (Ansoff, 1990) and others (Verjel, 2015). However, the process of change management is rather complex and its fragmentary study, from the point of methods or main approaches does not allow to take into account its influence on values formation process or analyzing it as one of the values of modern entrepreneurship.

1.1 New approach to understanding the sustainable development of entrepreneurship taking into account the factor of globalization

Mostly modern scientific approaches are based on the three-factor definition of sustainable development including social, ecological and economic aspects. Today the understanding of sustainability essence demands taking into account some additional factors.

It was stipulated by the transformations happened in social and economic formation of the world and considerable influence of global processes around the world on sustainable development of separate economic entities.

The authors think that the common point of view should be supplemented with one more constituent and that is global process. The development of modern civilization can be the substantiation of such position. Changes that might happen in one separate country including those that do not have strong influence on the world market finally lead to the global transformation in the whole world. There is direct dependence between the influence of various social and economic factors on the global system and its reverse influence on every sphere of separate state functioning.

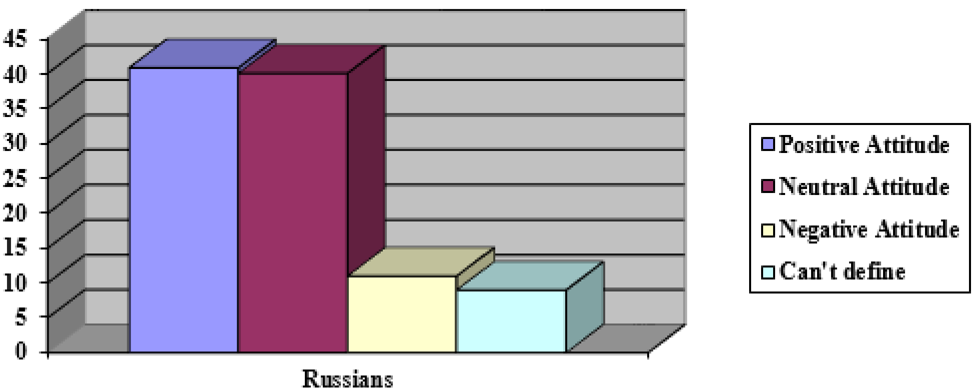
The authors point of view is that it is necessary to take into account the combination of economic development (economic effect), social development (having the effect for society) and global evolutionism (interaction of systems of various levels) for developing entrepreneurship activity in Russian economy. That is why in further research the authors take as a basis economic, social and global factors that influence entrepreneurs values in Russia.

1.2 The detection of the most significant values among Russian society

As it was investigated in the frame of the research work the attitude of Russian population to entrepreneurship can not be described from one typical point of view (Figure 1). Definitely positive attitude is expressed by less than a half of population, that is 40.8 % and 40% show neutral attitude. The rest 20% are practically equally divided between definitely negative and multiple-valued attitude. More optimistic results show the division of the interviewed according to the age. Young people of 20 year old are basically positive about the entrepreneurship (60%). And only 25 % of those who are under 60 years old have positive attitude to entrepreneurs. Mainly positive attitude to entrepreneurs is demonstrated by university students (60.3%), the representatives of middle level managers and functional specialists of the enterprises (59.7%), and the staff of service and trade spheres of economy. More prudent attitude is expressed by workers and staff with college education and this is probably because of undeveloped social partnership in Russian business society.

But Russian society agrees that the labour of entrepreneur is rather difficult one demanding initiative, working capacity, good education, ability to have a ready wit and readiness to risk.

Figure 1: The attitude of Russian population to entrepreneurship



Source: the results of authors' research in 2016

Rather big part of the interviewed in Russia agrees that there is some positive influence of entrepreneurs on social and economic life of the country: eight from ten of the interviewed named as the main use for the society that 'entrepreneurs create new products and goods', 70% agree that entrepreneurs create new working places.

The interview of 300 entrepreneurs of Samara region has shown that as a rule companies are well informed about existing ways for changes and improving their activity. They can work with information, understand the goals of innovative development and the necessity of changes. They often have a wide range of tools and resources to realize their ambitious objectives. The sphere, where they really have serious problems, is motivation.

The motivation question always deals with values, with our basic ideas and principals, categories which we follow as guiding stars making different decisions, which keep us engaged give us the sense of direction.

Among the values which are usually named in the business context there are such phenomena like: independence, excellence, responsibility, self-development and many others. Under values many people also understand some qualities:

Bravery. It comes from natural creativity of entrepreneurs and their readiness to risk. In the Middle Ages among entrepreneurs there were pirates, street artists and aristocrats with their personal armies, street vendors, handycraftsmen and many other. For all these groups of people possessed the spirit of adventure which helped them to defeat problems and to go forwards. Now the bravery helps entrepreneurs to start up a new business, to deal with discouragement in different stages of company formation and development.

Fortitude. Close by Bravery there is Fortitude. An entrepreneur requires fortitude to keep a business strong and not to give up by any difficulties.

Vision. Despite the fact that the business environment today is very unstable, to have a strategic vision is necessary. It allows entrepreneurs to build their business wisely. Vision guides the entrepreneur through the business planning process, searching new opportunities and setting goals for their company. It allows the entrepreneur to see the past, the current position and in spite of limited resources to appreciate the potential of the business.

Honesty. An entrepreneur must be honest in financing the company and managing the assets of the firm. But first of all he or she must also be honest to him or her self: by taking risks and making choices the entrepreneur should be in harmony with himself. Honesty lets the entrepreneur avoid false security and confusing situations.

Respect for self and others. Respect for one’s self and others is essential. It enables the individual to appreciate his or her efforts, relate effectively to family and community, and motivate others. Respect includes the honesty, the tolerance. It’s strongly connected with the reputation which many experts call the most valuable possession in the business world.

It’s difficult to disagree that an entrepreneur's most valuable possession in the business world is not money or products or facilities. It's his or her reputation. If you lie, cheat, or steal, the market usually learns about it, and you lose your actual or potential clients and partners. On the other hand, those who are guided by a set of values enhance their credibility in the marketplace and attract others who want to do business with them. Keeping these values and following them entrepreneurs can maintain the right direction in their lives and companies.

Two qualities else are often mentioned in this context: trust and generosity.

Trust. Trust results from reliability and permits the entrepreneur to overcome mistrust, selfishness as the company is not a closed system, it deals with employees, customers, and vendors. It has its reputation.

Generosity. The entrepreneur should be generous. Generosity, which develops from supporting and leading others, permits an entrepreneur to reduce resistance to change, and heal dysfunctions within the organization.

Well, what are the values of contemporary entrepreneurs? Do they differ from the entrepreneurial values of other generations? Does the character of innovative economy influence them?

The contemporary entrepreneur doesn't have to produce any products or services himself. He can be a person who builds and uses structural holes in social networks, who helps other entrepreneurs to meet and deal with each other.

The thirst for wealth and the spirit of adventure are combined by a modern businessman with the values of his company as a kind of community. His desire for money and profit as a stable strategy is not limited to only natural needs. It is perceived as a lifework. The contemporary entrepreneur differs from the entrepreneur from the Middle Ages. Since he settled down, he began to care about his reputation and act based on the law.

There are different concepts and different opinions about the values of contemporary businessmen. We speak about reputation, power, status and recognition, independence, effectiveness and others. A lot of people believe that the entrepreneurship is a value in itself. Different authors suggest different values for entrepreneurs.

We also tried to find out what values prevail by students of our university, future managers in the context of their professional sphere.

The first question which was answered by our students was: "If you could open your own business now, what would it be?" Only 7% of respondents want to start up their own production. The absolutely majority of people have chosen the service sector. And only 3% want to found a company which would innovative for our local market. Answering the question "Why exactly this kind of business?" 22% couldn't explain their choice at all, 37% said that they had chosen it because this kind of business is just profitable. And 35% connected it with their interest and dreams. Among the values which the respondents named there was a great variety, for example, honesty, decency, kindness, freedom, time, health, family, patriotism, independence and development. The most popular became clients (27%), income / money (12%), aesthetics (12%) and experience (10%).

The position of entrepreneurs in the society has always been contradictory. So it stays now. And there are some reasons for it:

- debt bondage and life for a better future;
- a large gap between projected and current income;
- increased risks and the possibility of failure.

Because of this entrepreneurs and their actions are often analyzed in the context of marginality (Schumpeter, 2008), (Rogers, 1998). But of course the marginality means not the relation to the underworld but the marginality of entrepreneurs is understood here as a intermediate state, the state «inconsistency status» or «decomposition of the status».

The modern entrepreneur is faced with a bunch of problems. Firstly, it is worth to remember the resistance to innovations. Most people do not like innovations and treat them at least as something strange and often just negative. It is normal because the basis for every order is a stable system, structure of institutions, relationships. And the first reaction of most people when there is some kind of innovation; it is a reaction of rejection. And entrepreneurs just feel it fully;

they feel this social tension, even hostility from traditional-tempered social groups. That's why the entrepreneur is a person who is able to act in spite of this, who can behave against these routine orders, against the previously established rules.

2. Conclusion

Our society may have many potential entrepreneurs, but only few of them become successful and manage to maintain sustaining growth of their business if they have a culture, a set of values that supports innovation and initiative and if they are flexible and ready for change.

Acknowledgment

This paper is an output of the science project of the Department of Applied Management, Samara State University of Economics (Russian Federation). The research work suggests the set of values which allow management of organizations to improve their readiness to changes, and to motivate in-firm entrepreneurship, form and develop corporate culture in organization. Also the reasonability of practical use of the research results in theoretical management schools is proved in order to bring up the new generation of entrepreneurs in Russian Federation.

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CURRENT PROBLEMS OF THE EU LABOUR MARKET (THE CASE OF SLOVAKIA)

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Abstract. The process of globalization influences not only economic development and international trade of the countries but has also positive impact on the labour market and increases cross-border mobility of labour force. A part of the economic freedoms is also the freedom of movement for people, which has not only a positive aspect, but also a negative aspect as well, because the removal of border controls and administrative barriers creates conditions for possible unwanted phenomena to Slovak labour market. Labour migration has multiple determinants, but the most important is the determinant which improves the economic situation of the individual. The citizens of different countries cross borders to work in another country with the aim to increase their standard of life. The goal of the paper is to analyse the current situation on the labour market in Slovakia and to highlight the positive and negative aspects of freedom of labour movement, particularly workers from third countries. The paper focuses on the migrant workers and does not include the refugees from Asia and Africa (i.e. Syria, Afghanistan, Iraq and other). In principle, the migration policy of the European Union can be seen as legal and legitimate migration of labour from EU member states, EEA states and from third countries.

Keywords: globalization, labour market, labour mobility, migration, legal act

JEL Classification: F22, J61

1. Introduction

The globalisation represents the phenomenon of the current era enabling in addition to the international movement of goods, services and capital, also for the movement of persons. The process of globalisation is influenced not only by the economic development of individual states, but it also has the positive influence on the labour market and enables for the cross border movement of labour force. To increase their employability it is important for organisations to implement flexible work arrangements so that immigrants could better adapt to the conditions of individual EU labour markets (Bajzikova, et al., 2013b).

The globalisation offers the possibilities for the people to search for appropriate labour positions in cross border scene. Foreign migration represents the significant demonstration of globalisation and at the same time the one of the biggest challenges of 21st century. Migrating persons seek for the more advantageous conditions for their life and in particular social security that are mainly provided by the “old” Member States of the European Union. The strategy of integration as the part of the global approach to migration ranks among main priorities of the EU agenda. European labour market is also marked by a tension: the removal of borders to the free movement of people and services is offset by a relocation or enactment of new borders (Wagner, 2015).

The reasons for labour migration are different, most often they are economic reasons as well as the inability to find a job, better salary (income) or employee's advantages. There are numerous documents adopted at international level that are regulating the movement of persons. Article 21 paragraph 1 of the Treaty on the Functioning of the European Union stipulates that every citizen of the Union shall have the right to move and reside freely within the territory of the Member States, subject to the limitations and conditions laid down in the Treaties and by the measures adopted to give them effect. Nowadays the regimes for movement of people in the EU are increasingly regulated by the distinction between EU citizens and third country nationals (Konstantinova, 2013).

The primary regulation explicitly establishes the free movement of persons for the purpose of employment as well as for the purpose of conducting the business activity. Besides the primary legislation the legal framework for the freedom of movement of persons is established by the Directive 2004/38/EC of the European Parliament and of the Council of 29 April 2004 on the right of citizens of the Union and their family members to move and reside freely within the territory of the Member States amending Regulation (EEC) no 1612/68 (OJ EU L 158, 30.4.2004, p.77-133). This directive has been transposed into the Slovak legal system. Slovakia is now in the situation where all limitations of movement of persons are abolished and persons from other Member States as well as from the third states can freely perform their employment and business activities, if they comply with all stipulated requirements. In spite of the fact that there are many legal provisions both at national and international level, we still face the negative phenomena at the labour market, mainly the illegal work. The free movement of persons ensures the flexibility of labour force on the basis of possibility to migrate freely for the EU citizens for the purpose of their employment in other Member State. Also current changes in work arrangements are evoked by demands and moves in external environment, increased competition, introduction of new technologies and their accessibility and last, but not least, increase in prestige of some professions on the market and help to find the job in other EU countries (Bajzikova et. al., 2013a).

In fact, scholars have found a positive correlation between EU immigration influences and incidences of employment flexibility (Raess and Burgoon, 2013). European integration has also shown that borders between countries are flexible and constructed and fabricated by states (Berman, 2003), by the European Commission (Konstantinova, 2013) and also by transnational (global) companies. Since the early 2000s the Union has been aiming to develop the tools that will allow controlling immigration according to the needs of the European labour market (Apap; 2002). Borders can be more about civil rights and duties than about controlling flows of population. (Zielonka, 2001). The main areas in which state regulations define the opportunity structure which include or exclude immigrants (Entzinger, 2000; McLaren, 2001) are politics, markets, welfare and culture (Careja and Andress, 2013).

Based on EU documents the labour migration is seen as an instrument for addressing economic and demographic needs (Menz, 2009). The approaches to labour market and the policies vary from country to country (Geddes, 2003; Caviedes, 2010). We can see the open access to all economic sectors, to access limited to certain sectors; from allowing free movement of immigrants on the job market, to restraining it; from allowing open-end employment contracts, to restriction to temporary arrangements, reflecting the way in which each country manages labour migration so as to fit into perceived economic needs (Careja and Andress, 2013).

2. Mobility of labour market in Slovakia

Slovakia is culturally homogenous country that was affected by the dramatic increase of migration during the course of 20th century. Until recent times the Slovak Republic has been exclusively the country of origin of migrants, it means the country from where its citizens were migrating to abroad from different reasons. Slovakia does not rank among traditional countries of destination of migrants. More significant changes were brought by the accession of Slovakia to the European Union and to Schengen area. In the period after the year 2004 illegal and asylum migration have been reduced in Slovakia and at the same time the volume of legal migration has been tripled. Despite the fact that that the number of foreigners was second highest in Slovakia from among all EU Member States in the period of 2004-2008 (14%), the representation of foreigners in the total number of population still remains low, representing today 1.5% of the population and their number is growing slowly, although with continuous growth. In the year 2014 there were 8072 persons more living in Slovakia than in the previous year, which represents the 10.5% growth (as of the end of the year 2015 there were around 26 thousand foreign employees working in Slovakia).

With the accession of the Slovak Republic to the European Union the barriers to the free movement of persons were removed, as a consequence of which the number of persons from other EU Member States as well as from the third states started to increase. The overall number of foreigners with the granted permanent stay permission in Slovakia in the year 2015 was 84,787 persons and the number of foreigners in relation to the overall population rate represented 1.56%. From the accession of the Slovak Republic into the EU in 2004 the number of foreigners legally residing in Slovakia was four-times higher (from 22,108 in the year 2004 to 84,787 in the year 2015). To compare: if all legally resident foreigners in Slovakia would assembly in one place, it would be comparable to town as big as Banska Bystrica. Slovakia has the sixth lowest number of citizens per capita in comparison to all EU Member States. Lower ratio of foreigners in comparison with domestic population is in Lithuania (0.75%), Croatia (0.65%), Romania (0.35%) and Poland (0.15%) (data from the year 2015). From among neighbouring states the highest ratio of foreigners has the Czech Republic (4%) and Austria (11.8%). The ratio of citizens of the Czech Republic, Austria, Hungary, Poland and Ukraine is 42%, which is natural with regard to the existence of deeper social, labour and other social relationship. Another significant group of foreigners is composed of citizens from South Eastern and Eastern Europe, mainly Romania, Bulgaria, Serbia and Russia, who represent 20.5% from the overall number of foreigners in Slovakia. There is quite big group of migrants from Asia in the Slovak Republic (Vietnam, China, Republic of Korea and Thailand), representing the dynamically growing community with less than 8% from the overall number of foreigners, while their overall number is slightly over 6,300).

It is noteworthy that from among countries neighbouring with Slovakia a big number of foreigners live in Slovakia. The biggest number of foreigners in Slovakia come from the Czech Republic (11.7%), from Hungary (8.9%) and Poland (6.3%). It is interesting that many foreigners also come from Germany (5%) and Austria (2.6%). There has been more significant increase of foreigners from Romania after this country acceded the EU and there are around 7.7% Romanians in Slovakia. In the year 2015 there were 6,261 Romanian citizens employed in the Slovak Republic, which corresponds to 95% from the total number of persons from

Romania with their permanent stay in Slovakia. Just to compare, only 32% citizens of the Czech Republic were working in the territory of Slovakia. Up to one-eight from the total number of foreigners in Slovakia comes from Ukraine (12.6%). Ukrainians represent the biggest group of foreigners in Slovakia. Ukrainian citizens are followed by the foreigners from Serbia, Russia, Vietnam, China and Republic of Korea.

The significant group is composed by the third country nationals/non EU member states. Evidently the biggest number of foreigners come from Ukraine (918), Serbia (377) and Republic of Korea (434). It is interesting to note that from Thailand the number of women (151) is much higher than men (8), which is exceptional.

The biggest number of third countries nationals is working in the region of Bratislava (1,321), which is due to the fact, that many foreign entities have their registered seat in Bratislava. The second biggest number of foreigners is in the region of Zilina (414) because of the car producing company KIA MOTORS Slovakia has its seat here and the third biggest number of employed foreigners is in the region of Kosice (393), where the company US Steel has its seat. There are more men than women foreigners represented in each region. On the basis of this fact it is evident, that the biggest number of foreigners is working exactly in the fields where the foreign investment companies are represented. Foreign investments are important not only from the economic point of view, but they have also impact on the employment, i.e. further to the inflow of foreign investments increases the number of newly created jobs. As for the gender representation, number of employment men is prevailing over women.

With the accession of Slovakia into the EU the number of migrating employees from the EU Member States increased considerably. Table 3 introduces the number of employees with the information card according to the EU Member States. The employer of the citizen of the EEA state, has the duty to notify to the competent Office of Labour, Social Affairs and Family in written the commencement as well as the termination of the labour or similar relationship by so called information card (employee card). The working permit is thus not issued for these persons.

There were 17,514 persons employed in total in the year 2015, from this number they were 13,225 men and 4,312 women. The biggest number of employees were from Romania (6,205 persons), from Poland (3,037 persons), from the Czech Republic (3,184) and from Hungary (2,750).

Table 2: Employment of the EU/EEA countries nationals with the information card in the territory of the Slovak Republic according to the regions

Region	Total	Male	Female
Bratislavsky	6,851	5,741	1,110
Trnavsky	2,901	1,946	955
Trenciansky	982	814	170
Nitriansky	2,768	2,142	626
Zilinsky	1,739	1,227	512
Banskobystricky	1,365	910	455
Presovsky	1,907	1,164	743
Kosicky	774	653	121
Total	**19,289**	**14,597**	**4,692**

Source: UHCP P PZ. (2015). Stasticky prehlad legalnej a nelegalnej migracie v Slovenskej republike za rok 2015.

Subsequently it was found out, that the biggest number of employed persons from the EU/EEA states is working in the region of Bratislava (6,851 persons).

3. Integration of foreigners in the Slovak Republic

Slovak Republic used to be from the beginning the transit country due to its location. With its accession to the European Union Slovakia has become from the country of emigrants the destination country for foreigners. The reason for migration of foreigners to Slovakia are improving living conditions in the country as well as the economic growth. The problem of legal migration and integration of foreigners in Slovakia was not paid sufficient attention so far. Important step in this area was the approval of the Strategy of Integration of Foreigners in the Slovak Republic in the year 2009 that set forth the legislative, organisational, conceptual and practical measures and defined main goals and tools of integration policy in the Slovak Republic. The Slovak Republic considers the communities of foreigners as integral part of society and appreciates their contribution to economic, cultural, educational, social and human rights dimensions. The concept of integration of foreigners includes following areas and issues and the stay, employment, health care and social security, housing and education.

The key question represents also the systemic study and purposeful removing of problems and obstacles of their better integration and full-valued life in Slovakia. In general, it is possible to characterise the integration of foreigners as the process, during which the approximation of domestic population and foreigners living in the country and their merge into one society takes place.

The conditions of entry and stay of foreigners in the territory of the Slovak Republic are regulated in the Law No 48/2002 Coll. on Stay of Foreigners as amended. According to this law the foreigner is considered every person, who is not citizen of the Slovak Republic. This definition of foreigner in comparison to definition contained in provisions regulated employment of foreigners includes also the citizens of the EU, the European Economic Area and Switzerland, who are all considered as equal to the citizens of the Slovak Republic. The employed foreigner is able in a simpler and quicker manner to overcome cultural and communication barriers. The effective and responsible integration of migrants into the labour market represents at the same time the significant precondition in achieving goals of Lisbon Strategy Europe 2020.

As the main barriers and obstacles in working and business doing of foreigners in Slovakia are considered following issues:1. extensive administration; 2. inability to speak language; 3. insufficient knowledge of Slovak legal provisions and tax system; 4. insufficient qualification, or non-recognition of qualifications or diplomas, respectively; 5. insecurity as regards the granting the stay permit; 6. long lasting unemployment; 7. lack of knowledge of Slovak society and its customs.

The integration of foreigners into the labour market, increasing the attractiveness of work and ensuring that it is worth for candidates for employment to work, including disadvantaged and inactive persons are stressed with the aim to shape the strategy of employment in the EU Member States. Special attention should be devoted to the support of disabled persons, including the low qualified workers, into the labour market, as well as through the extension of social services and social economy, as well as through creating the new sources of jobs on the basis of collective needs.

Law No 311/2011 Coll. – Labour Code as amended stipulates in its fundamental principles that natural persons have the right to work and to choice their employment, as well as the right for fair and satisfactory working conditions and to the protection against unemployment. These rights are attributed to them without any limitations and direct or indirect discrimination according to sex, marital status, family status, race, colour of skin, language, age, respective unfavourable health status or disability, belief and religion, nationality or ethnicity, property, gender or other status, with the exemption of case, where such different treatment is stipulated by the law, or if for the employment special substantive precondition is required due to the nature of work or requirements that the employee has to comply with.

According to article § 13 of the Labour Code the employer is obliged in the labour relations treat his/her employees in accordance with the principle of equal treatment as stipulated for the area of labour law relations by the special Law on Equal Treatment in Some Areas and on the Protection Against Discrimination as amended (Antidiscrimination Law). In accordance with the principle of equal treatment the discrimination on the basis of marital and family status, colour of skin, language, political or other belief, expert activity, national or social origin, property, gender or other status or position, is also prohibited.

It means that the Labour Code prohibits discrimination of foreigners in the labour relationships and guarantees their equal position under equal circumstances in comparison to other employees in the Slovak Republic.

The issue of employment of foreigners and their equal position in the labour market should be at the same time seen in the context of overall situation in the labour market in the Slovak Republic as well as in the development of unemployment of domestic population. Accepting and employment of foreigners from third states in the Slovak Republic is supported at present by the labour market needs with the focus on the employment of highly qualified employees, scientific workers, students, as well as other qualified migrants. Offices of work, social affairs and family also devote special attention to foreigners as disabled applicants for employment, mainly in the form of providing following services: information providing, advising, individual expert advice and offering appropriate tools and active measures of the labour market, especially education. Information are provided to foreigners on life and labour conditions in the Slovak Republic as well as on the possibilities to find employment through the European Employment Services (EURES).

In spite of abovementioned Strategy of Integration of Foreigners into the Slovak labour market the administrative burden during employing person from abroad is increased. Since June 2016 the amendment of the law applicable in the area of posting of workers, that applies at present at almost 27 thousand of foreigners working in Slovakia especially in the cars producing companies and it companies. The State wants to reduce black labour this way. According to the amendment all organisations that would post their employees within the framework of company´s branch or towards customers with the seat in the Slovak territory, are obliged to notify the extensive amount of data to the National Inspectorate of Labour. The State requires personal data about employee, his/her labour contract including the amount of salary, as well as the detailed registry of working time of employee during his/her stay in Slovakia. When providing inaccurate or incomplete information the entity doing business in Slovakia, that have posted its employee here, risks being imposed fine in the amount from 2 to 200 thousand euros. Increasing of bureaucratic burdens can discourage foreign investors intending to settle in Slovakia. Such attitude contributes to the lower the flexibility of labour market. According to the statistical data of the Headquarters of Labour, Social Affairs and Family as of the end of February 2016, there were 26.6 thousand of foreign employees working in Slovakia, from this number 19.4 thousand coming from the EU countries. The biggest number of foreigner are coming from Romania, followed by the Czech Republic and Poland. Each third foreigner in Slovakia was working in Bratislava as of the end of February 2016.

To compare with neighbouring states, for example with Poland, the entities are not obliged to notify any lists of foreign employees to state authorities. In the Czech Republic the entity notifies the posted foreign employee with the Office of Labour only from the statistic reasons. The State does not require providing information about the labour contract or about the amount of salary. It is only sufficient to provide name and domicile of employee, passport number, acquired education, place where the posted work is carried out, and the date of commencement and termination of employment in the Czech Republic. The company guarantees that the employee will work while observing the Czech legal provisions on minimum salary, that it will pay social and health insures for such employee and that he/she will not be discriminated.

4. Conclusion

Globalisation increases the international distribution of work and has the impact also on the number of migrating persons. Many citizens of the European Union make use of their right to free movement of persons at present and live in other Member State of the Union. The free movement of persons represents one of the four fundamental freedoms of Single Market. The European Union at the same time accentuates the respect of private and family life as well as the ban of discrimination. Providing for equal conditions for both domestic and foreign entities is the basic standard applicable also for the labour relationships. The Labour Code guarantees both women and men with their right to equal treatment in case of access to employment, remuneration and career, professional education and working conditions. The right to equal treatment applies both to employees, as well as to candidates for employment.

Free movement of workers is a fundamental principle of the Treaty enshrined in Article 45 of the Treaty on the Functioning of the European Union and developed by the EU secondary legislation and the case law of the Court of Justice of the EU. EU citizens are entitled to: 1. look for a job in another EU country; 2. Work there without needing a work permit; 3. reside there for that purpose; 4. stay there even after employment has finished; 5. enjoy equal treatment with nationals in access to employment, working conditions and all other social and tax advantages.

After the accession of Slovakia to the European Union the number of foreign employees from the EU Member States as well as from the third states has increased.

In the year 2015 there were approximately 26 thousand foreigners working in Slovakia. The labour relationships applicable to employment of foreign citizens are governed by the Slovak Labour Code. The principle of equal treatment has to be applied and the discrimination of foreigners is prohibited. In spite of this there are still some barriers and obstacles in case of employment of foreigners, mainly: extensive administration, the lack of knowledge of the Slovak language, the lack of knowledge of the Slovak legislation, insufficient qualification, more difficult adaptation to the new cultural environment, etc.

Migration represents the reality nowadays that every country is facing with. Slovakia should review its migration policy and set forth its strategy of accepting migrants (third country nationals) and their subsequent integration to the society. Integration of migrants forms part of global approach to migration.

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EMPLOYMENT SUPPORT IN SLOVAKIA

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Abstract. The globalization process itself has an impact not only on economic relations in the state, but also on the employment policy and social policy. Considering the globalization process, small and medium-sized companies (SMEs) cannot compete with large companies and therefore plants and businesses, which operated on the market for several years, are quite often closed down. The numbers of unemployed grows as a consequence of companies' liquidation. The unemployment of young people, who have graduated from high school or university, is also an unfavourable phenomenon of today's world. Policies aimed at employment stimulation and poverty reduction in Slovakia build on the fulfilment of objectives of the Europe 2020 strategy as well as on the recommendations of the Council in the field of employment and social inclusion. The main tool for reducing the risk of poverty is work; that is the possibility to be employed and have an income. In order to reduce long-term unemployment, a number of projects were implemented. The target groups were mostly disadvantaged persons with particular regard to the long-term unemployed. Financial contribution has been granted to those employers who created jobs in certain delineated areas of public employment for at least three months. This article analyses selected measures to encourage the creation of new jobs with support of the state aid. Small, young and family farmers-related support, which constitutes one of the fundamental mechanisms for reducing regional disparities, is pointed out, too.

Keywords: employment, unemployment, small and medium-sized companies, job position, state aid

JEL Classification: J08, J21, J38

1. Introduction

The European society is being transformed by various local and global powers. Still, the European Union (EU) is a major exporter of goods and services in the globalized world economy. The process of globalization does not regard just the acceleration of the trade and exchange of products, but also the creation of conditions for the development of cooperation between countries. Currently, we can identify two trends: ageing of the population and inefficient distribution of the accumulated wealth.

The number of people aged 65 and over is increasing, while the number of productive working population declines. The *Europe 2020* strategy aims to achieve an employment rate of the population aged 20-64 years to 75% by 2020. To achieve this goal it is necessary to increase the employment of women, the elderly and migrants. Further, it is also necessary to promote active labour market policies, to focus on lifelong learning for upskilling the workforce and to achieve a continuous growth of employment. According to the *International Labour Organization* data, the unemployment rate in the age group of 15-24 is raising and in 2016 it will reach 13.1%, which will consequently increase the number of young people without a job to 71 million.

Although the economic expansion of Slovakia is currently one of the most robust in the EU, the above mentioned issues shape the state of affairs related to employment also in this country. The economy of Slovakia is integrated into global economy and production is concentrated in few sectors and regions. The main characteristic of the economy is a large share of car production and electronics production of foreign-owned companies and more than 90% of their production is exported. The most developed region lies in the western part of the country. The insufficient infrastructure caused the slow development of the other regions. This is one of the reasons why foreign direct investment inflows are concentrating around Bratislava.

The main investment areas from *European Structural and Investment Funds* are aimed at improvements to the education and training system and labour market measures for unemployed workers and disadvantaged people, thus improving the business environment. The high long-term unemployment is observed among the low-skilled and young people. Roma participation in the labour market still remains very low. Social safety nets are relatively weak, particularly for unemployed people and families with children. In order to strengthen the position of the most vulnerable groups of stakeholders in the labour market, certain measures were introduced in Slovakia.

This article describes and analyses selected measures, which encourage the creation of new jobs with support of the state aid. Small, young and family farmers-related support, which constitutes one of the fundamental mechanisms for reducing regional disparities, is pointed out, too. The first part of the paper introduces briefly the major challenges related to employment and unemployment, which shape the current labour market internationally. Next, the Slovak labour market development and related difficulties are described. Based on critical multi-source analysis of the information aggregated by the *Antimonopoly Office of the Slovak Republic* (PU SR, 2016), *European Commission* staff working document titled *Country Report Slovakia 2016* (European Commission, 2016), and *Europa 2020* (European Commission, 2015), the article offers new insights into the mechanisms of state aid and employment support in Slovakia.

2. Current labour market challenges in Slovakia

The labour market in Slovakia has passed through numerous structural changes (Wojcak, 2013) in recent years, and some of these modifications were reflected also in the internal companies' environment (see for instance Remisova et al., 2015). One of the labour market changes regarded the transition from rigidity to flexibility in respect to the mobility of labour force. However, insufficient formal support for mobility impedes the eagerness of people to accept the necessary changes steaming from the common Europe.

In general, the labour market institutions, such as the unemployment benefits system, trade unions, employment protection legislation, minimum wage and labour taxes are the key determinants of unemployment in the OECD countries (Blau and Kahn, 2000; Nickell and Layard, 1999). As a country in the "heart" of Europe, Slovakia is subject to many trends that alter the current labour market in international context. For instance, Sarfati (2013) notes that the persistence of high long-term unemployment and the growing awareness of demographic ageing are turning the policy focus to the social safety net, and to the related public expenditures and social contributions. The employment rates are rising with more people retiring and fewer young people entering employment because of the declining fertility across most countries of Europe (Sarfati, 2013).

Reducing unemployment and heterogeneity in Europe, both at the national and regional levels, are prevailing challenges. National labour market policies are pivotal for reduction of national unemployment and for smoothing of regional heterogeneity resulting from differences between countries (Beyer and Stemmer, 2016). Bruno and Rovelli (2010) found out that higher employment rates are associated with active labour market policies and negatively with institutions and policies determining rigidity in the labour market. Further, as the labour demand is typically lower, school-leavers compete with more jobseekers for fewer vacancies and unemployment may become structural (Dal Bianco et al., 2015).

Some microeconomics studies have analysed how specific instruments, such as unemployment insurance and employment protection, may affect the flows of workers in and out of unemployment as well as the distribution of wages (Cahuc and Postel-Vinay, 2002; Cahuc et al., 2006). In this context, Murtin et al. (2014) have shown that the tax wedge is a major determinant of the unemployment outflow rate in countries with large coverage extension, but has just small impact on unemployment rates (Murtin et al., 2014). Also the continuous changes of the educational system imply certain impulses for the employment. As Berman et al. (1998) have noted, changes in the employment structure and employers' skills expectations have gone alongside a significant expansion of education systems. In the case of Slovakia, for instance, a dual vocational education training system was introduced recently. The training should improve the skills of potential employees to meet labour market needs.

Despite the aforementioned challenges and constraints, the labour market in Slovakia has been improving recently. Economic increase supports employment, especially for the age group of 20-64. The unemployment rate is declining: in 2014 was 13.20%, in 2015 was 12.76%, in 2016 was 9.44% (July, 2016), that means 297,649 registered unemployed persons. However, some groups of inhabitants, such as the by the law protected young workers, Roma population and mothers with very small children, are still vulnerable. The highest unemployment is concentrated in the Eastern and Central regions of Slovakia. Long-term unemployment (more than 12 months) is one of the highest in the EU and has reached 9.3% in 2014. The rate for people unemployed for more than two years is 6.6% and persistency in the long-term unemployment is also high. We can observe a big regional disparity in unemployment rate. In 2010 the unemployment rate in Bratislava region was 6.0% which was significantly lower than the rate in Eastern Slovakia (16.6%). The main reasons for this difference are the low economic labour growth, insufficient new jobs creation and slow labour mobility in the Central and Eastern part of the country.

On the other hand, there are approximately 36,000 job vacancies in the country. Insufficient transport infrastructure, high travel and housing costs related to the income and insufficiently developed rental market represent prevailing barriers of labour mobility. Long term unemployment is the highest among the low-skilled (20-64 years) in the EU and reaches 36.9% in Q3 2015 (16.3% in the EU28). Youth unemployment fell in 2015 to 26.6%, but is still above the EU average of 20.1%. The share of young people neither in employment, education nor training (NEET) was reaching 12.8% in 2014 (12.5% in the EU28). Young workers (<25 years) reached 17% among the long-term unemployed. Roma population employment is also very low. In 2014, the employment rate of Roma was 16%, unemployment reached 73%, and long-term unemployment was 37%. The main factors for so low employment are insufficient education and skills, and discrimination. Almost half of the young Roma population (16-24 years) is not included in education, employment or training.

Improvement of the situation on the Slovak labour market is dependent on skills, age and ethnic background. On the other hand, the minimum wage increased from 2015 and reached 405 EUR per month, but is still lower compared to the EU average level. Also the minimum wage as a percentage of the average wage in Slovakia is low (35.4% in 2014). The low-wage earnings are still high in numbers; and the average tax wedge is 35.9% in Slovakia compared to 33.7% in the EU.

The active labour policy is not efficient and the expenditures represents only 0.17% of the country's GDP. There is not enough transparency and systematic evaluation. The results of "activation work" programmes are not proved, and by now the programmes do not have significant impact on employment. The training of unemployed has improved through the RE-PAS programme, which offers jobseekers individual choice of training and requalification. We can observe also low adult participation in lifelong learning (only 3%); the unemployed people do not improve their skills and the low-skilled workers have a small chance to find a job.

Measures have been taken for the young people to develop a vocational training and education, to subsidise first job and counselling via e-services. The offers have been focused on jobs and less on training and covered 132,500 young people in 2015. The "Law on employment services" extended the type of the workplaces, which can accept the graduates for work practice.

To increase the employment of young people, it is also necessary to develop partnership between schools and employers. For eliminating disparity between regions and to support internal mobility, a law on supporting high unemployment regions has been adopted. The measures focus on investment support, building the social housing and infrastructure development. To increase internal labour mobility, a "moving allowance" was introduced for unemployed people who found the jobs at least 70 km from their place of residence.

As for the gender differences, the employment rate for women is lower compared to men (only 58.6% in 2014). Though, the gender unemployment is higher for young women with young children. The low employment rate of women also reflects a long parental leave (up to three years), a lack of childcare facilities, and high childcare costs. These issues are related also to the insufficient use of flexible working arrangements.

3. State aid and employment support

The provision of state aid for newly created work positions is one of the state's economic instruments. The state aid is provided in accordance with the Article 107 of the *Treaty on the Functioning of the European Union* and in accordance with the Act no. 358/2015 on the state aid. State aid to promote employment is determined by a number of conditions, i.e. aid should be provided in an area that reaches 75% of GDP and the newly created jobs must be maintained for at least five years. The most frequent recipients of aid are foreign investors who create new jobs. The coordinator of state aid in Slovakia is the *Antimonopoly Office of the Slovak Republic*, which prepares periodic reports on state aid. These reports are available and published on the internet portal of the Office. According to the data disclosed in the report on the provision of state aid, the state aid for employment support was granted in the amount of 530,000 EUR in 2015.

The state aid is provided in particular to support small and medium enterprises in order to create new jobs, maintain existing business sites and promote new opportunities for disadvantaged workers with disabilities, and compensate for the costs related to the employment of these disabled workers. Further, *Ministry of Labour, Social Affairs and Family of the Slovak Republic* provided aid in amount of 11.52 million EUR, which aimed to support employment in investment aid and support of education. The largest share of aid was assigned to Bratislava, Kosice and Presov regions. In 2015, state aid to create new jobs increased for 3.17 million EUR as compared to the year 2014. State aid for education support reached the amount of 5.15 million EUR, including also the aid for the employment of disadvantaged workers and workers with disabilities.

Currently, the state aid is provided also to start a business of young farmers. The aid is intended for farmers younger than 40 years aiming to establish their own business. The amount of aid is 50,000 EUR in order to implement the business plan for the livestock and/or specialized crop production (vegetables, fruits, orchards, etc.). Such support is expected to have a positive impact on employment, rural development and the ecologization of agriculture. In the area of employment, an increase to 2,117 persons employed in agriculture is expected till 2020. The concept for small, young and family farmers is to create favourable conditions for business in agriculture and it intends to address generational change and promote employment in rural areas where agriculture is one of the key sectors for creation of new job opportunities.

Entrepreneurial activities of small, young and family farmers in Slovakia had a tradition prior the collectivization period, and were recovered only partially after 1989. Based on data from 2010, a total of 24,463 farms as legal entities and natural persons (both registered and not registered) have been established in Slovakia. They are focused on agricultural activities to cultivate a total of 1,895,500 hectares of agricultural land.

Employment support should focus on reducing the cost of employment, especially for employees disadvantaged on the labour market, so that the owners of starting agricultural businesses would not bear the full weight of personnel costs for themselves and their employees and thus they could use the crucial part of their starting capital to start and develop their own business. Aid to promote employment is granted only if the above specified organization employs “disadvantaged” or “considerably disadvantaged” workers.

A person is classified as a disadvantaged if he/she: (1) did not have during the previous six months regularly paid employment; or (2) is 15-24 years old; (3) did not attained an upper secondary educational or vocational qualification (ISCED 3), or has not obtained his/her first employment as a regularly paid one; (4) is older than 50 years; or (5) lives as a single adult with one or more dependent persons.

Considerably disadvantaged employees are those who: (1) did not have a regularly paid employment for at least 24 months; or (2) did not have a regularly paid employment and belong to one of the aforementioned categories of the disadvantaged employees.

It should be noted that the eligible applicants, who employ disadvantaged or considerably disadvantaged workers, shall be granted a subsidy of 50% of wages, including contributions to social and health insurance funds, for a maximum of 12 months for disadvantaged employees, and of 24 months for considerably disadvantaged employees.

4. Conclusion

The current process of globalization conveys new challenges and at the same time also motors the essential economic, legal and social changes across the world. Due to globalization trends a number of laws in Slovakia have been revised, and the legal framework was created to provide funding for the elimination of unemployment, particularly in underdeveloped regions. Given the fact that the Slovak Republic is a member of the EU, the provision of public funds for newly created jobs has to be in line with the laws of the EU. In Slovakia, the institute of state aid is the most utilized tool for elimination of unemployment, i.e. the provision of funds from the state budget and from the EU structural funds. Eradication of unemployment has not only positive social impacts but also beneficial economic effects, because it reduces the burden on the state budget for unemployment benefits, while it increases the growth of regional GDP. In connection with the introduction of these tools, the unemployment is decreasing in Slovakia, and in particular youth unemployment is declining. The loss of employment goes often hand in hand with the loss of self-esteem and self-respect, and consecutively the entire system of social and family relationships suffers, too. For these reasons, it is vital that the state continues to implements support programs for eliminating unemployment.

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ANALYSIS OF ECONOMIC POLICY OF DOOR OPENING OF THE UNITED STATES INTO LATIN AMERICAN COUNTRIES

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Abstract. The economic and commercial globalization is a process in which the national economies and their markets are slowly opening themselves to competition, foreign investments, new technologies and information. The essential aspects of globalization are foreign trade and movement of international capital. Globalization is closely connected also with openness of the economy. International organizations and regional groupings help in development of such relations, but at the same time they create rules of mutual entrepreneurship and business, of development of investment relations and of trade (Šuplata, 2011). In the scientific study we analyse the policy of the United States of America and the countries of Latin America, and describe establishment of the respective regional international groupings. We have also focused our research on the development of political and economic relations among the countries of Latin America and the United States of America that have new dimensions and contribute to stability. Due to removal of trade and services barriers there is growing liberalization, mainly in goods, services and capital, what has positive impact on diminishing of poverty and increasing of income in respective countries. When examining those phenomena we have focused our attention also on specific facts connected with foreign trade balances of certain selected countries of Latin America and on their cooperation with the United States of America.

Keywords: globalization, liberalization, cooperation, foreign investments, development

JEL CLASSIFICATION: F15, F63, N36

1. Introduction

The relationships of State administration in Washington to other countries of Western hemisphere can be characterised since times of Monroe Doctrine by certain specificity, which cannot be observed in other regions of the world. People in North America consider Latin America for their domain where other actors do not have any rights to interfere (EHL, 2000). Since the creation of American foreign policy the southern half of American continent represented the finishing point where the biggest number of its initiatives were targeted. Even the times of the hardest isolation at the American domestic scene were in essence only the isolation from European viewpoint – although the United States refused to be engaged in the European continent at the beginning of both World Wars, the possibility of limiting the American activities in Latin America was completely out of question. The whole twentieth century witnessed many economic and political initiatives of the United States towards their southern neighbours caused by implementing their national interests and foreign objectives.

The Monroe Doctrine representing the basis for mutual relations in which the United States usurped the right to American hegemony in the Western hemisphere was supported by the Mann Doctrine (within the framework of preserving the stability and forfending the left threat it supports the dictatorship regimes in Latin America and expresses the tolerance towards the authoritative military regimes) and Johnson Doctrine (it formulated the right of the USA to introduce order in a country, whose representatives lost control over the internal situation development), and different political efforts have been given different metaphoric names, such as dollar diplomacy, good neighbourhood policy, alliance for progress, pan Americanism, and others. In spite of many different names thereof, one of the basic objectives of the US foreign policy towards the Latin American countries was to ensure opening of their markets for American products and creating preconditions for the rise of mutual trade. One could suppose that it is exactly in the region, where the United States have the biggest political power, the fundamental assumption accompanying the open door policy would be crowned finally with success – open markets bring economic profit and prosperity for the country, which would subsequently create conditions for democratic reforms and overall consolidation. By means of simple opening of the markets the country should become a successful stable ally of the USA changed according to the American model, and its overall prosperity should ensure the consumption for American exports and investments. Such, although very simplified theoretical picture, remained only a theory. The United States have been trying throughout the whole twentieth century to enforce stability and economic prosperity in this area, needed for ensuring the development of commercial relations, however, also due to the influence of Cold War the result was questionable. It will also be beneficial to increase „detecting proceeds legalization from the crime and other criminal activity that appeals favourably to the public finance and to the entire society and therefore prevention is inevitable, as well as introduction of preventing measures not only on the national level but also on the international one." (Nováčková, Saxunová, 2015).

Latin America at the end of the 90ies of the 20th century also represented the area of large political instability, fragile democracy, economic instability marked by the endless number of monetary crises and debt burden, by the overall poverty of population as compared to their northern neighbours. There has been no satisfactory solution found to remove all these negative aspects of developments in the countries of Latin America. However, by ending the Cold War the United States got rid of paranoia of eternal bogey of Marxism in Latin America, and the trade with produced commodities has become the basis of American foreign policy towards this region.

The southern part of American continent is strategically important from the economic point of view. Its population of 500 million is connected with the United States both culturally and commercially. Only in the year 1999 the mutual bilateral trade reached the volume of 3 billion of dollars. Almost one third of oil imported to the United States came from this region. Latin America at the same time represented the key market of 2 billion of dollars for the American goods and services (Ojeda Gómez, 1999). Latin America has never been and will never be the static region, however, from the end of the 80ies of the 20th century numerous important economic as well as political changes in many countries of this region are dated. The process of changes in the economic area in these states has been initiated especially by three factors: lowered inflation, lowered volume of governmental interventions and lowered level of commercial barriers (Maltina, 1992). During the 80ties and 90ties of the 20th century a number of countries in Latin America were hit by the wave of hyperinflation, however, thanks to the reforms taken by the governments of these States the majority of States have stabilised this situation at the level of single-digit or double-digit numbers. In the 90ies we have also witnessed privatisation of many state-owned enterprises in these countries, reducing the governmental expenditures, the significantly reinforced break-down of bipolarity and related reduction of attractivness of marxistic economic practices (Maltina, 1992). By reducing the size of public sector the fiscal situation was improved, productivity was increased, corruption was reduced and international investors were attracted by the international opportunity to invest into developing Latin America. Reducing of trade barriers has significantly improved the foreign trade balance, which is the basis for creating the south American prosperity. The understanding of the importance of free trade was also demonstrated by the establishment of several regional groupings, such as MERCOSUR, Association of Free Trade of South America, Central American Common Market, Ands Pact, Andean Pact, Carribean Common Market, etc. (Ojeda Gómez, 1999). President Bill Clinton entered into this atmosphere of organizing the liberalisation of economic activites with his initiative to create the North American Free Trade Agreement (NAFTA), whose members should have become the United States of America, Canada and Mexico (the idea of the North Americal Free Trade Zone was not new, this intention was expressed already before him by George Bush). The negotiations started in 1992, and the agreement entered into force at the beginning of 1994. The zone with the population of 368 million people and the area of 21.3 million square kilometers became the first connection of two industrially developed countries with a developing country in Latin America. The conclusion of the North American Free Trade Agreement (NAFTA) had significant influence over the volume of mutual trade – American exports in the territory of the NAFTA increased by 103% between the years 1994-2000 (Salgado 2002, 11). In bilateral American – Mexican relations the volume of mutual trade increased due to this, as well as the number of commercial partnerships and direct foreign investments. After the devalvation of pesos in the year 1995 it was the very NAFTA, which largely protected the American exporters from the biggest losses, in particular in comparison to exporters from Europe and Japan (Clinton, 2004, 12). Despite this significant positive development it was just connection with Mexico which provoked the wave of criticism at the American domestic scene both during the negotiations about the North American Free Trade Agreement, as well as after its entry into force. The conclusion of NAFTA has activated criticism of many interest groups and lobbists, anti globalisation activists, trade unions, as well as liberal politicians and academics. The biggest debate started about the blaming the trade union and lobbists groups that NAFTA caused the increased unemployment of workers due to the import of cheap products from Mexico. One one side it is a matter of fact, that the unemployment was increased only in areas of the USA with low competitiveness. On the other side the increase of export contributed to the creation of new labour opportunities. Environmental oganisations were blaming NAFTA of providing for moving many factories to Mexico, where they were using cheap labour force and low environmental standards that were seriously damaging the environment. Although there were articles in NAFTA which inter alia were focusing on the environmental protection and labour standards. Mexico, however, resisted against too much interference in these issues from the American side, since the increased demands on the environmental protection and increased standards for the protection of labour force meant the rise of costs that contributed to lower competitiveness in the given area, as well as to the overall reduction of Mexican exports.

1.1 Economic cooperation

The globalisation process has been causing the internationalisation of economics in the world economy, which represents the process of outgrowing of national reproduction processes due to the influence of international division of labour (Milošovičová, Paškrtová, 2015). Globalization brings, together with changes in politics and economics, also the evolution and diversification of industry and business on a global scale (Rebeťák, Rypáková, 2015). Globalization is running across continents, time, cultural values, economic aspects, political and social approaches. (Hejdukova, 2015;)The countries of Latin America, primarily Mexico, Brazil, Uruguay, Argentina and Venezuela have been significantly taking their part in the development of economic relations with the United States and with other states of the world. In principle it is about the development of relations, which contribute to the countries´ economies, as well as to the democratic processes and establishing the standards of human rights protection, environmental protection and bringing cultures nearer. The impact of globalisation is visible not only in the economic development, but also in the increased movement of labour force. Such cooperation also helps to approximation of foreign political interests of states. Latin America is one of the most significantly open regions of the world in the field of commerce, and it is also at the same time a relatively big beneficiary of foreign investments. It includes the significant economies and markets, growing most quickly in the world and at the same time it is the centre of today´s world global policy. The States of Latin America rank among the biggest promoters of multilateral commercial policy, especially within the framework of the WTO Doha Round of Negotiations. One of the factors of the growth of the economic competitiveness of the region and reduction of regional disparities represents the innovative potential of entities (both individuals and organisations) active in the region (Fialová, 2009). „Isolated regions are not attractive for big businesses and the distance makes the programme less efficient. (Nováčková, Paškrtová, Saxunová, in press)". Removal of regional disparities ranks among priorities of all States of Latin America. Of key importance for these States are their rich natural resources (oil) and agricultural production (animal production and processing of their products, coffee cultivation, cultivation of tropical fruits and flowers). These States realize the commercial policy especially at the international level; taking into account also obligations resulting from the regional economic groupings (MERCOSUR, NAFTA, etc.) Those States make their efforts to adapt to the modern tendencies and to introduce new technologies to the production processes. The importance of inovations is being increased also further to the fact, that the information systems of businesses represent an inseparable part of managerial decisions at all levels of company, aiming at fulfilment of strategic goals (Vlček, 2011). The transnational enterprises contribute largely to the innovation processes in those States.

Argentina

Argentina is the active partisan of multilateral and regional commercial system and it profits in its economy mainly from the large stocks of raw materials, from the highly literate population, from its focus on agricultural export and from its industrial diversification. Argentina´s international commercial policy used to be very protectionalist in the past, with high customs, high quantitative limitations and extra charges on imports of goods from other States. The introduced measures were aimed at direct foreigh investments and they were related to the ban of transfer of profit and dividends abroad. The position of Argentina has been changed and barriers of the capital movement have been removed and international cooperation has been extended with the European countries as well. The world economy has been becoming more and more integrated and mutually interconnected through the commerce. The open economies have the tendency to rise more quickly as the closed ones. The openness of the European Union towards direct foreign investments increases the overall competitiveness (Milošovičová, Paškrtová, 2015). In the year 2013 the direct foreign investments reached the volume of USD 10.4 billion. The biggest investor in Argentina is Spain followed by the United

States, the Netherlands, Brazil and Chile. The direct foreign investments are directed mainly into the sectors of industry and agriculture (44%), service sector (30%), oil production (20%) and raw materials extraction (6%). Argentina exports its goods mainly to Brazil, Chile, Venezuela, the USA, Canada, China, the Netherlands and Uruguay. The States associated in international regional groupings take part in the import of goods in the large extent (33% MERCOSUR, 21% ASEAN, 17% EU, 14% NAFTA from the overall volume of imports). (Ministry of Foreign Affairs and European Affairs of the Slovak Republic – MFA EA SR, 2015)

Mexico

The stabilised conditions of market economy in Mexico, significant liberalisation of imports, low degree of inflation and permanently regulated exchange rate of Mexican Pesos towards USD as well as towards other convertible currencies represent preconditions for Mexico becoming involved into the global regional structures. Mexico is the Member State of several international organisations, and that is why it enjoys the economic advantages of such organisations that require introduction of liberalisation measures from their member states. Mexico provides economic advantages for investors. From among direct foreign investments in Mexico in 2014 20.8 % came from Spain, 14.8 % from the USA, and 14.6 % from Canada. In fact the United States are the biggest nvestor in Mexico and the share of American investments represents 45.8 % and investments of Canada 5.9 % from the overall volume of direct foreign investments. From the point of view of foreign trade balance in the year 2014 the USA were the biggest purchasers of Mexican products in the volume of 234.39 billion USD. (79.72 %). Besides the USA the trade partners of Mexico are also other states of the world taking part in the trade. The purchasers of Mexican products in the year 2014 was Spain (1.7 %), Germany (0.9 %) and the Netherlands (0.6 %), as well as Canada (2.7 %), China (1.6 %), India (0.7 %) and Japan (0.7 %). The biggest supplier of goods and services to Mexico in the year 2014 represented the USA (79.7%) with the volume of trade of 145.3 billion USD. From the point of view of structure of commodities the biggest portion in the export of goods from Mexico represents cars and car components. (MFA EA SR, 2015)

Brazil

Brazil is the biggest country of Latin America as regards its area and population and one of members of international grouping BRICS is the important country in global geopolitical terms. Brazil is the second biggest soya producer after the USA, and at the same time it is its biggest exporter. Not only soya, but also coffee ranks among the most important commodities. Brazilian coffee covers approximately 1/3 of the world market. According to the data of the Central Bank of Brazil the volume of direct foreign investments to Brazil reached more than USD 62 billion in 2014. The main reason of investments inflow represents the opening of strategic sectors for privatisation (telecommunications, bank sector, distribution of electricity). The USA, Luxembourg, the Netherlands, Spain, Japan and China belonged to the biggest investors in the year 2014. The pro export policy and the volume of products exported from Brazil to the USA is increasing. The volume of these exports reached the level of USD 27,144 million in 2014. The United States export more and more goods to Brazilian markets, the import of products from the USA to Brazil reached the level of USD 35,299 million in 2014 (MFA EA SR, 2014).

Uruguay

The government of Uruguay continues in its policy of open relations and balanced position towards world political centres. The processes and dynamics of regional integration and economic cooperation are aimed at the liberalisation of market and at removing of barriers to trade and services. Activities of the government of Uruguay are aimed at intense political and economic integration within the framework of international grouping MERCOSUR. The Government also supports the inflow of foreign investments. The economic expedience of regions differs substantively with regard to the combination of mutually closely connected factors, such as geographic location, demography, specialisation, productivity, accessibility of human and physical capital, development of infrastructure, or innovation capacities (Stachova, Šuplata, 2013). The significant investors represent the investors from Brazil (8.5%), Spain (5.3%), USA (4.7%), Canada (2.5%), Belgium (2.2%). Uruguay provides for generally advantageous conditions for foreign investors. It is beneficial for foreign investors to engage domestic labour force, both qualified and non-qualified. Transnational commercial companies give employment to high number of people with low or no qualification at all. Penetration of transnational companies to less developed countries brings the use of cheap labour force (Šoltes, Štofko, 2015). As the priority remain the productive sectors having impact on labour conditions and the GDP growth. In the year 2013 the further increase of volume of direct foreign investments was noted that reached the level of 2,796 million USD. This proves the fact that the regime of foreign investments is open. Main trade partners in import of goods to the territory of Uruguay are China (20.2%), Brazil (17.4%), Argentina (17.0%), USA (9.0%), Mexico (3.1%), Germany (3.1%). Within the framework of foreign trade the export countries from Uruguay are Brazil 18.1 %, China 16.7%, USA 4.7%, Venezuela 4.5%, Argentina 4.4%, Germany 3.4%, Russia 3.0%. The balance of foreign trade has been increasing every year, although it still does not meet the expectations of the Government of Uruguay (Businessinfocz, 2016).

Venezuela

Venezuela has gone through significant political and economic changes. The effective use of raw materials significantly contributed to the development of this country. Venezuela ranks among the biggest world oil producers. In the past it was the biggest oil exporter in the world. Income from the oil industry was used for modernisation and for development of other economic sectors, such as for the exploitation of iron ore, nickel, coal, bauxite, as well as the use of hydroelectric energy. Venezuela has recently become a significant player also in the world economic and political area, and has been actively involved in global multilateral and bilateral agreements. The agriculture is of key importance for the economy of Venezuela. The main activities in the field of agriculture are animal production and processing of products from tropical fruit. Economic growth of Venezuela in the recent years provides for suitable environment for implementation of reforms and changes of investment environment. The biggest trade partner of Venezuela represents the United States followed by China and India. The main export commodities are oil and oil derivatives, bauxite and aluminium. As for exports of goods the raw materials, machines and means of transport as well as building material prevails. The main investors represent Panama, the USA, Columbia, Switzerland and Spain (Businessinfocz, 2016).

2. Conclusion

The world economy has been becoming more and more integrated and mutually interconnected through commercial relations. The revitalisation of economies in Latin America is very uneven. The highest level of integration represents the global regional integration. The countries in the world are associated into regional international groupings. The process of economic integration is mainly based on commercial relations and it is most significantly expressed in establishing the transnational economic groupings (Viturka, 2010). The transnational commercial companies represent significant entities of globalisation processes. Present life is taking place in global environment, whether we acknowledge or we do not acknowledge this term. In any case the situation of each economic entity changes, as this entity is continuously confronted with influence of entities from other States. (Jarý,2015)Further to the development of economic relations the development of investment relations is growing. In principle the inflow of foreign investments supports the economic growth of the country, where the investments are made, whereby the income of public finances and employment is increased, too. The investments thus have the multiplication effect, and that is why it is necessary that each and every country within the territory of which the investments are made, creates legal environment protecting the investments by suitable legal instruments (Nováčková, 2007). With regard to the fact that our research question was focused on the analysis of relations of Latin American countries and the United States, we have shown on specific examples that the economic cooperation among mentioned entities has been progressing, and the States cooperate mutually in different areas. International economic cooperation with the United States and the Latin American States is focused at the trading in raw materials, and expecially oil. These States have adapted themselves to globalisation processes in the interest of their economic development. At the same time it is necessary to cope with challenges stemming from globalisation tendencies, restructuralisation processes, progress in technologies, needs of knowledge-based society, innovations and informatisation (Rajčáková, Švecová, 2010). The introduction of new structural reforms in these States contributes to the process of making the economies more interconnected, although we cannot describe them as economies reaching the high economic growth nor as economies directly influencing the world trade.

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PROBLEMS AND PROSPECTS OF ENSURING INFORMATION SECURITY IN THE CONDITIONS OF GLOBALIZATION

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Abstract. In the article the problems are considered which the states in the conditions of accelerated expansion of global information space in which all spheres of human activity are involved face. The attention is paid to a problem of information threats of economic entities' activity. The analysis of the existing level of global information system development is carried out, influence of the evolutionary processes connected with informatization on certain states development and international economy in general is studied and also factors which have serious impact on global economy in the future are predicted and the development forecast of the information environment is provided. The position of the Russian Federation concerning problems of ensuring information security in the conditions of globalization and the direction of the solution to these problems is also presented. The conclusion states that during a formation era and development of global information economy counteraction to various threats and calls becomes a serious problem which raises the issues of ensuring comprehensive steady functioning and development both of the modern world, and certain objects in current and strategic prospects. The effective solution to this problem is joint efforts of all international communities. Control and prevention of existing and possible threats in the information sphere are considered to be the most serious challenge to safety of national and international economies today.

Keywords: information economy, globalization, information security, information threats, information technologies

JEL Classification: D8, F52, H56, L86

1. Introduction

During economy globalization in the modern world the issues of ensuring international information security developed very quickly. Post-industrial society of the last third of the 20th century was succeeded by the transformation of a public formation which led to the change into informational society of the beginning of the 21st century. Informatization became a fundamental source which serves as the main force of future development (Zhyvko & Bosak, 2009). The development of this aspect was promoted also by occurring processes of globalization and integration.

The reached level of using information and telecommunication technologies, opportunities development of global networks application don't promote solving the problem of stability and international security in the modern globalization processes. Preventive measures, and also control measures of actual and potential threats in the informational sphere are considered to be one of the main challenges to the modern society. Nobody doubts that the information sphere became a core factor; moreover, it actively influences the conditions of economic, international, political, defensive and other components of state safety, develops and increases together with scientific and technical progress.

In society there are serious structural transformation processes, national borders are erased, there are structures based on functioning of information networks, electronic trade develops.

North American economies (the USA and Canada) are well prepared for the changes, according to the international experts. Readiness of human capital assets for evolution, infrastructure development, and also legal support and protection of intellectual rights are characteristic of them. In Europe information development will be carried out more slowly and will go on its special way that is seriously different in a careful attitude towards potential risk. In the last years, active development is typical for such states of Asia Pacific Region as South Korea, Japan, Malaysia, Singapore, Thailand, Taiwan and Philippines. Their dynamic involvement into globalization processes resulted in that fact the modern hi-tech production makes a share of their main production. Special attention has to be paid to China. High rates of production increase of modern information technologies, the increasing role of some groups of hi-tech industry play a crucial role. Success in competitive fight is provided by large volumes of local sales market, and also availability of cheap workforce. It promotes the increase in involved investments, and as a result provides for modern Chinese production an opportunity to succeed in a competitive fight in the USA and Europe. Such tendency will increase due to the increase in number of high quality experts who were working for western companies and had trainings abroad. According to experts' forecasts, China will be a main player in the market of high information technologies.

India also plays an important part in the market of high information technologies. In this country hi-tech business develops actively, it is a leader in software production.

At the same time the countries which are more developed, but have inertia of development created by inherited infrastructure, will begin to lose their positions.

However, except positive consequences of development of informatization processes in the conditions of globalization also new threats are possible. In a geopolitical aspect they will lead to such category of entities as "lost" and "lagging behind". Similar processes are possible even at the national level when the state, in fact, becomes "unfortunate". Such "unfortunate" states can become a suitable place for terrorists. There can be force majeur circumstances which can significantly change a global international course. Many factors can, both to slow down, and to accelerate transformations: unfavorable financial events, global military conflict or large regional conflict. However regardless of their activity the transformation speed will change considerably. The analyzed changes will also be very considerable.

2. Literature Review

Information revolution is only a component of technological revolution with deeper consequences. Progress in biotechnology and nanotechnology, which is possible in case of joint application with information technologies, will change the world in the second half of the XXI century essentially. New advanced designs will change the majority of industries.

Joint influence of achievements in the field of biotechnologies, nanotechnologies and informational technologies will result in a synergetic effect. However experts agree in the opinion that there will be more inequality in the development of certain countries, nations and regions.

The concept of information security was widely reported in the scientific works of such authors as Martins & dos Santos (2010), Telespan (2014), Herath & Rao (2009), Siponen &Willison (2009), Bulgurcu et al. (2010); Da Veiga & Eloff (2007), Da Veiga & Eloff (2010), Dlamini et al. (2009). Information security features were also covered in great details in the works of Ku, C.-Y. et al. (2009), Baker et al. (2007),Van Niekerk & Von Solms (2010), Pereira & Henrique (2010).

The approach to the solution of the problems ensuring information security in the Russian Federation has to be considered. In the course of developing attitude to this problem analysts proceeded from interdependent types of threats: military-political, criminal and terroristic. Besides, application of information and communication technologies is possible not only by certain lawbreakers, criminal groups, terrorists and extremist organizations, but also by the states for various hostile political, military and economic purposes. Similar activity allows carrying out the aggression in a hidden way and to create serious threats at the national level. Due to such vision of this problem there are "Basic concepts of state policy of the Russian Federation in the international information security for the period till 2020". In this document there are key concepts, approaches and initiatives. Such approach has to promote their integration into the international system and improvement of relevant structures' interaction in the country.

In the basic concepts of state policy of the Russian Federation in the field of the international information security there are four main threats in the sphere of international information security for the period till 2020 ". The first threat is using information and communication technologies as an information weapon for military-political purposes, to perform hostile and aggression actions. The second threat is application of information and communication technologies for terrorist purposes. The third threat is cybercrimes, including illegal access to computer information, creation and distribution of malicious software" (Basic concepts of state policy of the Russian Federation, 2013)

These three threats are historically recognized and are recorded in various documents of the United Nations. The fourth threat recorded in the document differs in Russian approach to a problem. This threat includes using Internet technologies for "stirring up national hatred", "breaking social order", "intervention in internal affairs of the countries" and "promotion the ideas encouraging violence". Researchers paid attention to it after the events which took place in a number of the countries which visually showed all opportunities of the Internet and all social networks which were used for organization, management and coordination of the actions directed to shake a political situation and to cause violent acts.

In the fight against these threats Russia will rely on the collaboration with its allies, such as member countries of Shanghai Cooperation Organization, of Collective Security Treaty Organization, and also BRICS. The collaboration will enable to achieve the realization of a wide range of initiatives to solve this problem at the international level: development of generally accepted principles of behavior in a cyberspace, establishment of a legal regime of nondissemination of information weapon.

Russia offers cooperation in the form of a dialogue on the condition of minimum trusting relationships. Recently the presidents of the Russian Federation and the United States of America made an agreement directed to prevent the development of cyberdiversions into international conflicts. Similar practice is also offered for other countries.

Now, with active participation of Russia the groups of governmental experts of different countries are created to analyze and reveal actual and possible threats in the sphere of international information security. This activity includes development of unified directions of international cooperation to counteract to revealed threats, measures of decreasing potential risks, removal of information vulnerability.

Annually a large number of events, bilateral consultations on the problems of international information security are performed. The goal of Russia's efforts to ensure international information security is to "decrease a violation threat of world stability and to save international community in information space on the basis of preventing next round of an arms race at qualitatively new development level of information and communication technologies, to protect information resources and critical information infrastructure for the benefit of society development, to restrict aggressive use of information and communication technologies to solve interstate contradictions forcefully" (Sherstyuk, 2011).

3. Conclusion

The results of international discussions of this problem which are implemented with the assistance of the governments of the European countries confirmed that experts don't have any doubts that there will be possible attacks on informational networks during the periods of armed conflicts and practical application of information and communication technologies. Possible result of using information weapon on a national scale can be compared to using destruction weapon. Such assessments are supported by creating specialized divisions in certain states within armed forces which purpose is network centric warfare.

From the variety of possible measures promoting the development of international security system it is possible to allocate the following:

- perfecting the existing rules of international law in the sphere of information security to increase the effectiveness of preventive actions for incidents of realization of information threats with the application of modern information and communication technologies;
- increasing a role of international cooperation regarding the problems of ensuring information security of information systems and open networks, by the development of algorithms and mechanisms reducing a possibility to realize threats and to increase trust to them by internationalization of administrative function;
- ensuring judicial prosecution for the acts of physical and legal entities in the sphere of cybercrimes, even in case of jurisdiction discrepancy;
- solving the issues of requirements standardization to ensure information security in the conditions of globalization and integration of national approaches to problems' solution into a uniform strategy with coordinated mechanisms of uniform security at the global level.

First of all, offered recommendations are assigned to form a uniform comprehension of these problems and to provide a dialogue mode in the course of achieving information security not only in a certain state, but also in global economic space. It will enable to provide the most effective interaction and, will lead to maximal result.

In the conclusion in spite of the fact that there is a serious progress in elaborating fundamental approaches to the description of threats of information security in the conditions of globalization, elaboration of a behavioral strategy in new realities, it is only the beginning of long-term and labor-consuming process of systematic adaptation to ensuring steady and safe functioning of economic entities of all levels.

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DYNAMIC PANEL ANALYSIS OF INFLUENCE OF QUALITY OF HUMAN CAPITAL ON TOTAL FACTOR PRODUCTIVITY IN OLD EUROPEAN UNION COUNTRIES

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Abstract. In the reality of global competition improving productivity is the main determinant of long term development. In the EU in Europe 2020 strategy special attention was given to the role of quality of human capital (QHC) as an important determinant of productivity growth. In this context the aim of the article is to assess the impact of the QHC on total factor productivity (TFP) in "old" EU countries. The research is conducted at macroeconomic level. The EU economies must build their competitiveness in reality of knowledge-based economy. Thus, the QHC was analysed from the point of view of global knowledge economy. This factor was treated as a multidimensional phenomenon. As a result, it was measured with application of TOPSIS method, which allowed to obtained time series for dynamic panel analysis of determinants of TFP. In order to evaluate TFP parameters of the Cobb-Douglas production function for developed EU countries were estimated. Then, the relationship between the QHC and the level of TFP was assessed with application of dynamic panel model. The research was based on Eurostat data for the years 2000-2010. It confirmed a significant influence of the QHC on the level of TFP in the analysed economies.

Keywords: panel model, TOPSIS, TFP, quality of human capital, EU countries

JEL Classification: O47, C23, C38

1. Introduction

Improving and keeping high productivity growth is the main determinant of long term sustainable development (Jantoń-Drozdowska & Majewska, 2015; Kuder, 2015; Balcerzak & Pietrzak, 2016a; Pietrzak & Balcerzak, 2016a). However, it also significant from the short term perspective, as it influences the situation on labour markets (Müller-Frączek & Pietrzak, 2011; Wilk et al. 2013) or macroeconomic fiscal stability (Balcerzak et al. 2016; Balcerzak & Rogalska, 2016; Mackiewicz-Łyziak, 2016). It is especially important in the case of highly developed countries that cannot utilise simple growth factors. The research on factors improving productivity is not only the core of endogenous growth theory, but it is also policy priority for all developed economies. In the case of EU countries it could be seen in Europe 2020 strategy, where special attention was given to the role of quality of human capital (QHC) as one of the most important determinant of productivity growth at macroeconomic level (Balcerzak, 2015). In this context the main aim of the article is to assess the impact of the QHC on total factor productivity (TFP) in "old" developed EU countries in the years 2000-2010. The period of the analysis was mostly restricted by the availability of Eurostat data for the whole panel of countries. In the article a macroeconomic perspective was taken. In the research the following tools were applied: TOPSIS method for assessing the QHC and obtaining time serious for econometric research, to evaluate TFP parameters of the Cobb-Douglas production function were estimated. The current analysis is a continuation of previous research of the authors (Pietrzak & Balcerzak, 2016b, 2016c).

2. Total Factor Productivity in Developed EU Countries

In regard to the objective of the article an analysis TFP for 14 developed EU countries that were the members of the EU before 2004 was conducted. Luxemburg was excluded from the research due to the specifics of its economy. The analyzed countries can be considered as relatively homogenous in regard to macroeconomic and institutional factors influencing productivity (Balcerzak, 2009; 2016a; Balcerzak & Pietrzak, 2016b, 2016c, 2016d), which justifies the application of the Cobb-Douglas production function for assessing productivity for that set of economies (Aimar & Dalgaard 2005; Gehringer et al. 2014). In the research the following variables were applied: total employment (annual averages in persons - *E*), real gross value added (million euro, reference year 2000 - *GVA*) and gross fixed capital formation (million euro, reference year 2000 - *GFCF*). Eurostat data was used here.

The first step of the analysis was the assessment of the productivity level for the countries in the years 2000-2010 based on the Cobb-Douglas production function. The Cobb-Douglas production function after taking the logarithm of both sides of equation was given with equation 1:

$$\ln GVA_{it} = \eta_i + \alpha \ln GFCF_{it} + (1-\alpha)\ln E_{it} + gt + \boldsymbol{\varepsilon}_{it} \tag{1}$$

where: GVA_{it} – vector of real gross value added in the country i and the period t, $GFCF_{it}$ – vector of gross fixed capital formation in the country i and the period, E_{it} – vector of employment in the country i and the period, η_i – vector of values of individual effects, in the period *t*, *t* – time trend, α – elasticity of labor productivity to the capital, *g* – rate of technological progress in the sense of Hicks, $\boldsymbol{\varepsilon}_{it}$ – a vector of disturbances.

Equation 2 describing the panel model FE (fixed effects) for the level of labor productivity relative to the capital to labor ratio is obtained after subtracting the expression ln(E) from both sides of equation (1),

$$\ln GVA / E_{it} = \eta_i + \alpha \ln GFCF / E_{it} + gt + \boldsymbol{\varepsilon}_{it}, \tag{2}$$

where: GVA/E – vector of value GVA/E – labor productivity, GFCF/E – vector of the capital to labor ratio, and the remaining variables are the same as in the case of equation 1.

Estimation of parameters of panel model FE (2) for labor productivity allows to determine the value of total factor productivity TFP_{it} for the analyzed countries. In order to assess TFP_{it} the estimated value of parameter α is used, given with equation (3).

$$TFP_{it} = \frac{GVA / E_{it}}{(GFCF / E_{it})^{\hat{\alpha}}}. \tag{3}$$

Table 1 presents the results of estimation of parameters of panel model FE with individual effects for labour productivity (equation 2). Individual effects for 14 countries and parameters α i g were statistically significant. The obtained value of estimates of the parameter α indicates that flexibility of labor productivity to capital to labor ratio equals 0,081. The value of estimate of the parameter g at the level 0,008 indicates that the analyzed economies are characterized with 0,8% rate of technological progress in the sense of Hicks. It means that when one assumes that capital investments and the employment are kept constant, the analyzed countries can be characterized with rate of production growth at the level of 0,8%.

Table 1: The results of estimation of parameters of panel model FE for labor productivity

Parameter	Estimate	Standard error	t-student statistics
α	0,081	0,04	2,133
g	0,008	0,001	5,540
Coefficient of determination		0,992	

Source: own calculation.

The estimated value of parameter α allows to estimate TFP_{it} for the analyzed countries in the years 2000-2010. It was conducted with application of equation 3. Table 2 presents TFP for the year 2000 and 2010 and the percentage change of its value in the years 2000-2010. Additionally table 2 presents the classification of the countries into three relatively homogenous subsets, which was done with application natural breaks method.

Table 2: Total factor productivity in the developed UE member countries

2000			2010			2000-2010		
Country	**TFP**	**Class**	**Country**	**TFP**	**Class**	**Country**	**% change**	**Class**
Sweden	35,985	3	Ireland	42,527	3	Ireland	22,56%	3
France	35,537	3	Sweden	40,439	3	Greece	17,17%	3
Denmark	34,720	3	United Kingdom	38,299	3	Portugal	16,30%	3
Ireland	34,699	3	Denmark	37,033	2	Sweden	12,38%	2
United Kingdom	34,613	3	France	36,410	2	Finland	11,79%	2
Belgium	34,549	3	Belgium	36,386	2	Netherlands	10,73%	2
Italy	32,884	2	Finland	35,682	2	United Kingdom	10,65%	2
Germany	32,366	2	Austria	35,042	2	Austria	10,02%	2
Finland	31,919	2	Germany	34,917	2	Germany	7,88%	2
Austria	31,851	2	Netherlands	34,077	2	Denmark	6,66%	2
Netherlands	30,775	2	Italy	32,432	2	Belgium	5,32%	1
Spain	24,212	1	Spain	25,011	1	Spain	3,30%	1
Greece	20,728	1	Greece	24,288	1	France	2,46%	1
Portugal	15,693	1	Portugal	18,251	1	Italy	-1,37%	1

Source: own calculation.

The classification of the countries confirmed the differentiation of the old member states in terms of TFP. In the year 2000 in the first class with the highest level of TFP one can find Sweden, France, Denmark, Ireland, Great Britain and Belgium. In the second class there are Italy, Germany, Finland, Austria and Netherlands. In the subset characterized with the lowest level of TFP there are Spain, Greece and Portugal.

In the year 2010 there are significant changes in terms of grouping of the countries. In the first class one can find Ireland, Sweden and Great Britain. In the year 2010 the second class is the biggest and groups Denmark, France, Belgium, Finland, Austria, Germany, Netherlands. During the ten years covered by the research the situation of Spain, Greece and Portugal was not changed and they could be found in the first class.

In the years 2000-2010 with the exception of Italy all the countries recorded an increase of TFP. In the class with the highest TFP dynamics, the TFP growth ranged from 16,30% to 22,56%. In the second class it was 6,66% to 12,38% and in the case of the first class form -1,37% to 5,32%.

3. Human Capital as a determinant of Total Factor Productivity

It was stressed in Europe 2020 strategy that EU economies must build their competitiveness in reality of knowledge-based economy. As a result, the QHC was analysed from the point of view of global knowledge economy (Madrak-Grochowska, 2015; Norek & Arenhardt, 2015; Stankiewicz & Moczulska, 2015; Wronowska, 2015). This factor was treated as a multidimensional phenomenon (Balcerzak, 2016b; Balcerzak & Pietrzak, 2016e). As a result, it was measured with application of TOPSIS method with assumption of constant ideal solution for all the period, which allowed to obtained time series for dynamic panel econometric analysis of determinants of TFP. The detailed description of TOPSIS method applied by the authors is available in Balcerzak and Pietrzak (2016a, 2016e). The synthetic measures for the QHC were estimated basing on the six diagnostic variables that were grouped to three economic aspects, which are presented in table 3.

Table 3: Diagnostic variables used for obtaining synthetic measure of the QHC with application of TOPSIS

Aspect 1 (A_1) - macroeconomic and labour market effectiveness
– Effectiveness of labour force (percentage of EU28 total based on PPS per employed person)
– Employment rate (in the group of people in the age 20 to 65)
Aspect 2 (A_2) - quality of education
– Lifelong learning - participation rate in education and training (last 4 weeks) (% of population 25 to 64)
– Science and technology graduates (tertiary graduates in science and technology per 1 000 inhabitants aged 20-29 years)
Aspect 3 (A_3) - national innovation system
– Exports of high technology products as a share of total exports
– Total intramural R&D expenditure (GERD) - percentage of GDP

Source: own work.

The results of application of TOPSIS method for evaluation of the level of the QHC is presented in table 4. By analogy to the procedure applied for TFP in table 2, based on the values of the synthetic measure TMD for the QHC the countries were grouped to one of three subsets.

Table 4: Quality of human capital in the developed EU countries

2000			**2010**			**2000-2010**		
Country	**TMD**	**Class**	**Country**	**TMD**	**Class**	**Country**	**% change**	**Class**
Finland	0,681	3	Finland	0,686	3	Germany	21,84%	3
Sweden	0,670	3	Sweden	0,641	3	Austria	18,65%	3
United Kingdom	0,658	3	Denmark	0,641	3	France	18,29%	3
Ireland	0,616	3	France	0,572	2	Spain	13,23%	3
Denmark	0,570	3	Austria	0,556	2	Denmark	12,55%	3
Netherlands	0,517	2	United Kingdom	0,554	2	Portugal	0,87%	2

France	0,484	2	Ireland	0,551	2	Finland	0,72%	2
Belgium	0,471	2	Germany	0,508	2	Sweden	-4,32%	2
Austria	0,469	2	Netherlands	0,492	2	Belgium	-4,47%	2
Germany	0,417	2	Belgium	0,450	2	Netherlands	-4,81%	2
Italy	0,345	1	Spain	0,300	1	Greece	-9,70%	1
Spain	0,265	1	Italy	0,294	1	Ireland	-10,59%	1
Portugal	0,260	1	Portugal	0,262	1	Italy	-14,90%	1
Greece	0,181	1	Greece	0,163	1	United Kingdom	-15,82%	1

Source: own calculation.

The analysis of results presented in table 4 shows similarities between the QHC presented in table 4 and TFP given in table 2. In the year 2000 in the class characterized with the highest level of TFP one can find: Finland, Sweden, Denmark, Ireland and Great Britain. The domination of Scandinavian countries can be seen here. In the second group there are Netherlands, France, Belgium, Austria, Germany. In the first class with the lowest level of the QHC one can find southern European economies: Italy, Spain, Greece and Portugal.

In the year 2010 Finland, Sweden and Denmark were the leaders. The second class grouped France, Belgium, Finland, Austria, Germany, Netherlands, Ireland and Great Britain. As previously, the situation of the southern countries Italy, Spain, Greece and Portugal was not improved and they were grouped in the first class characterized with the lowest level of the value of TMD for the QHC.

The obtained results justify the further econometric research of the relationship between the QHC and TFP. In the last stage the values of the TMD measure for the QHC were used to verify the influence of the QHC on the TMD. For this purpose a specification of the dynamic panel model given with equation 4 was done.

$$\ln TFP_{it} = \eta_i + \beta \ln TFP_{it-1} + \alpha TMD_{it} + gt + \boldsymbol{\varepsilon}_{it}, \tag{4}$$

where the dependent variable was defined as the logarithm of TFP, independent variable was the measure of TMD for the QHC, α, β were the structural parameters of the model, η_{it} was a vector of individual effects of panel model, and $\varepsilon_{i,t}$ was a vector of disturbances.

Table 5: The results of estimation of parameters of dynamic panel model for determinants of TFP

Parameter	**Estimate**	**Standard error**	**t-student statistics**
β	0,760	0,118	6,437
α	0,307419	0,15213	2,0208
g	0,00159018	0,000893669	1,7794
Statistical Tests		**Statistics of the test**	**p-value**
Sargan Test		12,279	0,99
AR(1)		-2,583	0,009
AR(2)		-1,457	0,145

Source: own calculation.

The results of the estimation of the parameters of dynamic panel model are presented in table 5. The positive and statistically significant estimation of parameter α confirms influence of the QHC on TFP. The conducted research confirms the importance of the QHC as a significant factor that supports improvements of TFP, as a result, long term growth in the case of developed EU countries. It means that the policies concentrating on the improvement of the QHC should be the subject of special attention of all European governments.

4. Conclusions

The article concentrates on the determinants of productivity growth in the developed EU economies. In regard to the aim of the paper an analysis of TFP and assessment of the QHC for old EU member states in the years 2000-2010 were conducted. In order to evaluate TFP the parameters of the Cobb-Douglas production function for the analysed countries were estimated. To measure the QHC a taxonomic measure of development based on a set of selected variables characterizing three economic aspects was proposed. The aspects related to: a) macroeconomic and labor market effectiveness, b) quality of education, c) effectiveness of national innovation system. Then the relationship between the QHC and the level of TFP was assessed with application of dynamic panel model. The research confirmed a significant positive influence of the QHC on the level of TFP in the analysed economies. It means that the QHC makes an important determinant of productivity growth in the old EU members states. Thus, it should the subject of special attention for the governments and EU authorities as a whole.

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GLOBAL CHALLENGE: POPULATION AGING AND THEIR LEISURE TIME

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Abstract. This paper deals with one of the current discussions and global challenges related to the population structure. The rapid growth of number of elderly people is permanent fact not only in the Czech Republic or Europe, but it is global issue. For example, the share of people over 65 years old of EU Member States was 18,5 per cent in 2014 (Eurostat, 2015). Moreover the predictions indicate that this trend will follow next years. The changes of population structure significantly influence the society and governmental systems. The definition of this period of life is complicated because there is no strict lower age limit and quality of life really depends on the individual attitudes. Obviously the aging is connected with the personal changes: psychological, physical, social or health changes. These changes can impact on their everyday activities in the positive, but also in the negative ways. From another point of view, the aging can bring new possibilities for entrepreneurs and different industries. This paper focuses on the leisure industry and marketing communication. The aim of this work is identify the interest of elderly people in the leisure industry and highlight the importance of active aging. Moreover it point out new possibilities for companies in the leisure industry to adapt or offer their particular services to new customers – elderly people.

Keywords: Global Challenge, Aging, Elderly People, Leisure Time, Active Aging

JEL Classification: L80, M3, J1

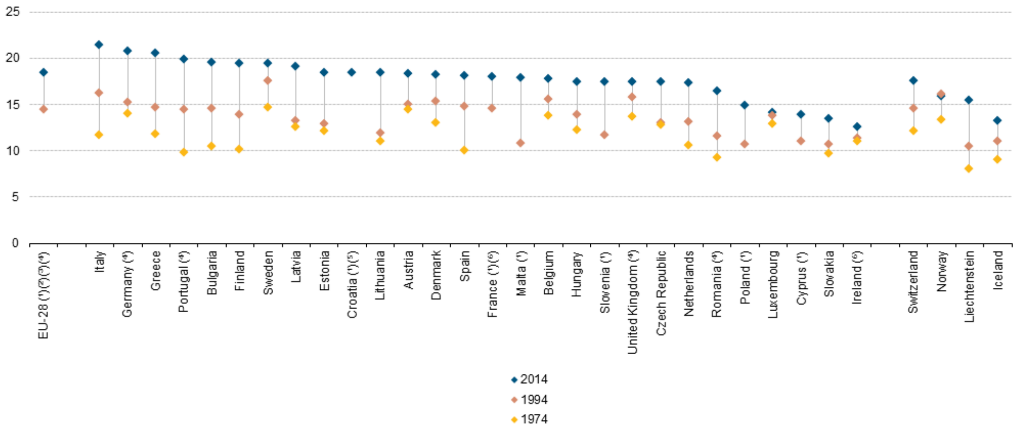
1. Introduction

Jedním z nejdiskutovanějších globálních problémů je v dnešní době lidské zdraví. Nejedná se pouze zdravotnický systém a zdravotnictví jako takové, ale i další faktory, který ovlivňují zdraví každého z nás. Propojování obyvatelstva z různých koutů světa a zvýšení vlivu globalizace přináší řadu diskuzí spojených právě se zdravotnictvím. McMichael (2013) vytvořil tři základní pilíře globálních trendů spojených se zdravotnictvím. Prvním pilířem je ekonomická stránka nejen samotného zdravotnictví, ale pracovní podmínky na trhu, finanční trh a kapitál, životní standard, mezinárodní zdravotnická péče a finanční prostředky. Do tohoto pilíře se dá také zahrnout cestovní ruch zaměřený na zdravotnictví. Právě Lautier (2014) považuje jako nejglobálnější trend dnešní doby ve zdravotnictví a medicíně cestování za jednotlivými zdravotnickými zákroky ve spojení s turismem. Enormní nárůst zájmu o tyto služby přiměl společnosti z cestovního ruchu se zaměřit na zdravotnické služby. Další McMichaelův pilíř je zaměřen na životní prostředí, především dostupnost pitné vody, degradace půdy, vyčerpání přírodních zdrojů, a narušení ekosystému jednotlivých oblastí, klimatické změny. Posledním pilířem, který úzce souvisí s touto prací, jsou demografické a sociologické změny ve společnosti. Mezi tyto změny patří zejména populační růst, urbanizace, stárnutí populace, změny v rodinném modelu, prolínání kultur a kulturních odlišností, zvýšený zájem o mobility, a nadnárodní zájmy. Právě tato práce zdůrazňuje stárnutí populace, která přináší pro dnešní trh řadu změn. Instituce, organizace, ale i společnosti ze soukromého trhu by měli tento fakt vnímat jako výzvu globálního charakteru.

1.1 Výzva globálního charakteru: stárnutí populace

Stárnutí populace není pouze lokální trend, ale jedná se o globální otázku, se kterou je spojena řada otazníků. Statistické demografické údaje většiny zemí uvádějí jasný nárůst počtu obyvatel důchodového věku v posledních letech. Již v dnešní době někteří autoři (Solomon, 2006; Beck, 1996) mluví o Evropě jako o rostoucím „šedém“ trhu. Nejedná se pouze o lokální evropské demografické změny, ale o změny, globálního charakteru, což potvrzuje řada autorů ve svých publikacích (Malíková, 2011; Eurostat, 2015; Holmerová, 2006; Mumel & Prodnik, 2005; Leventhal, 1997). Pro představu následující graf ilustruje vývoj procentního podílu obyvatelstva staršího 65ti let k celkové populaci žijících v evropských zemích v letech 1974, 1994 a 2014. Z obrázku uvedeného níže je patrné, že tento podíl se ve většině evropských zemí značně zvýšil. Tento trend však bude ještě výrazněji pokračovat i v dalších letech. Nárůst populace uvádějí i predikce ve vývoji obyvatelstva. Stárnutí populace a její nárůst dokládá řada statistických predikcí. V roce 2020 bude tato věková skupina tvořit až 49% obyvatel v Evropě. Podobné predikce se týkají i České republiky, kde v současnosti žije 17,8% obyvatel starších 65ti let a počet v následujících letech bude narůstat.

Figure 1: Procentní podíl obyvatelstva starších 65ti let v letech 1974, 1994 a 2014 k celkovému obyvatelstvu



Source: Eurostat - People in the EU – statistics on an ageing society (2015)

Už jen samotný fakt, že tato věková skupina tvoří a bude tvořit významné procento populace, by měli zvýšit svůj zájem o tuto problematiku jak vládní organizace, tak sociální a zdravotnické služby, ale i privátní sektor. Je však nezpochybnitelné, že právě ve stáří dochází k řadě viditelných změn. Podle Mühlpachra (2004) se jedná o změny fyziologické, psychické, ale i sociální. Nicméně stáří je obecně vnímáno jako problémové období spojené se zdravotními a sociálními problémy. Těmto faktů by se měli přizpůsobit jednotlivé národní a nadnárodní strategie, ale i nabídka produktů a služeb.

Adams (2011) ve své práci poukazuje na to, že zvyšující se počet obyvatel starších 55ti let přináší nové příležitosti pro sektor služeb a trávení volného času. Předchozí studie uvádějí, že starší obyvatelé mají velký zájem právě o volnočasové aktivity. Aktivní účast a zapojování se do různých aktivit bylo již od počátku zahrnuto a zdůrazňováno v teorii popisující spokojené stáří (Lemon a spol 1972). Tato teorie je podpořena řadou kvalitativních i kvantitativních studií realizovaných v posledních letech. (Admas, 2011; Litwin, 2006; Deindl 2015). Řada autorů, které ve své práci zmiňuje Adams (2011), se v předešlých studiích shodla na tom, že zapojení starších lidí do sociálních a volnočasových aktivit přispívá k jejich zdravotnímu a psychickému stavu ve stáří. Zároveň Stephen a spol (1993) upozorňuje na fakt, že každý bude mít jiné složení svých volnočasových aktivit a způsob trávení volného času ve stáří. Pokud se bavíme o druhu aktivit, tak obecně lze říci, že duševní pohodu ve stáří podporují především kognitivní a společenské volnočasové aktivity, což bylo potvrzeno také řadou studií (O stlund, 2010; Ku et al., 2015).

Důležité je si uvědomit, že pouze modifikace a úprava služeb cílených pro obyvatele staršího věku nestačí. Potřeba je také se zaměřit a upravit marketingovou komunikaci, vybrat efektivní nástroje marketingové komunikace a správně připravit sdělení.

Fill (2009) ve své publikaci uvádí základní nástroje marketingové komunikace, mezi které patří reklama, podpora prodeje, osobní prodej, PR a direct marketing. Kromě těchto nástrojů, Fill (2009) mezi marketingové nástroje zařazuje také tzv. word-of-mouth, neboli vlastní předání zkušeností a doporučení, které označuje za nejefektivnější formu marketingové komunikace. Zároveň zdůrazňuje, že každý nástroj marketingové komunikace zastává rozdílnou roli a může zastávat v marketingové komunikaci různou úlohu. Právě správná volba marketingového nástroje je jedním, ne však jediným, důležitým faktorem pro efektivní oslovení cílových zákazníků.

2. Primární výzkum

2.1 Metoda primárního výzkumu

Výše zmíněné faktory a literární rešerše jasně poukazují na důležitost zaměřit pozornost současných vědních disciplín právě na obyvatelstvo starší věkové skupiny, a to nejen z pohledu zdravotnictví, ale také z různých pohledů spojených s běžným životem. Primární výzkum této práce byl především zaměřen na zjištění významu a preference nástrojů marketingové komunikace u této cílové skupiny. Zároveň z literární rešerše vyplývá potřeba znalosti způsobu trávení volného času a volnočasových zájmů této věkové skupiny.

Před samotným primárním výzkumem byly stanoveny dvě klíčové vědecké otázky spojené s tímto tématem:

Q1: Jaké nástroje marketingové komunikace věková skupina starší 55ti let preferuje?

Q2: Jakým způsobem cílová skupina tráví svůj volný čas?

Pro zodpovězení těchto vědeckých otázek jako metoda výzkumu byl vybrán kvalitativní výzkum. Cílem kvalitativního výzkumu je primárně zjistit, co si účastníci o dané problematice myslím. Clemente (2004) ve své publikaci jako primární charakteristiku kvalitativního výzkumu uvádí formu výstupu, v podobě informací ne čísel. Kvalitativní výzkum přináší řadu výhod. Jednou z těchto výhod je, že předem stanovené a dané otázky lze v průběhu realizace výzkumu modifikovat či doplnit. (Hendl, 2016) Z tohoto důvodu je často kvalitativní způsob označován jako pružný typ výzkumu. V rámci kvalitativního výzkumu lze použít různé druhy metod pro získání dat.

V této práci pro získání kvalitativních dat byl využit jeden typ rozhovorů, a to focus group (neboli skupinová diskuze). Miovský (2007) ve své práci uvádí, že se jedná o jeden z nejefektivnějších způsobů pro sběr kvalitativních dat. Focus group lze realizovat u výzkumu, kde je potřeba získat potřebná data u skupiny lidí, kteří mají podobné charakteristiky. (Miovský, 2006) Pro splnění podmínek věrohodnosti výzkumu je potřeba dodržet alespoň 3 – 5 osob v jedné focus group. (Dickson, 2009). Pro úspěšnou realizaci a získání kvalitních dat podle Miovkského (2006) je především pečlivě naplánovat celý harmonogram focus group včetně skladby otázek a výběru respondentů.

Vzorek respondentů tohoto primárního výzkumu, byl osloven cíleně prostřednictvím emailu, přičemž respondenti museli splňovat následující kritéria výběru:

- Ženy a muži starší 55ti let;
- Vykonávající alespoň jednu volnočasovou aktivitu týdně;
- Bez rozdílu pohlaví, finančního a sociálního zázemí, vzdělání.

Osloveni byli uchazeči Univerzity třetího věku Univerzity Tomáše Bati ve Zlíně, kteří svojí účastí v těchto vzdělávacích kurzech splňují výše zmíněná kritéria.

Kvalitativního výzkum se zúčastnilo celkem 7 respondentů. Otázky kladené během tohoto výzkum lze rozdělit do tří skupin na základě jejich formy a obsahu rozdělit do tří skupin – otevřené otázky zaměřené na marketingovou komunikaci s následující diskuzí; výběr z připravených marketingových materiálů s následnou diskuzí; preference a výběr druhů volnočasových aktivit včetně diskuze. Všechny otázky byly předem pečlivě sestaveny a zvoleny, aby zodpověděli stanovené výzkumné otázky, ale také aby byly pro respondenty srozumitelné. Před začátkem samotného výzkumu byl také realizován pilotní výzkum, kde byla právě testována srozumitelnost jednotlivých otázek. V obou případech měli respondenti možnost vyjádřit svůj názor, přidat komentář, či téma doplnit o jejich podněty či zkušenosti.

První skupina otázek byla zaměřena na marketingovou komunikaci. Otázky byly položeny tak, aby respondenti měli vždy chvíli k zamyšlení a následně probíhala diskuze. Měli také k dispozici tužku a papír, aby si mohli své postřehy zaznamenat. Druhá skupina byla zaměřena na vizuální podobu marketingového sdělení, kdy respondenti seřadili předem připravené materiály od nejvíce preferovaného až po nejméně preferovaný. Poslední variantou otázek, byly otázky spojené s volnočasovými aktivitami. Respondenti vybírali s předem připravených druhů aktivit a přiřazovali je k časovým intervalům. Zároveň měli možnost doplnit i další činnosti, které pravidelně dělají ve svém volném čase.

Celý výzkum byl podroben etickým pravidlům primárního výzkumu a respondenti byli informováni o účelu výzkumu.

2.2 Výsledky primárního výzkumu

Pro analýzu primárních dat bylo nejprve důležité charakterizovat skupinu respondentů, kteří se zúčastnili výzkumu. V následující tabulce jsou uvedeny základní socio-demografické údaje respondentů: pohlaví, věková skupina, vzdělání, druh příjmu, typ předchozího zaměstnání, forma bydlení, rodinný stav, počet dětí a vnoučat.

Kvalitativního šetření prostřednictvím techniky focus group se zúčastnily převážně osoby ve věku 60 – 64 let, ženského pohlaví, kteří mají dosažené minimálně středoškolské vzdělání, většina z nich pobírá starobní důchod a nikdo z nich není v invalidním důchodu. Jen někteří si přivydělávají ke starobnímu důchodu. Respondenti žijí jak v domě, tak bytě. Téměř všichni žijí s partnerem ve svazku a převážně mají jak děti, tak už i vnoučata. Konkrétní popis výzkumného vzorku naleznete v tabulce níže.

Table 1: Socio-demografické ukazatele respondentů

Respondent	Respondent A	Respondent B	Respondent C	Respondent D	Respondent E	Respondent F	Respondent G
Pohlaví	žena	žena	žena	žena	muž	žena	žena
Věková skupina	55-59	60-64	60-64	60-64	70-74	65-69	65-69
Vzdělání	vyskoškolské	středoškolské	středoškolské	středoškolské	středoškolské	středoškolské	středoškolské
Máte starobní důchod	ne	ano	ano	ano	ano	ano	ano
Máte invalidní důchod	ne	ne	ne	ne	ne	ne	ne
Máte vedlejší příjem? Jakou formou?	zaměsnání na plný úvazek	podnikám	příležitostná brigáda	nemám vedlejší příjem	nemám vedlejší příjem	nemám vedlejší příjem	nemám vedlejší příjem
Jaké bylo Vaše předchozí zaměstnání?	státní zaměstnance	zaměstnance	státní zaměstnance	státní zaměstnance	zaměstnance	zaměstnance	zaměstnance
V jakém oboru jste pracovali?	školství	OSVČ - účetnictví, daně	účetnictví, finance	sociální pracovnice	strojírenství	výpočetní technika	obchodní referent
Žijete v domě nebo v bytě?	žiju v bytě	žiju v bytě	žiju v bytě	žiju v domě	žiju v domě	žiju v bytě	žiju v domě
Jaký je Váš rodinný stav?	žiju sama	žiju s manželem	žiju s manželem	žiju s manželem	žiju s manželem	žiju s manželem	žiju s manželem
	rozvedená	vdaná	vdaná	jsem vdaná	jsem vdaná	jsem vdaná	jsem vdaná
Máte děti nebo vnoučata?	mám 1 dítě	mám 2 děti	mám 2 děti	mám 2 děti	mám 2 a více dětí	mám 1 díte	
		mám vnouče	mám vnouče	mám vnouče	mám vnouče	mám vnouča	

Source: Vlastní zpracování

Z odpovědí respondentů lze obecně říci, že preferují nástroje marketingové komunikace, kde mají možnost získat více informací o daném zboží či službě. Zároveň preferují nástroje, kdy nad samotnou koupí si mohou popřemýšlet a mít dostatek času před samotnou koupí, třeba na porovnání s jinými nabídkami, jinými produkty či vůbec nad nutností a potřebou kopě výrobku. Téměř všichni respondenti focus group uvedli, že nejvíce preferují reklamní leták. Velmi překvapivé bylo, že i online forma reklamních letákům je pro ně vyhovující.

V návaznosti na výsledky preference marketingových nástrojů je vhodné zmínit i další část výzkumu, kde respondenti byli dotazováni na jednotlivé grafické prvky, a to konkrétně na barvu, velikost a typ písma.

Účastníci skupinové diskuze volili především světlé barvy – nejpreferovanější barva letáku byla žlutá, zelená a světle modrá. Respondenti preferovali světlé, pozitivní barvy. Při diskuzi uvedli, že především žlutou barvu vybrali, protože si ji spojují s létem, sluníčkem, dovolenou. Tato volba mohla být také upřednostněna, protože leták propagoval zájezdy k moři. Zelená barva na respondenty zase působí pozitivně. Na druhou stranu tmavé barvy (tmavě modrá a černá) nebyly preferovány vůbec.

Většina respondentů preferovala leták s větší velikostí písma. Nicméně dva respondenti se spíše než na velikost písma, zaměřili na obsah informací. Proto zvolili leták s nejmenším písmem, kde mají největší nabídku. Kromě velikosti písma, respondenti měli na výběr z typu druhů písma. Účastníci skupinové diskuze seřadili typy písma následovně, přičemž největší preference mělo písmo bezpatkové, pak patkové a následně „hravé“.

V první části výzkumu byla zodpovězena otázka spojená s marketingovou komunikací, která přináší jasné odpovědi pro všechny organizace a společnosti zaměřující se na tuto cílovou skupinu. V následující části výzkumu bude vyhodnocena otázka spojená s trávením volného času a preferencí aktivit, které preferují lidé ve starším věku.

Z focus group vyplynulo, že každý den tráví svůj čas domácími pracemi a starostí o domácnost, prací s moderními technologiemi – především s internetem, a čtení ať už knih, časopisů či novin. Jednou krát týdně se vzdělávají prostřednictvím různých kurzů, pravidelně dělají také sportovní činnosti, starají se o vnoučata a rodinu či pracují na zahradě. V pravidelných měsíčních intervalech navštěvují do gastronomických zařízení či navštěvují kulturní akce. Cestování, ruční práce či další druhy sportovních aktivit pravidelně dělají jednou ročně.

3. Conclusion

Globální trend spojený s nárůstem populace v seniorském věku je nezvratný fakt a je zapotřebí mu věnovat patřičnou pozornost. Samotná změna zdravotnického systému nestačí. Je potřeba se také zaměřit na plnohodnotné trávení volného času seniorů, jehož mají dostatek. Právě pestrá nabídka volnočasových aktivit, které zapojují tuto cílovou skupinu do společnosti, přispěje k jejich duševní, ale i fyzické pohodě. Z výsledku tohoto výzkumu lze říci, že i společnosti a organizace, které přizpůsobí své služby zájmům této věkové skupině a upraví cíleně jejich marketingové kampaně, přizpůsobí své služby v pohledu psychologických a fyzických změn spojených se stářím, tak mají velký prostor uspět na trhu služeb s volnočasovými aktivitami a činnostmi.

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METHODOLOGY DRAFT OF CAPITALIZATION RATES FOR COMMERCIAL REAL ESTATE VALUATION OF BUSINESSES

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Abstract: With the increasing interconnection of international markets and the globalization of the economy to standardize the valuation policies at the national level is no longer sufficient and therefore there appear efforts to standardize the valuation process at the international level. The Czech Republic has long been working on the harmonization of financial accounting (Tušan & Stašová, 2008) procedures using International Financial Reporting Standards. Less well known fact is that since the 70s international valuation standards, which can be considered a general basis for valuation activities worldwide has been also working out. Valuation of property is becoming increasingly important practical and in this context also theoretical discipline. It is based on the assumption that each property brings a certain income which derives from economic activity and which is based on the expectations of benefit. This means that investment in real estate should be part of each investment strategy. Therefore, the economic and business approach to capital is represented by following assumption: given capital saved with particular interest rate would in the future allow the investor to receive such amounts which would have been equal to the income from immovable property. Capitalization rate would again be primarily an expression of the profitability of the sector or industry in the area of national economy. The paper deals with methodology draft of capitalization rate for the market valuation of commercial real estate used in businesses. These results will be achieved on the basis of comparative method, namely the leases of commercial buildings located Ostrava. The methodology has not yet been discussed, therefore we believe that it will bring practical benefits for both experts and valuators, but also for the wider professional community engaged in the valuation of real property.

Keywords: valuation, fixed assets, capitalization rate

JEL Classification: M20, M40, M41

1. Introduction

Even though much has been written about the capitalization rate (interest of rate) the aim of this contribution will be a proposal of capitalization rate methodology and its application to a specific real estate property. The results will be reached on the basis of comparison of sales and rentals of objects (buildings) for living and recreation and buildings for commercial use for Ostrava localities. The methodology has not been written yet, and we assume, that it can be of practical benefit not only to the experts and appraisers but also to possible clients dealing with real estate property valuing.

1.1 Capitalization rate definition

Because the interest rate application is utilized during the calculation of revenue value in the process of capitalization, that takes into consideration so called time value of money and converts various forms and types of expected future revenues into the current value, this its form is entitled capitalization rate (Bradáč, 2009).

Capitalization rate was and should be certainly the declaration of profitability of branches and fields of activities in a specific area of the country national economy (Kokoška, 2000). For purpose of administrative real estate appraisal, the capitalization rate is given in decree pursuant to act on valuation of property (currently according to the Decree of the Ministry of Finance CR No. 3/2008 Coll., as amended by the Decree No. č. 456/2008 Coll., by means of which are implemented some provisions of Act No. 151/1997 Sb., on Valuation of Property.

1.1.1 Revenue method

To determine the real estate property value using the revenue method it is necessary to set its rent income. Amount of the rent we determine from lease contracts concluded after verification of the common rent level, or directly we use common rent values, which can be reached from renting of similar premises in given place and time, and which we find out by comparison based on the real estate market. From the rent, determined in this way, we deduct the expenses associated with the property possession and functioning.

1.1.2 Revenue value, its calculation and interest rate

Real estate revenue is defined as the total sum of discounted expected future net incomes of its renting. The incomes are discounted and this is reflected in their modification to current value based on the discount rate.

$$CV = \frac{profit\ (\ net\ operating\ income)\ (\frac{CZK}{year})}{capitalization\ rate\ (\%)} x\ 100\% \quad (1)$$

Discount rate determination is a very delicate component during the revenue value appraisal and the appraisers usually have a free hand to a large extent.

Based on available literature we can state that the literature is dealing with the possibility to find out capitalization rate by comparison in general terms without detailed characteristic (Hálek, 2009) of the process.

It would be optimal (Šimeček et. Al., 2010), if it was possible to elicit the capitalization rate from realised sales in the way of average similarly as with coefficient of marketability:

a) with approximately equal objects with the help of simple arithmetic mean we derive centesimal capitalization rate from the relationship:

$$i_r = \frac{1}{n}\sum_{j=1}^{n}\frac{z_j}{COB_j} \quad (2)$$

where:

n	.....	number of realized comparable sales
z_j	.....	achieved net annual income (income) of the building -*j*-
COB_j	….	achieved selling price of the building -*j*-

b) not of the same size, otherwise comparable objects, the weighted average would be utilize, where net income of bigger object is demonstrated through larger weighting:

$$i_r = \frac{\sum_{j=1}^{n} \frac{z_j}{COB_j} \times v_j}{\sum_{j=1}^{n} COB_j} \tag{3}$$

where:

v_j ….. means the weighting, attached to the object -*j*- (e.g. functional area and the like)

c) if the sales were realized under the same conditions, then we could utilize the price as well and then the relationship would be simplified:

$$i_r = \frac{\sum_{j=1}^{n} z_j}{\sum_{j=1}^{n} COB_j} \tag{4}$$

2. Application to particular real estate property

As the database for capitalization rate determination, the data from the offer of the internet database www.sreality.cz have been utilized. Categories, into which real estate property is classified in this real estate property database, are recorded in following tables. These tables containing number of real estate property in given categories up to the given date are compiled for the town of Ostrava, for them capitalization rates were counted. In view of the categories and practical applicability for the purpose of this work were selected the following categories, for which capitalization rate will be determined (Edelstein. et al., 2016):

- *Offices*
- *Industrial buildings (storehouses and production)* (Sivitandes, 1999)
- *Commercial*
- *Accommodation*
- *Agricultural*

Table 1: The number commercial real estate property

Commercial real estate property		
Offices	*75*	*887*
Storehouses	*22*	*268*
Commercial	*73*	*7*
Production	*43*	*93*
Accommodation	23	7
Agricultural	0	0
Total	236	1262

*Note: * New buildings were without stating of selling prices or rental prices, related to advertising of prepared construction.*
Source: Own work according to www.sreality.cz for Ostrava-town locality up to 15.9.2015.

3. Proposal of methodology for capitalization rate determination

3.1 Applied methodology in the capitalization rate relationship

For given purpose we have utilized slightly different process using similar relationship to the formula No. 1.2. Formula designed in literature and signed as 1.3 or 1.4 had not been used. Questionable can be the issue how to determinate the way but above all the fact, if the property with higher weighting should have higher information value.

For calculation based on the methodology according to formula No. 1.2 it is necessary to know:

- number of realized comparable sales, given database is setting only the offers, instead of realized sales or rentals we have proceed from the adjusted offers, this have an influence on the calculation accuracy,
- annual net income, again we have proceed from the offers, from gross incomes then, and there is necessary to recalculate them into net incomes,
- selling price of the property, it is replaced again with adjusted supply price.

For capitalization rate (McDonald, 2015) evaluation of selected real estate property the groups (sales and rental) of particular real estate property in number of 20 samples have been chosen (Clayton et al., 2009) This number was chosen due to relatively high time consuming processing of the samples. Optimal should be to compare real estate property, which is in the offer of real estate agency determined both for sale and for rent. This possibility seems to be feasible only in case of industrial buildings and locality of Ostrava – town. To each sample for given property for sale was searched pair sample for rent and vice versa. Within most categories there was bigger number of representatives for sales, so that a sample from less numerous group was chosen, which means for rent and to it a pair sample for sale was sought. The criterion was the closest locality, identical, if possible. The other elements were included into calculation with the help of coefficients.

Selling prices determination

Determination of the property selling prices is performed from supply prices of real estate agencies, that why the supply prices are multiplied by coefficient 0.85 or 0.90. Extent of the coefficient differs for particular real estate property categories.

Net income determination

Annual net income is calculated as gross annual income lowered by expenses related to the real estate property. For determination of expenses by which is the gross income lowered have been used information about particular costs according as follows:

- insurance of the construction (building)
- real estate tax
- repairs and maintenance

4. Capitalization rate determination

Although the particular samples are comparable with locality, they differ in the other characteristics that are included in coefficient KC in total, for each sample of the flat for sale or rent. Therefore, for capitalization rate determination, these different characteristics are reflected into calculated selling unit price or net income of renting per unit. Capitalization rate for the sample with order number is then given by the formula (Das, 2015):

$$capitalization\ rate_i = \frac{\frac{net\ income_i}{KC\ remt\ _i}}{\frac{selling\ unit\ price_i}{KC\ sellingj_i}} \tag{5}$$

4.1 Evaluation of the methodology results

Table 2: Capitalization rate for industrial buildings, the town of Ostrava

Capitalization rate	
max	6.0%
min	-2.0%
average	3.3%
median	3.4%

Source: Own processing

Table 3: Industrial Property (production and storage) Ostrava

A list and description of samples for sale

Number	Type	Requested price	Commission RK	Address	Building	Ownership	Floor area	Object status	Number floor of the building	Land
		CZK					M²			M²
1	manufacturing	3 490 000	Including commissions	Ostrava-Michálkovice	brick	personal	400	Beforee reconstruction	1,2	742
2	manufacturing	7 500 000	Including commissions	Ostrava-Hrabová	skeletal	personal	1 000	Very good	1	2 000
3	manufacturing	3 990 000	Including commissions	Ostrava-Slezská	mixed	personal	580	Very good	2	503
4	manufacturing	3 700 000		Šenov, Frýdecká	brick	personal	320	After reconstruction		1 108
5	manufacturing	3 800 000	Including commissions	Vítkovice, Erbenova	brick		510	After reconstruction	2	463
6	manufacturing	5 080 000	Including commissions	Ostrava-Třebovice	brick	others	450	Very good	2	
7	warehouse	2 990 000	Including commissions	Ostrava-Radvanice	mixed	others	380	Good	1	3 500
8	warehouse	36 250 000		Ostrava-Kunčičky	brick		2 400	Very good		15 000
9	warehouse	3 500 000	Including commissions	Ostrava-Slezská	brick		396	Very good		

Source: Own processing

5. Conclusion

Given methodology can be understood as the first outline for capitalization rate calculation for various real estate categories and various localities. This attempt to outline given methodology would be not only of practical benefit to experts and appraisers, but also to potential clients, who deal with the real estate property appraisal. Is can serve as a manual offering the connection of theory to practical life not only for students of VŠB-Technical University of Ostrava, the Faculty of Building and Faculty of Economics, but also for the students of another universities of technical and economic specialization, which would like to deal with these issues in future.

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PSYCHOLOGICAL CAPITAL AND CHALLENGE APPRAISAL FOSTER THRIVING IN THE GLOBALIZED MULTICULTURAL WORKPLACE

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Abstract. The purpose of the study was to examine the psychological resources which foster thriving in multicultural work settings of multinational corporations (MNCs) – the companies that are evident manifestation of globalization. Although globalized multicultural workplace creates specific job demands that pose unique occupational stress to individuals, some personal resources enable them to deal with these demands and to thrive. Thriving is the experience of an individual's growth resulted from both vitality and learning in a work context. In the qualitative explorative research the information was gained via semi-structured, in-depth interviews with 38 respondents working in subsidiaries of two MNCs located in Poland. The study presented here is a part of the research entitled "Cross-cultural interactions in foreign subsidiaries of multinational corporations – traditional and Positive Organizational Scholarship approaches" (No. DEC-2013/09/B/HS4/00498, the National Science Centre, Poland). The results demonstrate that those individuals who thrive in the globalized workplace more frequently assess their specific job demands as challenges than hindrances. They also feel more positive than negative emotions. Thriving people activate their personal resources such as curiosity, openness and positive attitudes all of which increase their vitality. Although more effort is needed to deal with cultural diversity in the globalized workplace, those individuals are motivated for long learning, which facilitates their occupational and personal development. Thriving people activate their personal resources to face their challenges, which, in turn, enhances their learning and personal growth. The results of the study are discussed with regard to the transactional stress theory and Positive Psychological Capital.

Keywords: cognitive appraisal, learning, vitality, multinational corporations

JEL Classification: D83, F23, M5, M14, O15

1. Background

Globalization and global mobility are common phenomena on the world labor market. Working with people from different cultures as well as providing services to clients in different countries not only increase the potential of employees and their competencies but also influence the development of the very organizations. Interpreting thriving as the experience of an individual's growth resulted from the joint of vitality and learning in a work context (Spreitzer, Sutcliffe, Dutton, Sonenshein and Grant, 2005), the purpose of our study was to examine the psychological resources which foster thriving in multicultural work settings of multinational corporations (MNCs). Although globalized, multicultural work environments create specific job demands that pose unique occupational stress to individuals, some personal resources enable them to deal with these demands as well as to thrive. Thus, thriving personnel is more engaged in the success of an organization and enhances its innovation.

1.1 Thriving at work

Thriving at work is defined as the psychological state that links both the sense of vitality and learning (Spreitzer et al., 2005). The vitality component of thriving may be seen as positive energy and feelings of being enthusiastic, whereas learning refers to growing through new knowledge and skills, enhancing the sense of efficacy and competence (Spreitzer et al., 2012).

Thriving contributes to many positive outcomes in organizations, e.g. it is associated with job satisfaction, goal orientation, career development initiative or a better job performance (Porath, Spreitzer, Gibson and Garnet, 2012).

Thriving can shed light on the functioning of individuals at work and their well-being, broadening the perspective on individual psychological functioning and development (Spreitzer et al., 2005). Additionally, thriving helps employees both to self-regulate their personal development and performance as well as to improve their work environment. Therefore, thriving extends the view of an adaptive process in MNCs, which depends on the work environment and the social interaction context.

1.2 Job demands and their outcomes in multicultural work setting

Specific job demands in the globalized, multicultural work setting, namely multilingualism, tolerance of cultural differences, cross-cultural adjustment and multicultural leadership style, are associated with intercultural interactions. The review of the prior research have revealed that working in multicultural work settings poses specific demands that can lead to both positive and negative outcomes (Rozkwitalska and Basinska, 2015). These inconsistent results encourage us to look for individual dispositions, abilities and skills which help employees better deal with these job demands and generate more positive outcomes such as thriving. We want to emphasize that various aspects of work in multicultural environments may affect thriving in a different way.

To date, numerous studies have investigated which personality dispositions are needed to function effectively in multicultural environments (e.g. Johnson, Lenartowicz and Apud, 2006). For example, openness to experience, emotional stability and social initiative have been the best predictor for work adjustment in a multinational environment (Przytuła, Rozkwitalska, Chmielecki, Sułkowski and Basinska, 2014). Particularly, emotional stability correlates with thriving at work (Ren, Yunlu, Shaffer and Fodchuk, 2015). Yet, we intend to find more advanced explanations why some employees gain more benefits than disadvantages while working in a multicultural setting. We are interested in states that are dynamic and can be broadened. It is particularly important from a managerial point of view because these states can be improved during work and promoted as significant intercultural competences. We also suppose that they are the key factors that further people's thriving at work (as individual benefits) and social capital in an organization (as organizational gains).

2. Method

2.1 Job demands and their outcomes in multicultural work setting

Subsidiaries A and B located in Poland were selected with a purposive sampling technique, which is usually used in studies that rely on qualitative content analysis. The initial criterion was that intercultural interactions at work are a permanent element of occupational duties of their staff and was met in both cases.

Subsidiary A belongs to a German MNC that employs above 2,300 people worldwide. It offers surface protection, scaffolding, steel construction and oil and gas offshore services for various European markets. The vast majority of its revenues are generated outside Poland.

Subsidiary B was bought by a North American global semiconductor manufacturer that employs above 100,000 employees worldwide. This subsidiary provides services to other MNCs' units in Europe, the Middle East and Africa. It is organized mainly as an IT-shared service center.

2.2 The participants

We designed the research as a qualitative, explorative study based on information gained via semi-structured, in-depth interviews with 38 respondents (i.e. 20 and 18 interviewees in subsidiary A and B respectively). The majority of them were specialists and the middle level managers, mainly men (61%) in their twenties and thirties (40% and 26% respectively). Over half of the study's interviewees have been working in the present MNCs for less than five years and come from various organizational units. Three-quarters of the group have had international experience of working and living abroad. Approximately half of the participants have had professional experience gained in other MNCs.

2.3 The research methods

The interviews that we applied in our study have appeared to be an appropriate method to obtain the most accurate and detailed observation with regard to the participants' perceptions and attitudes. The data collection was conducted between March and September 2014. During the interviews we referred to the outcomes of intercultural interactions and factors enabling effective cooperation with foreigners. The average time duration of each interview was 63 minutes, making up 39 hours of the interviews in total.

We applied the three steps procedure of qualitative content analysis, which assumes and identifies themes or patterns that lead to a subjective interpretation of the content of the text data (Hsieh and Shannon, 2005). We developed the coding schemes inductively by constant comparisons of each interview and emerging themes: [1] we applied open coding to reveal some common themes emerging from the interviews (e.g. 'the interesting experiences and curiosity' category emerged); [2] during the axial coding step we classified each category according to the types of difficulties experienced in the relationships with foreigners (e.g. the 'communication barriers' category was identified), the types of outcomes derived from intercultural interactions (e.g. the 'learning and vitality' category was developed), conditions essential for fostering successful interactions (e.g. the 'personal traits' category came out); [3] during the process of selecting coding we combined some categories into broader clusters. Consequently, a theoretical scheme emerged that enabled us to discuss the results as follows.

3. Results

3.1 Job demands evaluation fosters thriving

Our study shows that the participants perceived learning and vitality at work as a consequence of specific job demands in MNCs. These job demands, categorized by the majority of them as challenges rather than barriers, indicated their negative and positive sides:

"Difficulties you face [in a multicultural team] are not a problem but a challenge. It is interesting, not annoying. It requires more effort, though I also learn more."

The respondents were expected to have a good command of common language. Although this job demand was often seen as a barrier in their contacts with foreigners, some of the participants described it as a challenge rather than a barrier because they appreciated the opportunity to practice the language skills and their own professional development:

"[The benefits concern] learning cultures and practicing a foreign language, it's great."

In the globalized, multicultural workplace of the MNCs, the respondents were faced with a requirement to manage the difference of attitudes and habits, which also encouraged them to learn:

"I like diversity and learning from others. I love to learn that as many people as many points of views. It's more interesting."

The respondents of our study assessed their work in MNCs as highly demanding and competitive. According to our research, working in the unique environment of the MNCs introduced the respondents to job demands, which contributed to their knowledge sharing and enhanced learning:

"You learn various perspectives and build something together, taking into account cultural and local aspects. You share your knowledge with other people."

The results demonstrated that those individuals who thrive in globalized, multicultural work settings more frequently assessed their specific job demands as challenges than hindrances. They also felt more positive than negative emotions.

3.2 Personal resources broaden thriving

Since work settings of MNCs are highly demanding due to cultural diversity, the necessity to apply a functional language and cross-cultural adjustment of staff, MNCs' employees should possess appropriate personal resources. Thus we asked the respondents what, in their opinions, makes working with foreigners full of positive outcomes. Generally, the respondents indicated such resources as personal features and positive attitudes.

With respect to personal features, *being open* was the key state of a person to be successful in intercultural interactions. For example, one of the respondents pointed out:

"[A person who wants to succeed in intercultural interactions should be] open to other people, respect others and be confident about his/her competencies."

The respondents frequently mentioned *a positive attitude* that may determine smooth relationships with foreigners, including not yielding to stereotypes and motivation toward goals:

"Positive experiences set one's mind positively. (…) For example, you need a positive attitude toward someone's accent because you want to reach goals together."

Additionally, a significant factor enabling intercultural interactions to take place was a person's belief in a sufficient level of *abilities* for appropriate action and behaviors:

"It depends on people. If you want something, you can do it. In the beginning, language can be a barrier but it depends on us if we overcome it. It's up to people if they want to surmount barriers."

In other words, the respondents demonstrated that they experienced a strong sense of efficacy and they felt hope (elements of Positive Psychological Capital).

Finally, our study showed that in the multicultural environments of the MNCs the participants experienced different emotional states. As for the *positive emotions*, they dominated and could foster the respondents' vitality:

"We work as an international team. It is very pleasant and great because we learn a lot from one another. (…) Individual efforts add and you don't feel alone."

To sum up, thriving people activate their personal resources such as openness and positive attitudes, experience a lot of positive emotions, which increases both their vitality and learning.

4. Conclusion

The results of our study have shown that learning, a component of thriving at work, dominated in the respondent s' statements. The specific job demands inherent in MNCs' globalized workplace, despite requiring effort, are a unique source of learning and are perceived and evaluated more often as challenges than hindrances. Furthermore, the respondents activate their personal resources, experiencing positive emotions during their work in the MNCs. These resources can be viewed as Positive Psychological Capital (PsyCap), where learning is mainly perceived from the perspective of self-efficacy and resilience, whereas vitality is transmitted from positive emotions, optimism and hope.

4.1 Cognitive appraisal: a hindrance or challenge

The specific job demands in the multinational work settings were often described as demanding yet providing opportunities for learning. The respondents called them challenges. Basing on the transactional stress theory (Lazarus, 1991), job stress focuses on the interaction between a person and his/her environment. The main phenomenon is cognitive appraisal, which determines how individuals evaluate events or conditions depending on their significance and meaning. In the work context it means that employees evaluate events and job demands in two categories: challenges or hindrances (Cavanaugh, Boswell, Roehling, and Boudreau, 2000). Hindrances refer to the threatening potential for an individual's well-being and organizational outcomes. By contrast, challenges have a rewarding potential, can lead to development and growth and may create a high performance opportunity (Webster, Beehr, and Love, 2011). Challenges are associated with both negative and positive emotions because they are strongly ambiguous. Although more effort is needed to deal with specific job demands, the individuals who notice challenges are motivated for permanent learning, which facilitates their occupational and personal development. Individuals can still thrive in demanding environments that promote personal challenges and achievement. More importantly, challenges further thriving and foster life satisfaction. The cognitive stress theory clearly explains why some individuals gain more benefits than disadvantages working in MNCs as well as provides more consistent results when compared with other theories.

4.2 The Positive Psychological Capital as a personal resource

The study has shown that the respondents working in the MNCs felt positive emotions and activated their personal resources such as openness and positive attitudes. To analyze the results in the most appropriate way, PsyCap appears the most accurate. Following the definition by Luthans, Avolio, Avey and Norman (2007), it is a psychological state of development, characterized by self-efficacy, optimism, hope and resilience.

Learning as a component of thriving

In multicultural work settings, a cultural diversity is a natural source of a learning process. Moreover, learning languages as a natural consequence of working with foreigners activate employees' growth. Learning is perceived as a relational process (Carmeli, Bruller and Dutton, 2009). Personal resources such as self-efficacy and resilience facilitate being open, tolerant and curious towards diversity and novelty.

Self-efficacy as a component of PsyCap is defined as an individual's belief in terms of his/her abilities to mobilize motivation and cognitive resources to take the action necessary to goal achievements (Luthans et al., 2007). Those with higher efficacy are more likely to see job demands as a challenge than a hindrance because their personal efforts are useful and necessary. *Resilience*, the next component of PsyCap, is characterized by positive psychological capacity to cope with uncertainty and conflict at work, openness to a change and responsibility. Thus resilience is useful in a demanding environment with different, ambiguous conditions.

Similarly to our results, Sonenshein, Dutton, Grant, Spreitzer and Sutcliffe (2013) explain that learning and growth of employees are deeply embedded in organizations. One's growth reflects individual agency, which is observed by the way individuals work with available resources, and influences the actions other employees take to support the sense of progressive self-change.

Vitality as a component of thriving

There is also evidence that an employee's PsyCap leads to a positive attitude (Donaldson and Ko, 2010). With regard to our study, the respondents presented positive attitudes towards work and experienced more positive than negative emotions, which strongly corresponds with the two components of PsyCap, i.e. optimism and hope. Finally, it drove their vitality.

Optimism is directly associated with expectations of positive outcomes and positive events in the future. Being optimistic includes positive emotions and motivation, which helps in realistic evaluation of what can be done and what action should be stopped. In this way it strengthens self-efficacy and hope (Luthans et al., 2007). As for *hope*, it is a positive motivational state focused on success. Thus optimism and hope fuel energy and vitality to cope with demanding multinational work settings in a more successful manner. Therefore, in terms of personal resources, hope and optimism increase commitment and motivation as well as broaden vitality of employees.

The study has some *practical implications*. PsyCap is an important set of personal resources that are needed to deal with occupational stress and reduce the symptoms and the outcomes of negative events (Avey, Luthans, Smith, and Palmer, 2010). Employees with a higher level of

PsyCap are open to development and growth and are better at focusing on job performance (Luthans, Avey, and Patera, 2008). PsyCap can result in vitality, as well as contribute to learning. Thus managers are expected to help employees broaden their potential through appropriate management of diversity, training of positive competencies and employees' encouragement to craft their job in daily practice.

Our study has some *limitations*. First, the qualitative methodology was applied, which does not allow for a generalization of the findings. Second, the sample size was limited since only the respondents from two Polish subsidiaries of MNCs were interviewed. However, the results indicate *directions for further research*. For example, the role of positive PsyCap as a potential moderator in the relation among job demands, job resources and thriving should be better recognized in future studies. Moreover, quantitative studies are also needed.

In conclusion, thriving people activate their personal resources to face their challenges, which, in turn, enhance their learning and vitality. In globalized, multicultural work settings, cultural diversity is a natural source of a learning process, which appears to be more salient than vitality. Personal resources constitute PsyCap and broaden thriving, self-efficacy and resilience foster learning, whereas optimism and hope support vitality.

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METHODOLOGICAL APPROACHES TO CLUSTERS IDENTIFICATION IN THE CONDITIONS OF ECONOMY GLOBALIZATION

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Abstract. Cyclic development of world economy in which growth and a maturity are replaced by stagnation and the crisis phenomena, dictates to scientific community need of search of new effective approaches and methods to stimulation of points of growth. The cluster approach offered in scientific works of M. Porter became one of such methods of stimulation of social and economic development of certain regions and the countries in general. In paper conceptual bases of formation of a regional construction cluster are stated. Increase of competitiveness of each of participants of a cluster, and also the region of their basing due to synergetic effect is result of its activity. For identification of cluster educations on the example of the Volgograd region it is used macro - and micro approach. Calculation is carried out with use of author's software products. Recommendations about creation of a regional construction cluster on the basis of the complex infrastructure project are developed. For the purpose of definition of potential clusters of the Volgograd region the methodology of the European cluster observatory is applied. For an assessment of a possibility of participation of the enterprises in a cluster, stability of each enterprise was compared. The further integrated assessment was carried out with application of a method of the analysis of hierarchies.

Keywords: regional economy, the cluster construction, infrastructure project, a public-private partnership, identification of clusters

JEL Classification: R11, R15, P41

1. Introduction

At the present moment, in the conditions of globalization of economies, it is obvious that declared by the Government of Russia in "The concept long-term socially – economic development of the Russian Federation for the period till 2020" transition to innovative economy, including due to formation and successful functioning of innovative clusters, is under the threat of failure. It is several reasons for that:

1) External factors:

- unprecedented falling of the world prices for oil, which result was a reduction of revenues of the budget;

- imposition of sanctions of the USA and the European Union concerning Russia, as a result of which the country was cut off from foreign sources of loan of money. It led to sharp increase in prices for import production, which was aggravated with reciprocal sanctions of the Government of the Russian Federation;
- strengthening of the geopolitical conflict between Russia and the USA that led to growth of social and economic tension within the country.

2) Internal factors:

- weak readiness of both domestic enterprises, and authorities to develop innovative production. And it occurs, despite constant declaring of such intentions.
- the highest level of budget outlays on military industrial complex and defense, at the same time we observe the minimum level of the state and budgetary support of science, education, innovations.

The leading economists suggest making use the experience of the USA based on the venture scheme and also South Korea or Taiwan on "cultivation" of the hidden champions, for overcoming current situation. In the Russian conditions the uniform center at the level of the region which will undertake function of definition of potential "enterprises locomotives" or participants of a regional cluster is necessary (within author's terminology). Thus, within the presented work we set the object: to develop conceptual bases of formation of a cluster in the region.

2. The definition of the terminology

By definition of the founder of the cluster development theory Michael Porter: "the cluster is a group of geographically adjoining interconnected companies and the related organizations operating in a certain sphere, which are characterized by a community of activity and complementary each other". (Porter, 1990)

M. Porter's theory gained development in works of many western economists, including: E. Dakhmen, D. Maylat, P. Krugman, M. Enrayta and S. Goyettsa, S. Rosenfeld, E. Fezer, V. Feldman. Among domestic economists are known: T. V. Tsikhan, M. Afanasyev and L. Myasnikova, E. V. Pustynnikova.

The term "cluster" is used in many Federal and regional legislative acts. At the same time, the common understanding of this term in the regulations is absent.

Author's definition of a concept: the cluster is association of subjects of economic detail, both the private sector, and the sector of state regulation connected by the relations of functional dependence, proximity which joint activity allows to optimize use of limited quantity of resources to increase competitiveness both each of participants of a cluster, and the region of their basing due to synergetic effect.

3. Questions, hypotheses, and methods

At the present moment there are many methods for identifying clusters, based on macro – or micro-approach.

Macro-approach, considers two invariable characteristics of clusters – functional coherence and geographical proximity.

The best results of identifying clusters on the basis of the macro-approach are achieved by means of a combination of industrial and spatial approaches. M. Porter's approach (The Harvard business school) belongs to such synthetic approaches. (Porter, 1986) At the heart of definition of cluster groups on M. Porter the model of distribution of branch employment across the territory of all country lies. Important feature of this technique is the employment statistics priority.

The micro approach examines directly the enterprises and potential real cluster members. It allows evaluating the possibility of their participation in the cluster.

4. Results

To identify potential clusters in the regions, as well as members of the cluster in the Volgograd region, the authors applied techniques of both macro-and micro-approaches with the use of copyright software products: "*Oracle-1*" (certificate of state registration by Federal Service For Intellectual Property (Rospatent) №2015612210 from 13.02.2015) and "*SEP-Analysis.1*" (certificate of state registration by Federal Service For Intellectual Property (Rospatent) №2014660103 from 01.10.2014).

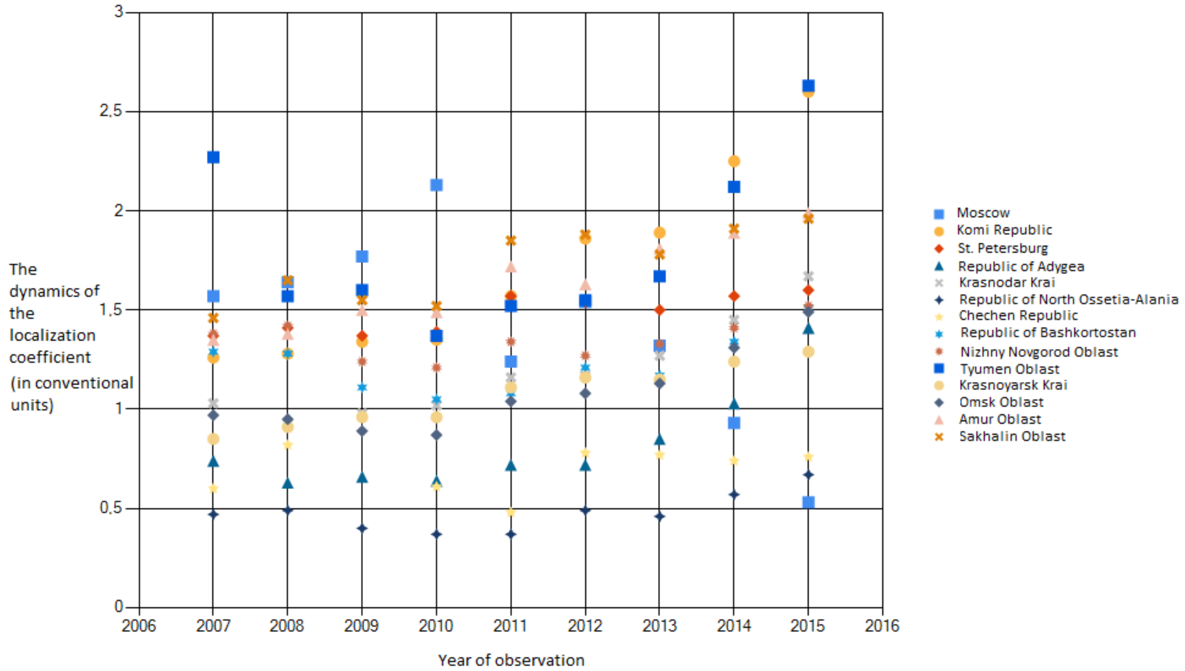
With the aim of identifying potential clusters in the Volgograd region was applied the methodology of the European cluster Observatory. It is based on the distribution of sectoral employment. For calculations used the program "*Oracle-1*", designed to automate the process of identifying cluster groups in the region. The software performs a calculation for the current period and carries out the prediction of *n* steps ahead. This software was developed in co-authorship with Ph.D. A. S. Sitnikov.

The calculation on example of the Volgograd region revealed the following: value of coefficient of localization more than 1 (the branch prevails in region economy) for agricultural industry (1,79 for 2013, expected values of coefficient – 1,89 and 1,99 respectively for 2014 and 2015). As shows the figure 1, agriculture is the undisputed leader in the industry employment in the region. For branch of fishery the coefficient of localization made in 2013 – 1,09, the calculated expected values – 1,3 and 1,43 respectively. The following leader in branch employment is the branch of wholesale and retail trade – 1,06 for 2013, expected values for 2014-2015 – 1 and 0,95; the processing production – 1,02 localization for 2013; 1,04 and 1,07 – expected values for 2014-2015.

The obtained values of the index of industry localization objectively reflect the picture of the socio-economic development of the region: there is a disparity of services and production (production losses) and retained the traditional agricultural orientation of the Volgograd region.

For the construction industry the coefficient of localization equal to 0,89 for 2013, the forecast values were of 0,82 and 0,79 for 2014 and 2015, respectively. The decrease in the coefficient reflects the crisis situation, emerging since the end of 2014 in the economy of the country and the region. As well we have analyzed the dynamics of the coefficients of "*Size*", "*Focus*", "*Localization*" for the construction industry across all regions of the Russian Federation (figure 1).

Figure 1: The dynamics of the localization coefficient for the regions of the Russian Federation leaders in the construction industry (for the period 2006-2016)



Source: compiled according to the calculation of programs "Oracle-1"

The prediction results for the localization of 2014 and 2015 the following:

- until 2011 in the Central Federal district the leader in the construction industry for the coefficient of localization was the city of Moscow. However, after the dismissal of mayor Yury Luzhkov, industry employment declined sharply, and the leaders came region of Lipetsk Oblast;
- in the North-West Federal district (excluding Nenets Autonomous Okrug) a leader in the construction industry are the Komi Republic and St. Petersburg;
- in the Southern Federal district maximum value of the localization coefficient is observed in the Krasnodar Krai. This is due to the construction of Olympic facilities. In second place is the Republic of Adygea;
- in the Northern Caucasus Federal District the Chechen Republic and the Republic of North Ossetia-Alania, subsidized from the federal budget, are in the lead;
- in the Volga Federal District the Republic of Bashkortostan and the Nizhny Novgorod Oblast are in the lead;
- in the Ural Federal District the Tyumen Oblast is in the lead (irrespectively uses in calculations of data on Khanty-Mansi Autonomous Okrug (Yugra) and the Yamalo-Nenets Autonomous Okrug);
- in Siberian Federal District on an indicator of branch localization Krasnoyarsk Krai and the Omsk Oblast are in the lead;
- in the Far Eastern Federal District branch localization maximum to the sector "construction" in the Amur Oblast and Sakhalin Oblast regions.

The micro approach examines directly the enterprise. It identifies potential and actual members of the cluster and allows evaluating the possibility of participation of enterprises in the cluster. For assessment of possible participation of the enterprise in a cluster we suggest to estimate stability of each enterprise on the basis of components: financial, economic, organizational, investment and innovative stability. Integrated assessment is carried out with application of a method of the analysis of hierarchies. The method ranks the enterprises based on the calculation of the vector of global priorities. (Saaty et al., 1991)

For receiving this system of indicators the technical and economic analysis of 10 enterprises for 2014 is carried out (all enterprises function in the Volgograd region). Further, selection of the indicators, forming system of linguistic variables is made. (Leung, 2010) The main objective of the implementation of this model is the ranking of enterprises.

Table 1: The integral indicator of the stability of construction enterprises

Enterprises of branch of construction and production of construction materials	Stability in the dynamics of the analyzed period			
	Integrated priorities of the stability (specific weight)	Rank (rating)	Absolute deviation from average value of a global vector of priorities (in conventional units)	Deviation from average value of a global vector of priorities, %
1	2	3	4	5
1. LLC “KZMK”	0,05692841	10	-0,043071591	-75,7
2. JSC “ZHBI-2”	0,07701584	8	-0,022984161	-29,8
3. JSC “Stroymontazh”	0,12304820	3	0,023048199	18,7
4. LLC “PSK Evrodom”	0,15974270	1	0,059742699	37,4
5. CJSC “Promstroy”	0,09317856	5	-0,006821441	-7,3
6. LLC “Stroykomplekt”	0,09515259	4	-0,004847411	-5,1
7. LLC “RSM”	0,15308250	2	0,053082499	34,7
8. CJSC “SK Gradostroitel”	0,06522531	9	-0,034774691	-53,3
9. JSC “ZhBI-6”	0,08705316	7	-0,012946841	-14,9
10. LLC “Alfa-story”	0,08957274	6	-0,010427261	-11,6
Average value of a vector of integrated priorities of stability (relative share)	0,1	-	-	-

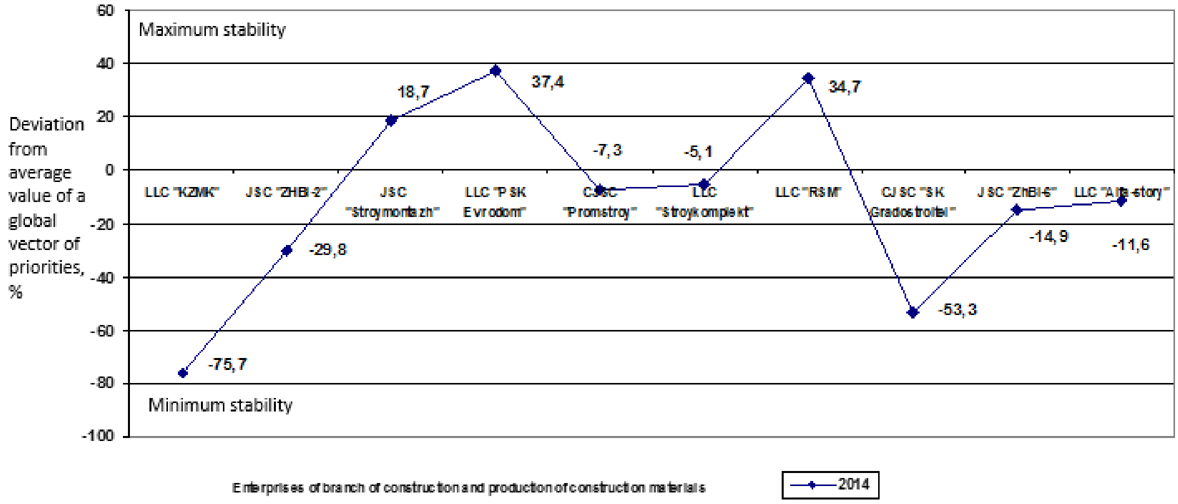
Source: compiled according to the calculation of programs "Sep-Analysis.1"

As a result, selection of the enterprises for criterion "*The highest stability*" is formed.

The calculations were made using the author's computer program "SEP-Analysis.1" (certificate of state registration of program for PC by Federal Service For Intellectual Property (Rospatent) №2014660103 from 01.10.2014, the authors Ph.d V. V. Klyushin, doctor of Economics O. V. Maksymchuk). Ranking of enterprises carried out by means of spreadsheet *Microsoft Excel 2007* (table 1).

Carried out using the analytic hierarchy process evaluation of the stability showed that out of 10 companies, operating in the construction sector in 2014, only three companies (JSC «Stroymontazh», LLC «PSK Evrodom», LLC «RSM») has received the positive difference between the average value of global priorities and the values of appropriate linear combinations for each of the studied enterprises (+18,7%; +37,4%; +34,7% respectively). The remaining enterprises are outsiders to the values of stability, the data of figure 2.

Figure 2: Graphical interpretation of variance component of the integral vector of priorities of the enterprises stability from its average value, %



Source: compiled according to the calculation of programs "Sep-Analysis.1"

Evaluation method of stability using the method of analysis of hierarchies, are quite universal and easily applicable in practice. This method provides another flexible tool to determine the most preferred business entities for participation in the cluster.

According to authors, the most acceptable way of the state influence on formation of clusters in the Volgograd region is start and implementation of large infrastructure projects on the basis of public-private partnership.

This is because, first, it uses the tools direct and indirect financial support of innovative projects in the sphere of infrastructural support of innovative entrepreneurship. Secondly, there is the improvement of the institutional environment of entrepreneurship through the formation of multi-level innovation infrastructure. (Brentani & Kleinschmidt, 2015) Thirdly, the tasks of the state in solving problems of network entrepreneurial structures are mated with the clustering of small and medium business. (Feldman et al., 2005)

In the model of a territorial cluster offered for the Volgograd region, the key position is taken by JSC Center of Cluster Development which interacts with all participants of a cluster.

JSC "Center of Cluster Development" organizes the work and operation of all enterprises. In the sphere of its influence included the coordination of interactions, monitoring of industry agglomerations, and control over execution of design solutions, search and attraction of funding sources, as well as dialogue with the authorities.

5. Discussion

Accurate coordination of the activity aimed at the development of a cluster is necessary for harmonious work of all elements of model. Special actions which consider an orientation of its activity and a possibility of execution are assigned to each participant of partnership. Efficiency of the policy, pursued in regions, depends on the coordinated actions of various ministries and departments, which are taking part in formation and realization of innovative policy. In the absence of due coordination of program actions unevenness of assignment during period of validity of programs and low indicators of return of invested funds is observed.

Among other factors, reducing efficiency of this instrument of regulation, it is possible to note high extent of bureaucratization of decision-making process and weak participation of business in joint financing of innovative projects. (Järvinen et al., 2012) An obstacle for use of public-private partnership is the weak involvement of private business into process of the choice of priorities of scientific, technical and innovative activity, on which executive authorities plan partnership.

Development of partnership is not promoted by uncertainty of conditions of the state contract when the state (in case of reduction of budget financing) reserves the right to reduce volumes of the allocated funds for realization of a concrete action. In such situation it is rather difficult to private business to form the innovative strategy.

6. Conclusion

In paper bases of formation of a cluster in the region are stated. Macro - and microapproaches for identification of cluster educations on the example of the Volgograd region with use of author's software products are used. Recommendations about creation of a regional construction cluster on the basis of the complex infrastructure project are developed. The practical importance of this research is that the approved author's developments can be applied by regional authorities when forming cluster policy. Use of materials of a research for holding a procedure of identification of clusters, development of measures of the state support and assessment of efficiency of their activity is also possible.

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HOW SELECTED GENERATIONS CONSIDER IMMIGRANTS´ NEEDS IN TIMES OF GLOBALIZATION: THE RESEARCH RESULTS

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Abstract. Many nations and political bodies are struggling to define attitudes and policies towards immigrants and immigration for the 21st Century. This national and global debate usually revolves around economic impacts and the legal status of individual or groups of immigrants. It is significant to deal with an issue of immigrants´needs and also how people consider them, because it is very actual topic in times of globalization. Understanding immigrants´needs means bigger chance for being accepted to the society. Public opinion will become more favourable toward immigrants and more accepting of immigration as younger, more liberal and tolerant generations replace older ones. Elderly people rely more heavily on stereotypes and lack "the ability to inhibit information," causing people to be more prejudiced than they would like to be. The aim of the paper is to evaluate the perception of immigrants´needs by 3 generations of people – Generation Y, Generation X and Baby Boomers. Using the method – sentence completion, respondents from the Czech republic were asked, what they consider important for immigrants´ needs and which factors influencing their satisfaction. Obtained data were processed through a grounded theory method. Independent t-test was used to evaulate results. Immigrants' needs for community services could pose new challenges for local governments. The results are broadly discussed.

Keywords: immigrand, needs, satisfaction, globalization

JEL Classification: A14, J14, J15

1. Introduction

The trend toward globalization (free trade, free capital mobility) is not usually associated with migration or demography. If globalization were to be accomplished by free mobility of people, then demographers would certainly be paying attention. However, since globalization is being driven primarily by "free migration" of goods and capital, with labor a distant third in terms of mobility, few have noticed that the economic consequences of this free flow of goods and capital are equivalent to those that would obtain under a free flow of labor. They are also driven by the same demographic and economic forces that would determine labor migration, if labor were free to migrate.

1.1 Migration

The influences of globalization have permeated various aspects of life in contemporary society, from technical innovations, economic development, and lifestyles, to communication patterns. It encompasses multicultural acquisition as a proactive response and ethnic protection as a defensive response to globalization. Multicultural acquisition is positively correlated with both independent and interdependent self-construals, bilingual proficiency and usage, and dual cultural identifications. Multicultural acquisition is promotion-focused, while ethnic protection is prevention-focused and related to acculturative stress. Global orientations affect individuating and modest behavior over and above multicultural ideology, predict overlap with outgroups over and above political orientation, and predict psychological adaptation, sociocultural competence, tolerance, and attitudes toward ethnocultural groups over and above acculturation expectations/strategies (Chen et al., 2016).

Migration has become a controversial issue in most European countries. Immigrants are often blamed for society's problems. They are perceived as outsiders who take jobs, sponge welfare benefits, and threaten social cohesion. These fears have been intensified by economic recession, high joblessness, and the rise of flexible forms of employment. Indeed, divisive nationalist arguments, labour conflicts, and episodes of violence have become dangerously manifest in many societies. As a consequence, immigrant integration – under conditions set by receiving societies – has become a major issue for governments at all levels (Penninx et al., 2006). However, some authors emphasize that it is necessary to distinguish between the human capital composition of different migrant flows, their duration, and their structural significance and change potential (Portes, 2009). There is also a special need from organisations, firms, and companies regarding talented workforced which might be particulary solved by migrants (Ornstein, 2015). Also, Špirková et al. (2015) emphasizes that crucial factor for an enterprise to be successful is social capital and social innovation (see also Špirková & Stehlíková, 2015). The question is if in specific areas that could be covered by immigration.

Unlike the first era of capitalist globalization (1800 to 1929), the second era sees countries limiting and controlling international migration and creating a global economy in which all markets are globalized except for labor and human capital, giving rise to the relatively new phenomenon of illegal migration (Donato & Massey, 2016). Trade unions' attitudes and actions related to migrant workers therefore constitute a relevant area of inquiry in both migration studies and industrial relations research. Within migration studies, such analyses would provide insights on the role of trade unions in promoting immigrants' labour market and social integration. In industrial relations, a better understanding of the relationship between unions and migrant workers would advance the debate on trade union revitalization strategies (Frege & Kelly, 2003; Behrens et al., 2004).

The socio-cultural dimension determines the immigrant's "inculturation" to the new culture and new social environment by developing social ties. Immigrant experience in this domain is gained in day-to-day interpersonal relations in the neighbourhood, at work, in public transport, in the shops and in the street. Depending on how satisfactory or stressful these relations are, the immigrant will develop different individual strategies of conduct in his/her interpersonal relations and the receiving environment. These factors also determine how comfortable immigrants feel in their new surroundings and how they appraise the receiving country: is it friendly or hostile, easy or difficult to live in? (Zabek, 2002).

One of the important determinants of the ease of socio-cultural adaptation is the degree of similarity/difference between the culture of origin and the receiving culture and the immigrant's ability to adapt to different or even very different values, norms of conduct and social role patterns. Another important factor is the new environment's approach. Where does the receiving society's attitude fall between two extremes: forced assimilation and acceptance only on the condition that the immigrant will become increasingly similar to members of the receiving society on the one hand or exclusion, stigmatisation and marginalisation on the other hand? (Janicka & Bojanowski, 2006; Iglicka, 2003).

1.2 Specifics of different generations

1.2.1 Generation Y

Generation Y, born between 1981 and 2000, have been described in both the popular literature and the popular press as the "Look at Me'' generation, implying that they are overly self-confident and self-absorbed (Pew Research Center, 2007). They also have been depicted as lacking in loyalty and work ethic (Marston, 2009).

As Generation Y continues to enter the workplace, there is a widespread speculation and some concern about how Generation Ys' predispositions and behaviours — including their communication orientations and skills will affect other organizational members (especially those of older Baby Boomer and Generation X cohorts) (McGuire et al., 2007, see also Rašticová & Konečný, 2014).

1.2.2 Generation X

Generation X is a generation commonly thought to place less emphasis on the value of work, compared to Baby boomers (Jurkiewicz, 2000). Generation X begins approximately in 1961 and ends in 1980. Generation X spent their childhood in very different circumstances from those of their parents. They were born during a period of steady decline in American global power, punctuated by the Iranian hostage crisis (Tulgan, 1997). Economically, they grew up with a stagnant job market, corporate downsizing, and limited wage mobility (Muchnick, 1996). In fact, they are the first generation predicted to earn less than their parents did. Generation X are thought to prefer teamwork and belonging. Ironically, this preference is believed to result from the experience of isolation in their childhood. To a large degree, both parents of Generation X worked outside the home.

1.2.3 Baby boomers

Two dominant generations in today's workplace are the Baby Boom generation and Generation X. The Baby Boom generation immediately preceded Generation X. The Baby Boom generation begins approximately in 1943 and ends in 1960. The first wave of the Baby Boom generation, i.e. the large post-Second World War cohorts, is reaching retirement age. Baby boomers will soon comprise a considerable proportion of tomorrow's older population, and with their distinguished generational characteristics (e.g. Edmunds & Turner, 2002), it is expected that they will socially and culturally shape the whole senior segment (Rašticová & Kolářová, 2015; Rašticová et al., 2013). The emergence of theoretical concepts such as the third age has challenged the previously common view of a slow but inevitable process of disengagement in old age. Third age, the years after retirement, is increasingly framed by consumption possibilities, second chances and new beginnings (Karisto, 2007).

2. Methodology

Based on the literature evidence the aim of the paper was formulated which is to evaluate the factors that Generation Y, Generation X and Baby boomers consider important for immigrants´ needs. Because the actual evidence of immigrants´ needs in the literature is missing, the method of sentence completion was chosen. The research was realized in the Czech Republic at Mendel University in Brno within a subject Sociology and Social Psychology. Respondents were asked to finish a sentence: *Factors important for immigrants´ needs are…?* The research sample consists of 553 respondents, from which 41 answers were not relevant. The obtained data of 512 respondents were divided into 3 age groups: Generation Y (53 respondents), Generation X (170 respondents) and Baby boomers (289 respondents). The research sample consists of 56.70% men and 43.30% women. The following hypotheses focusing on factors influencing motivation of communication between generations were formulated: H0: Factors which Generation Y, Genaration X and Baby boomers consider important for immigrants´ needs are the same. H1: Factors which Generation Y, Genaration X and Baby boomers consider important for immigrants´ needs are different. Independent t-test was used to evaluate the results and verify the hypotheses. The obtained data were processed through a grounded theory method. Through Figure 1 is provided comparison between Generation Y, Generation X and Baby boomers. The results of a questionnaire survey of immigrants´needs and also how people consider them are discussed.

3. Research results

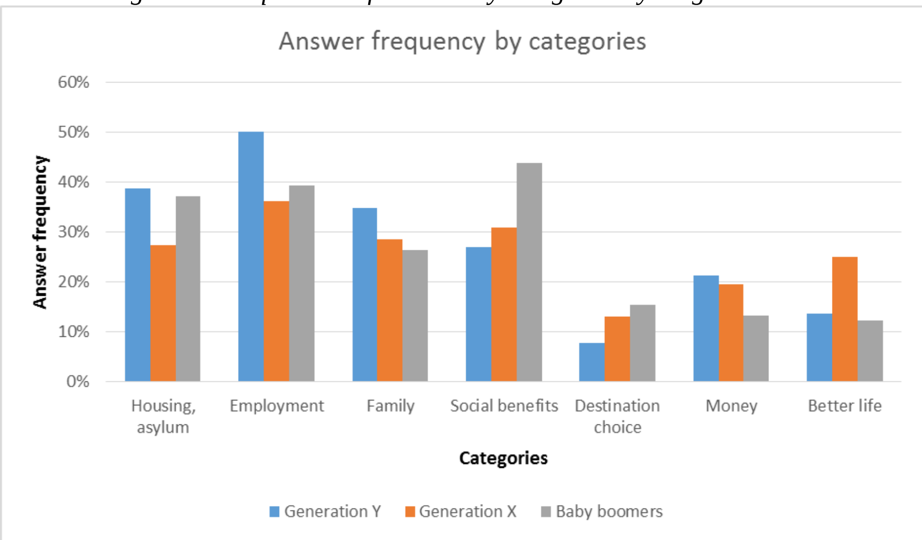
The first part of the results is devoted to the verification of hypotheses. The formulation of hypotheses was followig:

H0: Factors which Generation Y, Genaration X and Baby boomers consider important for immigrants´ needs are the same.

H1: Factors which Generation Y, Genaration X and Baby boomers consider important for immigrants´ needs are different.

Figure 1 shows frequencies of answers by categories by all generations. Factors which Generation Y, Generation X and Baby boomers consider important for immigrants´ needs were divided into 7 categories: *Housing / asylum; Employment; Family; Social benefits; Destination choice; Money; Better life.* The highest frequencies of answers were by categories: *Housing / asylum; Employment; Family; Social benefits.* The biggest difference between the categories according to generations is in the category *Housing / asylum*, where Generation X considers this category less important for immigrants´ needs.

Figure 1: Frequencies of answers by categories by all generations



Source: authors

As shown in the figure 1, the order of the immigrants needs varied according to the age of respondent. Following table 1 presents the order of immigrants needs in three generations.

Table 1: The order of immigrants needs in three generations

ORDER	Generation Y	Generation X	Baby boomers
1.	Employment	Employment	Social benefits
2.	Housing / asylum	Social benefits	Employment
3.	Family	Family	Housing / asylum
4.	Social benefits	Housing / asylum	Family
5.	Money	Better life	Destination choice
6.	Better life	Money	Money
7.	Destination choice	Destination choice	Better life

Source: authors

It is interesting to see that social benefits is the immigrants need number one for generation of Baby boomers, however it is number four need for Generation Y. When we realise that people in the Czech Republic do not have many chances to meet immigrants, the ideas regarding their needs are rather their expectation, stereotypes or maybe projection of their own fears. The generation of baby boomers is not very active in the labour market any more, they are more often dependent on social benefits than other two generation. That fact might have influenced their expectation of immigrants´ needs.

Table 2: The results of T-test according to the compared groups and categories

	Housing, asylum	Employment	Family	Social benefits	Destination choice	Money	Better life
GEN Y: GEN X	0,043*	0,059	0,017*	0,101	0,070	0,010*	0,074
GEN Y: GEN BB	0,014*	0,018*	0,000**	0,018*	0,079	0,054	0,017*
GEN X:GEN BB	0,073	0,042*	0,022*	0,140	0,046*	0,068	0,134

Source: authors

(*) Level of statistical significance error is lower than 5%,

(**)Level of statistical significance error is lower than 1%

Table 2 presents the results of statistical analysis which proved that there are statistically significant differences between generations in certain categories of immigrants´needs perception. The hypothesis *H1: Factors which Generation Y, Genaration X and Baby boomers consider important for immigrants´ needs are different*, was partly proved.

4. Conclusion

Migration is a dynamic phenomenon involving many twists and turns. Driven by a multitude of possible reasons, migrants may move temporarily or permanently, transnationally and nationally, individually or in groups, return to their countries of origin or migrate to another country, or move between two or more countries in a circular way. In addition to immigration characteristics and the demographic characteristics of the immigrant (such as gender and age), economic, social and psychological characteristics have also been found to be linked to the process. Diversity of people is often confused with diversity of values. Respect for other cultures should not prevent us from firmly upholding European values as the basis for the European society.

The population is ageing all over the world and along with that fact there are many new situations appearing and it is necessary to adapt to those situations. Often, we can find diverse work teams according to the age of employees in the companies. The age diversity in the company certainly brings a number of benefits related to the age diversity on the workplace but it is important not to overlook possible issues caused by different perceptions of one generation about how other generations should behave, myths regarding the ageing population cause often implicit barriers between generations (Rašticová & Kolářová, 2015; Rašticová et al., 2015) .

The present paper discusses which factors Generation Y, Genaration X and Baby boomers consider important for immigrants´ needs. The factors which bring immigrants to Europe and are important for immigrants according to the respondents´opinions are following: *Employment; Housing / asylum; Family; Social benefits*. These factors prevail in all generations in first four positions, however, their orders were significantly different (see above). Less important factors according to respondents are suprisingly *Money; Better life; Better destination than thier home country*". Also, here the orders among generations varied. The statistical analysis proved that there are some significant differences among generations in perception of immigrnats´ needs.

Eventhough, this unique research involving three different generations brings intriguing results, the study faces several limits. The research sample is not representative, so the results can be interpreted only with respect to the sample characteristics. Another limit is the method – method of sentence completion brings valuable data, however, needs further research using questionnaire or interviews. As the authors are aware of all the limits, the next steps will be the continuation of research based on actual findings.

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THE DEVELOPMENT OF INTERREGIONAL RELATIONS IN THE CONTEXT OF GLOBALIZATION

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Abstract. Modern territorial development does not always occur effectively. The result is inefficient use of existing natural and other resources. This importance is the establishment of planning framework of the region and country in the context of globalization. The goal of research is theoretical and methodological substantiation of the formation of connections between regions in the context of globalization. Several research tasks were solved in accordance with target goal: identified factors that influence the formation of connections between regions; proposed the method of assessing the level of development of the territory, containing indicators that allow us to rank the regional centres and planning of the axis in accordance with the potential of innovative development; formed the planning framework of the country, which includes strategic, interregional and regional centres, agglomeration settlement system, the principal sea, river, air, railway and automobile transport communications. Methodological foundation of the research has been composed by multifaceted and system approaches, in terms of which there were comparative, retrospective, statistical, mathematical analysis. The authors reviewed and systematized nature-territorial, industrial, research, educational, investment, infrastructure, organizational, managerial, labor, cultural-historical, informational factors affecting the formation of connections between regions. Were given criteria for assessing the significance of planning centers. Was formed by the modern planning framework Russia, which includes strategic, interregional and regional centres, agglomeration of the settlement system, the main transport communications.

Keywords: planning framework, strategic centres, interregional centres, transport communications

JEL Classification: O1, R1, R4

1. The formation of country's effective planning framework for development of inter-regional relations in the context of globalization

The effectiveness of region's development is not always determined by the presence, the quality of its resources (Chang & Chang, 2013). So, Russia has abundant natural resources, a huge territorial space, high intellectual potential of citizens. But despite the obvious advantages, the current level of socio-economic development and welfare of the population is significantly lower than in most developed countries (Moss, 2005; Vaivode & Jurenoks, 2014). The reason is irrational and sometimes even neglect to available resources, the lack of clear strategic plan for the development of territories. Especially the problem is actual in times of crisis. In this connection it is important to develop an effective planning framework of Russia, to identify the most prospects of its territorial development in order to development of inter-regional relations.

The studies of the theoretical and practical aspects of territorial development were conducted by many scientists (Agasyants, 2015; Banno et al., 2013; Baulina & Klyushin, 2015; Dodescu & Chirilă, 2012; Iizuka & Katz, 2015; Lambin & Meyfroidt, 2011; Torre & Wallet, 2014; Vilner, 2009; Viturka, 2014; Yudina, 2014) and others. Especially noteworthy works are studies of A.A. Agasyants (Agasyants, 2015) and M.J. Vilner (Vilner, 2009), which are dedicated to the formation of the transport and population (planning) framework of Russia. We agree with their opinion that the planning framework is hierarchically constructed network of strategic centers and axis formed by the appropriate settlements and transport communications (Agasyants, 2015). Scientists have marked metropolitan centers with metropolitan, inter-regional, regional and inter-district functions; transport communications centers (Vilner, 2009).

In addition to clarifying of the factors and criteria, which allow to identify the above-mentioned centers, a planning framework should be added with the main centers of river and air communications, as well as the main agglomeration systems of resettlement. The rational planning framework should provide the maximum effectiveness of the potential of the innovation development of the territories, preservation and increment of their natural-territorial, cultural - historical and other potentials. In order to this it is necessary to identify the most important centers and axis, evaluated and ranked according to their importance of territorial development at a particular time.

1.1 The evaluation of regional development of territory

At present, the various economic tools are worked out which allow to evaluate regional development of a particular territory. In our opinion, the most successful methodology is the methodology of establishing of rank of planning centers in the federal and regional strategies of M.J. Vilner, based on the accounting of the demographic, social, cultural and innovative potential (Vilner, 2009) as well as the methodology, including the use of multiparametric model of M.A. Yudina's structural diagnostics which allow to analyze the socio-economic development of regional systems (Yudina, 2014).

However, in our view, to provide a system evaluation of the significance of centers planning it is advisable to extend the set of factors' and criteria's' components which determine the level of development of the territory. We have developed the indexes (Sokolova, 2014) that can be used to evaluate and rank the centers and axis in accordance with the potential of innovative development of the territory. There are:

1. *Natural-territorial factors:*

1.1. The criteria characterizing the geographical location (indicators, taking into account the location of the studied territory relatively to federal borders, ports, etc.);

1.2. Natural criteria (species, uniqueness, volume of production and reserves of minerals; the total zone of the studied territory; the zone of surface area of forests and water objects; the territory of the area suitable for agriculture; undeveloped area (reserved) areas and others);

1.3. Climatic criteria (especially climate, temperature; average number of rainfall; wind conditions and others.);

1.4. Ecological criteria (quantitative parameters of emissions of air pollutants; the volume of trapped and destroyed air pollutants; sources and levels of air pollution; the quantity and hazard class of waste, methods of storage and disposal; the total value of capital investments intended to prevent environmental problems in the region, and others.).

2. *Production factors:*

2.1. The criteria which characterize the state of the industrial complex (the volume of shipped goods of own production, works and services, the index of industrial production, the level of life of the main industrial funds, and others);

2.2. The criteria which characterize the state of the construction industry (volume of work in the sphere of construction activities, indixes which characterizethe commissioning of the buildings and the increase of the total area of residential buildings and others);

2.3. The criteria which characterize the state of agriculture (quantitative indexes of agricultural production, the index of agricultural production in the researched area; quantitative indexes of crop production, crop yields and others).

3. *Research factors:*

3.1. The criteria that characterize the level of software research and development (availability and number of organizations engaged in research and development; the number of personnel engaged in research and development; the funding for research and development work, the total number of realizable research projects etc.).

4. *Educational factors:*

4.1. The criteria that characterize the availability and provision of educational services (number of institutions that implement all kinds of educational programs; per capita funding for education; per capita number of educational services, quality and accessibility and others).

5. *Investment factors:*

5.1. The criteria that characterize the investment conditions (the total value of investments in fixed assets; the total number of realized investment projects; the level of investment capacity and investement adaptability of the researched area, etc.).

6. *Infrastructural factors:*

6.1. The criteria that characterize the state of the transport infrastructure (total length; quality and accessibility of highways with hard covering; the total length, quality and accessibility of the railways; the length, quality and availability of inland waterways);

6.2. The criteria that characterize the state of municipal economic infrastructure (share of decent housing with running water, central heating, sewage, gas, or electric stoves; the density of utilities in the researched area; the volume of produced water services, heating, sanitation, removal of household waste and others);

6.3. The criteria that characterize the state of social infrastructure (the total amount of hospital organizations; per capita amount of medical serveces; per capita amount of funding of cultural facilities in the researched area; per capita amount of funding of sports in the researched area; per capita amount of sports services and others);

6.4. The criteria that characterize the state of tourist infrastructure (the total amount of sanatoria, rest homes, boarding houses, dispensaries, hotels, accommodations, per capita amount of tourist services; the average annual amount of tourists who visit the researched area, the amount of tourism companies, agencies operating in the researched area).

7. *Organizational and managerial factors:*

7.1 The criteria that characterize the organizational and managerial terms (the total amount of implemented targeted development programs in the researched area; the share of expenses of the implementation of targeted programs in the city budget; the level and quality of support for small and medium-sized business of territory; the quality of the strategic management of innovative development in the researched area, etc.) .

8. *Labor factors:*

8.1. The criteria that characterize social and demographic conditions (the total amount of population in the researched area; the index of natural population growth rate; life expectancy; the amount of refugees, internally displaced persons and others);

8.2. The criteria that characterize the employment conditions (annual average amount of employed people in the economy; the employment rate of the working population in the researched area; coefficient of constancy of the working population and others.);

8.3. The criteria that characterize the standard of living of population (per capita income of the population in the researched area; the total value of accumulation values and / or property; the value of the subsistence level set in the researched area; the consumer price index; the average size of the pension; average per capita space of the premises, etc.).

9. *Cultural and historical factors:*

9.1. The criteria that characterize the cultural and historical conditions (the total amount of architectural monuments, historical sites; the total amount of industrial and agriculture enterprises, cultural objects; cultural traditions in the researched area; myths and legends of in the researched area).

10. *Information factors:*

10.1. The criteria that characterize informatization level (the share of Internet users; proportion of the population who have mobile phones and / or personal computers, including laptops, tablets, netbooks, etc.; the total amount of received public TV programs and radio stations; the total amount of newspapers and magazines (federal and regional); the total amount of informational, educational and other resources; the proportion of companies that have their own websites, the share of e-commerce in the retail trade in the researched area; the share of the population with credit cards; the total amount of service providers in the sphere of computer technology and the global Internet).

For comparability of above indexes it is recommended to make the transition to the score and apply one of the valuation techniques. The assessment of Russian territory using our analytic hierarchy process allow to build a rational planning framework of the country.

1.2 The development of interregional relations on the basis of formation of effective planning framework

We consider that the most important *strategic centers* (SC) of Russia with capital functions should be cities such as Moscow, St. Petersburg, Yekaterinburg, Novosibirsk and Rostov-on-Don. It is advisable to allocate Volgograd, Voronezh, Irkutsk, Krasnoyarsk, Nizhny Novgorod, Petropavlovsk-Kamchatsky, Samara, Khabarovsk as *inter-regional centers* (IC). *Regional Centres* (RC) will be the other major Russian cities.

All the centers of the same level as a single territorial unit (agglomeration) are connected, first of all, to each other (for example, RTS↔RTS, MTS↔MTS). In addition, there are significant relations with centers of higher levels (RTS↔MTS, MTS↔STS). One-level centers of two neighboring territorial entities are also related to each other, but these ties are less strong.

The key *agglomeration systems of resettlement* in Russia may be:

- Moscow agglomeration (Moscow, Bryansk, Vladimir, Kaluga, Ryazan, Smolensk, Tver, Tula, Yaroslavl);
- St. Petersburg agglomeration (St. Petersburg, Vologda, Novgorod, Petrozavodsk, Pskov);
- Voronezh agglomeration (Voronezh, Belgorod, Kursk, Lipetsk, Tambov);
- Yekaterinburg agglomeration (Yekaterinburg, Nizhny Tagil, Perm, Tyumen, Chelyabinsk);
- Krasnodar agglomeration (Krasnodar, Maikop, Novorossiysk, Sochi);
- Nizhny Novgorod agglomeration (Nizhny Novgorod, Yoshkar-Ola, Cheboksary);
- Nizhnevolzhsk agglomeration (Volgograd, Astrakhan, Elista);
- Novosibirsk agglomeration (Novosibirsk, Barnaul, Kemerovo, Novokuznetsk, Tomsk);
- Rostov agglomeration (Rostov-on-Don, Novocherkassk, Novoshakhtinsk, Sevastopol, Simferopol, Taganrog, Shahti);
- Samara agglomeration (Samara, Kazan, Orenburg, Penza, Saratov, Syzran, Ulyanovsk, Ufa).

In order to eliminate the separation in the development of Russian territories, especially far removed from metropolitan centers, as well as to ensure the relations between agglomeration systems it is neccesary to create a system of convenient and affordable transport communications. We propose to use and improve the following *transport links* as the main planning axis:

– *the main road communication* (Moscow - Smolensk – Minsk; Moscow - Voronezh - Rostov-on-Don – Sochi; Moscow - Nizhny Novgorod - Kazan - Yekaterinburg – Novosibirsk; Moscow - St. Petersburg – Helsinki; Moscow - Nizhny Novgorod, Moscow - Samara; St. Petersburg - St. Petersburg - Vyatka - Perm – Ekaterinburg; Novosibirsk - Krasnoyarsk - Irkutsk - Khabarovsk – Vladivostok; Khabarovsk - Vladivostok).

The main purpose of the federal highways should be at first the provision of the interaction between the major settlement systems and their zones of influence, but not a mechanical connection of large Russian cities. Moreover, it is important to create the conditions through the construction of the necessary objects of suburban service which create comfortable conditions for drivers, business travelers while traveling. We believe that the development of a suburban infrastructure will reduce the number of road accidents and reduce their consequences. Furthermore, the creation of high-quality and affordable objects of suburban service will contribute the development of bus and automobile tourism (especially youth and children's), will allow to organize new workplaces, and reduce unemployment, increase the standard of living of the population.

From an economic point of view, the services provided by the creation of objects of suburban service will contribute to the inflow of new money in the city budget, the development of local economy, because they will improve the investment climate and ensure economic growth.

Moreover, a suburban service will improve the standard of living in nearby settlements, will be an additional source of income, prevent their isolation (Wu, 2016).

Also the important factor is the fact that the level of comfort while satisfaction the basic needs of road users, which is directly connected with the organization of suburban service, affects the formation of the psychological aspects of a person's identity, self-determination in the environment;

– *railway communications,* connecting 96% of all Russian subjects among themselves. However, it is alarming deterioration of fixed assets in the industry. In addition, it is necessary to develop mechanisms to attract investments in the sector, taking into account the legal aspects of non-governmental funding of major projects. According to experts, it is necessary to invest about 5 trillion rubles in railway infrastructure. Otherwise, in 5-7 years, this form of transport will not be able to perform even the current volume of traffic, which is extremely negative impact on the economic situation in the country;

– *maritime transport communications* connecting the following cities: St. Petersburg, Murmansk, Arkhangelsk, Rostov-on-Don, Novorossiysk, Tuapse, Sochi, Astrakhan, Vladivostok, Nakhodka, Petropavlovsk-Kamchatsky, Yuzhno-Sakhalinsk. We consider that in order to develop domestic maritime transport it is neccesary to improve port infrastructure and its technical equipment; to implement the innovative technologiesof goods‘ containerization; to carry out the cooperation of shipping, transport, logistics and other organizations in this sphere;

– *the main river communications,* the most promising of which are river transportation routes between St. Petersburg, Moscow and the southern ports of Russia. For the development of this type of transport communications is important to modernize the equipment and technology of loading and unloading operations;

– *air communication* with the major airports in Moscow, St. Petersburg, Vladivostok, Yekaterinburg, Irkutsk, Kazan, Kaliningrad, Krasnodar, Novosibirsk, Perm, Rostov-on-Don, Samara, Simferopol, Sochi, Ufa.

Despite the importance of solving the local problems of certain messages, the actual problem is search of the optimal balance of development of different transport communication systems, as unwarranted disparities can be one of the inhibiting factors of territorial development and the development of inter-regional relations.

2. Conclusion

Thus, we have identified the main group of strategical (Moscow, St. Petersburg, Yekaterinburg, Novosibirsk, Rostov-on-Don), interregional (Volgograd, Voronezh, Irkutsk, Krasnoyarsk, Nizhny Novgorod, Petropavlovsk-Kamchatsky, Samara, Khabarovsk) and regional centers , agglomeration systems of resettlement (Moscow, St. Petersburg, Voronezh, Yekaterinburg, Krasnodar, Nizhny Novgorod, Lower Volga, Novosibirsk, Rostov, Samara), key marine, river, air and land transport communications, which make up a planning framework that provides the most effective development of the region's territory and inter-regional relations.

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INTERCULTURAL COMPETENCES IN INTERNATIONAL ORGANIZATIONS

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Abstract. Today´s world is the world of globalization, which has been greatly influencing all areas of everyday life, especially in international organizations. Managers and employees of culturally diverse organizations not only have to deal with new procedures, technology and policies, but also with new cultural and communication situations. Intercultural competences are essential for creating competitive advantage in international organizations by developing the knowledge, skills and attitudes that lead to visible behavior and communication which are both effective and appropriate in intercultural interactions. They affect all areas of running an international organization, such as management, communication, organizational behavior, corporate culture, etc. Due to this new trend, it is inevitable to consider possibilities of developing intercultural competences within an organization by various forms of intercultural training as a process of making others to be aware of the cultural differences and teaching them how to behave and adapt to various cultural conditions and situations. The primary research related to the use of intercultural training in Slovakia focused on multinational companies operating in the Slovak market. There are numerous educational institutions which offer different types of training for Slovak managers. However, only a very small percentage (8%) of the managerial training relates to intercultural issues. This paper provides an insight into the problem of intercultural training and its forms as applied in international business organizations in Slovakia, and suggests its further utilization within all types of international organizations – intergovernmental and non-governmental organizations, and globally operating multinational corporations.

Keywords: Intercultural competences, intercultural training, international organizations, intercultural communication, globalization.

JEL Classification: F23, F50, F59

1. Introduction

If there is a quality, that anyone working or living abroad should have, it is the ability to “get along” with the locals. Regardless the reason for the stay, it is difficult to expect success without being able to effectively react to cultural stimuli of the local inhabitants (Poliak, 2015). In the world of globalization, there are more and more international organizations sending their representatives abroad. However, cultures are complex and often contradictory (Poliak et al., 2012). In case these professionals fail to cope with cultural differences they unsuccessfully return home or stay in the country, but with lower motivation, the costs of which can be enormous. This is why the terms like intercultural communication, intercultural competence, cultural awareness, cultural learning, or intercultural training, are becoming increasingly popular, and are widely discussed among organized groups of people, such as various international organizations or institutions. Members of such organization are forced to deal with intercultural diversity on an everyday basis when communicating with their intercultural partners, or working in multicultural teams.

Intercultural competence, as the ability to communicate effectively and appropriately with people of other cultures, is a part of key competences, namely the personal, interpersonal, communicative, cognitive, and sociocultural competences. The term was first used in relation to language learning, and often mistaken for linguistic competence. However, the scope of intercultural competence is much broader, including cultural awareness, sensitivity, and intercultural adroitness. Mešková (2012, p.48) points out the importance of intercultural competences for managers, suggesting they represent an important tool in their work. Moreover, cultural intelligence, as a relatively new phenomenon, has been generally accepted as an important asset and a part of a set of important aspects of work in intercultural teams.

Cultural intelligence, defined as a person's capability to function effectively in situations characterized by cultural diversity, is related to the emotional intelligence, while it picks up where the emotional intelligence leaves off (Earley & Mosakowski, 2004). The concept of emotional intelligence is important for the knowledge of psychology as a fundament of a system optimization within an organization (Malá et al., 2015 A). Malá further perceives emotional intelligence as a keystone of social maturity by claiming that the high level of competence of managers (as well as balance between its components) is a crucial prerequisite to a success of an organization (Malá et al., 2015 B). It may be said that cultural intelligence is the emotional intelligence, across cultural contexts. It has been our priority to introduce the relatively new concept of cultural intelligence to the Slovak academic environment and suggest the importance of its development, mainly within the international organizations, where its applications and potential are undeniable. As stated by Sternberg and Grigorenko, intelligence can never be fully understood outside its cultural context (Sternberg & Grigorenko, 2006), and thus the relevance of culture and cultural intelligence for our research into intercultural training is evident.

Inspired by the authors of the concept of cultural intelligence, and their research into the field, we are now conducting our own research in order to measure cultural intelligence in international organizations. The research will be finalized as the outcome of the project VEGA 1/0934/16 – Cultural intelligence as an essential prerequisite for competitiveness of Slovakia in global environment, in 2018. The basis for the research was set by analyzing the situation in Slovak international organizations, related to development of intercultural competences and educating Slovak managers and employees of international organizations in the field of intercultural relations and communication. This pilot research is further described in chapter 2.1. We have also focused on training intercultural competences in international organizations, mainly the business-oriented ones, in Slovakia, to find out what types of intercultural training Slovak international organizations are using to assist their employees in achieving common goals while working in an intercultural environment. Partial results of this survey are presented in chapter 2.2.

2. Intercultural training in international organizations

An international organization (IO) is an organization with an international membership, or international presence. It is a grouping of members from more than one country, governmental or non-governmental, public or private, profit or non-profit. IOs are institutions the structure and interests of which reach beyond the state lines. To simplify the structure of the system of IOs, for the purposes of our research, we have divided them into three main groups: inter-governmental organizations (IGOs), non-governmental organizations (NGOs), and multinational corporations (MNCs).

Since the beginning of the previous century, the number of international organizations has been rising exponentially. According to data collected by the Union of International Associations, the number of IGOs has risen from mere 37 in 1909 to 7,710 in 2013. NGOs have experienced an even more dramatic increase in number within the same period of time, from 176 in 1909 to 58,588 in 2013. It is clear that globalization has affected the growing number of IOs due to the need of international cooperation in all areas – state, non-governmental and business. Managers, employees and teams of people may often be thousands of kilometers distant, or culturally different, but the need of achieving the common goals forces them to search the best and the most efficient ways of communication.

Intercultural competence does not evolve automatically from intercultural experiences but needs to be acquired during an extensive learning process, which is mainly organized in intercultural trainings (Thomas, 2009). Also, as cultural intelligence (CQ) becomes more and more important in daily lives of people, the overall understanding as well as practical application of CQ should continue to grow. Knowledge of one's cultural intelligence can provide a person the insights about their capabilities to cope with intercultural situations. It also enables people to engage themselves in intercultural interactions in an appropriate way, as well as perform effectively in culturally diverse environments. There is no doubt that this is extremely beneficial in business environment (Benčiková, 2012). There are lots of interesting and exciting opportunities to develop more exact and accomplished models of CQ that could be transformed into practical forms for organizations and for ordinary people. Namely the business practice seems to have realized the importance of intercultural dialogue and therefore the global managers are being trained to succeed in negotiations at an international level. A form of preparation for the business reality is undoubtedly education of future managers (Benčiková et al., 2013).

2.1 Forms of training in international organizations

There are numerous training activities, courses, and programs in the Slovak educational market, and a number of institutions offering them. Many are aimed at the employees of organizations to make their work more effective, productive, and successful. Educational companies (ECs)[2] offer a multitude of programs and courses the organizations can choose from for their managers and employees. Speaking in general, the two basic methods are the cognitive and the behavioral approach to teaching the trainees. The cognitive method focuses on providing trainees with knowledge and information on how to do something, or demonstrating certain concepts from the theoretical point of view, while the behavioral approach is based on practical training and development of certain target skills. The former model assumes more passive approach, and corresponds to a lecture type of learning, while the latter is more active and uses problem solving, case studies, and other ways of experiential learning (Bhawuk & Brislin, 2000). We believe that the active model of learning is suitable for intercultural training,

[2]The authors are referring to private educational enterprises that operate in the Slovak educational market, not to universities and institutions the programs of which are accredited by the Ministry of Education.

which requires dealing with life situations, acquiring communication skills, understanding tolerance, and learning empathy, rather than just adopting a package of knowledge given by the instructor. Therefore, in our pilot research into intercultural training in Slovak IOs, we were curious to find out what forms of intercultural training are offered by the ECs targeted at different types of international organizations. The main target for the ECs are managers and leaders of various IOs, while it must be admitted that ECs primarily focus on the business sphere, and that is where we had found most significant data for further analysis. The ECs also focus on employees of such organizations, since they often form the core of potential everyday problems which may result from interculturally-diverse situations.

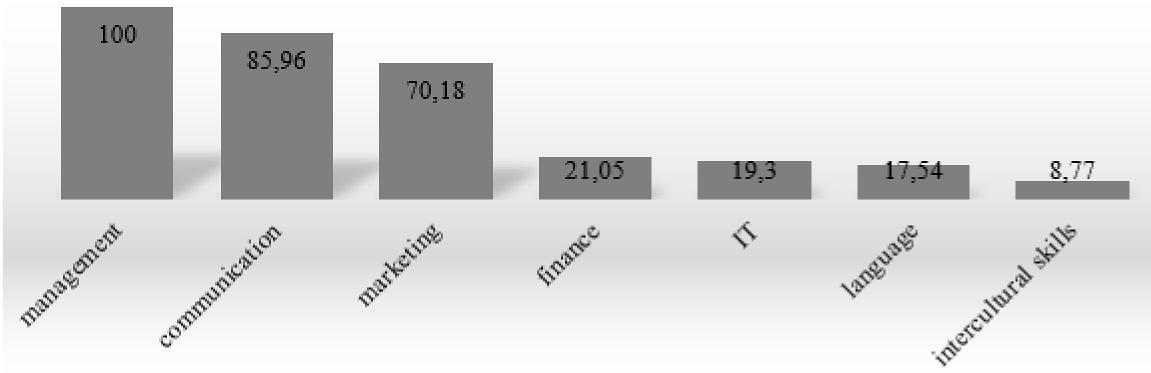
To analyze the offer of ECs, we used the method of secondary data collection. Data were collected mainly via online search but also with help of interviewers, where no online information was available. The subject of our research – the ECs – was chosen randomly (random sampling method) but in such way that each of the eight Slovak regions was at least partially represented in the sample. The complete offer of all surveyed ECs was analyzed via qualitative method as it was essential to categorize the courses and types of trainings the target ECs offer to international organizations. We need to point out the fact that the choice of surveyed ECs was also determined by clarity of information related to the provided training courses that was available to us.

To enable a quantitative view of the forms of training courses provided to managers and employees of international organizations in Slovakia, we have simplified the overall offer of courses by grouping them under seven most frequently represented, and thus most significant, areas, according to similarity of the skills each of the categories was aimed at, e.g. language skills, soft or hard management skills, effective communication, information technologies, financial skills, etc. Since our main research focuses on cultural intelligence and development of cultural awareness and intercultural competences, one of the categories is related to intercultural issues. Following are the seven areas of skills, i.e. seven general types of training courses offered by Slovak ECs to international organizations in Slovakia:

1. management skills, i.e. improvement of both soft and hard managerial skills
2. communication skills, i.e. courses aimed at effective communication, organization culture, social and diplomatic protocol
3. marketing skills, i.e. development and/or improvement of sales techniques, or effective presentation of products/services of the organization
4. finance, i.e. accounting, auditing, taxation, and other financial skills
5. information technologies, i.e. improvement of computer skills
6. language skills, i.e. learning a foreign language, or communication in a foreign language
7. intercultural skills, i.e. building cultural awareness, acquiring intercultural knowledge, and practical skills used in an intercultural environment.

Each EC which offered courses within a certain category was given one point for that category. This means that more categories could be represented in one offer and each EC could obtain 1-7 points. The points were added up for each category and the scores were calculated via simple statistical methods (mean, median), and for better clarity are expressed as a percentage of their occurrence in Figure 1. It should be pointed out here that this secondary data collection was not further analyzed via more complex statistical methods due to the fact that it only represented a starting board for the research into intercultural training and cultural intelligence we are currently conducting within the above mentioned project VEGA 1/0934/16.

Figure 1: Forms of training courses offered to international organizations in Slovakia



Source: own elaboration

We have found out that the individual skills are distributed among the offered courses very unequally. The most surprising findings for us were the low percentage of language courses and courses related to intercultural training. It appears that in Slovak international organizations, most emphasis is put on management of people, effective communication and effective selling methods. Although many managers of international organizations claim the importance of building cultural awareness and developing intercultural relations, the demand for such training is practically insignificant, if we assume that the offer meets the demands of the international organizations for certain form of training. Through thorough qualitative analysis of the individual offers of Slovak ECs, we have only found traces of intercultural training with the percentage of educational companies providing this form of training being as low as 8.77%. Surprisingly, the ECs with this form of training are mostly located in central (Banská Bystrica) and north-eastern part of Slovakia (Prešov), which does not correspond with our belief that most internationally based organizations would be located in or around Bratislava (mainly IGOs), or in regions with international business investments, e.g. Žilina, Trnava, or Košice. Moreover, when analyzing the content/description of the interculturally oriented courses, available to us, we have come to a conclusion that ECs are mostly focused on the cognitive methods, providing clients with knowledge type of courses, rather than training their intercultural skills through experiential methods such as role plays, or problem solving. Developing intercultural competence and enhancing cultural intelligence requires cognitive, affective, and behavioral type of training (Triandis, 2006) and, unfortunately only 3.51% of the surveyed ECs apply behavioral training in their intercultural courses. This is a rather sad finding, concerning the fact that we are living in times when globalization and internationalization, along with the economic and political situation of the past years, are calling for more intercultural understanding and tolerance. Evidently, intercultural competences do not seem essential in functioning of the international organizations in Slovakia, as there is very little demand for training such skills.

With this in mind, we have decided to address managers of international organizations in Slovakia in order to find out what forms, if any, of intercultural training the IOs themselves offer to their management and employees. Partial results of this research, which is ongoing, are presented in the following chapter.

2.2 Forms of intercultural training in international organizations

Intercultural training is practically terra incognita in Slovak environment. Based on the available sources, we may claim that no research aimed at intercultural training has been conducted in Slovakia. Therefore, we believe that after completing our research into the problem, we will largely contribute to this issue by providing pilot data gathered in Slovak international organizations.

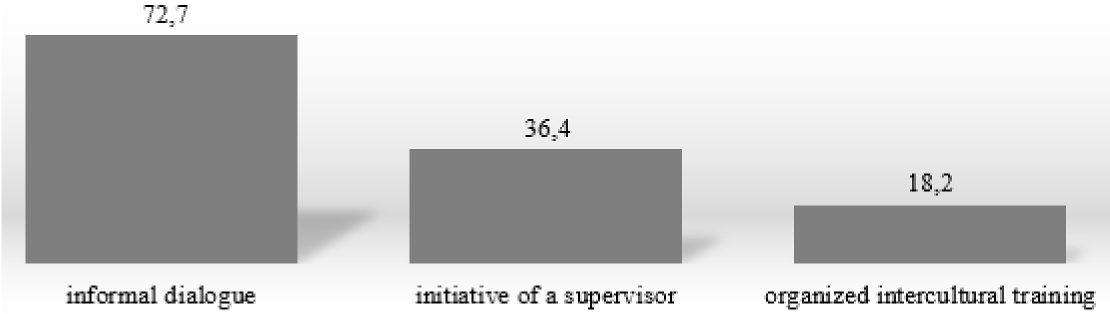
In our research we are addressing the respondents via non-standardized interview. The choice of the sample of respondents is determined by two simple factors: 1. they work in an international organization that is located in Slovakia; 2. they have a frequent contact with people of different cultural background. The respondents are leaders, managers, or employees of international organizations. We have started conducting the non-standardized interviews in Banská Bystrica, Bratislava and Žilina regions, since that is where our interviewers are located. We will later extend the research into all regions of the Slovak Republic. The main goal of these interviews is to find out what forms of intercultural training the international organizations are providing for their employees.

As it has been mentioned above, Bhawuk and Brislin (2000) suggested that the most common division of training forms and methods is into the passive and active ones. Lecture, being the passive form of acquiring knowledge of foreign cultures, is considered rather ineffective by many other scholars dealing with this problem, from Harrison and Hopkins (1967) to Ogay and Edelmann (2016), with regard to the fact that acquiring intercultural competence and skills requires more than just simple transmission of facts about unfamiliar cultures and should primarily focus on behavior modification of the trainees. For the above reasons, other forms of training of intercultural skills and competence have been suggested. Maude (2011) proposes two categories all intercultural training programs may fall under, i.e. culture-specific and culture-general programs, while the former one is focused on one target culture and the latter is oriented more towards building up cultural awareness in general. Other forms of intercultural training, falling under both categories, comprise culture assimilator, experiential training, cultural self-awareness model, behavior modeling, role plays, writing a diary, interpersonal sensitivity training, etc. (Bhawuk & Brislin, 2000).

When interviewing our respondents, we asked 15 open questions which led us to understanding what form of intercultural training the addressed IOs are applying in practice, and what prompted the demand for such training. Since the interview questions were rather complex with variety of answers possible, at this point we are unable to quantify the responses as this will require collecting data from all regions in Slovakia and applying deeper mathematical and statistical analysis into the results. However, from what the research has revealed so far, we have attempted to categorize the obtained responses into three types of sources of culture-oriented information which was provided to the employees of the addressed IOs: 1. informal dialogue, 2. initiative of a supervisor, and 3. organized intercultural training.

The distribution of the individual types of sources for intercultural training is shown in Figure 2. It must be said that in some IOs we have encountered more than one source of culture-oriented information in the responses, and therefore these IOs are included in more than one category.

Figure 2: Sources of culturally-oriented information provided to employees of IOs



Source: own elaboration

Figure 2 clearly demonstrates that most IOs rely on informal talks when it comes to mediating cultural information to their employees. Very often the information is passed outside the working environment, when colleagues would meet in person and discuss the issues that may have occurred at work in an informal setting. The initiative of a supervisor was proved in approximately one third of the IOs, where the employees were approached with a list of dos and don'ts, as well as description of common practices and organizational behavior. Only 18.2% of the IOs, however, have prepared and planned a meaningful intercultural training for their employees to help them prevent or overcome potential problems arising from the multicultural environment they work in. We would like to highlight an interesting fact that absolute majority of those IOs are MNCs with Asian background.

3. Conclusion

On the basis of our research we may claim that there is an unequal distribution of the individual skills among the offered courses, as well as very low percentage of language and intercultural training courses. Even though managers of international organizations realize the importance of cultural awareness and intercultural relations, there is a lack of such trainings. There are, however, some 8.77% of educational companies providing intercultural courses, and only 3.51% offer meaningful intercultural training. Most ECs are focused on the cognitive methods, providing clients with merely knowledge type of courses, rather than training their intercultural skills through experiential methods. Based on the second stage of the research, we have found out that most IOs use the means of informal talks in order to mediate cultural information to employees. However, we do not view this "ad hoc method" as a relevant approach to intercultural training.

The issue of cultural intelligence still keeps its firm place in today´s globalized world. Yet some international organizations, as well as educational companies, especially the ones operating in Slovakia, do not seem to grasp its importance and the importance of a proper intercultural training. Based on our research with the VEGA project we have therefore decided to make up and compose a self-assessment tool, a webpage or a smartphone application, which will enable these organizations to find out their cultural intelligence level and realize the importance of intercultural training which, we believe, they will be able to tailor according to their findings and needs.

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THE ROLE OF WORLD TRADE ORGANIZATION IN THE GLOBALIZATION PROCESS

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Abstract. Globalization is today on everyone’s lips, a protest demonstration here and the summit there. On the one hand, you have the supporters with their pros and on the other hand the opponents with their cons. The actual process of the free movements of the goods has always existed but not in this forms since the Second World War. In the course of development were established working parties, committees and institutions for regulation, promotion and supervising of the exchange of the goods. This paper reviews the essentials of economic globalization, as well as the major institution that has recently gotten much of the credit and blame for it, the World Trade Organization (WTO). It first defines globalization, which is just the increasing economic integration of the world economy. It then asks who gains and loses from globalization, drawing primarily upon economic theory to identify its benefits and costs, and who within and among the world’s economies get these benefits and costs. That part of the discussion concludes by asking briefly what can and should be done about globalization. The second half of the paper turns to the WTO. It shall be examined in greater detail the historical development, organization and structure, position in the worldwide globalization process, their tasks and functions, the power and the influence of the process of globalization.

Keywords: globalization, GATT, GATS, TRIPS, WTO

JEL Classification: F10, F13

1. Introduction

The world is growing ever closer together. Political and ideological boundaries blur, trade barriers are dismantled and the customs duties abolished. In addition innovative information and communication technologies provide new, limitless possibilities. In the last twenty years the conditions for global trade and economic relations have significantly improved. A lot of political, ideological and customs conditional borders between countries and regions of the world were abolished. When the Iron Curtain in 1989 fell, the socialist economic system has collapsed, while the integration in Europe went forward. Furthermore the global efforts of remove the trade barriers will be slowly but continuously expanded, inter alia trough the Global Agreement on Tariffs and Trade and the Organization for Economic Cooperation and Development. *Globalization is running across continents, time, cultural values, economic aspects, political and social approaches* (Hejdukova, 2015).

Our purpose is to clarify, for globalization and WTO, what they are and what they mean to the world. We do not want to be lawyer of either, we will acknowledge and explain both the costs and benefits of both.

2. Globalization

If we look back into human history, trade has always existed. First, however, only regional but later, due to sailing, a world embracing network with important trade centers was created. Worldwide interconnection of production and consumption saw significant increase in the 19th century. By formation of territorially or politically divided areas – whether due to isolation or wars of conquest – trade was determined by arbitrariness of local ruling class. Based on political or economic situation, exchange of goods was simplified, made harder or quite banned. In the course of history, trading connections were concluded for the purpose of mutual benefits that allowed the parties to take dominant position on newly gained markets or at least limit access to the markets for the others. At least a small legal framework existed, worldwide management remained within boundaries for the time being. However, a unified worldwide framework as it exists nowadays was missing. Due to its inexistence, international trade could not proceed. As there is no exact definition of the term, science is not consistent in the opinion who actually started the process of globalization. Some scholars indicate the empires of Romans, Greeks and Egyptians (although in smaller extent than it would be possible nowadays) as the origins of globalization because they ruled the world they knew and considered important not only economically. Others, on the other hand, are of the opinion that the phenomenon of globalization appeared during the last century. As reported by Kovarova (2014) most Czech author's, conceive globalization as one of the international economic integration stages. Furthermore, the origin of attempts for globalization as we know it today could be connected with foundation of the United Nations Organization in 1945 after World War II. As you can see globalization is not a new phenomenon, the beginning of the global dynamic expansions of the market economy has been already described by Marx and Engels in 1847. But since the 90s is the term increasingly discussed and caused public controversy. Jemala (2008) *establishes that the globalization exceeds the level of joint-stock corporations and currently means expansion of intensity and quality of international relations through the global policies, projects, trades, strategies, agreements, admission and integration of the nations and their cultures*. Gubova (2014) *generally understood globalization as the quickening of the connections between different areas in the lives of individuals, different units (especially economic), groups and states, marginalizes the role of states and strengthens the role of transnational corporations, which mainly affects small vulnerable states*. Originally as an economical phenomenon have the globalizations trends big influence in all areas (culture, ecology, politics) of human activities. According to Fiala and Majovska (2015) the globalization and technology improvement has changed the business environment, as stated in study of Cincera and Ravet globalization has a positive impact on R&D productivity (Kristkova, Van Dijk, 2014). Everybody is talking about globalization these days, and the word means different things to different people. It is often used without knowing exactly what it means. There is no standardized definition. We prefer the Albrow definition of globalization: „*All those processes by which the peoples of the world are incorporated into a single world society, global society*" (Albrow & King, 1990). Probably most cited definition is due to David Held et al. (1999), who conceive of globalization as a „*transformation in the spatial organization of social relations and transactions-assessed in terms of their extensity, intensity, velocity and impact-generating transcontinental or interregional flows"* and insist that a satisfactory definition must capture each of these four elements. Unesco defines *the process of globalization as the ongoing process that is linking people, neighbourhoods, cities, regions and countries much more closely together than they have ever been before. „Globalisation is an economic phenomena perceived by some either as wealth-being creator or evil for the society* "(Saxunova, 2015). We can conclude that this term has no specific and definitive definition. Its meaning can change from context to context and situation to situation. Despite diversity of execution, what definitions have in common is the fact that they regard geographical distances as a less important factor and the borders exceeding relations of (not only) economic nature prevail more and more. Generally it is the fact that technological, institutional and political changes in younger period significantly accelerated the process of integration of world economy. Integration brings, no matter whether to purchasers or suppliers of goods and services, more advantageous possibilities of production factors or capital that reach far beyond the border of own country. Thereby the frame of possible option has drastically broadened. Global markets are connected into the sole world market, all players operate on the same market, competition is getting stronger and the number of suppliers and consumers increases; this is to mention only some characteristics. Entrepreneurial subjects are under severe pressure, either from the owner's side and stakeholders, competitors, suppliers and customers, but also by macro environment factors, in which, entrepreneurial subjects perform their business activities (Kajanová, 2015). The evidence of the globalization, it means that some of the events and accidents occurring in human history influenced the globalization and its origin e.g. the expansion of Buddhism in Asia, expansion of Islam, the Song Dynasty in China, the Rise of Mongolian Empire, the creation of the Ottoman Empire, the rise of trade in Europe at the cost of Asian countries, Columbus (1492) and Vasco de Gama (1498), the expansion of slave trade in 1650, 1776/1789 US/French Revolutions, 1885 Treaties of Berlin, 1929 the great depression – Black Thursday, 2nd World War, The Cold War, Oil shocks in 70s, 2000 DOT Com crisis and 2007 Mortgage crisis. "*World globalisation process leads to the competition of states to obtain foreign direct investments (FDIs)*" according to Novackova, Paskrtova a Saxunova (2016) since "*investment relations have become a priority matter nowadays as a consequence of the changes in the economy structure and the economy of the European Union as well, because they support economic growth, trade development and development of regions*". As reported by Puchalska nad Surmacz (2014) FDI is inextricably linked to the process of internationalization and globalization. According to Wamboye, Mookerjee (2014) state foreign direct investment may be the driver of financial sector development which is one of positive aspects of globalisation. One of the standard indicator of the acceleration in globalization is the comparison between merchandise exports and GDP growth. Dvorokova (2014) see undoubtedly the strongest effects of globalization in the financial system. Today, we find ourselves in an age of ambiguity. Some exult about hyperglobalization but others worry that the age of globalization may have ended and started going into reverse. Otekhile and Zeleny (2015) are assumed that the globalization as a social process has reached its peak and reverted to relocalization. One of us have big opportunity to work for an international sport company and for this reason we have decided to make a research asking the colleagues in eight countries (Canada, Czech Republic, Germany, Italy, France, Japan, Great Britain and USA) about the effects of globalization and about the changes for the worse and better situation influenced by this term. The results of the survey show that the general attitude to globalization with more than 60 % is very positive especially in Japan we can verify an affirmative general mood with 80 %, in Czech Republic, Great Britain and USA we see more than two thirds of positive effects. We realize that these countries are not satisfied with the employment with 65 % and the gap between rich and poor with 76 % which is nowadays well-known with rising trend. We have really the next crises which can be dangerous and we should be really careful about any decisions. As reported by MacGregor Pelikanova and Cvik (2015) globalization can destroy unique cultures. On the other hand the availability of modern medicines and of food is seen positive. To summarize this chapter we should have an answer to the questions: who are the winners and losers? Who gains from trade?

The first answer is consumers (goods and services), global players (transnational companies) with cheap production in low-wage countries to set off the high price in high-wage countries (e.g. **General Electric** (USA), **Royal Dutch/Shell Group** (GB), **Vodafone** (GB), **BP PLC** (GB), **Toyota Motor Corporation** (JP), **E.ON** (Germany) etc.), management and financial sector with their managers of the large corporations, investment bankers, stock speculators; specialists in production, logistics, product developments. We have to mention also the functionaries in industrial countries of low-wage countries and corruption. The term winner in relation to the globalization must be viewed with a critical eye because only the small percentages of the global population feel the downside. As reported by Horcicka (2013) globalization is an inevitable historical process, which is useless to resist, particularly in connection with the fact that this process is in many ways desirable, and has beneficial effects on the majority of mankind. But like any social phenomenon, globalization has its downsides. One of them is that it opens the door to an era in which violence and chaos can prevail. The losers are mostly the developing countries because of not be prepared for the international trade competition, destruction of the local productions and low appeal. Further the poverty, corruption and child labor. To this group belong also some of the industrial countries because of the fall of the salaries and high unemployment, the speculations and commercial risks, the competition on the labour market, the unequal distribution of income, low interests rates and budget deficit. As reported by Novotny and Kruml (2015) unemployment is considered to be one of the most important and undesirable aspects of globalization for its citizens. At the end we would like to give you a real example of globalization to get an answer on this question: ,,**who get the 120 € for my ski boots**?''. The brand companies get **33 %** (39,60 €), retail trade gains **30 %** (36,00 €), VAT belongs **20 %** (24,00 €), manufacturing costs are **12 %** (14,40 €), transport and tax are **4 %** (4,80 €) and at the end are salaries with **1 %** (1,20 €).

3. The World Trade Organization

3.1 Precursor to the WTO

Until 1994, **the General Agreement on Tariffs and Trade (GATT)** was in force. It was a multinational binding agreement signed in 1947 that entered into force in 1948. Due to the Great Depression at the end of the 1920's and beginning of 1930's, the need for liberal order of world trade was increasing. Establishing of the International Trade Organization (ITO) was planned for such purpose, but instead GATT was temporarily established based on the USA refusal (Klein et al., 1998). The intention was to stabilize behavior among individual cooperating states with the aim of achieving, thanks to the international institution, better results than were provided by many bilateral agreements (always between two states). The USA can be indicated as the initiator of establishing GATT belonging to the system of the United Nations. By and large, GATT had three main tasks, first one the influencing of state trade policy by setting the rules of world trade, second one the forum for proceedings that liberalize trade relations and make them foreseeable and the last one the conflict resolution (Schraepler, 1995). Among the objectives, there was maintaining of safety and foreseeability of international trade relations by eliminating customs duties and other limitations of trade, eliminating of all forms of discrimination in international trade to raise the standard of living and enhancing production and trade exchange. The most important members of GATT were the OECD countries (OECD is the global Organization for Economic Cooperation and Development), so primarily USA, EEC countries and Japan. The second most important group of countries in GATT were so called newly industrialized countries that albeit were primarily characterized as opponents of import, however, by their important role of exporters they took an important position in international trade as neoliberal. All, last 128, GATT countries bound themselves to sign the superordinate principles such as trade without discrimination, protection by customs duties, requirement of fair competition, consultancy, settlement and resolution of disputes, favouring of developing countries, restricting of the quantity of import limitations. Development of GATT and its principles was primarily in eight so called trade runs, in which liberalization of world trade and elimination of trading obstacles, especially by decreasing customs duties, were discussed. The most important data and achievement of trade run was 1986-93 called **Uruguay run** which was initiated by the USA. The last run was started in order to eliminate all problems of the Tokyo run in the areas of non-tariff trade obstacles and in agriculture and textile trades. Besides that the developing countries during the crisis of world economy in 1980 increasingly requested protection. Since, however, they were contracting parties, ineffectiveness of GATT was hugely criticized. The arguments were that if an institution for liberalization was established, it should have had more powers to lead its members towards discipline and also punish them so that its existence is reasonable. The final protocol of Uruguay run was signed in 1994, which established the today known World Trade Organization.

The General Agreement on Trade in Services (GATS) was concluded within the Uruguay run. Its outcomes had to be, as instructed by WTO, entirely realized by 2005. As for the content, GATS determined privatization of all services (let's mention several of the most important services - education, research, telecommunication, transport and tourism). WTO expects acquisition of new markets in the field of services due to privatization.

The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) regulates copyright related to trade. The laws of individual states have to be unified by this agreement. It is particularly to the benefit of artists and technology companies that can sell their products in the international field more easily. The USA patent law is considered the basis of TRIPS. The TRIPS agreement was concluded by WTO foundation in 1995. It was made of a confidential pack of 15 agreements (among others, also GATS) that the countries interested in WTO membership had to sign. Thus another sanction mechanism for free trade was achieved. Misconducts against TRIPS are actionable and financial penalties or trade limitations are applied. Now TRIPS does not apply to all member states. E.g. in less developed countries it came into force in 2006. The reason is that such states do not have sufficient patent law. This should ease access to new ideas and technologies and support building of a structuralized state. Most patent owners are, however, industrial countries, that is why TRIPS is exposed to strong criticism of the developing countries.

3.2 The Institution WTO

History of WTO dates back to 1995 and as well as GATT it lies in the idea that prosperity can be brought only by free market economy. Three trade agreements - GATT, GATS (focused mostly on trade with services) and TRIPS (includes the rights to intellectual property relating to trade) - connected into one world trade organization. These agreements make three contractual pillars, in which WTO is built. According to Schraepler (1995) the aims of the WTO, among others are commercial and economic orientation of the member states on, increasing the standard of living, ensuring full employment and growth of production and trade exchange of goods and services. The optimal utilisation of raw materials sources with the aim of permanent development of environmental protection and maintenance, on one side and strengthening of applied resources, on the other side. WTO requests free trade; there are three main obstacles of international trade: first, we must mention duties and import surcharges that must be paid before sale of goods, second there are non-tariff trade surcharge such as certain technical standards that have to be complied with and then political measures can be limiting for trade. Despite all its benefits and good intentions, even 25 years later, the aims and principles of WTO are hard to be enforced in many of the member states and probably it will take certain time for everything to run under control as written in the theory or as was discussed. 162 states bear responsibility for 97% of the world trade. To ensure smooth exchange, solid and clear framework conditions are required. The member states largely take all the necessary decisions by consensus. Consensus, however, does not mean unanimity. Consensus is reached if none of the countries at the meeting votes expressly against the discussed point. Majority decisions are generally possible but they have not occurred yet, even in GATT regime they were rare. The WTO resolution is finally ratified by the parliaments of individual member states. WTO guarantees development of integrated, functional and permanent multilateral trade system. In order to achieve the aim, WTO's task is to implement general rules for world trade with goods and services. There are efforts to increase the standard of living and real income and to achieve and ensure full employment in the developing countries. Trade has to expand for this purpose. Liberalization agreements on trade with goods and services (GATT and GATS) subordinated to WTO and on protection of intellectual property rights (TRIPS) are based on three principles: elimination of external economic limitations, advantages provided to one of the members in relation to certain goods or services without reciprocal service must be provided to other members too (most Favoured Nation Clause) and Non-discrimination, it means equal position of foreign competitors and local providers of goods and services (domestic care for foreigners). Here we want to emphasize special importance of a unified world trade agreement. World trade has excessively risen during last 50 years and nowadays amounts 22-times more than in 1950. To ensure growth of export, a strong (within the meaning of being able to assert) and unified trade system is required. Otherwise everything will depend on arbitrariness as it was at the beginning of *„organized globalization”*. GATT and especially WTO should prevent such arbitrariness. Generally, there was the aim to equip WTO with more power than GATT could ever acquire. This requirement was achieved in the last (Uruguay) run. It is the only way how fair and managed goods trade can be established. As a consequence, subsidies were eliminated and quotas cancelled in industrial states. WTO's pursuit has got its name for several years: *„globalization”*. Under this term, WTO includes free trade as the base for growth of prosperity. Production is in the locations where it is most advantageous, production does not occur separately when import costs less. Economy theory sees it as optimal allocation of resources. Trade specific regulations that states adopted independently on each other were the stumbling blocks. Hereby the states limited each other, which made global trade more difficult and effected against prosperity. To sum up, the efforts of WTO with the aim to let free trade among countries establish can be described. Institutional framework of goods exchange should be created through WTO. That is why WTO plays a decisive role in ongoing process of globalization. By creation of framework conditions and structure, goods exchange is no longer dependant on arbitrariness of the heads of individual states. No country is disadvantaged, there are no unilateral agreements; so equal conditions apply for all. This is the point, in which the process of globalization significantly differs from others. Besides that, globalization process as extensive as nowadays had not existed ever before. Some theorists refer that even no unified regulatory mean had existed before. If we prioritize the statement that „the entire world becomes one village”, it is absolutely unavoidable for the village – „world” – to get unified legislation and generally binding valid directives that will be followed. It is nonsensical if a country tries to ensure advantages in its own way. There is a need for a superordinate instance that provides all WTO member states with equal rights and, after taking the individual countries' levels of development into consideration, helps those with weaker position by easing the rules or by special supporting for export of goods (and services) from developing and partially industrialized countries. Such measures are necessary if we follow the aim that partially industrialized (or even countries are still developing) have to come closer to developed world, in other words that the gap between poverty and wealth will not unnecessarily be increasing. Of course, it can be a problem for individual states when they realize that their authority, or sovereignty is limited because they assign their rights to a border exceeding institution and take away their powers. Despite the fact, the past has shown that world can „survive" only if, sooner or later, all countries pull together, not each country trying to search alone for its own path.

4. Conclusion

We cannot encounter generally valid statements whether general free trade has to be practised or whether protectionism is a better variant. This is discussed even among significant scientists. Since, however, these are, as it is frequent in ideal ideas „clean trade methods", it means extremes, one can actually hardly face them in such form. However, we can see mixed forms of these methods that vary according to country, its state of development, political system and position in world economy. Even in discussion about WTO we can't find unified clear line. On one side, the international exchange of goods among the member states is allowed by internationally valid system of rules and regulations, on the other side, these rules limit individual states in their sovereignty. It is a question why the states are resigned with limitation of their sovereignty, or can it imply that the states expect benefits and receive them? So, the motto is *trade-off* between loss of individual states' sovereignty and growth of prosperity. Another connection we tried to explain in the thesis was the connection between globalization and existence, or also necessity, of superordinate international institution, particularly WTO. We can talk about bilateral (mutual) dependence. First new technologies and other innovations allow trade on greater distances, which subsequently conditions minimal scope of regulations that lead, or maintain the trade in correct direction. But in the next step it leads to unblocking the way to goods exchange in greater geographic scales. Globalization can't be reversed, as we have no other alternative option at the moment. This term is ambivalent and has the tendency to polarize the world which arises from the camp of the winners and losers. To bring the most of the majority of global people to the winner camp is necessary to control the irreversible development of globalization by certain rules and laws. But having said that, those who aspire to see the end of the age of globalization should reflect on the fact that everything upon which the Information Age is based is derived from the same drivers that created globalization. The Information Age will encourage those same drivers to shape the future. The countries that continue to liberalise, that seek to integrate their economies with others, that foster adoption of the technologies and processes of the Information Age are those that will have the best opportunity of raising the standards of living of their people in the Information Age. The debate about pros and cons will probably never end. Indeed, one of the most important reasons for having this system is to serve as a forum for countries to trash out their differences on trade issues. Why do we have the opponents of globalization and what is the problem of this term? The Problem is that the globalization, it means, liberalization of trade, does not benefit everybody as we have the winners and losers and we do not have any other alternative to this system. Free trade isn't the aim, but the instrument. The aim should be the increasing the welfare in the whole world. The instrument for this could be the fair trade. WTO should be more transparent and independent and take care of the needs of individual regions. WTO has to concentrate on the sustainability and environmental protection and the decision-making procedure is relatively inefficient. This institution should not be the tool of powerful lobbies.

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BUSINESS SHARE VALUE IN GLOBAL ENVIRONMENT

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Abstract. We can see globalization process all around us and it actually influences all parts of economic life. The field of evaluation is no exception, there were created the international organizations in this case. They are developing the valuation standards on the global level (IVS) and on the level of European Union (EVS). These international organizations are trying to harmonize the evaluation concepts and its framework in individual countries, which can be helpful for the experts, but it is not possible to do this harmonization completely because of the obvious differences between countries. The biggest deal is the various terminology used in individual countries. This contribution deals with the framework of evaluation in the Slovak Republic in contrast with the evaluation practice in other countries, specifically it deals with the business share value in global environment. The basic difference between the Slovak Republic and abroad is the most frequented legal form of businesses which leads to the specific situations as the motives for evaluation process. The most often legal form of business is the limited liability company which means that it is not possible to applicate the most frequented valuation methods from the USA, accustomed to the joined stock company. This global environment generally influences many sides of valuating process.

Keywords: globalization, value, business share

JEL Classification: G31, F65, K20

1. International cooperation – Valuation standards

It is possible to distinguish the main categories of business value, which can be calculated: salvage value, liquidation value, fair market value, accountant value, exchange value, substantial value, investment value, going concern value, special value stand-alone based value, synergistic value, intrinsic value and so on.

The principle of calculation is basically the same in all the countries but the terminology is very different. In order to harmonize the work of valuators and experts on the transnational level there were created valuation standards that represent a valuation framework. The standards are not binding, they are only some kind of recommendations and they have a general form. The issue of business valuation dedicated only marginally, the main focus is the property valuation. It includes:

- IVS – International Valuation Standards published by the IVSC – International Valuation Standard Council,

- EVS – European Valuation Standards published by European organisation called TEGoVA – The European Group of Valuers Associations. (Szymanski, 2016)

At the national level we can identify, for instance, the US valuation standards US PAP (Uniform Standards of Professional Appraisal Practice) and German standard IDW S1.

2. Basic theoretical framework of evaluation in the Slovak Republic

There are lots of experts in the Slovak republic, who are dealing with the issue of business valuation in various publications (Heckova et al., 2014), (Dechow et al., 1999), (Hiraoka, 2006), (Solcianska, 2009), (Kislingerova & Krabec, 2013), (Knapkova et al., 2014) and (Gondzarova, 2015). We decided to discuss the business share valuation in this contribution because the most spread legal form of business is a limited liability company. According to available statistics (Benko, 2015), each month raises the number of the limited liability companies by a 1000. Each of them can have from 1 to 50 owners. It certainly can bring a lot of issues in these companies in practise and it does. This shared ownership does not last for ever, which means that one of the owners wants to leave the company and to sell his business share. He needs to know the value of his business share to be able to consider the coming buying options or suggestions from potential buyers. (Damodaran, 2006)

Evaluator has at disposal three possibilities when choosing the approach. The most often, the owners of the company are mostly interested in the profit and incomes, which brings us to the fact, that the most common valuation approach should be the income approach. But both the market and the income approach are the most popular in the developed markets, specifically it is the comparative transaction method within the market approach and discounted cash flow within the income approach. The basic framework of the discounted cash flow method is described below. The methods used in the United States are not always compatible with our terms in the Slovak Republic. The main differences causing the incompatibility are for instance: the level of market development, level of research, different variables and indicators used, the amount of comparable transactions or comparable companies, the lack of the joint stock companies in the Slovak Republic and so on. As we have mentioned above, the most common legal form of business in the Slovak Republic in a limited liability company, which restricts us in the methods and indicators used. Similar articles and empirical studies are written in other European countries as well. (Cibera & Krabec, 2015), (Kislingerova, 2010)

2.1 Discounted cash flow method

We decided to deal with the DCF valuation method and its basic principles of calculation. DFC is the most widely used in the US and the UK, but now is also promoted in continental Europe. The calculation of this method is based on the expected returns in the form of cash flow in the future. (Copeland et al., 1993) The income approach is especially suitable in the companies providing services. (Krabec & Cizinska, 2015) We can distinguish three DCF variants depending on the method of calculation:

- Entity approach (which considers FCFF – free cash flows to the firm),
- Equity approach (which considers FCFE – free cash flows to the equity), which usually considers discount rate by the CAPM model (Cao & Peng, 2002)
- Adjusted present value (Booth, 2007) – this modification is not used much.

This method builds the valuation process on the special kind of cash flows (the different form of CF than we can see in the traditional financial statements) which has to be converted to the present value through discounting. (Buus, 2015) The discount rate is usually stated at the level of the weighted average cost of capital with the formula in Eq. 1:

$$WACC = \frac{E}{C} * Re + \frac{D}{C} * Rd * (1 - Tc) \quad (1)$$

Where:
WACC= weighted average cost of capital which is an important part of the income approach. It mirrors the capital structure of the company. (Marik & Marikova, 2015) For all the equation below, it will be marked as i_k.
E = equity
C = capital (E+D)
Re = cost of equity
Rd = cost of debt
D = debt
Tc = corporate tax rate

The easiest way to illustrate the calculation of the Value of the company over *n* years, based on the DCF, is the equation Eq. 2:

$$\mathbf{EV} = \sum_{t=1}^{n} \frac{CF_t}{(1+i_k)^t} \quad (2)$$

Where:
EV = Enterprise value brutto,
CF_t = free cash flow at the time *t*, we can work with both forms of cash flows – FCFF of FCFE depending on the value we calculate (Entity Value or Equity Value of the company),
i_k = discount rate representing the risk of the cash flow in the numerator,
n = the expected number of years of company existence.

Hypothetically, if we would like to consider the unlimited existence of the company (as the indefinite time series), the formula would look like the Eq. 3:

$$EV = \sum_{t=1}^{\infty} \frac{CF_t}{(1+i_k)^t} \quad (3)$$

The most common formula within DCF method is the two-phase method that is calculated as following Eq. 4 (Marik et al., 2011):

$$EV = \sum_{t=1}^{n} \frac{CF_t}{(1+i_k)^t} + \frac{TV}{(1+i_k)^n} \quad (4)$$

Where:
TV = continuing value representing the second phase, also known as the stable one.

The formula above is considering two different phased of the company existence that should be evaluated separately. The first one is based on the cash flows and other variables from the financial plan, while the expert can make a prognosis for each year individually. (Botosan & Huffman, 2015), (Ikeda et al., 2003)

The other phase consists of all the time periods in the future while the variables are too far for us to be able to predict exactly. (Samonas, 2015) That's why we use the continuing value which represents all the cash flows gained in time since *n+1* years.

2.2 Discounted cash flow method in practice

The continuing value is the variable we want to deal with in this article. The value of cash flows of the first phase is relatively easy to calculate. The only thing we know is the financial plan and the discount rate. We can illustrate the calculation in an example (all numbers are in €):

Table 1: First phase calculation

Years:	2016	2017	2018	2019	2020
FCFF	45 500	46 410	47 802	49 236	49 729
discount rate	11 %	11 %	11 %	11 %	11 %
discounted FCCF	40 991	45 855	47 739	49 229	49 728
EV_1	**233 542**				

Source: (author)

EV1 (Value of the first phase) in this case is the simple summarization of particular discounted cash flows.

Then we need to calculate the continuing value. We have to choose one of the three options: we can use the parametric formula, Gordon's formula or the traditional formula with the assumption of very long existence of the company. Again we will use the variables of the real company to illustrate the calculation.

Firstly we have to settle the input data. For the calculation we need to know:

- Return on Investments R_I = 10 %
- Expected growth rate for the second time period g = 5 %
- Discount rate i_k = WACC = 11 %
- And by knowing g and RI, we can easily determine the investment rate $m_I = g / R_I = 0{,}5$

1. Parametric formula (Eq. 5)

$$\mathrm{TV} = \frac{CP_{T+1}*(1-\frac{g}{r_I})}{(i_k-g)} = \frac{104\,430.3*(1-\frac{0.05}{0.10})}{(0.11-0.05)} \tag{5}$$

2. Gordon's formula (Eq. 6)

$$\mathrm{TV} = \frac{FCFF_{T+1}}{(i_k-g)} = \frac{52\,215.17}{(0.11-0.05)} \tag{6}$$

3. Traditional approach (Eq. 7)

$$\mathrm{TV} = \sum_{t=1}^{n} \frac{\mathrm{FCFF}_{T+1}*(1+g)^{t-1}}{(1+\mathrm{i_k})^{\mathrm{t}}} = \sum_{t=1}^{n} \frac{52\,215.17*(1+0.05)^{t-1}}{(1+0{,}11)^{\mathrm{t}}} \tag{7}$$

As we can see below, we have proved that the results are the same, nit does not matter which method we use.

Table 2: Results of the terminal value by various methods

TV by Gordon's formula	870252,8 €
TV by Parametric formula	870252,8 €
TV by Traditional formula	870239,9 €

Source: (author)

The last part of calculation is to convert the TV for its present value. While the financial plan ends in 2020, our time period *T+1* is 5 years ahead in Eq. 8:

$$\text{Present value of TV} = \frac{\text{TV}}{(1+i_k)^n} = \frac{870253}{(1+0{,}11)^5} \tag{8}$$

$$\text{EV} = EV_1 + \textit{Present value of TV} = 233\,542 + 516\,453 = 749\,995\text{ €} \tag{9}$$

There is the resulting value of the whole company in Eq. 9. As mentioned earlier, one company can have from 1 to 50 owners, which means that the result has to be divided by a competent number to gain the value of the partial business share. Very important

Note: Eventually there is another possibility of modification of the DCF formula. (Weiss & Majkuthova, 2006) Three-phased method which can be used in the case of fast growing company, while the first phase is for the fastest growth period, the second one is the temporary slowing down time period and the last phase is for the infinite stable growth. The formula is modificated as following Eq. 10:

$$\mathbf{EV} = \sum_{t=1}^{T1} \frac{CF_t}{(1+i_k)^t} + \sum_{t=T1+1}^{T2} \frac{CF_t}{(1+i_k)^t} + \frac{CF_{T2+1}}{(1+i_k)^{T2}(i_k-g)} \tag{10}$$

3. Conclusion

This article deals with the basic framework of company evaluation and it introduces the basic starting points of evaluation and the related standards at the international level. The global environment caused spreading of advanced methods from the developed countries into the central Europe. This article also describes the discounting cash flow model and the basic principles of its calculation. We have presented the practical example of an evaluation based on the most frequented two-phased DCF method. For calculation it was necessary to know the information from the financial plan of the company and to settle the assumptions for the next future time period. We have calculated the value of the first phase and then the terminal value.

We have to mention that the resulting value is not necessarily the price for which the business share will be bought and sold. The price is up to the buyer and seller while each of them has a different opinion about the value, each has own preferences, expectations and the incentives for the transaction. We can say that the evaluation practice is not the same all around the world, but the harmonization of standards still continues.

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IMPACT OF THE GLOBALIZATION ON THE PROCESS OF CREATING MARKETING COMMUNICATION AND ITS IMPORTANCE IN THE CREATION OF INNOVATION

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Abstract. The paper deals with the impact of the issue of marketing communication in the second part of eco-innovation process, the creation of eco-innovation, and examines the impact of globalization. Marketing communication plays a very important role during the development of eco-innovation. Selection of the inventions brought the innovation, which the enterprise has decided to implement. The paper contains partial results of the research of small and medium enterprises in the construction sector that has realized eco-innovation in Slovakia. As the innovation process consists of several parts, it was necessary to focus on each of them. We tried to reach respondents and see how a marketing communication was implemented and how the enterprises used the tools of marketing communication through the whole eco-innovation process. We supposed that eco-innovation process has the same structure as the innovation process. We got the idea that eco-innovation process is not inherently different from the innovation process in the sequence of individual steps. It differs just by adding value in the form of positive benefits for the environment. We studied marketing communication throughout the process of eco-innovation in these enterprises especially with respect to globalization. Based on the evaluation of the research, we have designed a methodology for marketing communication for eco-innovation process in the globalized world. In this part of the eco-innovation process it is very important the compilation of ecologically and environment friendly messages, choosing communication channels, determine a budget and select the promotional mix.

Keywords: eco-innovation, eco-innovation process, marketing communication

JEL Classification: M31, O31, M10

1. Creation of Innovation as a Part of the Eco-innovation Process

The second part of the eco-innovation process is creation of eco-innovation. It consists of several steps - research and development, scientific, experimental or organizational activities. According to the linear model of the innovation process, which can be used also for eco-innovation process (Zaušková, Loučanová, 2008) here are the three main parts:

Table 1: Creation of Innovation

Creation of Innovation		
1. Preparation phase of the innovation program	**2. R & D Phase**	**3. Production Phase**
▪ Selection of innovative tasks, ▪ Building an innovative program.	▪ Theoretical and experimental research, its verification, ▪ Develop a conceptual prototype, ▪ Prototype design documentation, ▪ Technological and material prototype preparation, ▪ Manufacture and testing of prototype, ▪ Processing of documentation for the test series.	▪ Adoption of the technical and organizational project, ▪ Start-up of the prduction, ▪ Management of the newly learned production.

Source: Own processing according Zaušková, Loučanová (2008, s.31)

The linear model of innovation process has specified also Kotler and Armstrong (2012). They reported several parts of the innovation process, such as generating ideas, testing of ideas and following phase of developing a marketing strategy as a full-fledged part of the innovation process and more. According to these authors we can find the intersection between these two models and these parts of the second linear model. These authors put more emphasis on marketing communication in this important part of eco-innovation process:

- marketing strategy development (creation) - creating a marketing strategy of innovation:
  - description of the target market,
  - value proposition,
  - sales, market share, revenue share for the first few years of innovation.
- trade (business) analysis - assessing the commercial attractiveness of the proposal. It includes sales forecasts, estimation of costs, profit and analysis if innovative product corresponds with the objectives of the enterprise.
- product development - the most costly phase, the product receives a tangible form, there is a production and prototype testing. The length of this stage depends on what type of product it is, and can take several days, up to several years. Product testing can be carried out under the direction of the company, or through an external institution. Marketers often include customers to the testing of products.

2. Eco-innovation Process in the Light of the Globalisation

Globalisation of science and also technology causes increasing economic challenges. The past decades we can see in the light of a rapid globalisation of economic activities which has significantly changed the shape of the world economy. Lot of enterprises, countries and other economic actors take part in today’s global economy and all of them have become increasingly connected across borders. Effects of globalization have increased the efficiency and productivity through more efficient allocation of resources: as well as to increase competition, but also the diversity and quality of products. On the other side, the process of globalisation also raises concerns in many countries, and needs to be well managed to ensure its benefits are widely distributed. The trend of globalization, on the one hand makes it difficult implementation, on the other hand, can contribute to the realization easier. It all depends on the company and its efforts, as well as financial capabilities and know-how. The internationalisation of technology is also an important characteristic of today's globalisation process. Technology but also information flows between countries have grown and cross-border relationships between countries have grown in many ways. International co-operation in science, technology and innovation, including eco-innovation is on the rise as mentioned in several indicators along different dimensions, including patents (www.oecd.org).

Globalisation is increasing pressure on the environment, but it may also provide solutions. Climate change, sea-levels rising, unpredictable weather patterns, drought, demographic explosions are seen as a cause of this ills, and it is true to say that increased economic pressures inevitably leave a bigger footprint on our planet.

It is questionable as to watch this issue. On the one hand, globalization appears to be one of the causes of the needs of eco-innovations on the other hand; globalization promotes the creation of new eco-innovations.

3. The Importance of Marketing Communication in the Eco-innovation Process and Approaches to its Creation

For the purposes of this contribution we leave the issue of the relationship of eco-innovations and globalization open. We want to have a closer look at the issue of marketing communications, which is served on a global scale, available for companies with different subject of their point of interest. This is based on the generalization of the results of our research. We generalized the results of research for companies operating in different sectors and created a methodology communication for any eco-innovation process.

Resulting product of the eco-innovation process has always the extra dimension, which is the added value in the form of a positive contribution to the environment. Based on the definition of eco-innovation, we assume that eco-innovation is ecologically useful, with less negative environmental impact than its previous non-innovated variant. The successful eco-innovation is conditional by the proper use of eco-innovation process and ensuring the progressive implementation of the individual steps that lead to the successful fulfilment of the objectives of the enterprise in the form of positive changes in the process of commercialization of an offer on the market. Area of eco-innovation is specific as the final product or its production process is characterized by the fact that they are environmentally friendly, whether as a direct result of the innovation process, or as a side effect of introducing new business processes, or services. For this reason, we believe that marketing communications should be based on eco-innovation and use environmental marketing bases while it would be appropriate to use in it elements of a sustainable marketing. Penetrating these two areas should be a good concept for creating the concept of marketing communications at eco-innovation process.

Marketing communication in eco-innovation process has two important tasks:

- communicate product and its properties,
- communicate environmental message.

For eco-innovation to be successful, it is not enough to bring a new product or service as a result of eco-innovation process to the market. The basis for the success of green innovation is communication with the customer. Through suitably marketing communications firm discloses to consumers that it offers its products that can satisfy their needs and meet required quality attribute, what also corresponds to the price. The way the message the consumer receives is crucial, it is important to ensure that it will not cease to exist in the amount of information and that it intrigues him. It requires flexible thinking, creativity, and constant search for ideas (Kender, 2005). In the case of green innovation that pays many times, as a green product is still looking for its segment of consumers, which may, depending on the product vary greatly and therefore we should always sensitively select the appropriate tools, the use of which must also be timely. Marketing communication strategy in designing and implementing green innovations is very important and is related to the overall environmental orientation and communication of the company.

The resulting success of the new product as a result of the innovation process is determined by the quality of implementation of all its parts, thus not only scientific research and technical activities, as well as marketing (Loučanová et al. 2015). This means that the innovative project of a new product requires comprehensive, complex elaboration of such strategies as product-technical and production-technological and not least the marketing strategy (Čimo, 2010). Sustainable marketing strategy should be included in the eco-innovation process as an integral part of eco-innovation project of the enterprise being innovated. The main objective of the marketing strategy is to gain a competitive advantage in a competitive market. The achievements of realized marketing strategy can be measured by indicators such as sales, market share, profits, share prices etc. (Miklenčičová and Čapkovičová, 2014). However, if managers in creating the marketing strategy paid attention only to short-term targets, increasing sales or profits, it can have a negative impact on society in terms of sustainability. Innovation is now considered as an important competitive advantage in building a sustainable marketing strategy. (Martin & Schouten, 2014) When implementing environmentally friendly products, companies use marketing tools that are well established and proven for other products. It is important to build the trust of customers that these products deliver measurable benefits to the environment and are equally well-suited and cost-effective as the previously used product that was not environmentally significant and beneficial. The most important determinants of consumer purchase decisions are the price and performance/quality of the product. Purchasing decision is also influenced by their faith in the brand. Companies can increase consumer confidence and encourage enthusiasm for products friendly to the environment through a comprehensive and clear communication about what this means for the company to be "green" (Bezáková, 2013). As already we indicated in the introduction chapters, marketing communication should be based on significant environmental and sustainable marketing, taking care to the enterprise business orientation, how it uses different tools to create its own communication mix.

4. The research focused on the second part of the eco-innovation process (Creation of the eco-innovation)

Second part of the eco-innovation process is a part, which consists of the development phase of the program of innovation, research and development and production stages. In this part of the eco-innovation process, we focused on the area of implementation of necessary documentation and construction of necessary test product and so on. Answers to this question could be affected by type of business of the companies or by the implemented eco-innovation. There is a wide area of possibilities of implementation of the innovation in the construction area. It does not always go just about making the whole building, but only a part of making or execution services that are eco-innovated.

Here is just a part of our research, which is related with the creation of innovations and the necessary procedures within the creation of marketing communication. The question about realizing testing or quality material testing during the preparation phase of the necessary documentation, design documentation, or prototype needed for eco-innovation? Both positive and negative responses were roughly equal proportions - Yes 49.2 % No 50.8 % of respondents.

An important component of the innovation respectively eco-innovation process is processing the overall project implementation. It is in the second stage of the innovation process is the right time for its implementation, as well as create a design / plan to use marketing communication in the third part of the innovation process, which should be an integral part thereof. Researched enterprises accessed to the implementing plans as tools of marketing communication as follows:

Table 2: Plan of implementation tools of marketing communication

Implementation plan:	
Advertisement	17,2 %
Public relations	9,8 %
Sells promotion	17,9 %
Personal selling	15,9 %
Direct marketing	5,1 %
Online communication	11,8 %
We have not made any plans to use marketing communication	22,3 %
	100,0 %

Source: Own processing

Advertising and sales promotion, together with personal selling, appear to be the most common planned activities in this phase of the eco-innovation process. Of course there is a subsequent reality and appropriateness of the planned activities. It is common that companies often vary their activities depending on the financial circumstances or depending on changed conditions of business, or suddenly emerging needs within the enterprise. We can conclude that the owner of a small construction company can decide on issues plans very intuitive, or according to certain usage habits.

5. Process of marketing communication creation

In this part of the innovation process, the company has selected invention as a result of selection of several inventions, while it was evaluated under the proposed criteria. Therefore, it may proceed with the compilation of communicating messages, choosing communication channels, determine your budget and select the promotional mix.

- Preparation of the communication message - since in this part of the innovation process, the company has selected invention, which will be translated into innovation, it is possible to proceed with the preparation of communicating messages.
- Communication channels selection - from the two types of channels - personal and impersonal channels have to be chosen with regard to the message communicated, and also with regard to the particular eco-innovation and its properties.
- Determining budget - however, since we consider the direction of the company towards sustainability, we take into account the transformation of traditional approaches to the approach of the new /sustainable/ where the aim is above all to inform the customer about the benefits of the product, important is not the product but the customer as well as in planning the budget, we see an important change.

- Promotional mix selection - it is necessary to ensure sustainable translating the message into marketing communications and trigger the necessary emotions associated with ecologic products when the customer receives a sense of contributing to environmental protection with the purchase. In this part of the process of eco-innovation, synergy of innovation and marketing management is important as well as environmental and sustainable marketing.

As an example, the design of the table for the use of advertising in Part 3 eco-innovation process.

Table 3: The proposal for advertising in the third part of the innovation process

Advertising	
Role - *INFORMATION* - The report should be specific, credible and honest - Introduction of eco-innovation - emphasize the environmental benefits of the product - get eco-innovation among the customers - do not generalizing environmental product characteristics, if the ecological characteristic is typicall just for the part of the product **Advertising campaign** - clear, transparent and understandable environemntal arguments by which the company will attract the consumer's attention. **The appropriateness of the advertising in eco/innovation process:** Less suitable	
Magazine	Periodicals Lifestyle periodicals
Periodicals	Regional periodicals
Citylights	Location: Near the realization of building or development project
Bilboards	Location: Peripheries of building implementation or development project

Source: Own processing

Certificates

At this stage it is appropriate to focus on obtaining certificates, whether for products or certificates of environmental management (Miklenčičová, 2015). It is up to each enterprise for which certificates it will be decided. We consider certificates as an appropriate tool of marketing communication. It is then possible to communicate the acquisition of certificates and link them with traditional or online presentation tools MC.

6. Conclusions

Innovations are the driving force of any economy, and if they are implemented with the idea of moving towards sustainable development they can be an important factor that contributes not only to the economic prosperity of the company, but also the increasing of the competitiveness. Marketing communication in their implementation has a different nature than the traditional marketing communication, which was based on traditional tools of the marketing communication. These tools can be used, but the whole nature of communication by eco-innovation is changing. There is a need to educate the customer, create community and change mind-sets and scale of values of the customers and the whole society. It needs to get back to nature and to be sensitive to environmental problems. Change that can be achieved does not happen overnight, but in a systematic direction of the enterprises as well as with individual power we have a chance to achieve a common positive change. For the customer, the company, but especially the environment and nature that surrounds us.

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RECEIVABLES MANAGEMENT IN THE GLOBAL ECONOMY

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Abstract. This article deals with receivables management of a company in the global economy. Receivables management of a company helps managers make the right decisions in the management of receivables and thus contribute not only to the health of the company, but also to attract new and retain existing customers. Through it, the company eliminates the weaknesses in settings of providing and managing of trade credit, which could in future lead to some problems. On the other hand it can reveal strengths that can help the company to gain competitive advantage. Although the management of receivables is considered to be essential for financial management, companies do not give it sufficient attention. Receivables management, if we can call it that way in some companies, is only subsequent reaction - steps that the company takes to reverse the undesirable state of receivables. Effective management of receivables can certainly be considered a complex system, which must react to demands of customers, must adapt to certain settings on the market and must also take into account the financial capacity of the company providing the trade credit. Receivables management must ensure the optimal amount of working capital that is tied up in trade receivables of the company.

Keywords: receivables management, business accounting, global economy, finance

JEL Classification: G30, M21, M42

1. Introduction

Receivables are currently still quite risky component of assets of an enterprise that has a negative impact on the ability of the company to pay. They are mainly influenced by external factors, such as conditions in the national economy, economic and political situation in the country, behavior of the enterprises, market conditions and last, but not least the buyers access to them. Although the enterprise cannot eliminate all of the factors above, it can at least optimize the development of its receivables through receivables management. Each company determines its policy in receivables management, which is influenced by market and sector in which it operates. A construction company chooses other receivables management policy than a wholesale company. The impact of competition is also significant. At high competition, the customer has a better negotiating position, leading to a buildup trade credits and lengthening maturities.

2. Tasks of receivables management

Receivables form a component of assets of the enterprise in accounting arising from the accounting transactions which were carried out in the previous period, but the funds of which will flow in the future. They represent intangible assets, property right to receive cash or non-cash payment from customers for the performances, such as the supply of goods and services. They are shown as an asset on the balance sheet. The basic task of receivables management is to determine the optimum level of working capital commitment in corporate receivables. A sufficient capital to enable the company to offer its customers favorable payment terms is considered optimum level, which will ultimately not only maintain sales volumes, but also its growth. On the other hand, receivables management must ensure a level of receivables that will not slow down the capital turnover of the enterprise, and thereby reduce its profitability.

The purpose of management of receivables is therefore: ***protect the company from a high proportion of invoices that the customers pay late, to minimize the proportion of bad debts that are not recovered at all or are collected with expending relatively high costs*** *(*Kislingerová, 2004).

The key tasks of receivables management are:

- determining mutually beneficial sales and payment terms between suppliers and customers,
- credit rating of each of the customers,
- determining credit limits for each customer,
- permanent control of receivables, initiating actions for claims after their due date (reminders, sanctions, etc.),
- determining the credibility of the customer - customer rating,
- contract ensuring of collection (e.g. installments, advances, promissory notes, letters of credit, guarantees),
- checking payment terms,
- monitoring of receivables through turnaround, time of turnover, age of receivables and other,
- interactive cooperation with the departments of marketing, sales, and with the department dealing with the price determination,
- identification of non-standard conditions of sale.

In managing the receivables customers require a different approach to avoid inefficient management of receivables. A small customer and other large customer will require different approach and time, or a risky customer different approach as a non-risky one. Effectiveness of recovery of receivables on their own depends on the size of the sales, the number of debtors or the volume of overdue receivables. (Siekelová, 2015)

3. Receivables management process

Enterprises should pay sufficient attention to the management of receivables, as the effective management of receivables not only reduces uncertainty and the likelihood of unpaid receivables, but also ensure that the company does not become insolvent because of the delayed, respectively unpaid debts. This whole process of management of receivables can be divided into three stages:

- stage before the receivable arose - **preventive stage**,
- stage after the receivable arose – **monitoring and receivables treatment**,
- stage of management of **overdue receivables**, respectively receivables recovery.

Preventive stage consists of the following sub-stages:

Collecting customer information – contains not only the collection of information on customers who request trade credit, but also to the subsequent payment conditions for granting it. This includes the choice of form of securing receivables, organizing credit management and also correct rating of the business partner and credit analysis. Financial situation is constantly changing, so it is necessary to constantly monitor the financial health and payment discipline of your customers. This information can be obtained from several sources, e.g. from the financial statements of customers, based on demand from trading partners, directly from the customer, from the credit rating agencies, from credit registry or by using other sources of information.

Processing customer information – in the actual processing of customer information a number of methods can be used, such as comparative-analytical, points and also mathematical-statistical methods. (Cisko & KlieStik, 2013)

Determination of customer creditworthiness – the company is able to assemble a downstream portfolio through determining customer creditworthiness, respectively creditworthy customer groups. It is this step it is possible to provide different and at the same time adequate approach to individual customer groups by setting the level of buyer credit, payment terms and securing the buyer credit. A company can secure quantification of the creditworthiness itself, or request it from one of the rating agencies. If the company decides to quantify the creditworthiness on its own, it must establish a preventive system which should protect it from risks arising from the payment indiscipline or payment refusal of customers. For this reason, the enterprise must identify potential risks from present, but also from new customers, determine the classification criterion based on which the customers will be sorted into creditworthy groups, sort out customers with predicted higher degree of risk than is acceptable, choose hedging instruments to eliminate risks, develop a method for the use of corrective measures in case of overdue receivables while continuously documenting and evaluating crisis situations and how they are solved. Therefore it must constantly check not only the financial signals but also the non-financial, which affect creditworthiness, and payment behavior of customers.

The indicative signals are:

- reported profit / loss,
- negative or low income from economic activities,
- reduction of equity, increased debt, negative net working capital,
- requirements for the extension of payment terms,
- requirement for a higher level of credit limit without justification.

Additional indicators may include situations where a customer ignores verbal and written reminders or communication with him is impaired, the company's address changes frequently, the company does not report changes in ownership structure and senior management or there are changes in contacts, phone numbers and email addresses. For each of the business relationship, but also in its course, you need to ask questions like: “Is the customer solvent? What is his name and position in this field? Does he fulfill his obligations on time and in full?

Is he a reliable partner? "By analyzing the creditworthiness of the customer, we should answer the following questions and then we can divide customers into so-called creditworthy groups.

Credit analysis - information obtained about a client's creditworthiness allows the subdivision of the downstream portfolio in creditworthy groups based on which it is possible to effectively manage receivables with individual approach to customer groups. Groups have set payment terms, buyer credit limits and required form of securing the receivables. It is necessary to set individual conditions for granting or denying trade credit for customers divided into different creditworthy groups. At this stage an enterprise decides whether it will grant credit to customer. In practice this decision relates mainly to new customers and with the existing customers the enterprise is considering granting credit in cases where the customer does not comply with the agreed payment dates, respectively violates any other trading conditions. The most important factors when deciding on granting trade credit is the time value of money, risk and the present value of money. Deciding effect of the time value of money is case of receivables influenced mainly by the time length of trade credit. When deciding on the time length provided for trade credit, the enterprise must have in mind two fundamental concepts of finance theory which are: value of the euro today is greater than the value of the euro tomorrow and a risk-free euro is worth more than euro with risk. Trade credit is linked to interest which represents the suppliers reward for selling his goods on credit, which means he gave up the funds, which in the case of immediate payment for goods would be immediately available. Interest also reflects the risk that the supplier undertakes. The amount of interest can be quantified by the following relationship:

$$u = P \cdot i \cdot \frac{t}{365} \tag{1}$$

where:

u interest,
P amount of the receivable,
I interest rate,
t maturity in days.

When deciding on the basis of the present value of profit, the enterprise has two options. The first is to refuse to provide trade credit, and thus do not make neither profit, nor loss. Or in the second case it may provide credit with undertaking risk that the customer will not meet his obligations on time and properly. This way the enterprise will not make profit, but, in addition, it will loose the funds used for acquisition of sold products, that means in this case the enterprise loses.

If we do not take the time value of money into account, the value of anticipated profits for offering trade credit is calculated as follows:

$$Z = p \cdot (V - N) - (1 - p) \cdot N \tag{2}$$

where:

Z expected profit,
P income in case of payment of the claim,
N the cost of sold product and costs associated with managing receivables,
p the probability of payment of receivable,
1 – p the probability that the payment of receivable will not happen.

If we take into account the time value of money, the relationship is calculated as follows:

$$Z = \frac{p \cdot (\mathrm{V} - N)}{\left(1 + i \cdot \frac{t}{365}\right)} - (1 - \mathrm{p}) \cdot \mathrm{N} \tag{3}$$

where:
i interest rate,
t maturity in days.

The basic condition of providing trade credit is that the profits are made: **Z > 0**. In extreme cases, the company may also accept zero profit. Then the next relationship must be true:

$$\frac{p \cdot (V - N)}{\left(1 + i \cdot \frac{t}{365}\right)} \geq \frac{(1 - p) \cdot N}{\left(1 + i \cdot \frac{t}{365}\right)} \tag{4}$$

Securing the fulfillment of the customer's obligations – for the enterprise it is necessary that if the customer fails to pay the amount due, to use with a rapid effect some of these hedge instruments: contract securing, deposit, lien, guarantee, bank guarantees, trade bills, factoring, forfeiting, receivables insurance and others. By concluding a contract, the company can prove the existence of a business relationship. The contract must contain clearly defined terms and conditions. ***The deposit*** is not provided with any legal regulation, it is purely an agreement between business partners. ***The contractual penalty*** is a tool applied by one party to the other in case of violating terms and conditions. ***Third party guaranty*** is a written form of declaration of the person who obligates that in the event that the debtor fails to fulfill his obligation, he will fulfill that obligation instead. ***Bank guarantee*** is a written declaration of a bank, that it will satisfy the creditor if the debtor fails to fulfill its obligation duly and timely. The advantage is that the bank usually carefully reviews and considers the provision of guarantees and also that the bank is, as a financial entity, subject to legal control, thus reducing the risk of non-payment of debts. ***Trade bill*** can be considered a popular receivables hedge instrument because of its simplicity and the guaranteed return. It represents an unconditional obligation or order of the exhibitor to pay the agreed amount within the stipulated time and venue. This requires written form. ***Factoring*** is a repurchase of the receivables by the factoring company before its due time. Factor is contractually committed to reimburse the supplier by the agreed part of the receivable, regardless of the customer payment. ***Forfaiting*** similar to factoring, represents repurchase of receivables by the factoring company. The difference from factoring is that the factoring companies repurchase receivables, which have a maturity of at least 90 days and repurchase is carried out also with years of maturity. ***Receivables insurance*** is used to ensure compensation for unpaid receivables incurred as a result of the financial insolvency of a customer. (Cisko & Kliestik, 2013)

4. Monitoring and receivables treatment

Recording and tracking of individual receivables takes place at their emergence. Receivables management entails constant monitoring of receivables of the enterprise which focuses not only on the structure of receivables, given maturity, debt collection, but also on their non-payment when due.

Monitoring receivables is a care that the enterprise pays to incurred receivables by analyzing their status, structure, evolution and age and the subsequent trend in development of the payment discipline of customers. It contains mostly these actions:

- keep the detailed records and at the same time inspect the individual receivables, but also receivables as a whole,
- continuously evaluate the receivables maturity,
- evaluate the turnover and the turnover time of receivables,
- monitor the overall framework of provided receivables.

5. Management of receivable past due – debt recovery

If a customer does not pay for the delivery in time, it is necessary to proceed to recovery of the receivables either by own staff or with the assistance of external specialized companies. The company makes effort to induce their customers to pay on time. Unless preventive measures will prevent the development of late paid or bad debts, the company must focus on their recovery. Before choosing the appropriate methods that will be applied to their customers, they should think about what is leading their customers not to pay their obligations. The customers either:

- ***cannot pay in time*** – they do not have enough capital to finance its cash cycle or the whole business, or are highly undercapitalized, without access to external sources of financing or get into secondary insolvency;
- ***do not want to pay in time*** – they know the lender's weaker position due to high competition or lack of treatment for recovery of receivables, waiting for the last minute before "the cup of patience overflows", finance other activities, for example private.

Recovery on your own is based on good knowledge of the business cases, customers and a flexible action; therefore it can be effective in the early stages of payments recovery. Experience with the recoveries indicate that the enterprise is able to effectively reach recovery of its receivable in about three months, then all options of recovery are ineffective and another solution has to come up, for example, a solution through the courts or through external specialized companies.

When recovering, it is required to concentrate more on risky borrowers, i.e. not to pursue the same effort and the cost on screening all customers, but especially for those who appear to be a potential risk because they take away much production, originate from risky areas, have risky behavior and so on. Pareto rule applies here, 20% of customers account for recovery of 80% of problem settlements. Under the typology of debtors we mean sorting borrowers into homogeneous groups based on characteristics that are, unlike segmentation, rather personal characteristics, or communication differences or are related to the nature of the debtor. An important criterion when dividing debtors is the reason for non-payment. In terms of law, the enterprise may not at all be interested in reason for non-payment, but in terms of psychology and typology of debtors it is very important. Failing to collect receivables when due, it is essential that the enterprise start to initiate steps and procedures established for such a case.

These are activities associated with the recovery of receivables that can be implemented:

- telephone and personal contact with the debtor,
- sending reminders,
- through agencies dealing with debt recovery,

- judicial recovery,
- execution,
- bankruptcy.

6. Conclusion

Business in the global economy must constantly adapt their activities to the new technologies, competitive pressures and constantly changing business environment. To stand its market position, or improved it, it must have a functioning and good management. One of the areas of company management is the management of receivables. We believe that a company that can effectively manage its receivables may use the cash that would otherwise be tied up in overdue receivables, to expand their business activities and thus contributing to the further development of the company. Very important is the proactive management of receivables, which in practice means that the enterprise is monitoring a receivable at its origin and not only at the moment when customer fails to fulfill its obligation of timely and proper receivables payment. Receivables prevention tries to prevent the occurrence of bad or late paid debt. Debt recovery starts at the moment when ensuring that the receivable is paid on time has failed. Preventive measures should therefore be incorporated already in the sales process so that it is not often necessary to proceed to the recovery, which brings with it not only later paid receivables, but also the costs associated with their recovery.

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GLOBAL MOVEMENTS OF MAJOR WORLD INDICES: THE PERFORMANCE COMPARISON

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Abstract. The stock markets have always been one of the most popular investments due to their high return, therefore stock market indices has always attract broad portfolio of investors in order to assess available resources. Historically, market movements had been reflected in stock price indices whose serve as an indicator and benchmarks for portfolio managers and single individual investors. The stock market development under globalisation came to narrow international market interconnection and correlation. The objective of the paper is to provide the relative performance and the comparative analyses of the world major indices using a correlation model and evaluate the influence of the monetary policy measures adopted by the central bank to market and price volatility. We find that there is a strong correlation between stock indices and reactions to central bank announcements. The paper highlights the monetary policy influence including currency movements on index price developments, market volatility as well as behavioural effects of investors on index trend progress. We find out, that the stock markets would still be heavily dependent on the monetary policy changes and central bank statements, mainly an interest rates movements, economy progress and currency development, what would keep the stock market volatility relatively high and always reopen the question for investors about future market trends and forecasts.

Keywords: stock market indices, price correlations, performance of indices, market volatility.

JEL Classification: C51, C 58, G15.

1. Introduction

Akciové trhy a finančné nástroje, ktoré ponúkajú, sú dlhodobo v centre záujmu rôznych skupín investorov, tvorcov finančných politík či akademikov na celom svete. Akciové indexy sa stali štandardným a dlhodobo vyhľadávaným investičným nástrojom, ktorý denne priťahuje milióny investorov a ponúka zaujímavú investičnú príležitosť. Táto téma sa stala predmetom výskumu mnohých štúdií, zameraných na koreláciu trhov, hlavné faktory vplývajúce na trendové pohyby, kovarianciu medzi spotovými a termínovými trhmi, krátkodobú a strednodobú volatilitu trhov, či reakcie trhov na rôzne typy šokov a kríz. Tieto typy informácií sú kľúčové pre fond manažérov, správcov portfólií, risk analytikov a individuálnych investorov, aby správne načasovali a diverzifikovali svoje investície, v snahe znížiť a minimalizovať podstúpené riziko a docieliť očakávané zhodnotenie úspor.

2. Koncepčný prehľad štúdií výkonnosti akciových indexov

Koncepčné štúdie zamerané na výkonnosť akciových indexov a ich vzájomnú koreláciu sa líšia a poukazujú na rozdiely vo výsledkoch a v interpretácií modelov. Zaujímavý výstup ponúkla štúdia analyzujúca vzťahy a mesačné výnosnosti akciových trhov v USA, Veľkej Británii, Nemecka a Japonska za obdobie rokov 1973-2004 (Morana & Beltratti, 2008). Jej výsledky poukazujú na silnú integráciu týchto štyroch trhov, pokiaľ ide o cenové pohyby, výkonnosť, volatilitu a pozitívnou koreláciu cenových trendov v čase. Určujúci vplyv amerického akciového trhu na ázijsko-pacifický trh bol preukázaný v inej štúdii, ktorá potvrdila časový posun asymetrickej korelácie medzi uvedenými trhmi (Sergey et al., 2010). K podobným výsledkom dokazujúcim transmisiu akciových výnosov, volatility a medzinárodnú koreláciu akciových trhov dospeli aj iné štúdie (Pan & Hsueh, 1998), (Forbes & Rigobon, 2002), (Rua & Nunes, 2009), (Ranta, 2013) a (Kmeťko and Badura, 2014). Fundamentálnu závislosť makroekonomických veličín a časovú koreláciu medzi európskymi trhmi skúmala ďalšia štúdia (Connor & Suurlaht, 2013). Autori dospeli k záveru, že európske akciové trhy majú vzájomnú pozitívnu vyššiu koreláciu, ktorá osciluje v závislosti od vykazovaných úrovní HDP. Korelácia je tým vyššia, čím sú vyššie výsledky štvrťročných HDP medzi porovnávanými krajinami. Obsahovo iný prístup ponúkla štúdia, ktorej návrhom bol model Asymetricko Dynamickej Podmienenej Korelácie (Cappiello et al., 2006). Jeho cieľom bolo analyzovať vzťah medzinárodných akciových trhov a vládnych dlhopisov. Kým výnosy akcií poukazujú na silnú prítomnosť asymetrie v oblasti podmienenej volatility, opak je pravdou pre štátne dlhopisy. Avšak akciové i dlhopisové trhy vykazujú rovnako asymetriu v oblasti podmienenej korelácie, pričom akciové trhy reagujú oveľa silnejšie ako dlhopisové trhy na negatívne udalosti. Štúdia tiež potvrdila skutočnosť, že v čase zvýšených finančných turbulencií, volatilita akciových trhov ukazuje na silné prepojenie a rast korelácie v rámci regionálne zoskupených trhov. Obdobné štúdie využívajúce uvedený model boli realizované pre rozvinuté a rýchlo sa rozvíjajúce krajiny (Chiang et al., 2007), (Graham & Nikkinen, 2011), (Lin, 2012), (Min & Hwang, 2012) a (Dimitriou et al., 2013).

V posledných rokoch má na akciové trhy výrazný dopad politika centrálnych bánk, predovšetkým séria neštandardných nástrojov. Nákup finančných aktív zo strany centrálnych bánk zvýšil výrazne likviditu a pôsobil na rast cien aktív. Investori, ktorí predali pôvodné aktíva centrálnym bankám, realokovali svoje portfólia smerom k rizikovejším aktívam s cieľom dosiahnutia vyššieho výnosu (Gerlach-Kristen et al., 2016). Výsledkom tohto trendu sprevádzaným poklesom úrokových sadzieb je prepad výnosov štátnych dlhopisov. Dopad neštandardných nástrojov centrálnych bánk na vývoj akciových trhov, cien vládnych dlhopisov a realokácie zdrojov je v centre záujmu viacerých vedeckých štúdií (Rogers et al., 2015) a (Neely, 2015).

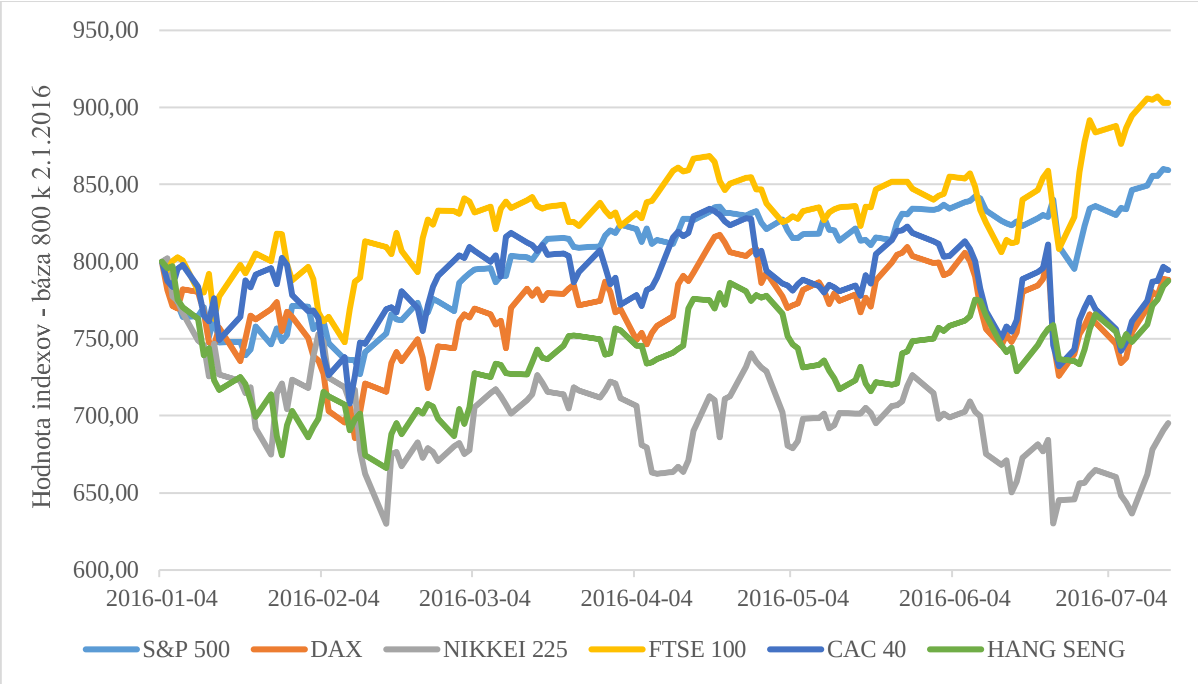
3. Výsledky a diskusia

Výskum vybraných akciových indexov bol podrobený dynamickému porovnaniu ich relatívnej výkonnosti v krátkodobom, strednodobom a dlhodobom investičnom horizonte. V krátkodobom horizonte bol analyzovaný relatívny vývoj výkonnosti indexov od januára 2016, strednodobý horizont bol podrobený výskumu od marca 2009, keď akciové trhy dosiahli dno po finančnej kríze, a dlhodobý investičný horizont sledoval obdobie posledných 20-tich rokov.

3.1 Komparácia relatívnej výkonnosti indexov

V úvodnej časti výskumu bol analyzovaný vývoj od začiatku roka 2016 u šiestich vybraných svetových akciových indexoch - britský FTSE, nemecký DAX, americký S&P 500, francúzsky CAC 40, japonský NIKKEI 225 a hongkonský HANG SENG. Pre účely porovnania ich relatívnej výkonnosti boli hodnoty indexov prepočítané na hodnotu 800 bodov ku dňu 2.januára 2016. Graf 1 ilustruje porovnanie výkonnosti indexov v sledovanom období, ktoré bolo poznačené globálnym výpredajom akcií v úvode tohto roka.

Figure 1: Vývoj vybraných svetových indexov od januára 2016



Source: vlastné spracovanie, údaje z databázy Quandl

V krátkodobom investičnom horizonte dosiahol najvyšší výnos britský FTSE 100 index vo výške 12,89%, pričom k jeho rastu paradoxne prispel výsledok hlasovania o Brexite, ktorý spôsobil prepad libry na najnižšie úrovne za posledných 20 rokov, čo podporilo rast cien akcií vývozne orientovaných britských firiem. Naopak, najnižší vývoj zaznamenal japonský index NIKKEI 225, ktorý prepadol od začiatku roka o viac ako 13%. Príčinou pádu indexu bolo výrazne posilnenie jenu, ako meny bezpečného prístavu, čo malo negatívny vplyv na japonské exportné spoločnosti. Sumár vývoja indexov od začiatku roka ponúka nasledovná tabuľka 1.

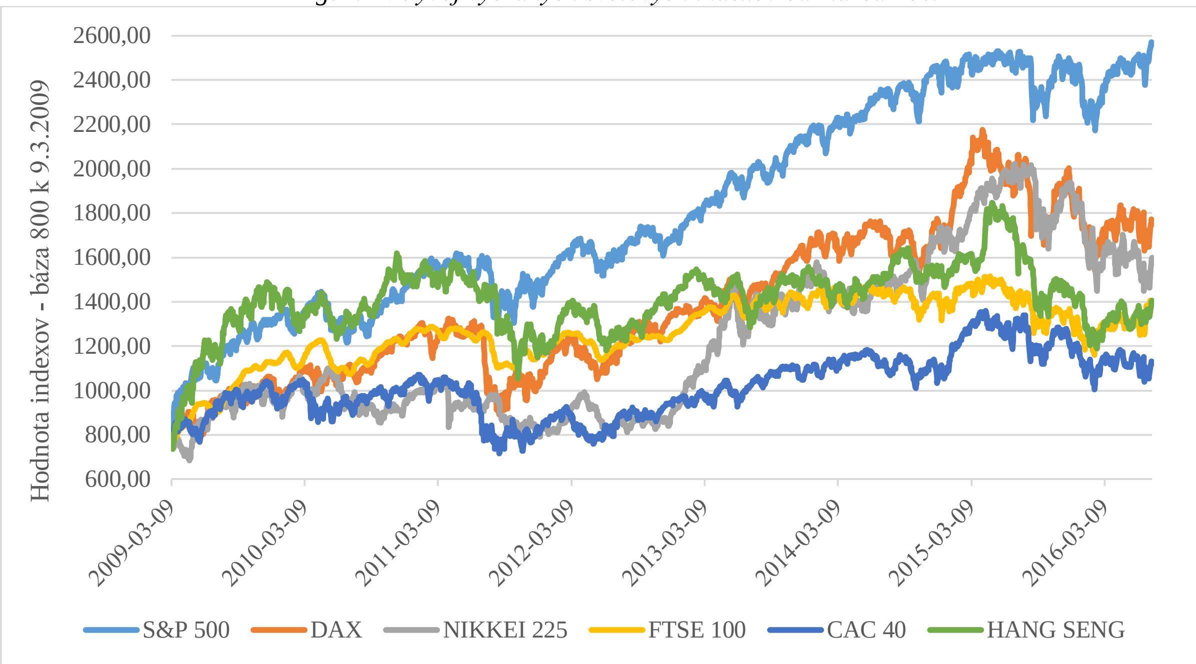
Table 1: Vývoj vybraných svetových indexov od januára 2016

Index	S&P 500	DAX	NIKKEI 225	FTSE 100	CAC 40	HANG SENG
Počiatočná báza indexu k 2.januáru 2016	800,00	800,00	800,00	800,00	800,00	800,00
Relatívna hodnota indexu k 15.júlu 2016	859,26	788,48	695,30	903,10	794,36	787,62
Koeficient rastu indexu január 20016/júl 2016	1,07	0,99	0,87	1,13	0,99	0,98
Percentuálne zhodnotenie indexu od januára 2016	7,41%	-1,44%	-13,09%	12,89%	-0,71%	-1,55%

Source: vlastné spracovanie na základe údajov z databázy Quandl

V strednodobom investičnom horizonte bol výskum zameraný na porovnanie výkonnosti vybraných svetových indexov od marca 2009, t.j. obdobia, kedy indexy po septembri 2008 dosahovali svoje minimá, konkrétne britský FTSE 3.marca 2009, nemecký DAX 6.marca 2009, americký S&P 500 a francúzsky CAC 40 9. marca 2009, japonský NIKKEI 225 10.marca a hongkonský HANG SENG už 27. októbra 2008. Metodologicky sú uvedené indexy porovnávané odo dňa 9.marca 2009, pričom ich báza bola prepočítaná na rovnakú štartovaciu úroveň 800 bodov, čím sme dostali excelentnú vizualizáciu relatívnej výkonnosti indexov. Nasledujúci graf 2 ilustruje strednodobý vývoj indexov od marca 2009.

Figure 2: Vývoj vybraných svetových indexov od marca 2009



Source: vlastné spracovanie, údaje z databázy Quandl

Z porovnania relatívnej výkonnosti vybraných indexov dosiahol najvyšší nárast od dosiahnutia minima spôsobeného prepadom búrz po finančnej kríze americký index S&P 500, a síce 42,60% v prepočte na ročný výnos, naopak najnižší ročný rast 18,79% zaznamenal francúzsky index CAC 40. Sumár výstupu analýzy je uvedený v nasledovnej tabuľke 2.

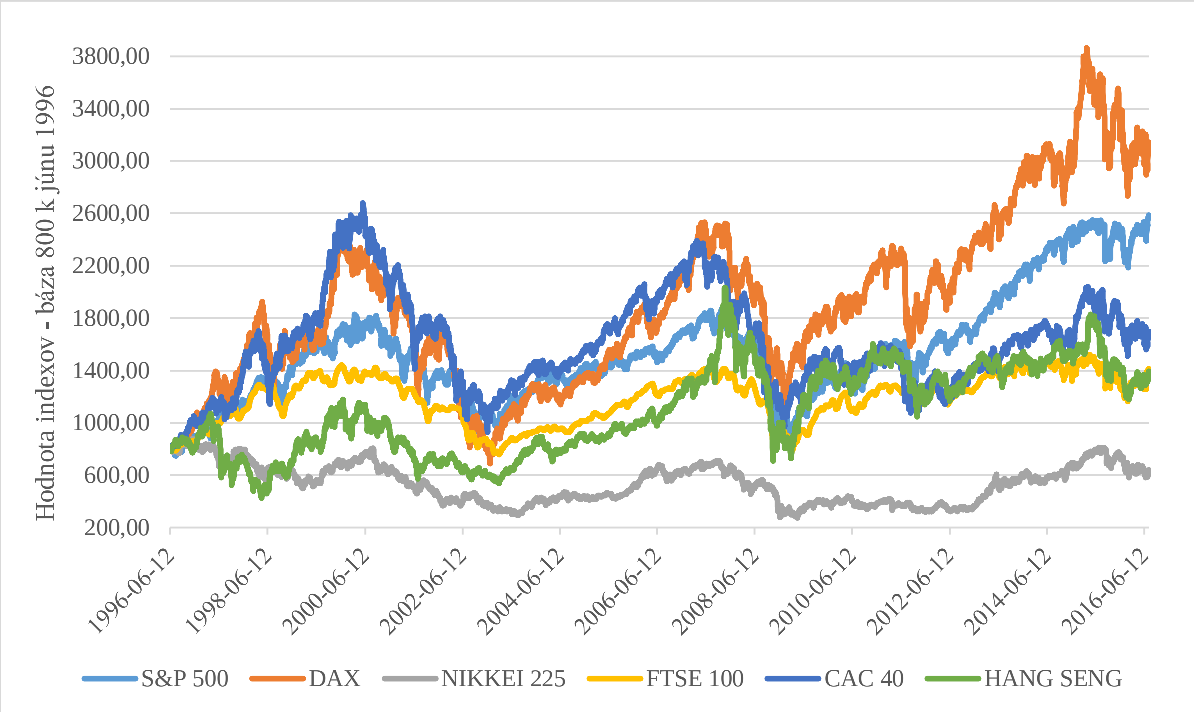
Table 2: Vývoj vybraných svetových indexov od marca 2009

Index	S&P 500	DAX	NIKKEI 225	FTSE 100	CAC 40	HANG SENG
Počiatočná báza indexu k 9.marcu 2009	800,00	800,00	800,00	800,00	800,00	800,00
Relatívna hodnota indexu k 15.júlu 2016	2567,65	1770,09	1598,46	1399,82	1127,35	1405,17
Koeficient rastu indexu marec 2009/júl 2016	3,21	2,21	2,00	1,75	1,41	1,76
Kumulatívne percentuálne zhodnotenie indexu od marca 2009	319,53%	221,26%	199,81%	174,98%	140,92%	175,65%
Percentuálne zhodnotenie indexu od marca 2009 v prepočte na ročný výnos	42,60%	29,50%	26,64%	23,33%	18,79%	23,42%

Source: vlastné spracovanie na základe údajov z databázy Quandl

V ďalšej časti výskumu sme zrealizovali obdobné porovnanie relatívnej výkonnosti vybraných indexov, avšak v dlhodobom 20-ročnom investičnom horizonte. Báza indexov bola prepočítaná na hodnotu 800 bodov k prvému dňu sledovaného obdobia, t.j. k 12.júnu 1996. Pri pohľade na graf 3 je vidieť, že v sledovanom období zaznamenali finančné trhy dva prepady, prvým bolo prasknutie internetovej akciovej bubliny v roku 2001 (označovanej ako dot-com buble) prepadom akcií spoločností podnikajúcich v oblasti internetu a druhým bol kolaps trhu s dlhovými cennými papiermi v USA, následný krach spoločnosti Lehman Brothers v septembri 2008, ktorý spustil hypotekárnu krízu prenesenú do globálnej finančnej a hospodárskej krízy. Z grafu je možné dedukovať okrem doby opätovného oživenia trhov, ich návrat na pôvodné úrovne a rovnako dĺžku ekonomického cyklu.

Figure 3: Vývoj vybraných svetových indexov od júna 1996



Source: vlastné spracovanie na základe údajov z databázy Quandl

Z výsledkov výskumu vyplýva, že pri pohľade na 20-ročný investičný horizont, najvyššiu výkonnosť v prepočte na ročný percentuálny výnos dosiahol nemecký akciový index DAX (združujúci 30 najvýznamnejších nemeckých spoločností), a síce 19,64%, čím prekonal svojho amerického konkurenta index S&P 500 o 3,5%. Predmetný výsledok odráža solídny ekonomický rast krajín EU v období rokov 1996-2000 a 2002-2009, a silu nemeckej ekonomiky poháňanej vyšším podielom exportu na HDP v porovnaní s ekonomikami USA či Japonska. Naopak, najnižší výnos len 4%, zaznamenal v sledovanom dlhodobom horizonte japonský akciový index NIKKEI 225. Japonskú ekonomiku zasiahla kríza v juhovýchodnej Ázii v roku 1997, po tom čo nezamestnanosť rástla, kapitálové investície klesali a domáci dopyt bol nízky. Podnikový sektor bol poznačený vysokým počtom bankrotov a ekonomiku zaťažovala nadmerná výrobná kapacita, rastúca úroveň zadlženia domácností a znížený prístup podnikov k úverom. Japonská vláda dlho nedokázala nájsť riešenie pre ozdravenie vysoko zadlženého finančného systému, a krajina takmer dve dekády čelila deflačným tlakom a veľmi nízkym ekonomickým rastom, i napriek istým známkam zlepšenia a prognóz vývoja ekonomiky v posledných dvoch rokoch. Sumár výstupu analýzy je uvedený v nasledovnej tabuľke 3.

Table 3: Vývoj vybraných svetových indexov od júna 1996

Index	S&P 500	DAX	NIKKEI 225	FTSE 100	CAC 40	HANG SENG
Počiatočná báza indexu k 12.júnu 1996	800,00	800,00	800,00	800,00	800,00	800,00
Relatívna hodnota indexu k 15.júnu 2016	2584,89	3142,47	640,13	1405,58	1693,62	1392,35
Koeficient rastu indexu jún 1996 /júl 2016	3,23	3,93	0,80	1,76	2,12	1,74
Kumulatívne percentuálne zhodnotenie indexu od júna 1996	323,11%	392,81%	80,02%	175,70%	211,70%	174,04%
Percentuálne zhodnotenie indexu od júna 1996 v prepočte na ročný výnos	16,16%	19,64%	4,00%	8,78%	10,59%	8,70%

Source: vlastné spracovanie na základe údajov z databázy Quandl

3.2 Menová politika centrálnych bánk a vývoj cien indexov

Vývoj cien finančných aktív bol od roku 2008 výrazne ovplyvnený menovou politikou hlavných centrálnych bánk, najmä americkým FEDom, Európskou centrálnou bankou (ECB), anglickou Bank od England (BoE) a japonskou Bank of Japan (BoJ). Tieto banky v snahe stabilizovať vývoj na finančných trhoch a stimulovať ekonomický rast pristúpili k sérii štandardných a neštandardných opatrení, ktoré ovplyvnili ceny finančných aktív a správanie širokého spektra investorov po celom svete. Rozhodujúci nástroj v podobe kvantitatívneho uvoľňovania dramaticky navýšil bilancie týchto bánk a spustil masívny odkup primárne vládnych dlhopisov, avšak neskôr i korporátnych dlhopisov s vysokým ratingom. Sprievodným štandardným prvkom bolo zníženie hlavných úrokových sadzieb. Táto kombinácia nástrojov spustila zásadnú realokáciu aktív smerom k akciovým titulom a všeobecne rizikovejším aktívam, v snahe docieliť požadovaný zisk a vyhnúť sa nízko úročeným štátnym dlhopisom. Výsledkom týchto snáh je výrazný rast cien akcií a akciových indexov, ktorý nabral dynamiku od roku 2012 (pozri graf 3). Naopak, ceny štátnych dlhopisov prepisujú svoje minimálne rekordy, pričom niektoré emisie ponúkajú investorom záporný úrokový výnos. Zásadný problém v tomto nezvyčajnom úrokovom vývoji majú správcovia aktív a penzijné fondy. Táto skupina inštitucionálnych investorov je v snahe zabezpečiť minimálny garantovaný výnos tlačená do vyššieho podielu akcií v svojich portfóliách, čo opätovne prispieva k rastu cien akcií a akciových indexov. Vzniká tak otázka, či sa svetová ekonomika z pohľadu akciových trhov opätovne nedostane do novej trhovej bubliny, ktorá môže časom priniesť väčšiu korekciu na trhoch a v horšom prípade ďalšiu finančnú krízu.

4. Diskusia

Americký index S&P 500 prelomil v letných mesiacoch 2016 rezistenčné úrovne a zaznamenal niekoľko historických rekordov. Z fundamentálnych správ k tomu prispeli solídne dáta z vývoja čínskej ekonomiky, lepšie než očakávané polročné výsledky veľkých amerických firiem vrátane bánk a pozitívne údaje z trhu práce. Americké akcie sú na historických maximách a ozývajú sa hlasy ohľadne udržateľnosti tak náhleho a silného rastu. Napriek pozitívnym dátam z ekonomiky a podporným politikám centrálnych bánk, žiadaná vyššia úroveň inflácie sa nedostavila, ekonomický rast je slabý, avšak ceny akcií a tým pádom burzových indexov to neodzrkadľujú. Rozpačitú náladu na trhoch živia veľkí medvedí hráči, ktorí predikujú 30-50% pokles trhu. Americký trh však dokázal rásť i dlho po tom, čo odhady na základe ziskov firiem prekročili historicky overené úrovne. Obdobný vývoj je možné pozorovať i na cenách európskych indexov, i keď ekonomika eurozóny je slabšia v porovnaní s americkou a riziko poklesu je možné očakávať v Británii. Japonský trh je pod tlakom silnejúceho jenu, ktorý drží hladinu indexov na nižších úrovniach a je otázne, či mierne uvoľnenie menovej politiky zo strany BoJ prinesie očakávaný rast. Vo všeobecnosti je však možné očakávať, že účinnosť menových politík na finančné trhy bude slabnúť a hlavnú rolu pri pomoci ekonomikám by mali prevziať fiškálne stimuly, najmä v oblasti investícií do infraštruktúry.

5. Conclusion

Zámerom nášho výskumu bola relatívna výkonnosť vybraných akciových indexov a vplyv faktorov, najmä menových politík hlavných centrálnych bánk na vývoj cien finančných aktív. V dlhodobom horizonte výskum potvrdil cyklický vývoj cien akcií a akciových titulov v 5 až 7 ročnom cykle. V 20-ročnom investičnom horizonte ponúkli najvyššie zhodnotenie nemecký DAX a americký S&P indexy, kým ázijské indexy priniesli investorom len jednociferný výnos. Z porovnania relatívnej výkonnosti vybraných indexov v strednodobom horizonte, t.j. od marca 2009 boli všetky indexy v solídnych ziskoch, pričom najvyšší nárast od dosiahnutia minima spôsobeného prepadom búrz po finančnej kríze zaznamenal americký index S&P 500, a síce 42,60% v prepočte na ročný výnos, naopak najnižší ročný rast 18,79% zaznamenal francúzsky index CAC 40. V krátkodobom investičnom horizonte dosiahol najvyšší výnos britský FTSE 100 index vo výške 12,89%, pričom k jeho rastu paradoxne prispel výsledok hlasovania o Brexite, kým najnižší vývoj zaznamenal japonský index NIKKEI 225, ktorý prepadol od začiatku roka o viac ako 13%, najmä výrazným posilnením jenu. Pri pohľade na budúci očakávaný výnos musíme konštatovať, že investori si budú musieť zvyknúť na prostredie nulových, či záporných sadzieb s nízkou návratnosťou investícií. V dobe, keď takmer ¾ štátnych dlhopisov nesie menší ako 1% výnos, sa znižujú odhady budúcich ziskov. Dosiahnutie aspoň nejakého výnosu je podmienené vyšším rizikom, a to buď pomocou páky, alebo voľbou rizikovejšieho aktíva, čo naďalej tlačí na rast cien akcií a akciových titulov na úkor konzervatívnych investícií.

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RATINGS-BASED APPROACH TO CALCULATION OF CREDIT RISK MARGIN UNDER CONDITIONS OF GLOBALIZATION

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Abstract. The global economic crisis has provided an opportunity for a fundamental restructuring of the approach to risk and regulation in the financial sector. Credit risk is the primary financial risk in banking system. Credit risk selection and management is critically important for bank´s performance over time. Credit risk is defined as a risk of occurrence of losses due to counterparty's default of payments to the bank or as a risk of decrease in economic value of amounts due to the bank as a result of deterioration of counterparty's ability to repay amounts due to the bank. The objective of credit risk management is to minimize losses on the credit portfolio as well as to minimize the risk of occurrence of loans threatened with impairment exposure, while keeping expected level of profitability and value of credit portfolio at the same time. Identifying and rating of the credit risk is the essential first step in managing it effectively. Rating systems measure credit risk and differentiate individual credits and groups of credits by the risk they pose. For a bank it is very important to know this risk and make an evaluation as close as possible to reality. Our aim is to model the time evolution of the probability of a default loan in respect to client´s rating using Markov chain, to estimate the reserve (risk) fund, and to assign credit risk margin taking into account client´s rating.

Keywords: probability of default, risk margin, risk fund

JEL Classification: C02, C51, E49

1. Introduction

Basel II attempted to accomplish banks to calculate adequate capital on loans in dependence on solvency of a client. Client rating becomes a decisive criterion for lending and credit risk. Probability of default and bad debts are getting in the center of attention. Credit risk is the risk that a borrower will not repay his debt in full because he is not able to pay or he does not want to pay. Credit risk measurement is made on the basis of statistical data on the risks. An allowance for doubtful accounts is a contra-asset account that records the portion of a company's receivables which it expects may not be collected. It is only an estimate and the actual payment behaviour of customers may substantially differ from the estimate. It is quite difficult to derive a forecast of bad debts, since a number of variables impacts the ability of a customer to pay and those variables are difficult to anticipate. On the significance of such evaluation emphasise also Belas and Polach (2011).

Loans and advances from corporate customers are generally individually significant and are analyzed on an individual basis, but loans and advances under retail asset class are generally non-significant and are treated on a portfolio basis. These exposures are divided by product into portfolios with homogenous risk characteristics. Lack of suitable models of portfolio level consumer risk was first highlighted during the development of the Basel Accord (Basel II, 2007).

The basis for portfolio provisions is modeling and calculation of credit risk. There are many books and a lot of articles that deal with credit risk. David Lando considers the two broad approaches to credit risk analysis: one based on classical option pricing models and the other one on a direct modeling of the default probability of issuers (Lando, 2004). We may find a helpful survey on the theory and application of transition matrices for credit risk management, including most of the main issues like estimation techniques, stability and comparison of rating transitions, VaR simulation, adjustment and forecasting migration matrices, corporate-yield curve dynamics, dependent migrations, and the modeling and pricing of credit derivatives in (Trueck & Rachev, 2009). (Jarow et al., 2008) present a simple model for evaluating of risky debt that explicitly incorporates a firm´s credit rating as an indicator of the likelihood of default. (Lai & Wong, 2008) develop Bayes models for modeling probability of default and loss given default. A coupled Markov Chain approach to model rating transitions and thereby default probabilities of companies is used in (Wozabal & Hochreiter, 2012). (Malik & Thomas, 2012) develop a Markov chain model based on behavioural scores for establishing the credit risk of portfolios of consumer loans. Approaches to the creation of an appropriate transition matrix are described in (Stefanescu et al., 2009). Market risk and several alternatives to VaR are introduced in (Kollar & Bartosova, 2014). (Leow & Crook, 2014) estimate the probability of delinquency and default using intensity models. A comparison of Credit Metrics model and KMV models particularly with respect to their applicability on portfolio composed of conventional bank loans is described in (Adamko et al., 2014). (Monfort & Renne, 2011) present a general discrete-time affine framework aimed at jointly modeling of yield curves associated with different debtors.

2. Mathematical model

Future development of clients' creditworthiness is less predictable and may be considered as a stochastic process, which can be simulated by a computer. If a numerical model is properly selected, computer simulation results will coincide well with the collective development of the financial situation of all borrowers.

Good numerical model is very important because it will allow prediction of development of the financial situation of clients. The most important information is the prediction of the evolution of the probability of loan default in the future and the amount of loss which can be assured. This loss is paid by other bank clients who regularly repay their loans. Therefore, a credit rate of each client is increased by credit risk margin. Since there is a huge competition at the banking market, banks try to attract reliable clients by a lower credit risk margin, but at the same time not to loose on the trade. A rating process is based on the information about a business development in the past and the future outlook. In particular, the rating of corporate clients distinguishes quantitative criteria (financial rating) and quality criteria (quality rating). Determination of adequate prices due to credit risk means that the bank rewards customers with good credit ratings by advantageous interest rates. Clients with poor credit ratings, by contrast, must reckon with higher interest rates as the bank must compensate for the increased risk of a higher volume of reserve capital.

The first step is to divide clients into groups according to their rating. It is possible to develop a risk score using an in-house scoring system (for example by using a logistic regression) or by using a risk score developed by a third-party credit agency, such as the FICO score or the D&B Paydex score; but it is not the aim of this paper. We will use a four degrees distribution: VIP clients with high income, savings and other assets (with expected high ability of loan repayment) will have “A” rating; less creditworthy clients will have “B” rating; clients with low ability to repay the loan will have “C” rating and clients without the ability to repay the loan will have “D”. The bank does not borrow to “D” rated clients.

The next task is to determine the probability that the client rating will change after a certain time period (e.g. one year). Client rating may improve or decrease. If a client reaches a rating level “D”; that means the client stopped repaying the loan and it is credit default. The bank writes off such loan and the balance must be paid from the reserve fund consisting of risk margins of all clients. Then the loan is transferred to the law enforcement, but we will assume that no money are recovered. The bank obtains mostly the likelihood of changes in ratings of the historical data on customer behavior (Bozzetto, 2005).

The time evolution of ratings can be simulated by a Markov chain. Formally, let define a discrete time set $T = \{t_0, t_1, \dots, t_n, \dots\}, n \in N$ and a finite state space $S = \{s_0, s_1, \dots, s_m\}, m \in N$. Markov chain is a stochastic process $\{X(t_n)\}_{n\in N}$ with the property that for any $t_j \in T$ such, that $t_1 < t_2 < \cdots < t_n$ is $s_{(t_j)} \in S$:

$$P\left[X(t_{n+1}) = s_{(t_{n+1})} \,\middle|\, X(t_0) = s_{(t_0)}, X(t_1) = s_{(t_1)}, \dots, X(t_{n-1}) = s_{(t_{n-1})}, X(t_n) = s_{(t_n)}\right] = P\left[X(t_{n+1}) = s_{(t_{n+1})} \,\middle|\, X(t_n) = s_{(t_n)}\right]. \tag{1}$$

This property of Markov chain means the probability that the chain moves from state $s_{(t_n)}$ to state $s_{(t_{n+1})}$ depends only on the state $s_{(t_n)}$ that it occupied before the step (Taha, 1995).

Let $p_{ij}(t_n, t_{n+1})$ denote the transition probability of going from the state s_i at time t_n to the state s_j at time t_{n+1} then

$$P\left[X(t_{n+1}) = s_j \,\middle|\, X(t_n) = s_i\right] = p_{ij}(t_n, t_{n+1}) \tag{2}$$

The $(m + 1 \times m + 1)$ matrix of elements $p_{ij}(t_n, t_{n+1})$, denoted $P(t_n, t_{n+1})$, is called the transition probabilities matrix associated with the stochastic process $\{X(t_n)\}_{n\in N}$.

Vector $\vec{p}(t_n) = \left(p_{s_0}(t_n), p_{s_1}(t_n), \dots, p_{s_m}(t_n)\right)$ describes the probability distribution of the states of the process at time t_n. The Markov property implies that the probability distribution at time t_{n+1} can be obtained from that at time t_n by $\vec{p}(t_{n+1}) = \vec{p}(t_n).P(t_n, t_{n+1})$.

This extends to a *m*-stage transition matrix so that the probability distribution at time t_{n+l} for $l \geq 2$ is given by $\vec{p}(t_{n+l}) = \vec{p}(t_n).P(t_n, t_{n+1}).\dots.P(t_{n+l-1}, t_{n+l})$.

The Markov chain is homogenous when $p_{ij}(t_n, t_{n+1}) = p_{ij} \forall n \in N$.

Let the $(m + 1 \times m + 1)$ matrix of elements p_{ij} (transition matrix, Markov matrix) is denoted P,then $\vec{p}(t_n) = \vec{p}(t_0).P^n$.

Suppose the process $\{X(t_n)\}_{n\in N}$ is a homogenous Markov chain. If one has a sample of histories of previous customers, let $n_i(t_n), i \in S$ be the number of customers who are in the state s_i at time t_n, whereas let $n_{ij}(t_n, t_{n+1})$ be the number of customers who move from the state s_i at time t_n to the state s_j at time t_{n+1}. The maximum likelihood estimator of $p_{ij}(t_n, t_{n+1})$ is

$$\hat{p}_{ij}(t_n, t_{n+1}) = \frac{n_{ij}(t_n, t_{n+1})}{n_i(t_n)}. \tag{3}$$

Let have a homogenous Markov chain, then given the data for $(T + 1$ time periods $n = 0,1,2, \dots, T$, the transition probability estimates become (Nelson, 1995).

$$\hat{p}_{ij} = \frac{\sum_{n=0}^{T-1} n_{ij}(t_n, t_{n+1})}{\sum_{n=0}^{T-1} n_i(t_n)}. \tag{4}$$

We have four ratings A, B, C, D for evaluation of clients' creditworthiness and they represent states of a Markov chain. The set of states is $S = \{A, B, C, D\}$ and Markov matrix $P = \{p_{ij}\}$ is (4×4) matrix such, that

a) $p_{ij} \geq 0, i, j \in \{A, B, C, D\}$ (5)

b) $\sum_{j=A}^{D} p_{ij} = 1$.

The state D is an absorbing state, it means $p_{DA} = 0, p_{DB} = 0, p_{DC} = 0, p_{DD} = 1$.

Let vector $\vec{p}(0) = (p_A(0), p_B(0), p_C(0), p_D(0))$, the states vector, assigns an initial rating distribution of the client portfolio (each coordinate represents the percentage of clients who have the appropriate rating). Time evolution of the states vector $\vec{p}(0)$ is obtained by repeatedly multiplying the current states vector by Markov matrix, so the vector $\vec{p}(k) = (p_A(k), p_B(k), p_C(k), p_D(k))$, which describes the probability distribution of the states (ratings) at time k is

$$\vec{p}(k) = \vec{p}(k-1) \cdot P \text{ or } \vec{p}(k) = \vec{p}(0) \cdot P^k. \tag{6}$$

It is suitable to use computer program Excel to solve the mathematical model. Let create a table where each column will represent the respective client's rating in the time period $k, k \in \{0,1,2,3, \dots\}$ and each row will represent the distribution of the states vector in a given time period $\vec{p}(k)$. The most important output of the simulation is the last coordinate $p_D(k)$of the states vector, which represents the probability of default loans. By plotting this coordinate depending on the time we get the time evolution of the probability of a default loan. Also, we can calculate the cumulative default loan after k periods

$$D_k = \sum_{l=1}^{k} Z_{l-1} \cdot (p_D(l) - p_D(l-1)) \tag{7}$$

Z_l is the residual value of loan after l periods.

Each non-performing loan can be assigned to the amount of loss which represents the cumulative default loan for the entire period of loan repayment. We can calculate the amount and timing of losses by statistical processing of the data. To avoid this potential bank losses, the bank is creating the reserve (risk) fund R_k, which represents the amount obtained by the credit risk margin u_r

$$R_k = u_r \cdot \sum_{l=0}^{k-1} Z_l \tag{8}$$

The total potential loss should be equal to the risk fund created at the time of repayment $D_n = R_n$, we can calculate the credit risk margin u_r by formula

$$u_r = \frac{D_n}{\sum_{l=0}^{n-1} Z_l}. \tag{9}$$

3. Case study

Because we did not have a possibility to get real data about clients' creditworthiness we worked with fictitious data. We consider a client who wants 30-year mortgage loan PV with the amount of 70 000 €. A bank offers him annual interest rate i including risk margin u_r based on the rating of the client. To simplify the calculation we consider that the client pays loans at the end of each year and the amount of annuity is

$$a = \frac{PV \cdot \frac{i}{100}}{1-v^n}, \tag{10}$$

n is the payment term and $v = \frac{1}{1+\frac{i}{100}}$ is the discount factor. The residual value of loan after k years is

$$Z_k = PV \cdot (1+i)^k + \frac{a}{i}(1-(1+i)^k). \tag{11}$$

We assume if there is a default, the client (at the end of the year) will not pay annuity. On the basis of historical data the bank determines the Markov matrix P which represents probabilities of changes of ratings:

$$P = \begin{pmatrix} 0.96 & 0.04 & 0 & 0 \\ 0.06 & 0.86 & 0.05 & 0.03 \\ 0 & 0.03 & 0.86 & 0.11 \\ 0 & 0 & 0 & 1 \end{pmatrix}. \tag{12}$$

What will be the credit risk margin for a client with the "A" rating? What annual interest rate may the bank offer to the client provided 2 % annual profits?

We create the table where the columns represent the respective client's rating in the time period $k, k \in \{0,1,2,3,\ldots,30\}$ and each row represents the distribution of the states vector in the given time period $\vec{p}(k)$. Because we are interested in clients with the "A" rating; the initial states vector will be $\vec{p}(0) = (1,0,0,0)$in the first column. In the table 1 there is the time evolution of the balance of the debt Z_k (calculated by formula (Eq. 11)), the cumulative default D_k (calculated by formula (Eq. 7)), and the value of the risk fund R_k, which is cumulated of credit risk margin payments (Eq. 8), if the interest rate is $i = 3.5$.

Table 1: Time evaluation of the states vector $\vec{p}(k)$ for a client with "A" rating.

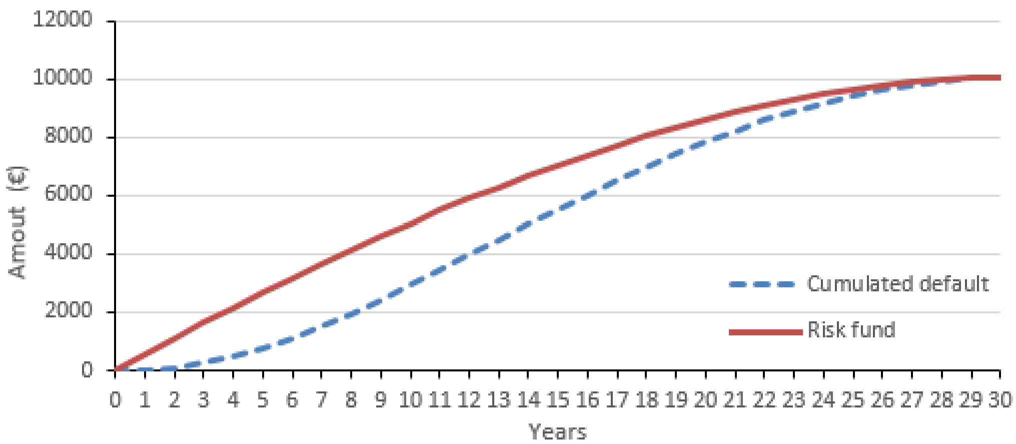
k	$p_A(k)$	$p_B(k)$	$p_C(k)$	$p_D(k)$	Z_k **(€)**	D_k **(€)**	R_k **(€)**
0	1.0000	0.0000	0.0000	0.0000	70000.00	0.00	0.00
1	0.9600	0.0400	0.0000	0.0000	68644.01	0.00	558.21
2	0.9240	0.0728	0.0020	0.0012	67240.55	82.37	1105.61
3	0.8914	0.0996	0.0054	0.0036	65787.98	242.67	1641.82
4	0.8617	0.1216	0.0096	0.0071	64284.57	474.61	2166.45
5	0.8346	0.1394	0.0143	0.0117	62728.53	770.72	2679.08
6	0.8095	0.1538	0.0193	0.0173	61118.04	1122.92	3179.31
7	0.7864	0.1655	0.0243	0.0239	59451.18	1522.90	3666.70
8	0.7649	0.1747	0.0292	0.0313	57725.97	1962.37	4140.79

9	0.7447	0.1820	0.0338	0.0394	55940.39	2433.25	4601.12
10	0.7259	0.1877	0.0382	0.0483	54092.31	2927.85	5047.22
11	0.7081	0.1920	0.0422	0.0577	52179.55	3438.92	5478.58
k	$p_A(k)$	$p_B(k)$	$p_C(k)$	$p_D(k)$	Z_k **(€)**	D_k **(€)**	R_k **(€)**
12	0.6913	0.1951	0.0459	0.0677	50199.84	3959.70	5894.68
13	0.6754	0.1973	0.0492	0.0781	48150.84	4483.97	6295.00
14	0.6602	0.1986	0.0522	0.0890	46030.13	5006.00	6678.98
15	0.6457	0.1993	0.0548	0.1002	43835.19	5520.61	7046.04
16	0.6318	0.1994	0.0571	0.1116	41563.43	6023.07	7395.61
17	0.6185	0.1991	0.0591	0.1233	39212.15	6509.16	7727.05
18	0.6057	0.1983	0.0608	0.1352	36778.58	6975.07	8039.75
19	0.5934	0.1972	0.0622	0.1472	34259.84	7417.39	8333.04
20	0.5815	0.1958	0.0633	0.1594	31652.94	7833.12	8606.25
21	0.5700	0.1942	0.0643	0.1716	28954.80	8219.54	8858.66
22	0.5588	0.1924	0.0650	0.1838	26162.23	8574.30	9089.56
23	0.5480	0.1904	0.0655	0.1961	23271.91	8895.28	9298.19
24	0.5375	0.1883	0.0658	0.2084	20280.44	9180.63	9483.77
25	0.5273	0.1861	0.0660	0.2206	17184.26	9428.72	9645.50
26	0.5174	0.1837	0.0661	0.2328	13979.71	9638.13	9782.53
27	0.5077	0.1814	0.0660	0.2449	10663.01	9807.60	9894.01
28	0.4983	0.1789	0.0659	0.2569	7230.22	9936.02	9979.05
29	0.4891	0.1764	0.0656	0.2689	3677.29	10022.45	10036.70
30	0.4801	0.1739	0.0652	0.2807	0.00	10066.03	10066.03

Source: own processing authors

We can see $D_n = D_{30} = 10066.03€$ in Table 1. The risk margin 0.7974 for a client with the rating "*A*" is calculated according to (Eq. 9). The time dependence of cumulative default and amount of the risk fund can be observed in Figure 1. We can see, in case of client with "*A*" rating, the risk fund is filled before it is used.

Figure 1: Time evolution of the cumulative default and the amount of the risk fund for a client with "A" rating

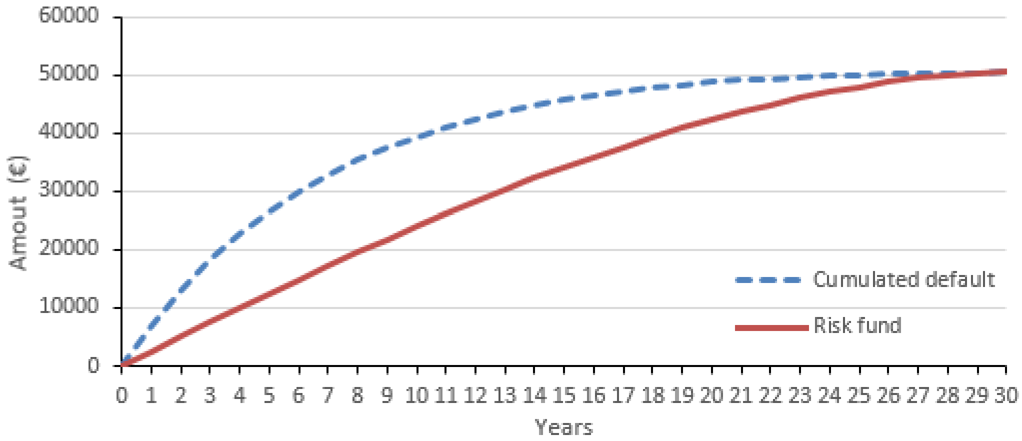


Source: own processing authors

A similar procedure is used for a client with the "*B*" rating; the initial states vector is $\vec{p}(0) = (0,1,0,0)$ and we fill a new table. Using the interest rate $i = 4.5$ cumulative default after 30 years is $D_{30} = 29260€$ and the corresponding risk margin is 2.2347 %.

The initial states vector for a client with the "*C*" rating is $\vec{p}(0) = (0,0,1,0)$ and the cumulative default, using annual interest rate $i = 5.8$, after 30 years is $D_{30} = 50430€$ and the corresponding risk margin is 3.6879 %. Time evolution of the cumulative default and the amount of the risk fund is shown in Figure 2.

Figure 2: Time evolution of the cumulative default and the amount of the risk fund for a client with "C" rating



Source: own processing authors

4. Conclusion

The risk margin for a client with the initial rating "*A*" is 0.7974 %; a client with "*B*" rating has the risk margin of 2.2347 % and for a client with "*C*" rating the risk margin is 3.6879 %. For clients with the initial rating of "*A*"; the risk margin can be decreased because the risk fund is filled before it is used and this means that the bank can remunerate temporarily free resources. In the case of a client with an initial rating "C"; reserves are used sooner than the risk fund is filled, so the bank has to borrow short-term funds and the credit interest is counted in the risk margin.

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PROCESS APPROACH IN MARKETING COMMUNICATION STRATEGY WITH REGARD TO GLOBAL SOCIAL RESPONSIBILITY

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Abstract: In the submitted scientific contribution, the authors deal with basic areas that have big impact on business in the era of globalization. These basic areas include: marketing communication strategy, social responsibility, as well as process approach in innovation management. Authors deal with creation of methodical proposal of process approach application in marketing communication strategy as part of innovation activities of business management. When defining the process approach, authors rely primarily on economic, ecological, and social sustainability. Development of philosophy of social responsibility and selection of proper communication inside and outside of business entity can be diversely inspiring for different companies and organizations. Spreading of social responsibility awareness by using process approach model has potential in implementation process as well as in process of further management. By using process approach, it is possible to help with creation and strengthening of social values and with solving of various socio-ecological problems. Properly chosen strategy is the key to public awareness. Authors see potential in usage of principles and rules of process approach to create marketing communication strategy. This paper introduces process model of integrated marketing communication and describes seven basic principles utilized by business entities in further development of social responsibility. Properly set and managed marketing communication strategy has power to change the way of thinking and values of society.

Keywords: process approach, marketing communication strategy, social responsibility, globalization

JEL Classification: M14, M30, M31

1. Introduction

Due to unavoidable involvement of several areas (process approach, marketing communication strategy, economic, ecological, and social sustainability, innovation management of organizations), the issue being discussed is extraordinary demanding because of its broad scope and required expertise. The areas are equally important – at the same time, they complement each other when dealing with fundaments of philosophy of social responsibility. The area of social responsibility is dynamic and continually developing. Experts as well as various politicians constantly appeal to increasing the responsibility and improving measures on both global and local scale.

„If the ecological pillar is the existential one, then social pillar built on it is required for fair usage of wealth resulting from economic prosperity. If economic development does not respect the bearability limits of the lower, supporting pillars, the inevitable outcome is their destruction. Persisting dominance of current economic growth fosters the irrational paradigm of development. A notion of strong global economy as a key for solution of global challenges leads to illusion that demands of future generations can be satisfied without a significant reduction of consumption, without reassessment of values and priorities of further development." (Ivanička, et. al., 2014)

However, sustainable development and the individual development programs are existentially significant for further development and preserving of favorable life conditions. If the natural and social conditions and rules are not respected, we are exposed to the threat of an abrupt or gradual deterioration of economic, social, and life conditions. Land grabbing for building of new residential blocks and the risk of environmental disasters in most cases repeatedly threaten the environmental biodiversity. The public interest should be directed towards the establishment of ecological balance and renewal of harmony between the man and nature. (Zaušková, et. al., 2013) It is necessary to prevent further negative influences and reduce the outcomes of the previous socio-economic disasters and it is important to follow the globally set strategies, agreements, and social commitments. In practice it can be observed that individual countries, corporations, and organizations approach the issue either responsibly and try to proceed in seeking solutions, or they tend to close their eyes to these recommendations and do not do anything to improve the current situation.

2. Approaches in philosophy of social responsibility

The mentioned passive approach may have negative impact mainly in the business sector (where corporations and business entities create their profit). More and more, the target groups involve clients, for whom not only the functional attributes of products, services beyond expectations, and other benefits are important, but they take into consideration also the conditions under which product was manufactured. With regard to increasing expectations of target groups, stakeholders, experts and general public we can assume that companies which do not at least partially pursue the most simple forms of saving the environment, will be gradually put to edge by buying behavior decisions. Already today, there are ongoing changes in expectations of general public towards companies: customers are aware of the unwanted influence of companies on their environment, which gets reflected in purchase decision-making. (Mešťanková, 2013)

It is important what values are pursued by the subject and what values it further develops. Exactly because of this, from the pragmatic and marketing point of view, it is useful to develop projects that fall under social responsibility. The philosophy of corporate social responsibility (hereinafter also CSR) and sustainability is developed mainly in multinational corporations with global operation. In the last decade, these values have also been cultivated by an increasing number of Slovak companies: some are more successful, some less.

For example, we will take into account Assessment of eco-innovative performance of the Slovak Republic: *„Eco-innovation Observatory annually carries out evaluation of eco-innovation performance across the European Union. Slovakia has improved its positon in 2013, but in spite of this fact, it still remains a country with low eco-innovation performance. We are in 25th place (out of 28) in the European Union."* (Zaušková & Bezáková, 2014) Statistics and studies show that we have almost no significant markets, or areas of eco-innovation. Another problem is that eco-innovation is not explicitly included in the key strategic documents. Financial support depends primarily on EU Structural Funds and it is fragmented into a number of operational programs. (Gríb & Zaušková, 2014) *„The way of understanding eco-innovations exceeds economic dimension. Reason for that is their interrelation with positive externalities of environmental field, by which the society-wide costs are decreasing and benefits of sustainable development are increasing.*“ (Miklenčičová & Čapkovičová, 2014)

When comparing the basic principles of sustainability with the real trends, the results are unfavorable. In spite of a number of strategies and activities towards sustainability, the burden on the planet in years 1992 – 2002 increased and if the same course remains, we are heading towards collapse. Despite the unprecedented global wealth, mankind did not manage to create a model applicable to all countries. (Ivanička, et. al., 2014)

Despite the “unattractiveness“, every company and business entity can participate in the minor, but socially significant activity aimed at e.g. protecting the environment (recycling waste in the workplace, saving energy, paper, etc.). Everything depends on awareness of the company and decision whether it stays indifferent to this topic. The development of social responsibility may not apply to each consumer. Many consumers do not know this term, or are not aware of its essence, or are also indifferent to this notion.

Bezáková notes that the main aim of business entities oriented at CSR and sustainable development is gradually transforming from satisfying the customer to cultivation of values, saving of resources, and social usefulness: *„When companies try to utilize eco-innovations in order to help improve the current state of environment, to save resources, etc. it is a clear sign of positive change in their direction, philosophy, or company policy. Until now, the business and company efforts were mainly focused on the customer. In contrary, the current efforts and direction of company processes are in some cases inclined more to saving of resources, sustainability, and ecological usefulness.“* (Bezáková, 2015)

„Companies should invest their effort and means to inform the general public about their actions in the field of CSR and seek all possible methods which could lead to communication between them and their internal and external stakeholders.“ Kubaľáková, 2014)

As the basis and the process for approaching the chosen topic, the philosophy of social responsibility should be accompanied by further education, especially by raising of awareness among the general public and experts. It is important to approach the education by choosing an effective communication strategy, or with appropriate level of promotion. Currently, it can be observed that approaches used by companies to develop the social responsibility are varied. In practice, we observe these seven basic principles that are generated depending on when and under which conditions they arise:

- unnatural approach,
- cautious approach,
- inexpert approach,
- expert approach,
- enforced approach,
- spontaneous approach,
- taken-over approach.

In the previous lines, we mentioned the first, artificial (and sometimes even deceptive) approach, which is likely to last short, i.e. does not have potential for long-term development of CSR philosophy (**unnatural approach**), especially if this philosophy is not enhanced by internal values and vision of a business entity. We also encounter companies with CRS philosophy in place for a long time, where these activities are not communicated very much, or are communicated little on purpose –not to make them look imposed (**cautious approach**). Other businesses are trying to incorporate CSR projects, but they do not communicate these activities professionally, thus losing potential for further development of social responsibility ideas (**inexpert approach**). The opposite of inexpert approach is qualified (**expert**) approach, which suitably and on an appropriate scale utilizes marketing communication tools that help to raise awareness and have prerequisites for successful implementation of these activities. Mostly the industrial companies, which as part of their activities produce emissions and other environmental pollutants, or by accident caused an ecological disaster, must already within their crisis communication take measures to prevent repeated damage and subsequently, they are forced to search for other ways of improving their broken image – **enforced approach**. Within the employee structure of businesses, thanks to aware thinking (of employees or management) also CSR projects promoted "from bottom" can emerge. These projects require from the beginning mainly time and human resources and when they are successfully developed, they can be adopted by the company developing them further (**spontaneous approach**). The last – so-called **taken-over approach** – comes into existence in a situation when a competitive subject gets inspired by another company with well-established CSR philosophy and projects, or with projects that have big potential for successful development, e.g. by a so-called benchmarking method.

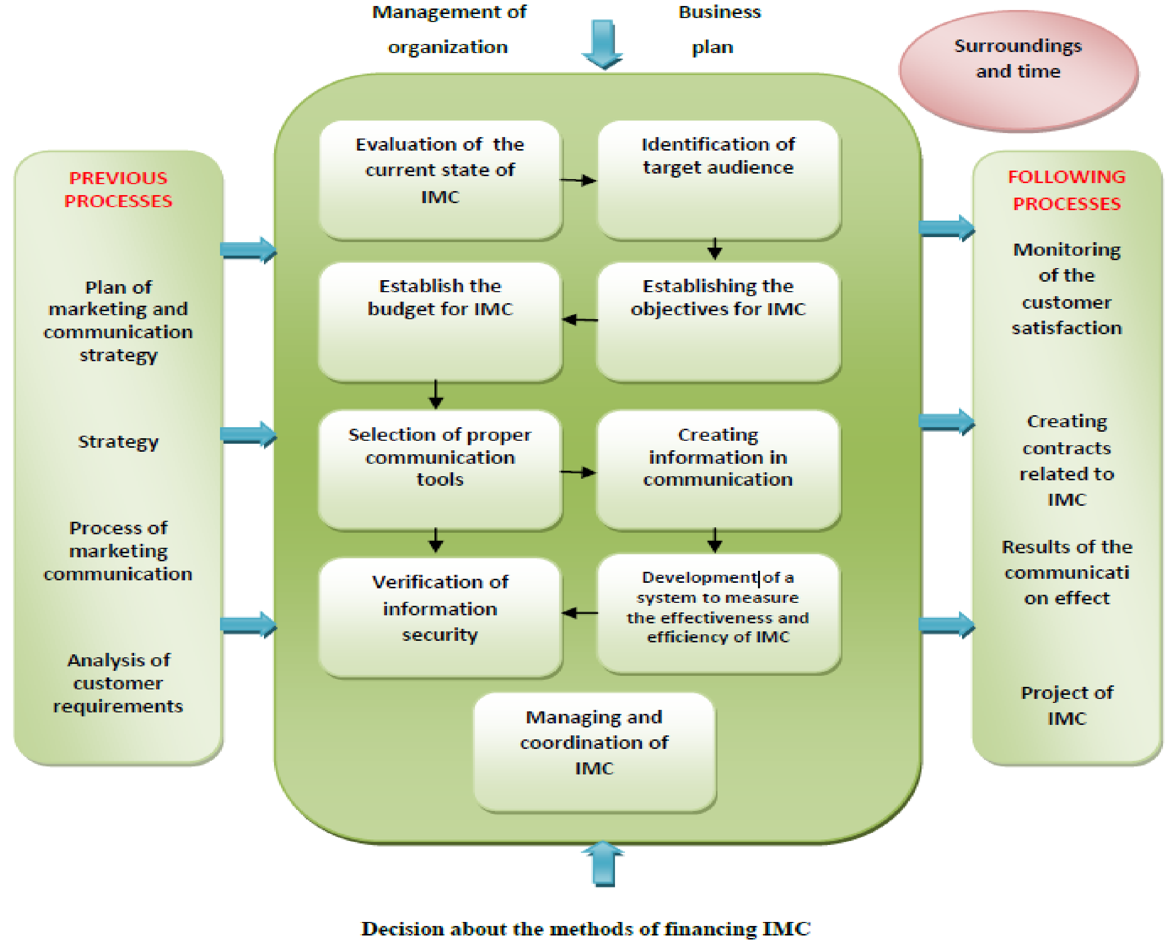
3. Innovation potential of CSR and process approach in marketing communication strategy

Corporations and business entities should consider social responsibility as investment and it should also represent a significant innovation potential. This is not only about development of internal values, communication of company activities and raising of awareness. Projects being developed in a workplace can also help employees and employers to improve the atmosphere and resolution that by joining their forces people can achieve more in the workplace. Sense of belonging and cultivation of values help to build and strengthen a loyal relationship with the employer and positive relationships among colleagues. The best conditions for collaboration among employees have been created in the organizations where cooperation with management on environmental projects was one of the traditional ways of collaboration.

CSR *„Enables decreases of energy consumption and of waste creation, reduction of costs, acquires and maintains the best employees, strengthens customer loyalty to product branding, improves public relations and relations with partners, creates new innovated products and work procedures, opens new markets, and ensures better life quality."* (Jánošová,, 2013) Similar definition is used also by Kunz: „*Communication of CSR activities shall be aimed not only at customers, business partners or investors, but also at employees of the company, local community, consumer organizations or general public.*" (Kunz, 2012)

A planned communication strategy includes a wide range of strategies, methods, and approaches, by which subject tries to achieve the desired communication effect in form of positive feedback of target groups. Corporations, business entities, and organizations try to use all available options in the integration process of marketing communication. *„Integrated marketing communication produces more consistent messages with bigger impact. It unifies the company branding image and improves company's ability to send the correct message to* *proper customer, in right time, and to the right place."* (Šalgovičová & Štefančíková, 2012) Figure 1 shows implementation process of integrated marketing communication:

Figure 1: The process of integrated marketing communication



Source: Klinčeková, Šalgovičová, 2014, p. 120

The management of a business entity always participates on implementation of new, innovative forms and methods. The way individual processes and innovation are put in practice then always depends on each management. It is a commonplace that each process is assigned its responsible process owner with their competencies. Important aspects here are process approach introducing horizontal management and structure of the described processes, which needs to include:

- process name,
- identification of previous and following processes,
- specification of inputs and outputs,
- sequence of activities (sequence of changes from inputs to outputs),
- provisioning of resources (human, financial, information),
- facilities and infrastructure,
- process monitoring and measuring, data analysis and documentation. (Šalgovičová & Štefančíková, 2012)

The power of marketing communication lies in its ability to change the way of thinking and values of people and society. Managed raising of awareness by a business entity, which thus becomes "ambassador" for problem solving, can lower indifference and increase the influence on general public and at the same time create the positive relationship with target groups. Consequently, general public can follow example of business entities. Such strategy based on "win-win" will be more and more interesting for business entities. Process approach in marketing communication, innovation potential, and determination of company to develop its values can contribute to building of a more sustainable society.

4. Synergic effect and cooperation of business and non-profit sectors

By integrated marketing communication and by joined mutual effect of communication elements, individual subjects should reach the so-called synergic communication effect, the potential of which lies also in building of marketing relationships and long-term loyalty. Synergic communication effect is the final state that means mutual harmonization of all suitable communication tools, when by gradual releasing of information through individual communication channels and by gradual reminding of the message, their optimal utilization can be reached.

Non-profit organizations are inseparable part in finding solutions for social and ecological problems. In many cases, only they can solve these problems. They struggle with lack of finances, material and human resources. The potential that marketing communication can bring to non-profit sector was even at the turn of the millennium completely undervalued. Non-profit organizations have realized that marketing is not only a means that helps business entities to discover the demand from potential customers, but it is also a good way of communicating their activities and awareness spreading. Non-profit subjects have their own target groups that need to be addressed:

- contributors, donors (individuals, companies, foundations, ministries, self-governing regions),
- enthusiasts and supporters,
- volunteers and activists,
- general public and professional public. (Blišák, 2016)

Over the last years, the increasing effort of non-profit and business entities to join their forces can be observed. Here we do not talk only about philanthropy and donorship. Opportunities for collaboration are growing especially when the business entity and its employees regularly participate as volunteers. Thus, they can take patronage over the non-profit subject and, moreover, help it with active solving of problems and with awareness spreading.

„The collaboration of non-profit and business sectors in Slovakia has been investigated since 1996. The research results show that donorship is mostly present in these areas: healthcare, local support, education, children and youth, social care, sports. When deciding, companies take into consideration the beneficial effect, project quality, company situation, good name of the supported organization and its transparency.“ (Čabyová, 2008)

Due to increased globalization, fierce competition, changes in customer demands, and development of communication techniques, it is important to constantly search for new opportunities and means of communication that would bring the business entity a competitive advantage. (Mendelová & Zaušková, 2015) The cooperation between business and non-profit sectors provides also a good opportunity to communicate awareness together and more effectively. The resulting mutual cooperation helps with synergy of communication effect of the involved parties, but mainly of the given area and vision that they develop. Inclusion of social responsibility into the communication strategy of businesses and utilization of integrated marketing communication builds a good name, brand, and image. It can help the business entity to be generally recognized by general public, i.e. also to its sustainable reputation.

5. Conclusion

Introduction of process approach into marketing communication strategy of business entities, utilization of philosophy of social responsibility, and cooperation on the related activities with the non-profit sector have also another potential benefit. Being the "face or ambassador" of the project increases not only the positive impact on general public, but also it multiplies feedback from the general public and professionals to the leading subjects. *„The customer´s feedback is a potential source of information on customers´ demands regarding the product and, at the same time, an impulse for revaluation of the introduced communication system.“* (Šalgovičévá, 2015) In this case, the contribution is the feedback and enthusiasm for a good thing, which is close to the people sensitive to environmental changes and eco-innovative people with significantly developed critical thinking.

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AN OVERVIEW OF MIGRATION IN THE CZECH REPUBLIC AND GERMANY UNTIL 2015

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Abstract. Current events are undoubtedly connected with globalization and it is closely associated with migration. The migration issue has currently been a live issue discussed at various levels and in different contexts and connotations. The article tackles migration in the Czech Republic and Germany until 2015. In Germany, where the issue of migration has been dealt with for a long time, it is associated with varying degrees of intensity and population movements in the past. After introducing migration issues and clarifying some terminology, German and Czech literature dealing with this topic is characterized and the contribution target with defined hypotheses is formulated. The subsequent part presents a historical insight into migration issues in the Czech Republic and Germany, followed by research of developments in numbers of foreigners with permanent residence in both countries. This paper also aims to map the state of migration in the Czech Republic and to compare it with the situation in Germany. The qualitative part deals with relevant issues related to migration processes and it illustrates possible connections of migration from different points of view. The data, which is being evaluated, was issued by the Czech Statistical Office.

Keywords: migration, foreigner, emigration, refugee, residence.

JEL Classification: F02, F22, F6, J61

1. Introduction

The migration issue has currently been a live issue discussed at various levels and in different contexts discussed by Colombo (2015), Bahr and Abraham (2016), Gebhart (2016), La Spina (2016), De Roo et al. (2016) or Simonsen (2016). It turns out that the Czech Republic will also have to deal with migration policy in more detail as it becomes an exposed place to an influx of migrants from different countries. Schmidt (2002, 3) assigned the border between the US and Mexico, the southern states of Italy, the northern border of Australia and the countries of Central and Eastern Europe to these exposed spots.

2. Terminology

Based on the processed migration research it can be stated that this area has been widely examined (Hannemann and Kulu, 2016). In Germany, where the issue of migration has been dealt with for a long time, it is associated with varying degrees of intensity and population movements in the past. Before we tackle the issues of migration in the Czech Republic and Germany, we will clarify some terminology.

In agreement with Lederer we consider the concept of migration a specific form of spatial mobility, which involves crossing the geographic and political boundaries (2004). By international migration is understood that the origin and destination of migrants are in different countries (Lederer, 2004). According to Lederer undocumented migration is a term synonymous with the term illegal migration (2004).

Currle (2007) approaches the issue of migration in Germany in terms of migration policy and statutory regulations for integration. According to him, the migration in Germany can be divided, according to its forms, into 7 areas: 1 Migration within the EU, 2 Asylum seekers, 3 War refugees, 4 Immigration of family members, 5 Labour migrations, 6 Late emigration, 7 Jews from the former Soviet Union.

Stobbe (2004) deals with the issue of migration from the so-called undocumented migration in Germany aspect.

Due to the fact that in today's world there are more and more immigrants without regular residence permits, there are also publications dealing with this specific kind of migration. Schmidt (2002) focuses on the analysis of migration and its social aspects in his paper. He mainly discusses immigrants' economic prosperity, the economic effects of immigration and the pension system, especially in terms of fiscal benefits.

Also in the Czech Republic migration is a frequent topic emerging in different connotations: 1 Migration, economic development and labour market (Horakova, 2006, Vavrejnová, 2004), 2 Migration from a sociological perspective (Leontiyeva & Vojtková, 2006), 3 Migration of individual national groups (Šišková et al, 2001), 4 Migration and security (Nožina & Kraus, 2009), 5 Migration from a demographic and geographic perspective (Bartonova,1997).

3. Hypotheses

When defining hypotheses professional literature search has been used and we are submitting the following ones:

H1: The proportion of foreigners in the Czech Republic in the total population is low (Vavrejnová, 2004).

H2: The proportion of foreigners in Germany in the total population is higher in Germany than in the Czech Republic[3].

H3: The number of foreigners in the Czech Republic and Germany has not risen continuously.

H4: The structure of foreigners by nationality is different in Germany and in the Czech Republic.[4]

H5: Migration of the Czech population in Germany will not be significant (Vavrejnová, 2004).

[3]Comparative data was not found in literature search.
[4]Comparative data was not found in literature search.

4. Goal and methods

This paper aims to map the state of migration in the Czech Republic and to compare it with the situation in Germany. Specifically, the following questions are asked:

1 The number of people involved in the migration in the Czech Republic and Germany.
2 How the number of migrants in these countries has been changing.

The quantitative part of the study has been engaged in numerical terms of migration. The Czech Statistical Office data is used.

The qualitative part deals with relevant issues related to migration processes and it illustrates possible connections of migration from different points of view.

5. Historical insight into the problems of migration in Germany

Migration in Germany can be divided according to Geis (2005) into the following periods: 1 1945 – 1949, 2 1949 – 1961, 3 1961 – 1973, 4 1973 – 1988/89, 5 1988 – 1991/92, 6 from 1992/93. The following table gives an overview of the characteristics of each period:

Tab.1: Migration phases in Germany since 1945

Period	Characteristics of migration
1945 - 1949	Immigration of the majority of refugees and displaced people of German origin, return departure or the next departure of forced labourers of non-German origin, prisoners of war and concentration camp inmates during the Third Reich
1949 – 1961	The first peak migration between East and West Germany
1961-1973	Massive recruitment of guest workers by the Federal Republic of Germany
1973-1988/89	End of recruitment, consolidation of the foreign population through the supply of family members, the recruitment of contract workers of the GDR
1988-1991/92	The arrival of emigrants, recruitment of refugees, war refugees, new labour migrants, the second migration between East and West Germany
1991/92	Introduction of new regulations to restrict the immigration of displaced persons and asylum seekers

Source: Geis (2005, 55)

According to Geis (2005) it is estimated that by 2020 about 3 million people will have come into Germany, around 200,000 every year.

As Vavrejnova (2004) stated in the years 1948-1989 about 450,000 inhabitants emigrated from the Czech Republic, on the other hand, the workers from Cuba and Vietnam in the number of 100,000 were recruited. As mentioned below, the proportion of foreigners in the total population is low (around 2%).

Development of migration movements in the Czech Republic can be divided into the following stages:

Tab. 2: Development of migration movements in the Czech Republic

Period	Characteristics of migration
1945-1947	Expulsion of the Germans living in the Czech Republic, settlement of border areas formerly inhabited by the Germans
1948-1989	Emigration of the population after 1948 and after the occupation of the Warsaw Pact troops in 1968. The influx of Slovaks in the Czech Republic. Between the70s and 80s the influx of migrants from Poland, Vietnam, Hungary, Cuba, Angola, Mongolia and Korea was recorded.
Since 1989	

Source: Vavrejkova, 2004

6. Foreigners in the CR by their citizenship

According to the latest available statistics in the Czech Republic there are Ukrainians, Slovaks, Vietnamese, Russians, Poles, Germans and Moldovans. From a quantitative perspective, Ukrainians are the largest group of foreigners in our country, which represents 105,138 inhabitants. These are followed by Slovaks 90,948 and the third largest ethnic group are Vietnamese 57,347. Another nationality, which does not have the numerical representation such as Ukrainians, Slovaks and Vietnamese, are Russians with 33,138. Poles living in the Czech Republic reached according to the statistical data the number of 19,452.

Tab. 3: Foreigners in the CR by their citizenship

Total number of foreigners	EU citizens	Ukraine	Slovakia	Vietnam	Poland	Russia
439 152	173 556	105 138	90 948	57 347	19 452	33 138

Source: the Czech Statistical Office

7. Trend in the number of foreigners with permanent residence in the CR

In 1993, the number of foreigners with permanent residence was 31,000. In 1994 it slightly increased to 33,000, an annual increase of foreigners amounted to 2,000. In 1995, the total number of foreigners with permanent residence went up by another 6,000 to 39,000. In 1996 the number of foreigners already numbered 40,000, and the annual increment of 7,000.

In 1997 the number of foreigners rose again, even by 11,000, representing the highest increase since 1993 to 1997. The number of foreigners rose to 57,000. In 1998 the previous annual increase was no longer achieved, the number of foreigners climbed by about 7,000 to 64,000. In 1999, the increase was only about 3,000 and amounted to 67,000. The year 2000 was notable for the fact that from the point of view of the long-term development of migration that was the only year when the number of foreigners remained in the number of foreigners in 1999. In the following year 2001 the number of foreigners increased again by 3,000 to 70, 000. In the period from 2002 to 2006 the number of foreigners went up, about 5,000 (2002), 6,000 (2003), about 18,000 in 2004 and 12,000 in 2005. Between 2006 and 2013 the number of foreigners grew faster than in previous years. Their number increased to 139, 000 in 2006, in 2007 their number already reached 158, 000. In subsequent years, the number of foreigners grew again to 172, 000 in 2008 to 180, 000 in 2009, 189, 000 (2010) 196,000 (2011), 212,000 (2012) and 237,000 (2013).

8. Foreigners in Germany by their citizenship

According to the CSO data, the largest group of the population is of Turkish origin, which makes up 23% of all foreigners living in Germany, followed by the Italians 8%, Poles 7%, Greeks 4%, Croats 3%, Serbs3% and Russians 3%. The rest 49% are of other nationalities whose percentage is insignificant.

9. Trend in the number of foreigners in Germany

Using the data for the trend in the number of foreigners in Germany the total number of foreigners, which includes nationals of Member States of EU and non-EU nationals living in Germany to 1 January of the year, was taken into account.

Tab. 4: Number of foreigners in 2002 - 2013

Year	2002	2003	2004	2005	2006	2007
Number of foreigners	7 318 203	7 347 951	7 341 820	7 287 980	7 289 149	7 255 949
Year	2008	2009	2010	2011	2012	2013
Number of foreigners	7 255 949	7 185 921	7 130 919	7 198 946	7 409 754	7 696 413

Source: The Czech Statistical Office

If we look at the trend of foreigners in Germany from a developmental point of view, we can see discontinuity in the trend. Between 2004 and 2005 the number of foreigners declined in 2004 by 6,131, in 2005 it was about 53,840. In 2006 the number of foreigners increased slightly to 7,289,149. The next year, 2007, however, it fell again to 7,255,949 and remained stable in 2008. From 2009 until 2010 the sharp decline in foreigners can be seen, when the decline reached number 7, 130, 919. From 2011 until 2013 sharp rise in the number of foreigners is obvious, when their number reached 7,696,413.

Looking at numbers of foreigners and the share of population they represent in given European countries, we will come to interesting comparisons. Germany is one of the countries with the highest number of foreigners followed by Spain. Italy and United Kingdom both reach approximately the same number of foreigners.

It is apparent that their number in the Czech Republic has more than doubled since 2002, more precisely number of foreigners with a long-term residence, whereas the number of foreigners taking into account both permanent and long-term residence over 90 days has even increased fivefold. Total number of foreigners in the CR is then according to 2013 statistical data 439,000, in Germany this number in 2013 equalled to 7,796,143.

It is to be expected that due to the political situation in Ukraine, the amount of foreigners in the Czech Republic and Germany will increase. It will be hence interesting to monitor further development of migration in these countries (Czymara and Schmidt-Catran, 2016).

Hypothesis about a low share of foreigners in the CR on total number of inhabitants could be confirmed. Hypothesis about a share of foreign inhabitants in Germany on the whole population being higher than in the CR could be confirmed as well. Even on the issue of continual growth of foreigners in the CR and Germany our hypothesis could be confirmed.

The structure of foreign people in Germany differs from the one in the CR. While in Germany the most prevalent nationality is Turkish followed by Italian and Polish (however these two represent lower percentage), in the CR the largest group of foreigners is created by the Ukrainians. Thus even this hypothesis could be confirmed.

As for the migration of Czech people to Germany, statistic data summarized in previous overviews did not include information about Czech foreigners in Germany, which means that Czech foreigners were included in the Others category and their number is fairly low. That is why, this hypothesis could be confirmed. As stated by Vavrečková and Janata (2006), Czech workforce in such a low number cannot destabilize EU labour market.

At this point, it is suitable to note, that increasing migration invokes consequences on social system and it is sometimes referred to as an immigration to social systems (in German „Zuwanderung in die sozialen Sicherungssysteme“), therefore it is desirable to discuss the issue in the relation to the burden of the welfare state (Schmidt, 2002).

No less serious is the issue of education of people with migration background (Mannion, E. 2016), most notably with regard to their further education and professional integration (Bildung in Deutschland 2014, 155).

10. EU and migration in 2015

According to the data the highest number of asylum seekers occurred in October 2015, as expected from the global situation (Bruzelius, C. et al, 2016). The number reached 171,765. In the Czech Republic the highest number of seekers applied for asylum in December 2015, precisely 140 applicants. In Germany, the number of asylum seekers peaked in October 2015 to 60, 355.

11.Conclusion

The goal of this paper was to map the development of migration here in the Czech Republic and in Germany. We limited ourselves to migration to the Czech Republic and Germany and on examples from both countries we tried to demonstrate that the issue of immigration does not concern solely one country. Immigration as such is not a new phenomenon, it existed almost in all eras (Wenning, 1994). Even in the future it is to be expected that the number of individuals moving from various reasons to countries providing better living (in different aspects) than their country of origin, will increase. Nevertheless, it is desirable to monitor the numbers of foreigners together with the rate of unemployment in order to prevent growth of social tension precisely because of increasing unemployment in countries in question.

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GLOBALIZATION AND PRICE TRANSMISSION IN TAJIKISTAN AND UZBEKISTAN

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Abstract. This paper investigates the link between globalization and market integration between international and domestic markets in the case of two transition countries namely Tajikistan and Uzbekistan. Globalization may present an important challenge for transition countries. Uzbekistan and Tajikistan are at similar level of development and have adopted to similar economic reforms. Notable difference between the countries is in their openness to trade. Tajikistan has adopted more liberal agricultural trade regime than Uzbekistan. It is interesting and relevant from policy-making perspective to compare price transmission between Uzbekistan and Tajikistan as these neighbouring countries are on a similar level of development but they diverge significantly with respect to trade policies. While Uzbekistan relies on strong government involvement in managing international agricultural trade, Tajikistan has adopted more liberal agricultural trade policy. Apart from trade policies, two countries are at similar level with respect to the implementation of other economic reforms.

Keywords: globalization, price transmission, market integration, agricultural trade

JEL Classification: E39, F15, P22

1. Introduction

The advent of globalization and market reforms in many countries has significantly raised awareness of the mechanism of price transmission. Informal pressures arise from border prices, and more direct challenges are posed by conformity requirements in WTO negotiation and a myriad of regional trade arrangements (Roland-Holst and Tarp 2006). In recent years, globalization has become one of the hottest topics, not only for the general public but also for central bankers. Some commentators have gone so far as to claim that greater openness of economies to flows of goods, services, capital, and businesses from other nations invalidate traditional economic models of inflation, which take little account of globalization (Mishkin, 2008). Kenneth Rogoff (2003) argues that globalization has led to greater price flexibility, which has reduced the ability of central banks to use inflation surprises to boost output. Because globalization increases competition, it can also reduce markups (price over costs), and this reduction may lead to lower relative prices, as is argued by Chen, Imbs, and Scott (2007). However, lower markups and price levels should have only transitory effects on inflation (Mishkin, 2008). Laurence Ball (2006) makes an important point that cheaper imports from places like China lower relative prices for imported goods but ultimately do not affect inflation, which is the change in overall prices. Domestic food prices depend on price transmission from world to domestic markets. However, global food prices need not be fully and rapidly transmitted to domestic markets either due to the existence of market imperfections or because of the government policies that attempt to separate world from domestic markets (Rapsomanikis et.al, 2003; Abbotta and Battistib 2011). Governments in net exporting countries, for example, often use export bans or export taxes to prevent rises of domestic prices when global food prices soar, while similarly net food importing countries might reduce tariffs or subsidize imports in such situations. The pass-through of the price shocks from world to domestic markets can have significant income distributional and welfare implications for farmers and consumers; this makes the issue of price transmission very relevant from the policy-making perspective.

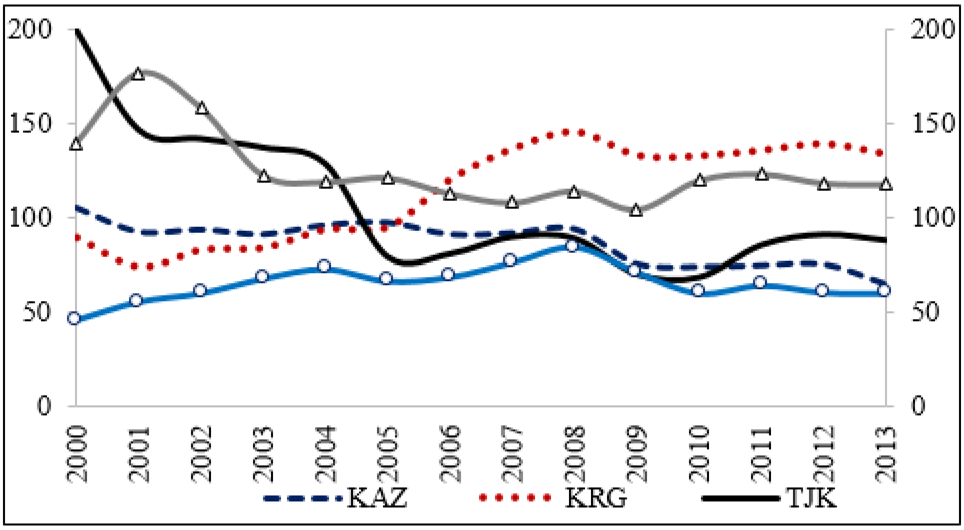
2. Transition Process in Uzbekistan and Tajikistan

Transition process in Uzbekistan and Tajikistan as well as in other Central Asian countries started after the break-up of the Soviet Union when these countries became independent. However, the real transition towards market economy began in Tajikistan only after the end of the civil war in 1998. During the civil war most of the fixed capital and infrastructure, that survived the collapse of Soviet Union, was devastated and the poverty rate reached 86 percent of the population in 1999, which was an increase from 51.2 percent in 1989 (Falkingham 2000). After the war, the country liberalized international trade, including agricultural trade, and started to reform other institutions and policies.

Uzbekistan did not suffer from the civil wars to such an extent as its Tajik neighbour but the economic situation in the country at the beginning of the transition process was not very bright either. Historically both countries belonged among the least developed republics of the Soviet Union. The poverty headcount ratio in Uzbekistan reached 69 percent in 1998, which was also an increase from 43.6 percent in 1989. Since independence, economic policy of Uzbekistan stressed self-sufficiency, economic independence, and import substitution (Nurmetov et al. 2015). In agriculture, emphasis was placed on increasing domestic production of grains at the expense of heavy reliance on cotton production.

The key components of agricultural reform in a transition country include privatization and establishment of property rights to land, land market regulations including liberalization of international trade, and input and output liberalization (Spoor 2004; Rozelle and Swinnen 2004). Both Uzbekistan and Tajikistan made relatively small progress in economic reforms. Meanwhile, implementation of "small-scale privatization and housing reform were undertaken quickly" in both countries (Pomfret 2012). Notable difference between the countries is in price, trade, and exchange market liberalization where Tajikistan is significantly more reformed and opened to world markets than Uzbekistan.

Figure 1: Trade openness ratio of Tajikistan and Uzbekistan compared to others Central Asia Countries (2000-2013)



Source: Own calculation based on World Bank Data 2015

3. Macroeconomic Performances of Tajikistan and Uzbekistan

After the collapse of the Soviet Union both Tajikistan (1991-1998) and Uzbekistan (1991-1995) experienced declines in total aggregate output, reduction in living standards, increased economic uncertainty, and growing income inequality and poverty. The change from decline to growth occurred in 1995 in Uzbekistan and in 1998 in Tajikistan. Since then, we observe improvements in economic indicators in both countries. In the period between 2000 and 2013, Uzbekistan reported 7 percent average annual growth of GDP while Tajik average growth of GDP for that period reached even higher 8 percent per year.

High economic growth rates in that period are closely related to positive development of global commodity prices, in particular to prices of oil, natural gas, cotton, gold, and aluminium of which these countries are exporters. Moreover, economies of Uzbekistan and Tajikistan benefited from increased inflow of remittances as well. Actually, Tajikistan has become the most dependent nation in the world on inflows of remittances. Money transferred by out-migrants back to Tajikistan makes up 49.6 percent of GDP in 2013 (World Bank 2014). Uzbekistan is only slightly less dependent on remittances than Tajikistan.

After the civil war, macroeconomic stabilization, economic liberalization, restructuring, and privatization of state-owned industrial enterprises, as well as land reforms and restructuring of large collective farms in agriculture also contributed to high growth in Tajikistan (Pomfret 2012). Gradual implementation of step-by-step economic reforms combined with achievement of economic stability made a significant contribution to economic growth in Uzbekistan despite huge economic distortions in the economy.

4. Price Transmission Mechanism

The price transmission was typically analysed through the horizontally related markets as links between prices at different locations or through the various stages of the supply chain (Vavra and Goodwin 2005). Overall, the issues of horizontal price transmission have been widely investigated within the framework of "law of one price." From the studies on price transmission, most of the attention was paid to developed countries in Western Europe or USA. Only few studies can be found focusing on markets in developing and transition countries. Peter (2008) found that the cointegration relationship exists between world and domestic Indonesian rice market and found the elasticity of 0.369, meaning that markets are partially cointegrated.

In our research we used unique monthly price data for selected agricultural commodities traded in Tajikistan, Uzbekistan and on the world markets. Agricultural commodities traded in Tajikistan represent wheat, sheep, chicken, rice, beef meat, sugar, and soy oil. The data period covers January 2004 to December 2014. Tajikistan prices were converted from local currency TJS somoni to USD using current exchange rates obtained from the International Monetary Fund and the National Bank of Tajikistan. The domestic Tajik prices come from the Statistical Office of Tajikistan (Taj Stat), except for the price of wheat. Prices of wheat were obtained from Ilyasov et. al, (2014) for the period of 2003-2013 while wheat prices for the year of 2014 come from Taj Stat.

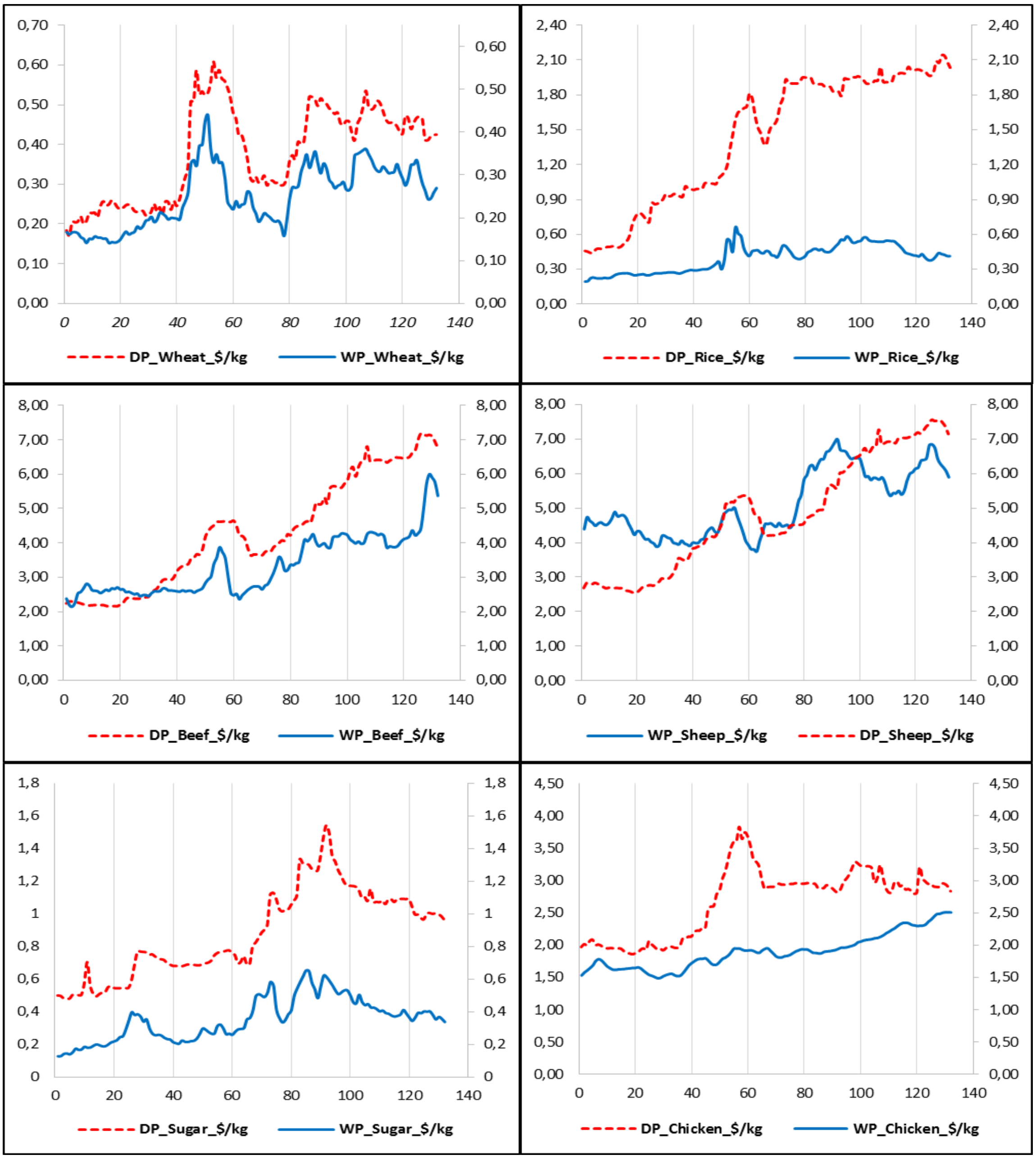
The data for Uzbekistan represent domestic prices of wheat, maize, barley, rice and butter traded in Khorezm region of Uzbekistan. The data period covers January 2001 to December 2009. The commodities and data periods are chosen because of data availability. Uzbek prices were converted from local currency UZB suoms to US dollars using the current exchange rate. All Uzbek prices come from the Statistical Office of Uzbekistan (Uzb Stat) and its Khorezm regional authorities.

We used cointegration techniques to find out a possible link between globalization and price transmission mechanism in Uzbekistan and Tajikistan. Having non-stationary time series we applied Johansen cointegration test, to check whether the prices are cointegrated. Johansen cointegration test results indicate that most of the prices in Tajikistan are cointegrated with the world prices. There is a cointegrating relationship between world and Tajik prices of wheat, rice, sugar, and soy oil. On the other side, there is no cointegrating relationship between world prices and prices in Khorezm region in Uzbekistan.

This is consistent with our expectations. Tajikistan has open agricultural trade with the rest of the world with limited trade barriers only and therefore Tajik domestic prices reflect the development of the world prices. Uzbekistan, on the other hand, is significantly less connected to the world markets because of its self-sufficiency policy in agriculture. Uzbek prices therefore do not react to changes in the world prices as much as Tajik prices.

Meat prices in Tajikistan are not cointegrated with the world prices, however. There could be several reasons for this. First, poor infrastructure makes meat trade more erratic. Second, there is bigger product differentiation in meats than in crops. Especially, Tajikistan and Uzbekistan population consists of mainly Muslims, which consume Halal meat, which is differentiated from the regular meat. Halal meat is mainly imported to Tajikistan from Iran, Turkey and Arabic countries. Third, poor transport infrastructure, lack of logistics services of refrigerated vans and underdeveloped packaging services have a stronger impact on trade with animal products than on trade with crops.

Figure 2: The world and domestic (Tajikistan) price trends for selected food commodities in the period of 2004-2014



Source: Own collaboration based on World Bank and Taj Stat data

Negative and statistically significant error correction terms in the equations for Tajik wheat, rice, sugar and soy oil prices show that any short term fluctuations between the world and domestic prices will lead to a long run relationship. The estimated coefficients indicate that the disequilibrium is corrected. However, within a year only 18 percent of Tajik wheat price is corrected which is still the fastest adjustment of prices to shocks occurring at the world markets out of all investigated commodities.

5. Conclusion

Uzbekistan and Tajikistan are at similar level of development and have adopted to similar economic reforms. Notable difference between the countries is in their openness to trade. Tajikistan has adopted more liberal agricultural trade regime than Uzbekistan.

The self-sufficiency policy of Uzbekistan has contributed to low dependence of domestic Uzbek prices on the world agricultural prices. There is no cointegration between the world agricultural prices and Uzbek prices. Substantial ad hoc state regulations affecting trade in Uzbekistan and significant government involvement in upstream and downstream industries create uncertainty, which has negative impact on trade.

Tajik crop prices, on the other hand, are cointegrated with the world agricultural prices, which might be a reflection of the more liberal agricultural trade adopted by Tajikistan. However, prices of animal products are not cointegrated with the world prices. There is a significant level of product differentiation between domestic and foreign meat products and lower trade integration due to the insufficient trade infrastructure and institutions.

Furthermore, even in Tajikistan adjustment of domestic prices to shocks occurring at the world markets is relatively slow. Agricultural and trade policies affect price transmission from world to domestic prices. Liberal trade policies improve integration of domestic markets to world markets, which can in the long-run lead to higher economic growth of the sector and more efficient allocation of resources. Price transmission from the world prices to local prices in Tajikistan and Uzbekistan might be strongly affected by the following aspects: trade monopolies, market power in upstream and downstream industries, the level of development of infrastructure, access to international markets via neighbouring countries, development of food processing industry, non-tariff barriers, uncertain regulatory environment and others.

Obstacles to agricultural trade need to be dealt with by policy makers to cope with the food security problems in Central Asia.

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APPLICATION OF STRATIFICATION DEA METHOD IN EFFICIENCY EVALUATION OF THE EDUCATION SECTOR IN AN INTERNATIONAL PERSPECTIVE

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Abstract. Education sector is under growing pressure worldwide to improve the quality of education and increase its performance. In relation to the spread of information and communication technology and global interconnectivity many countries are modifying their education systems. The aim of ongoing changes in education systems is to establish competitive and efficiently operating education institutions. It is therefore very important to develop a method for the evaluation of the educational outcomes. One of the proposed ways to achieve this is the application of nonparametric method in operations research called data envelopment analysis (DEA). In this paper we apply 2-stage DEA analysis to assess the educational outcomes of 27 selected countries. We use the share of public expenditure on education to total government expenditure as an input in DEA analysis. As outputs in DEA analysis we use the results of 4 international student assessments (grade 8 PISA 2012, grade 8 TIMSS 2011, grade 4 PIRLS 2011, grade 4 TIMSS 2011) and innovation output index 2012. Out of 27 evaluated countries, 8 countries (namely Canada, Finland, France, Hungary, Italy, Netherlands, Poland and Switzerland) are efficient. Consequently, we use stratification method for partitioning the evaluated countries info different frontier levels. For each inefficient country it is then possible to calculate the local efficiency targets.

Keywords: Data envelopment analysis, efficiency, education, international student assessment

JEL Classification: C44, H52, I20

1. Introduction

Investigating the efficiency of government spending became essential in times when many states are facing the financial crisis. Although the study of economics of education has a long tradition, performance comparison has always been difficult to undertake, mostly because of the lack of suitable data that could be used for evaluation of education efficiency across the countries. However, the spread of information and communication technology in recent years allowed the faster and easier processing and exchange of data.

1.1 Previous studies on education efficiency

Most recent studies on the efficiency of the education and other parts of public sector are using non-parametric methods that allow the estimation of efficiency frontiers, such as Data Envelopment Analysis (DEA). Existing studies have been mainly based on country-specific data (mostly for higher education institutions). Long and rich tradition in analysis of the efficiency of education sector has the UK. For example in (Thanassoulis et al., 2011) several different DEA models are applied to higher education institutions in the period 2000/01-2002/03. Interestingly, this method provides similar results to previously published study (Johnes et al., 2008) that used parametric regression methods to analyse the same data. Also Australian universities have already been thoroughly analysed, see (Abbott & Doucouliagos, 2003) or (Worthington & Lee, 2008). Other country-specific studies include Italy (Abramo et al., 2008), Czech Republic (Jablonsky, 2016) or Portugal (Afonso & Santos, 2004).

Many international comparisons of expenditure performance find significant differences between efficiencies across countries. The empirical study in (Agasisti, 2014) compares the spending efficiency on education in 20 European countries during the period 2006 – 2009. Results show that the efficiency remained almost stable between years 2006 – 2009. (Wolszczak-Derlacz & Parteka, 2011) examined the efficiency of 259 public higher education institutions from 7 European countries during the period 2001 – 2005. Results show a considerable variability of efficiency scores between institutions. (Aristovnik & Obadić, 2014) continue on a number of previous studies in investigating the secondary education efficiency by applying DEA method to 31 EU and OECD states. Other international comparisons include notably the studies by (Afonso & Aubyn, 2006) for the evaluation of the efficiency in providing education in OECD countries and (Joumady & Ris, 2005) for the evaluation of the efficiency of education institutions in 8 selected countries.

Our paper presents two advances compared to the recent literature on the subject. First, we use 5 output indicators for evaluation of the educational systems that cover all three sectors of education: primary (PIRLS – grade 4, TIMSS – grade 4), secondary (PISA – grade 8, TIMSS – grade 8) and tertiary (Innovation output index). This allows the evaluation of efficiency of entire educational sector, not just of one particular sector. Second, unlike other recent studies, we use Stratification DEA method for partitioning the evaluated countries into several frontier levels. For each inefficient country it is possible to calculate the local efficiency targets.

1.2 Input and output indicators

In recent literature there is a shift in the focus of the analysis of the educational sector from the amount of public resources spent on education to the quality of outcomes achieved. We use four student assessments and a sub-index of Global Innovation Index as the output indicators in our study. All data is taken from The Learning Curve of Pearson website (Data Bank, 2012).

The Programme for International Student Assessment (PISA) is a triennial international survey conducted by OECD which aims to evaluate education systems worldwide by testing the skills and knowledge of 15-year-old students. It assessed the competencies of students in reading, mathematics and science in 65. The tests are designed to assess to what extent students at the end of compulsory education, can apply their knowledge to real-life situations and be equipped for full participation in society (PISA 2012 Results, 2014).

TIMSS & PIRLS International Study Center conducts regular international comparative assessments of student achievement in mathematics and science and in reading in more than

60 countries. TIMSS (the Trends in International Mathematics and Science Study) and PIRLS (the Progress in International Reading Literacy Study) together comprise the core cycle of studies for IEA – the International Association for the Evaluation of Educational Achievement. PIRLS 2011 collects data to provide information on trends in reading literacy achievement of fourth-grade students. TIMSS 2011 is the fifth in IEA's series of international assessments of student achievement dedicated to improving teaching and learning in mathematics and science (TIMSS & PIRLS, 2016).

Innovation Output Index captures actual evidence of innovation outputs, divided into two pillars: Scientific outputs and Creative outputs. It is a sub-index of Global Innovation Index, which is co-published by the World Intellectual Property Organization, INSEAD and Cornell University.

We use Public expenditure on education as percentage of total government expenditure for year 2011 as input indicator. Data is taken again from The Learning Curve of Pearson website, main source being UNESCO Institute for Statistics.

1.3 DEA methodology

Data Envelopment analysis (DEA) is one of important means of economic management. It is a method for comparative efficiency assessments in contexts where multiple homogeneous units deliver goods or services (Thanassoulis, 2001). It assumes the existence of convex production frontier, which is constructed using linear programming methods and called best-practice frontier. An introduction to DEA with mathematical description can be found for example in (Charnes et al., 1978) or (Coelli et al., 1998).

The units evaluated by DEA analysis are called Decision Making Units (DMU). The aim of DEA analysis is to analyse the factors with the highest influence to their ineffective behaviour. The results of analysis then lead to the elimination of sources of inefficiency and the increase the overall efficiency of the unit.

1.3.1 Stratification DEA Method

Adding or deleting inefficient DMUs doesn't change the efficiencies of the existing DMUs and the best-practice frontier. The performance of DMUs depends only on the identified best-practice frontier. In order to obtain the relative scores within DEA, the original DEA methodology can be modified (Seiford & Zhu, 2013) to a situation where the relative performance is defined with respect to a particular best-practice evaluation context.

In order to obtain the evaluation context, an algorithm is developed (Zhu, 2014) to remove the original best-practice frontier to allow the remaining inefficient DMUs to create a new second-level best-practice frontier. If we remove this new second-level best-practice frontier, a third-level best-practice frontier is formed, and so on, until no DMU is left.

The performance of DMUs on, say, the third-level best-practice frontier, can be measured with respect to the first or second level best-practice frontier. We call this type of measure a *progress measure*. The basic DEA method provides a projection function to improve the performance of inefficient DMUs onto the first-level best-practice frontier only. This first-level best-practice frontier may not be accessible to some inefficient DMUs at the given moment. Construction of more easily achievable targets may therefore be desirable for an inefficient DMU. The resulting intermediate targets are called *local targets* (Zhu, 2014).

2. An application of stratification DEA method to education indicators

In this paper we evaluate the efficiency of education sector of 27 selected states. Data is available for 26 OECD members (Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Finland, France, Germany, Hungary, Ireland, Israel, Italy, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovakia, Spain, Sweden, Switzerland, United Kingdom and United States of America) and one non-OECD country (Indonesia).

Table 1: Input and output parameters

State (DMU)	Public expenditure	Innovation Output Index	PISA Grade 8	TIMSS Grade 8	PIRLS Grade 4	TIMSS Grade 4
Australia	13,50	42,00	512,48	512,03	527,37	515,76
Austria	11,05	43,20	500,31	486,68	528,88	519,91
Belgium	11,95	45,50	509,77	490,22	506,12	528,87
Canada	12,23	50,40	522,22	501,54	548,42	558,46
Chile	17,50	34,40	436,32	438,87	408,14	470,98
Czech Republic	10,44	43,30	500,05	485,28	545,49	523,63
Denmark	15,04	50,40	498,21	480,81	553,99	532,48
Finland	11,92	52,40	529,40	533,19	567,87	557,83
France	9,86	46,60	499,81	479,03	520,00	535,45
Germany	11,03	51,90	515,11	499,03	541,01	527,75
Hungary	9,35	45,40	486,60	513,60	539,27	524,89
Indonesia	18,06	32,60	384,38	395,73	428,48	461,31
Ireland	12,68	51,70	515,56	493,14	551,60	521,73
Israel	13,49	52,10	474,12	515,77	540,92	552,39
Italy	8,43	42,40	489,54	499,74	541,32	515,84
Mexico	19,09	32,90	417,25	404,24	378,05	410,97
Netherlands	11,75	58,10	518,75	501,81	546,06	535,61
New Zealand	17,87	46,20	509,19	499,91	531,02	491,41
Norway	15,01	47,90	495,94	484,51	507,05	494,46
Poland	11,06	32,40	520,50	501,48	525,57	493,03
Portugal	10,25	38,10	488,03	471,01	540,84	526,98
Slovakia	9,83	36,20	471,87	459,81	535,08	519,29
Spain	10,66	41,00	489,57	473,48	513,06	493,79
Sweden	13,25	54,90	482,13	496,90	541,67	518,71
Switzerland	15,90	66,70	518,42	501,64	478,68	498,64
United Kingdom	12,72	54,30	502,46	519,88	551,53	535,57
United States	12,91	51,40	492,12	517,04	556,37	542,24

Source: The Learning Curve of Pearson.

We performed output-oriented stratification method described in the section 1.3.1. Stratification DEA analysis divided evaluated states into 4 levels. Data used in calculations are shown in Table 1 and results of the DEA analysis are shown in Table 2.

Table 2: Best-practice frontiers

Level	Countries
Level 1	Canada, Finland, France, Hungary, Italy, Netherlands, Poland, Switzerland
Level 2	Australia, Czech Republic, Germany, Ireland, Israel, Portugal, Slovakia, Sweden, United Kingdom, United States
Level 3	Austria, Belgium, Denmark, New Zealand, Spain

Level 4	Norway, Chile, Indonesia, Mexico

Source: Our calculations

Out of 27 evaluated states, 8 countries (namely Canada, Finland, France, Hungary, Italy, Netherlands, Poland and Switzerland) are efficient. 1st level local targets together with efficiency levels for remaining 19 countries are presented in Table 3.

Table 3: Efficient Output Target for the 1st level frontier

State (DMU)	Efficiency	Innovation Output Index	PISA Grade 8	TIMSS Grade 8	PIRLS Grade 4	TIMSS Grade 4
Australia	0,565	52,40	529,40	533,19	567,87	557,83
Austria	0,686	47,50	519,51	521,59	556,33	539,86
Belgium	0,648	52,40	529,40	533,19	567,87	557,83
Chile	0,184	51,57	526,42	520,04	559,79	558,09
Czech Republic	0,770	48,17	512,52	519,03	556,63	540,05
Denmark	0,603	52,40	529,40	533,19	567,87	557,83
Germany	0,918	52,00	516,11	514,17	553,86	539,97
Indonesia	0,138	50,40	522,22	501,54	548,42	558,46
Ireland	0,759	52,99	528,42	530,29	565,36	555,51
Israel	0,718	52,56	529,11	532,34	567,28	557,22
Mexico	0,115	52,40	529,40	533,19	567,87	557,83
New Zealand	0,437	52,40	529,40	533,19	567,87	557,83
Norway	0,489	52,40	529,40	533,19	567,87	557,83
Portugal	0,657	47,61	509,69	513,84	552,05	537,90
Slovakia	0,608	46,43	505,03	510,14	549,14	532,93
Spain	0,600	43,15	515,29	513,57	546,79	525,17
Sweden	0,724	56,11	522,46	512,74	553,66	543,35
United Kingdom	0,851	54,75	526,31	524,15	556,06	548,40
United States	0,778	52,45	529,32	532,94	567,70	557,65

Source: Our calculations

In second step we applied DEA method to 19 countries that are inefficient in step 1. DEA analysis gives this time 10 efficient countries, namely Australia, Czech Republic, Germany, Ireland, Israel, Portugal, Slovakia, Sweden, United Kingdom, and United States. Efficiency and 2nd level local targets for remaining 9 states are presented in Table 4.

Table 4: Efficient Output Target for the 2nd level frontier

State (DMU)	Efficiency	Innovation Output Index	PISA Grade 8	TIMSS Grade 8	PIRLS Grade 4	TIMSS Grade 4
Austria	0,758	49,92	509,02	495,89	540,98	528,96
Belgium	0,742	51,81	511,12	502,16	543,68	530,27
Chile	0,209	51,54	498,57	511,99	552,06	538,18
Denmark	0,753	51,49	499,08	509,95	554,96	536,15
Indonesia	0,157	52,10	474,12	515,77	540,92	552,39
Mexico	0,131	51,89	515,11	499,04	541,00	527,75
New Zealand	0,498	47,02	513,89	504,52	535,92	520,96
Norway	0,556	49,67	514,27	502,41	538,07	525,14
Spain	0,733	46,50	505,66	490,41	543,82	525,17

Source: Our calculations

In the next step we applied DEA analysis to remaining 9 states. 5 states (Austria, Belgium, Denmark, New Zealand, and Spain) are efficient. 3rd level local targets together with efficiency score for each of 4 remaining states are presented in Table 5. We did not continue with next steps because the number of DMUs was not sufficient.

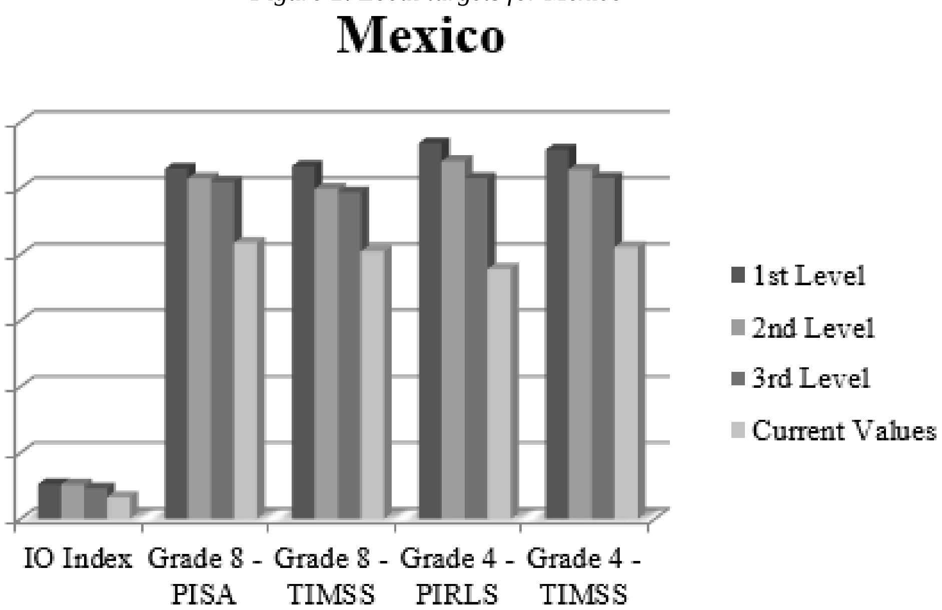
Table 5: Efficient Output Target for the 3rd level frontier

State (DMU)	Efficiency	Innovation Output Index	PISA Grade 8	TIMSS Grade 8	PIRLS Grade 4	TIMSS Grade 4
Chile	0,276	45,54	509,74	490,78	507,57	526,69
Indonesia	0,207	50,40	498,21	480,81	553,99	532,48
Mexico	0,172	45,75	509,56	493,67	514,99	515,52
Norway	0,783	48,22	503,62	487,72	537,12	521,52

Source: Our calculations

These calculations allow us to create the progress measure by calculating the intermediate *local targets* for each inefficient state. As an example we present local targets for selected state – Mexico – in Figure 1. Data is taken from target values calculated in Tables 3-5 and current values (Table 1). Since intermediate targets are more easily achievable, by focusing on different levels of best-practice frontiers the progress measure provides incremental improvements for performance of educational sector in Mexico.

Figure 1: Local targets for Mexico



3. Conclusion

In this paper we evaluated the efficiency of education sector in 27 selected states. We applied stratification DEA method for partitioning the evaluated countries info four different frontier levels. Out of 27 evaluated countries, 8 countries – Canada, Finland, France, Hungary, Italy, Netherlands, Poland and Switzerland – are efficient. For inefficient states we calculated local targets that provide incremental improvements for performance of educational sector in each inefficient state. For particular state it may not be possible to immediately improve its performance into the best-practice frontier. These local targets are more easily achievable and may be desirable for an inefficient state.

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GLOBAL AND REGIONAL ASPECTS OF ECOLOGICAL CONSTRUCTION DEVELOPMENT IN THE CURRENT ECONOMIC CONDITIONS

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Abstract: Environmental construction - is a completely new period in the development of architectural and construction sector worldwide. This stage is characterized by the manifestation of the underlying processes of awareness of humanity all over the world the important role that modern civilization in general, and mastered its territory, in particular, play in the destruction of the stability of the ecological system of our land. The purpose of the authors research is to find scientific and practical study of the development of ecological construction in Russia and its regions today. To achieve this purpose the authors have resolved objectives: described the features of the modern development of ecological construction in Russia and abroad; identify the most important problems and development prospects of modern ecological construction in Russia and its regions, particularly the Volgograd region. In the present study, the team of authors focuses on the study of building materials and technologies, the most commonly used in the construction of green buildings in Russia and other countries of the world, as well as the characteristics of the major environmental building materials and technologies used in the construction of houses in the Volgograd region. The subjects of the author's research are the factors that determine the development of modern ecological construction, both at the level of individual cities and at the national level, and the object - the city as a structural unit of the region. Methodologically scientific and practical research is based on an integrated approach using comparative methods, statistical and logical analysis.

Keywords: eco-friendly building materials, "ecological" technology, energy usage, energy efficiency, ecological house

JEL Classification: F6, F63, R11

1. Introduction

Since the first building on our planet, humanity used only available natural building materials, which include such natural and simple natural substances such as wool, wood, straw, stone. At that time other materials weren't at human's hand. Over time, there was a need for the production of building materials such as: brick, reinforced concrete, glass, etc. In recent years, there is a return to earlier used, natural building materials.

Thus, in recent years almost all countries of the world worry about the state of the environment and resources. According to scientific researches if there is a "careless" use of anthracite, oil and other resources, the Earth's population will use them for only a hundred years. Just due to this reason the international community decided to find another way out of this situation - the construction of environmentally friendly buildings.

More at the end of the last century, Western countries began rapidly to consider the importance and the need of environmental protection. Friendly attitude to nature began to spread into all spheres of human life. Politicians often declare about the environment in their own electoral programs, special institutions are created, the success of entrepreneurial activity is often connected with effective policies in the sphere of environmental protection, construction companies are trying to introduce "green" technology. In recent years, these trends have been actively developing in Russia.

2. The features of the modern development of ecological construction in Russia and abroad

The term "eco-house" is at first, the use of natural renewable materials which are similar with industrial materials in many of their properties such as strength, thermal conductivity and other properties. However, experts and doctors say that the house of natural materials has a positive influence on human health. Especially the children are susceptible to environmentally friendly building materials children whose organisms are not fully grown and positively react to environmentally-friendly materials. In Belarus, one of the events of the program "Children of Chernobyl" was the settlement of families who suffered from the Chernobyl disaster to the ecological house. The following results were: the number of allergic reactions decreased noticeably and the human health improved.

Let's start with the fact that natural resources are considered to be a significant factor which creates competitive advantages and investment attractiveness of the Volgograd region. It has its own mineral resource base. In the region there are large-scale enterprises producing cement, asbestos-cement products, precast concrete, etc. (Dufy, C., 2015)

Conducted by the authors comparative analysis of standard and ecological construction demonstrated obvious advantages and disadvantages of each construction (Table 1)

Table 1: The comparative analysis of standard and ecological construction

Standard construction	Ecological construction
2	3
I. Advantages	
1. The economy and the optimal cost (low cost of construction and exploitation).	*1. Ecological compatibility (*It is achieved by the use of only natural materials and technology in the construction and exploitation, which create a healthy atmosphere at home, and are not harmful to the environment).
2. High speed and the seasonality of the construction.	*2. Autonomy* (Eco independence from energy networks and resources by the use of autonomous and renewable energy resources).
	3.*Low waste* (through the processing and recycling of waste),

	4. Manufacturability (the most advanced technology are used with the purpose of maximum efficient energy consumption in eco-friendly homes).
II. Disadvantages	
1. Environmental harm.	*1. It is impossible to transform ready usual house.*
	2. Location (ecological houses are not intended for regions with harsh climates, where there is a bit sunlight and a lot of frost days.).
	3. Financial base (expensive materials, energy-saving systems, etc.).

Source: authors' work

Objects' construction of artificial materials can influence negatively on human health. Many people try to surround themselves with construction projects of natural materials. "Eco-friendly facilities" do not emit harmful substances and do not bring harm to human health, on the contrary, they contribute the better health (Novotný, J., & Duspiva, P., 2014).

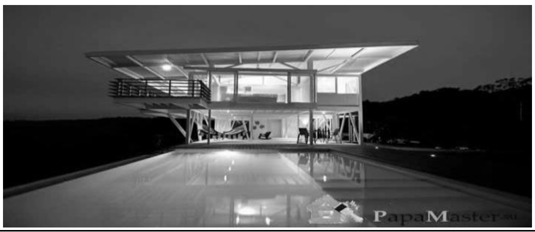
Most of ecological houses were built in Germany, Denmark and Sweden. Research in this sphere are regularly subjected to improvement. The greatest successes belong to Germany, where there is a professional association of builders of straw, where builders from all the world come to share experiences. To buy eco-friendly house in Europe is almost impossible, due to the fact that they are not so much. There is profitable to build it by yourself. The cost of such house of natural materials are often more expensive (Antonelli, C., & Fassio, C., 2015).

Today the construction of ecological houses begins in Russia gradually. In Russia, the eco-friendly houses are built only as an experiment by construction companies which adopt the technology from Western colleagues, and work in partnership with companies from Finland and Denmark. The first experimental ecological house in Russia, was built in Moscow in 2011. For its construction accessible and cheap material was used. The level of energy consumption for the house heating is less than 40 kWh / m² per year (in the brick house of the same size it is more in 6-8 times). This house there is a collector, geothermal pump, heat recovery system, the system of "smart house", which controls all the indicators.

Experts consider that the construction of ecological houses in Russia is in low rate. Today there are experiments in Moscow, Ufa, Yekaterinburg and other cities of Russia in the construction of ecological houses. Thus, for our country, the construction of ecological houses is still expensive and rare service that is not available to most of the population.

But it should be noted, however, that environmentally friendly houses are getting the popularity throughout the world (Table 2).

Table 2. The characteristic of the best ecological houses of the world

The locality	The characteristic
1	2
1. Costa Rica 	The creator of this eco-friendly villa – is the architect-inventor Robles. This structure was built in wet unacceptable environment. But the house is reliable, independent, environmentally friendly, economical, easy to use in all aspects, and multifunctional.

2. Los Angeles, the state of California 	The creator of this eco-house was the Iranian architect - Glen. According to experts' opinion it is super- stable building. The purpose of this project included the wish to maximize the feeling of space, openness and merging of its rooms with the infinite space of the surrounding nature.
3. Russia, Moscow 	During the construction of this environmentally friendly building clean, very safe materials were used which do not produce any harmful substances. Energy-efficient devices were introduced, which belong to energy-saving and eco-friendly houses.
4. The South African town of Franschhoek 	There is a compact eco-friendly house, built by Pietro Russo. The house fit to the mountain landscape of the local nature blends harmoniously. It has a delightful modern design.
5.Denmark 	The creators of this ecological house became Danish architects AART. This house is incredible, because it generates an electric current more than its consumes.

Source: authors' work

The construction of the ecological houses involves the use of natural building materials, which the market abounds today (Shibeika, A., & Harty, C., 2015).

When you choose building materials and carry out repair and construction work, it is important to pay attention to the following rules (Table 3).

Table 3: Construction materials and technologies used in eco-friendly houses

The name of materials (technology)	The characteristic, properties
1	2
1. The use of groundblocks	This building material is environmentally friendly and is often used in the construction of the house. The use of groundblocks with irregular shape in construction gives the house a unique charm and allows you to escape of extra costs to facing the house. Also groundblocks can be purchased at an available price. It has high strength and fire resistance.
2. Smell	Any building material has the smell. If building material emits a pungent smell, far from natural, then most likely it produces toxins in the air, which immediately should alert you, so it is best to abandon its purchase.

3. Wallpaper	Vinyl wallpaper is very easy to use, they can be easily washed, but they are not natural. These wallpapers are very dense so the walls of the house pass air bad. They are best used in the repair of the kitchen or hallway. For a bedroom it is better to use wallpaper on the plant base. For example, on the basis of bamboo or reed. These wallpapers are absolutely harmless and do not contain toxins.
4. Floor covering	Laminate flooring is widely used in the repair, but it is not environmentally friendly. There is a big risk of toxins allocation during the time. It is better to choose parquet or cork flooring. When using parquet in repairs it is important to choose the lacquer correctly which matches all health and safety standards.
5. Solar panels	They allow to use solar energy instead of electricity. These batteries can illuminate and even heat the room.
6. Wind turbines	They operate on the principle of solar cells, but the source is the wind.
7. Wood	It is considered the most environmentally friendly material, but only if it does not processed by anything. However, untreated wood is short-lived. If you use certified eco-friendly materials for impregnating and coating of wood, processed wood can be used outside the house or inside a closed building. But the overlap of eco house are made only of wood.
8. Aerated concrete	It has no harmful components. Aerated concrete may be used for exterior and interior walls.

Source: authors' work

The complex use of natural resources and construction technologies will allow to build a natural environmentally friendly house.

In according to construction technology of frame houses in the United States and Canada, there were built houses in Russia and in particular in the Volgograd region. The proof of the strength of such buildings is a large quantity of frame houses, standing more than a century. In other words, this technology has been known for long period, but eventually the assembly of structures had enough greatly simplified, the construction time reduced, the technology has been improved. In Russia and Volgograd the houses that are built by this technology, are known as "Canadian." This name is due to the fact that the climates of Canada and Russia are very similar and the fact that the frame houses are very common in North America. These houses are the best solution in these climatic conditions.

The construction of frame houses is considered the most cost-effective among the existing building technologies today. This is confirmed by the fact that the majority of modern countries is already beginning to use the technology of construction of frame houses in the world. Of course, different countries have their own characteristic features in the building of frame houses, but the essence of this does not change –the technology remains frame. For example, in the USA and Canada, these houses are built of planed boards once there, where the house will be. In Europe and Scandinavia first frame panels are manufactured in the factories, and then they are placed by a crane (Anwar, S., & Sun, S. 2015).

The popularity of these frame houses is due to a perfect combination of the quality of the design, with its appearance, except for the price of these houses is much cheaper. The basis of eco - frame house is a wooden frame made of lumber. In addition, glued beams have all chances to apply for larger spans the room. Often there is a question –will these houses be warm? There is a following answer: the mineral wadding of glass or rock is used for thermal insulation. The temperature in the house is close to optimum all year due to the hundred fifty millimeter insulation layer. Wind is not terrible because of fibreboard and chipboard. All structure of the house, including the foundation, is constructed of lightweight construction materials (e.g, foam). It reduces the load on the ground and allows to use more fuel-efficient types of foundations.

3. Problems and prospects of development of modern ecological construction in Russia and its regions

Today environmental building materials are used in the construction of residential buildings of the Volgograd region, the list of which is presented in Table 4.

Table 4: Ecological building materials and technologies used in the construction of houses in the Volgograd region

The name of material	Advantageous quality of material
1	2
1. Mineral wadding of glass	The heat stored in the house all year, due to one hundred and fifty millimeter insulation layer.
2. Fibreboard and chipboard	Safety from the wind.
3. Steel structures	These structures are very durable and weigh a bit, so the foundation is not required to have high strength.
4. Fibreboard and chipboard	They were widely used in construction - for interior decoration (as the basis of the ceiling and flooring with under floor), production of doors, window sills.
5. Clay	The construction of clay houses will require more time, but the result will bring joy and keep health to residents. The house, built of clay, "breathes", while maintaining its occupant's health. Building materials based on clay - one of the most environmentally friendly.
6. Wood	Wooden houses are highly valued for their ecological, healthy and psychologically comfortable aura.
7. Rammed-earth construction technology	We are talking about the construction of walls of low-rise buildings of pressed earth. Rammed-earth walls accumulate heat well, during the permanent residence in a house in the hot summer months, air conditioning is almost not needed. Small pore structure of the walls smooths the fluctuations of humidity indoors. This technology is fireproof.

Source: authors' work

An important component of the market development and practices of ecological building is mega-projects in Sochi and other cities which take the Football World Cup in 2018. Most of these construction projects will be certified in accordance with international and national standards of sustainable construction. In this regard, V.V. Putin said that such technologies were used for the first time in Sochi, which are called "green environmental standards," and in the future it is planned to extend these technologies around the whole country.

In April 2010, the Ministry of Finance of Russian Federation reduced the funding for the program "Energy saving and energy efficiency for the period till 2020". It turns out that the state is making efforts to implement large-scale projects and at the same time trying to save money. In case if we compare, for example, with the United States, where the value of tax benefits for companies that use renewable sources of energy, is equal to 2.3 billion dollars. In Finland, for financing development of renewable energy sources (e.g. wind turbines), each year the country spent 100 million euro. Today in Finland, the proportion of energy that is derived from renewable sources of energy, is equal to 28% and in 2020 the state was going to increase this number to 38%. Russia plans to achieve by 2020 only five percent share of energy from renewable energy sources in relation to the total volume of electricity.

Once in this unthrifty attitude to energy resources, it can be period when our country will become a major energy consumer of major exporters of energy resources.

According to paraphrase a famous folk character, the destruction around us is not going anywhere until the destruction of our heads does not disappear. Before carrying out of energy efficiency projects in our country it is necessary at first, to change the attitude and a new approach to this issue: the citizens, housing and utilities sector and public authorities, etc.

It is important to emphasize that the ecological construction in Russia is developing very slowly. For example, the Housing Reform Fund is actively supporting the construction of the experimental low-floor ecological buildings. One of the objects of the Foundation is the "House of Hope" in the Tula region, which is also the subject of a pilot of the Russian Corporation of Nanotechnologies.

Currently, the Russian Corporation of Nanotechnologies has invested its money in more than fifteen projects that are connected with natural materials and energy efficient technologies.

Today, in the Volgograd region the problem of using energy-saving technologies is particularly actual. Volgograd houses have very low energy efficiency. There is a huge energy loss. Energy losses are mainly thermal. In the Volgograd region heat losses reach almost 50%. And in these conditions eco-friendly houses stand out profitability. Thermal energy is lost by 3 main ways:

- through walls, floor, ceiling,
- through the windows,
- through the ventilation

The first way of heat losses are walls, floor and ceiling. Thermal insulation materials are used in the insulation, which are lots of. Thermal insulation materials can reduce energy consumption for heating buildings. The most popular of them are: polystyrene foam, polyurethane foam, mineral wadding, XPS slabs and expanded clay.

There is short characteristic of the advantages of these materials. Polystyrene and foam have a low thermal conductivity and high resistance to damage by microorganisms. Polyurethane foam is durable and not prone to disintegration of material. Mineral wadding and XPS boards are non-toxic, durable, resistant to ultraviolet rays. Expanded clay is a lightweight fire-resistant, heat and sound insulation and moisture resistant material.

In some cases, the sawdust is used as a heater. Usually it is used for insulation of attic floors, walls and floors. The main advantages of this material are low price and that it is environmentally friendly, which is absolutely not harmful to health, as it does not emit toxic substances. The disadvantage is that this material has a high flammability. To reduce the fire probability it is recommended to mix sawdust with other materials such as cement and clay. You should also provide quality insulation of electrical cables in locations where they will cross the heater. Particular attention should be paid to insulation of chimney where it passes through the attic floor or placed against a wall.

The following way of thermal energy losses are windows. Currently the windows with high thermal resistance are actively developed. They do not lose thermal radiation to the outside.

Another way of thermal energy losses is breathability. To solve this problem, there are now a lot of decisions, some of which are: the improvement of indoor air quality and the use of heat pumps.

Thus, the warming of the house allows you to not only make the indoor climate more comfortable, but also to achieve greater energy savings and assets.

4. Conclusion

Thus, the idea of ecological house is becoming increasingly popular. This is the idea of the modern energy-efficient housing, built with the use of new innovative technologies with natural materials. This house is safe and significantly reduces the burden on the environment.

Of course, ecological construction is one of the necessary conditions for a more prudent use of natural resources of our planet and of the environment in general. In Russia this trend is becoming more relevant and only starts to develop.

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THE DEVELOPMENT OF TOURISM CONSUMPTION IN CATERING

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Abstract. If we consider the scope of tourism, by its nature, it can be considered as a global industry already for years, and despite initial slow development compared to other sectors, the pace of globalization penetrates into all areas of tourism, that is accommodation services, but also services of travel agencies, accommodation, transport, goods, services related with tourism and catering. The last designated by the sector is linked mainly with crossfade, ethnic cuisine trends. It is not rare that today the restaurant serves exotic elements in the kitchen. Occurs to the expansion franchise companies fast food (McDonald's, KFC, etc.). Catering services have a dominant position in the tourism sector. Catering services will absorb 30.9% of the workers of the tourism industry and to the overall employment of national economy shall contribute 1.3%. Just as hotels and accommodation services generate the highest consumption of catering services in the tourism sector, which can be considered as one of the indicators of the level of catering services. The development of internal tourism consumption (home and road) is highly sensitive to the economic-political events. Above all, it affects the development of the visitation, that depends on the development of price indices, exchange-rate developments and is currently developing a migration crisis. The article deals with the analysis of the development of consumption in the catering segment. In the context of the work will be created model in the internal tourism consumption using the methods of comparison of factors influencing consumption and statistical analysis. The conclusions of the talks about the positive developments in the consumption and increasing the use of catering services.

Keywords: globalization, tourism, catering, commodities)

JEL Classification: P51, F6, Z32

1. Introduction

„Globalizace je přirozený a nevyhnutelný projev integrace společnosti …“ (Jeníček, 2002)[5], „…která se zhmotňuje v množství změn, a to jak v ekonomické, tak i mimoekonomické sféře“. Globalizace přináší negativní i pozitivní změny, lze ji chápat jako provázané procesy, vedoucí k řadě různě významných globálních posunů či změn. U globalizačních vlivů na cestovní ruch (CR) lze nalézt paralely např. s vlivem klimatu (Paquin, et al, 2016). V souvislosti s CR lze hovořit o ekonomické globalizaci ve smyslu rostoucí integrace otevřením a propojením geograficky rozptýlených ekonomických aktivit, ke kterým dochází prostřednictvím trhů a

[5]Zvyšuje se závislost trhů a výroby různých zemí díky dynamice obchodu se zbožím a službami, pohybem kapitálu a technologií (Jeníček 2002).

pohybu participujících subjektů. Mezi nejčastěji jmenované dopady globalizace patří časoprostorová komprese, která vyjadřuje narůstání schopnosti prostorového pohybu, ten ve spojení s globálním charakterem průmyslu CR předurčuje zvýšenou citlivost faktorů CR na socioekonomické prostředí. Vztahy a závislosti jednotlivých veličin a faktorů CR jsou poměrně obsáhle diskutované. Většina výzkumů a statistických šetření vychází z komparace hlavních ekonomických ukazatelů a faktorů CR, řeší však zpravidla prioritní faktory, zejména změny souvisejících s ubytovacími kapacitami, návštěvností, spotřebou či tvorbou fixního kapitálu. Například (Li et al, 2016), (Santeramo & Morelli, 2016) nebo (Sanchez et al, 2016) používají výše uváděné faktory, průřezový, segregační a diferencovaný přístup[6]. Eliminaci globalizačních faktorů naopak zkoumá (Romão et al, 2016). V souvislosti s analýzami vnitřního cestovního ruchu lze předpokládat, že dochází k tlaku vyvolanému působením nerezidentů a jejich specifickými požadavky na vybrané služby, které potom mohou výrazně ovlivnit i chování rezidentů. Tyto závislosti jsou důsledkem importu kultur nerezidentů do prostředí rezidentů. Spotřebitelé v různých zemích tak poptávají podobné věci a sdílejí podobné kulturní symboly. Vytváří se prostor pro marketingové prostředí, například v segmentu stravovacích služeb, bez ohledu na regionální specifika (Coca-Cola, KFC, McDonald atd.). V tomto smyslu byla položena výzkumná otázka, zda se dají najít souvislosti mezi vybranými službami spojenými s cestovním ruchem a globalizačními změnami v segmentu stravování, následně pak byla vyslovena hypotéza, že existují vztahy mezi stravovacími faktory vyjádřenými pomocí charakteristických potravinových komodit a ostatními faktory CR. Obdobné výzkumy nejsou příliš frekventované, například závěry (Nilson, 2011) konkretizují problematiku pouze pro specifický region a zejména z pohledu marketingu cestovního ruchu mají druhořadý význam. Pro zodpovězení otázky a případné potvrzení hypotézy byla zvolena komparace a zjednodušená regresní analýza, spočívající ve vytvoření zjednodušeného modelu časových řad převodem do škály hodnot 0-10 a výpočtem korelačních koeficientů. Množina korelujících faktorů byla použita pro dílčí shlukovou analýzu a pro následné srovnání s reálnými hodnotami časových řad. Všechny tabulky a obrázky uváděné v textu byly z důvodu omezení rozsahu příspěvku přesunuty na www.pracres.eu, kde jsou volně dostupné.

2. Materiál a metody

Globalizace prolnula čas a kulturu do všech oblastí CR, tzn. ubytovacích služeb, ale i služeb cestovních kanceláří a agentur, ubytování, dopravy, zboží, do služeb spojených s cestovním ruchem a do stravování. Poslední jmenované odvětví je spojeno především s trendy prolínání se etnických kuchyní a již zmíněných nadnárodních řetězců. Významnost segmentu CR v procesu globalizace zmiňují např. (Daneshvarinasab, 2012), zejména z pohledu bezpečnosti, nebo (Hajibaba, 2015). Model pro analýzy vychází z vytvořené datové základny ve formě kombinovaných tabulek, výsledná data jsou potom použita pro vytvoření shluků a primární a sekundární komparační analýzu. Základní data v tabulkách vychází ze standardních dostupných datových podkladů Českého statistického úřadu (ČSÚ) rozšířených o data Ministerstva pro místní rozvoj (MMR) a další dostupné zdroje. Většina komparačních analýz vychází z dat definovaných, specifikovaných faktorů, ovlivňujících CR, mezi něž patří faktory ekonomické, sociální, psychologické, kulturní, demografické, ekologické, technické, politické a administrativní faktory (Gavlovský, 2002), (Palová, 2014), s dílčími modifikacemi a s

[6]Například v poslední době publikoval (Li. et al, 2016) komparaci obsazenosti hotelů a počtu turistů na základě zpracování online dat, toky v CR se zabýval (Santeramo a Morelli, 2016), metodologií a potenciálem venkovských destinací se zabýval (Sanchez, 2016) atd.

přihlédnutím k lokalizačním a realizačním podmínkám (majícím ve vztahu k rozvoji CR zpravidla druhotný význam). Odvětvová skupina je vymezena jako CZ-NACE[7], sekce I – Ubytování, stravování a pohostinství (krátkodobé ubytování hostů a poskytováni kompletního stravování určeného k okamžité spotřebě). Sekce nezahrnuje dlouhodobé ubytování, přípravu jídel a nápojů, které nejsou určeny k okamžité konzumaci nebo se prodávají přes nezávislé distribuční kanály, tj. prostřednictvím velkoobchodu nebo maloobchodu. Sekce se skládá ze dvou oddílů (CZ-NACE Oddíl 55 Ubytování a CZ-NACE Oddíl 56 Stravování a pohostinství). Oddíl 56 zahrnuje činnosti spojené s kompletním stravováním, vč. nápojů, s obsluhou, okamžitou spotřebou v tradičních restauracích, v samoobslužných restauracích nebo restauracích, které prodávají jídla „přes ulici“, nezávisle na tom, zda jsou stálé nebo občasné, s možností posezení či nikoli[8]. Matematicko statistické analýzy dále využívají metodiku časových řad ČSÚ. Vzhledem k tomu, že vnitřní (interní) cestovní ruch (domácí a příjezdový) je cestovní ruch rezidentů i nerezidentů na ekonomickém území sledované země[9], bylo nutné nalézt jednotnou metodiku a přístup k datům. Datové podklady, zejména v oblasti stravovacích služeb, nejsou konzistentní díky měnící se metodice. Z těchto důvodů vychází data rovněž z projektů na zkvalitnění statistických dat CR[10] MMR, mezi aktuální projekty patří šetření stravovacích zařízení, plošné šetření CK[11] a CA a šetření příjezdového cestovního ruchu. Při výběru komparačních faktorů bylo nutné zohlednit co nejširší datové spektrum, a to s vědomím, že odvětvová data a statistiky nemusí být konzistentní z důvodů různých metodik používaných pro sběr a zpracování. Datové spektrum bylo proto finálně normalizováno do škály 1 až 10 na základě (1). Normalizovány byly roky 2010-2014. Obdobné úpravy používá např. (Botlíková, Botlík, Kostková, 2015).

$$a_{i,j} = zaokrouhlit\left[\left(\frac{\left(a_{k,l} - \min\limits_{k=1}^{n}(a_k)\right)\times 10}{\max\limits_{k=1}^{n}(a_k) - \min\limits_{k=1}^{n}(a_k)}\right);0\right] \tag{1}$$

a_{ij} = normalizovaná hodnota, a_{kl}=původní hodnota, kde n=počet roků, m=počet faktorů, k=1až n, i=1až n, j=1až m, l=1 až m

Normalizace hodnot a korelační předzpracování je dále podmíněno revizemi indexu spotřebitelských cen[12] použitých při analýzách, kdy v roce 2013 došlo k dílčí revizi spotřebního koše, od ledna 2014 jsou indexy spotřebitelských cen počítány na aktualizovaných vahách, které vycházejí z výdajů domácností statistiky národních účtů v roce 2012. Od roku 2014 došlo dále ke změně základního období z prosince 2011 na prosinec 2013 u cenových indexů.

[7]Sbírka zákonů ČR, Sdělení ČSÚ ze dne 18.9.2007 o zavedení Klasifikace ekonomických činností (CZ-NACE)
[8]Rozhodující je skutečnost, že jsou nabízena jídla k okamžité spotřebě, bez ohledu na druh zařízení, které je poskytuje. Nespadá sem výroba jídel, která se nehodí k okamžité konzumaci, nebo potravin, které nejsou považovány za jídlo, výroba potravinářských výrobků a výroba nápojů. Dále sem nepatří prodej jídla, které není vlastní výroby nebo jídel, která nejsou určena k okamžité konzumaci.
[9]Oproti Národního CR (domácího a výjezdového), který je CR rezidentů na ekonomickém území i mimo ekonomické území sledované země je zúžený pouze na příslušné území, je však rozšířen i o nerezidenty. Tím se jeví příhodnější pro tvorbu modelů analyzujících chování faktorů CR a jejich vztahy.
[10]Prezentace „Aktuální data statistiky CR“ ministerstva pro místní rozvoj ČR a ČSÚ z května 2015 (dostupné na http://www.mmr.cz/getmedia/d85b6749-4a0d-49bf-8e93-759a7d38386c/PPT_web.pdf?ext=.pdf)
[11]CK – cestovní kancelář, CA – cestovní agentura
[12]http://csugeo.i-server.cz/csu/redakce.nsf/i/isc_metodicka_prirucka/$File/manual_isc_2015.pdf

Vzhledem k tomu, že výpočet indexů (blíže[13]) spotřebitelských cen je prováděn na stálých váhách podle vzorce (2), byla normalizace dat v některých případech nutná[14].

$$I = \frac{\sum \frac{p_1}{p_0} \times p_0 q_0}{\sum p_0 q_0} \times 100 \qquad (2)$$

I: index za sledované období k základnímu období (bazický index) p1: cena zboží (služby) ve sledovaném (běžném) období, p_0: cena zboží (služby) v základním období $p_0.q_0$

3. Normalizovaná data

Primární příjmová a výdajová stránka v segmentu CR vychází podkladů ČNB a analýz MMR[15] a je prezentována v tabulce 1. Tabulka je rozšířená o meziroční index. Ministerstvo pro místní rozvoj používá informace o vývoji CR v České republice ve vztahu k příjmům a počtu zahraničních turistů v České republice, zahraniční cestovní ruch ČR dle platební bilance ČNB je posuzován devizovými příjmy a výdaji. Pravá, zvýrazněná část tabulky obsahuje normalizovaná, škálovaná data pro analyzovaný interval 2010-2014, podkladová data jsou v levě části tabulky[16]. Ve sloupci „č“ jsou jednotlivé faktory číslovány pro zjednodušení vizualizace výsledků. Vývoj odvětví CR a jeho význam pro národní hospodářství ČR lze demonstrovat na vývoji agregovaných ukazatelů Satelitního účtu cestovního ruchu ČR (dále TSA) a jeho Modulu zaměstnanosti (tabulka 2). V odvětví CR působí mnoho malých a středních podniků, které zaměstnávají velké množství pracovníků - a to i v regionech, kde by jinak hrozila vysoká míra nezaměstnanosti[17] (ekonomicky méně aktivní a odlehlé regiony). Tyto regiony jsou potencionálním prostorem pro cílení aktivit nadnárodních řetězců a tím mohou indukovat v rámci globalizace import cizích kultur a stravovacích návyků a to i v souvislosti s následným vnitřním CR. Pro analýzu podílu cestovního ruchu jako odvětví na HDP jsou opět použita data zmíněného TSA[18] , který je na národní úrovni nezastupitelným analytickým a informačním podkladem pro rozhodování státních orgánů a odborné veřejnosti. Systém TSA, jako průřezový meziodvětvový účet[19], je odvozen z upravené soustavy standardních národních účtů[20]. Tabulka 3 obsahuje vybrané faktory na základě TSA. Na základě TSA je vybrána i další skupina faktorů, které jsou podstatné pro analýzy CR, zejména pak v oblasti vnitřního CR, elementární faktory související s ubytováním jsou v tabulce 4. V souvislosti s ubytovacími kapacitami je prospěšné evidovat a analyzovat obecně vývoj počtu turistů a návštěvníků, jako nositelů globalizačních znaků, zejména v segmentu sociálně kulturních aspektů a s tím souvisejícími stravovacími návyky různých etnik. Na základě již zmiňovaných kulturních a stravovacích odlišnosti etnik

[13]http://docplayer.cz/15222450-Metodika-stanoveni-regionalnich-spotrebnich-kosu-a-cenovych-parit-pro-kalkulaci-regionalnich-cenovych-hladin-regionalniho-cenoveho-indexu.html
[14]V roce 2013 došlo ke změně bazického období krátkodobých statistik. Základní období u bazických indexů se změnilo z průměru roku 2005 na průměr roku 2010. Došlo k použití nových váhových schémat.
[15]Česká národní banka, Ministerstvo pro místní rozvoj
[16]Stejné členění je použito u. tabulek 1 až 12. Rozdílnost časových intervalů v levých částech tabulek je daná dostupnými daty a pohybují se v intervalu 2009/2010-2014/2015, škálovaná data jsou vždy v intervalu 2010-2014
[17]Akční plán ke Koncepci státní politiky cestovního ruchu 2014 – 2020, období 2015 – 2016, MMR, dostupné na“ http://www.mmr.cz/cs/Regionalni-politika-a-cestovni-ruch/Cestovni-ruch/Koncepce-Strategie/Akcni-plan-ke-Koncepci-statni-politiky-cestovniho-ruchu-v-CR-2014-20
[18]TSA je světově uznávaným systémem, který umožňuje mezinárodní srovnávání statistik CR. Je podporován všemi významnými mezinárodními organizacemi v oblasti cestovního ruchu (EUROSTAT, OECD, UNWTO).
[19]Odborným garantem za TSA je ČSÚ, MMR a NB. Hlavními zdroji údajů je hraniční šetření o příjezdovém CR MMR, ubytovací statistika ČSÚ a výběrové zjišťování o výjezdovém a domácím CR rezidentů (ČSÚ).
[20]Podklady dostupné na: https://www.czso.cz/csu/czso/tabulky_satelitniho_uctu_cestovniho_ruchu

lze vyvodit indukování změn v poptávce prvků spotřebního koše v segmentu potravin, zejména v souvislosti s odlišnou strukturou asijských jídel (vyšší podíl rýže apod.) či víry arabských etnik (zvýšená poptávka po hovězím a jehněčím mase na úkor vepřového apod.). Tabulka 6 obsahuje meziroční vývoj vybraných ukazatelů spotřebního koše, výčet není úplný, je podmíněn dostupností dat a charakterem analýzy. Tabulka ukazuje spotřebu na jednoho obyvatele v měrných jednotkách. Není prokazatelné, že změna spotřeby ukazatelů je podmíněna spotřebou turistů, v souvislosti s analýzou globalizačních faktorů je však podmíněna nárůstem stravovacích zařízení zaměřených na etnika nebo provozována etniky (vietnamské či čínské restaurace, kebaby) i invazí nadnárodních řetězců (Mc Donald, KFC apod.) a sortimentem těchto řetězců. Na poptávkové straně TSA je významným faktorem spotřeba účastníka cestovního ruchu, jako, „výdaje návštěvníků“. Podle typu a kategorie cestovního ruchu se odvozují jako agregáty, spotřeba domácího CR, spotřeba příjezdového CR, spotřeba výjezdového CR, spotřeba vnitřního CR a spotřeba národního CR. V souvislosti s analýzami mají význam při sledování tvorby hrubého fixního kapitálu v cestovním ruchu. I v tomto segmentu docházelo ke změnám v metodologii[21]. Datové podklady pro komparaci faktoru Spotřeba cestovního ruchu (SCR) jsou v tabulce 7. V souvislosti se spotřebou je nutné upřesnit faktory ze spotřebního koše (tabulka 6). Je zřejmé, že spotřeba potravin je podmíněna nejen potřebností, ale i cenovou hladinou a možnými substituty. Tabulka 8 obsahuje cenový vývoj v segmentu potravin uváděných ve spotřebním koši. V oblasti stravování a ubytování patří do spotřebního koše i Big Mac Index, který má odlišnou metodiku sběru dat[22]. Tento index může napovídat o možném zkreslení spotřeby globálního produktu koupěschopností obyvatelstva příslušného regionu. Hodnotu indexu uvádí tabulka 9. Vybrané hodnoty ukazatelů stravování a pohostinství (CZ-NACE, oddíl 56), vychází ze Statistické ročenky České republiky – 2015 a jsou uvedeny v tabulce 10. Zdrojem dat je roční strukturální šetření ekonomických subjektů vybraných produkčních odvětví doplněné o informace z administrativních zdrojů. Data byla doplněna z dalších šetření a statistik. Tabulky 11 a 12 ukazují pak další ukazatele CZ-NACE 56, a to zejména indexy týkající se tržeb.

4. Vlastní analýzy

Normalizovaná a škálovaná data jsou uváděna v tabulkách 1 až 12 v pravé části, šedě označené. Představují zjednodušený průběh chování vybraného faktoru ve sledovaných letech. Pokud se časový interval průběhu reálné hodnoty sledovaného faktoru liší od normalizovaného, je normalizovaný zkrácen na roky 2010-2014, takto mají normalizovaná data shodný rozsah. Původní intervaly jsou u reálných hodnot ponechány pro komparaci. U vybraných 84 faktorů (číslování faktorů je rovněž v tabulkách 1-12) byly zjištěny korelační koeficienty (R). Následně bylo vytvořeno 8 skupin korelací podle hodnoty korelačního koeficientu. Hranice pro jednotlivé slupiny byly stanoveny podle R s ohledem na možnou pozitivní a negativní korelaci. Tabulka 13 ukazuje stanovených 8 skupin a počty vzájemných korelací s R v příslušném intervalu. Lim1 udává počet výskytů shod v intervalu, kde R>0,9, tedy vysoký stupeň shody. Lim2 udává shody pro R>0,8 nepatřící do Lim1. Hodnoty označené „-Lim“ označují stejné intervaly pro negativní korelaci, tj. „-0,9“ a „-0,8“. Pro všechny faktory byly dále spočítány hodnoty mimo sledované

[21] V Registru hromadných ubytovacích zařízení ČSÚ a došlo k revizi dat kapacit i návštěvnosti za roky 2012 a 2013 v rámci projektu Ministerstva pro místní rozvoj "Zkvalitnění informací o vybraných sektorech cestovního ruchu". Nově srovnatelné údaje jsou publikované od roku 2012.

[22] Standardně vývoj indexu vychází z terénního zjišťování, položky hamburger BIG MAC – fast food, jsou zjišťovány centrálně

intervaly (tabulka 13 – „none“), sumy kladných a záporných korelací sledovaných intervalů a celková suma korelujících faktorů. Srovnáme-li četnosti a rozptyly v počtu korelujících veličin v celém souboru hodnocených faktorů a v dílčích podmnožinách, ve faktorech týkajících se komodit a ve faktorech souvisejících s vnitřním cestovním ruchem (VCR), vidíme v tabulce 14 (s - suma, p – průměr, m - medián, ro - rozptyl, so – směrodatná odchylka), že poměr nekorelujících ke korelujícím v celé množině je 1,89, v komoditách 2,09 a ve VCR 1,34. Je zřejmé, že neplatí, že by se poměr lišil s velikostí vzorku. Komodity tedy vykazují nejmenší poměr, přestože by bylo logické, že budou více kopírovat cenový vývoj a tedy budou vykazovat shodu ve vývoji cenově závislých veličin. To prokazuje i nejmenší medián. Rozptyl u komodit a směrodatná odchylka jsou větší než u VCR ale menší, než u celého vzorku. VCR má vysokou hodnotu mediánu, nejmenší rozptyl a směrodatnou odchylku, tedy vykazuje největší stabilitu korelací. Z těchto srovnání lze vyvodit závěr, že korelační vztahy budou mezi vybranými podmnožinami a zbytkem faktorů existovat, dokonce budou poměrně silné. Vzhledem k analyzovanému problému byla finálně srovnána spotřeba vnitřního CR v segmentu Stravování. Byly provedeny sekundární korelace, které sledovaly shodnost výskytu a četností původních korelačních vztahů (byly sledovány shody v chování závislostí mezi faktory – korelace statistických výsledků prvotních korelací)) s cílem ověřit shodnost korelačních vztahů jednotlivých faktorů. V tabulce 15 jsou přehledně faktory vnitřního cestovního ruchu, zvýrazněný je faktor stravování (56), tabulka ukazuje sekundární korelační koeficienty k ostatním faktorům. Pro vizualizaci v tabulce 15 byly zvoleny tři úrovně – R>0,8, R>0,9 a R>0,99, úrovně jsou odlišeny sytostí červené barvy v tabulce, negativní korelace nebyly sledovány, protože se zjišťovaly shody ve statistických veličinách prvotních korelací. Na základě tohoto vzorku byly vytvořeny tři shluky – s velmi silnou závislostí, vysokou závislostí a standardní závislostí. Shluky a korelující faktory ukazuje tabulka 16.

5. Discussion and Conclusion

Finálně tedy byly vytvořeny tři skupiny korelujících faktorů, přičemž z pohledu výzkumné otázky a hypotézy existuje standardní sekundární korelace mezi faktorem VCR Stravování a třemi komoditami, cenou sýrů, rýže a zeleniny. Tyto korelace jsou poměrně slabé, korelační koeficient je v intervalu R>0,8 a R<=0,9. Levý graf na obrázku 1 ukazuje průběh uváděných faktorů, osa y je upravena, faktor 56 je v tisících a faktor 64 v desítkách jednotek, průběhy vykazují podobnost v intervalu 2010-2014 s výjimkou faktoru „zelenina“. Vysoký stupeň korelace (R>0,9) je mezi VCR Stravování a faktory souvisejícími s cenou masných výrobků a těstovin. Vysoký stupeň korelace je dále mezi faktory VCR Stravování, Výdaje CR, Počet zaměstnaných osob NH, faktory Satelitního účtu CR (Daně mínus dotace, Hrubá přidaná hodnota celkem, Hrubý domácí produkt atd.), Příjezdový CR, Příjezdová SCR, Domácí SCR a Ubytování (CZ-NACE 55). Velmi silná korelace na stejném časovém intervalu existuje mezi VCR vnitřním, VCR vnitřním – Stravování a mezi Big Mac Indexem, což vyjadřuje spíše provázanost na kupní sílu obyvatelstva. Vysoký stupeň korelace je potom mezi faktory VCR Stravování, Výdaje CR, Počet zaměstnaných osob NH, faktory Satelitního účtu CR (Daně mínus dotace, Hrubá přidaná hodnota celkem, Hrubý domácí produkt atd.), Příjezdový CR, Příjezdová SCR, Domácí SCR a Ubytování (CZ-NACE 55). Hodnoty faktorů pro jednotlivé skupiny jsou přehledně srovnány v reálných hodnotách (opět upravených v řádech na ose y na shodné jednotky) v grafech na obrázku 1, v prostřední části je vysoký stupeň korelace a v pravém grafu velmi silná korelace (R>0,99). Z výše uvedeného je prokázána závislost mezi spotřebou potravin spotřebního koše, zejména masa, sýrů, rýže a těstovin a VCR, což může mít souvislost s globalizací nabídky v segmentu stravovacích služeb. Korelace ovšem neprokazuje příčinné souvislosti, ukazuje na vazbu charakteristickou společným chováním v čase, vzhledem k sekundárním korelacím ukazuje i na hlubší souvislosti (obdobné chování statistických ukazatelů jednotlivých korelačních faktorů). Vzhledem k prokázání příčinných souvislostí byly konfrontovány změny ve spotřebě a cenové relace komodit ve spotřebitelském koši. Na grafech na obrázku 2 a v tabulce 17 lze vysledovat negativní korelaci mezi spotřebou masných komodit a cenou sledovaných potravin. U komodity Rýže je pozitivní korelace vylučující závislost spotřeby na ceně. Pozitivní korelace je vysledovatelná dále mezi spotřebou a cenami rýže, těstovin, zeleniny a sýrů[23]. Na otázku, zda se dají najít souvislosti mezi vybranými službami spojenými s cestovním ruchem a globalizačními změnami v segmentu stravování lze odpovědět v kontextu závěrů jiných autorů, např. (Carlson, et al., 2016) zkoumal společné a individuální zkušenosti zákazníků, že souvislosti existují, nelze však jednoznačně potvrdit příčinnou souvislost. Souvislosti byly prokázány na vybraných faktorech pomocí primárních a sekundárních korelací normalizovaných dat. Vlivy globalizace na CR potvrzuje rovněž (Kostkova, 2015) nebo (Pellešová, 2015). Hypotéza, že existují vztahy mezi stravovacími faktory vyjádřenými pomocí charakteristických potravinových komodit a ostatními faktory CR se potvrdila především u komodity rýže, kde nebyla potvrzena závislost spotřeby na ceně a to i při omezené množině faktorů související pouze s vnitřním CR. Je tak potvrzen globalizační vliv především asijských kultur, vzhledem k časové ose se neprojevil globalizační efekt migrační krize a arabských kultur. Příspěvek si neklade za cíl detailní analýzu, ale na základě dostupných dat a vybraných komodit charakteristických pro regionální stravování prokázat nebo vyvrátit globalizační vlivy v cestovním ruchu v segmentu stravovacích služeb související především s pronikám cizích kultur.

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THE QUESTION OF THE CORE COMPETENCIES OF SMALL INNOVATIVE COMPANIES OF GLOBAL SIGNIFICANCE IN THE INNOVATION MESOECONOMICS

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Abstract. Increased competition in the global and regional, as well as on the level of individual firms dictate the need to define the role of the human capital of knowledge support and skills that referred to in economics as "competence", "competitive advantage" and determines the importance of their formation. There are different theoretical approaches to the content of these concepts. Foreign authors are considering more behavioral characteristics of a person. Russian approaches relate to the skills and abilities of the staff. A common view of all scientists is the importance of building competencies and competitive advantages for any company, including for small innovative. One of the author's approach is that the core competencies of small innovative firms formed under the influence of certain factors, which include scientific, technological, industrial legal, financial base, as well as the scope of the provision of innovative services. The scientific base promotes educational level and forms a basic level of core competencies. The technological base involves the development of scientific and technical cooperation and the possibility of obtaining new technologies. Manufacturing allows you to interact with large firms to build production lines for innovative products. Activity in the provision of innovative services contributes to more efficient work than its competitors. The authors note that due to the interaction of two levels: micro mesoeconomics and created the basis for the development of small innovative firms and their core competencies, as well as for the economic growth of the region.

Key words: competence, competitiveness, innovation, small firms.

JEL Classification: I031

1. “Competence” and “innovation mesoeconomics” theory

The etymology of the "competence" concept has the following interpretation: match; knowledge and experience in a particular activity; range of issues and awareness in the field of knowledge. The term "competence" (Latin competens -. Appropriate) is used in a variety of ways. It is used to denote the range of authority that certain bodies and individuals have or should have in accordance with laws, regulations, articles, and instructions (Raizberg et al., 2003;)

The term "competence" is also used in the field of education; it is to be formed in students after completing curriculum, practices and educational programs. Knowledge is the thermonuclear competitive weapon of our time. (Holsapple & Singh, 2001). Psychologists apply results of research of competence approach for selection of employees. In the study, the authors consider "komptentsiyu" in relation to "innovative mesoeconomics".

Under the innovative mesoeconomics we mean concentration in a dedicated space of mezoeconomic region of innovation base of aggregate industries capable of generating innovative development and bring it to the level of commercial use. Meso level is defined as the activity and collaborative engagement of companies and their groups - financial and industrial structures, complexes, industries, and markets (Gasanov et al., 2016). The main impulses for innovations flow to the meso level are small innovative firms placed at the micro level and forming the core competencies. Therefore, the study of key competencies formation for the business environment is of big interest.

1.1 Development of the "competence" and "core competence" for the business environment concepts in the foreign and Russian practices

The study of the development of definitions of "competence" for the business environment shows that there are different approaches in works of Russian and foreign authors.

In foreign studies, competence approach is determined by the creation and implementation of the professional qualification system that was implemented by the national council for the professional qualifications of the UK. In this system, levels of competence of solving professional problems in accordance with the requirements of employers in different fields are highlighted. There are also independent competency evaluation systems that do not take into account methods of their acquisition and that have been used in the European system of accreditation of skills and the Social Europe model. A distinctive feature of this system is that career growth is ensured not only by the elite education, but also through the acquisition of experience or self-education.

For example, in the United States in the 1970s, scientists first determined the competence of the employees with the highest efficiency and then carried out selection, training, and other types of professional development of other workers adjusting their behavior in accordance with the standards of the behavior of the best employees. European countries used competence when creating competence standards for the core professional groups that formed the basis for the development of National Vocational Qualifications standards.

It should be noted that both in the US and Europe, competence approach was due to the accelerated development of an innovative economy, which required improving the training of human resources. The study of the content of the "competence" concept also revealed different views of foreign scientists. Thus, Steve and Sarah Uildetta Hollyford consider the competence as human behavior that is demonstrated in the effective implementation of tasks within an organization. Patricia Marshall sees competence as a basic human trait that allows him to carry out work, perform a social role or act in a certain situation at the highest level. McClelland considers the competence of an employee as a characteristic that can be measured and distinguishes employees demonstrating high results from the workers showing poor results. It should be noted that in most works of foreign researchers "competence" is considered from the standpoint of management personnel.

According to foreign authors - industry developed its own set of "competitive priorities:" cost, quality, dependability, flexibility, and innovativeness. These "competitive priorities" are sometimes used as measures of (external) competitiveness and sometimes of (internal) competence (Corbett & Wassenhove, 1993).

Schumpeter J. A. gave another meaning of the concept of "competence" in his work "The Theory of Economic Development". He stressed that the establishment of an enterprise requires major talents: "If anyone has everything you need to succeed ... he can get the desired loan and will be able to produce a good and deliver it to the market at the lowest cost. His success will pave the way to others creating a sample, which will be followed". J. A. Schumpeter distinguishes the features of an entrepreneur: "He is a model for others to follow". It should be noted that he mentions the creation of a new good that better meets the needs of consumers (Schumpeter, 2008).

In Russia, "competence" is also defined in terms of the development of skills and abilities of the staff. Professional community of employers shows their interest towards the qualification standards. Professional Standards Board of the Russian Union of Industrialists and Entrepreneurs recommends to use 70 professional standards that are based on the competency approach. Analysis of the theoretical considerations of the Russian authors revealed a similar to the findings of foreign scientists' pattern. Thus, E. F. Zeer thinks that competence is a set of professional knowledge and skills, as well as the ways to perform professional activities. Kibanov A. Y. considers competence as a rational combination of knowledge and skills of employees of an organization, which they have in a short period of time. Shekshnia S. V. describes competence as the ability to consistently perform certain functions and certain manufacturing activities.

It should be noted that at present Russian and foreign researchers indicate the importance of the formation of key competencies in the business environment considering competence as knowledge, skills, and communication of a firm in the market ensuring its superiority over competitors (Chulanova, 2015,).

Russian and foreign authors also have different approaches to the formation of core competencies. In the paper of Faltsman V. K., core competencies include technological know-how; support of production and marketing; external contacts and communication (Faltsman & Krulatikh, 2014).

Prahalad and Hamel noted the importance of core competences in achieving the organization's performance in the current competition: "To create and maintain market and intellectual leadership globally as well as in the long term, companies will need to win at all levels." They identified three levels: the market of finished products, i.e. price competition in the coordinates and parameters of functioning (such as market share); key products (new functional characteristics and speed of product development), and core competencies that will enable the creation of new businesses by combining creative skills. Portfolios of different business organizations or companies may vary in the same competitive space; however, core competencies always consist of a combination of different technologies; collective learning; and the ability to distribute information (Druckman, 2004).

The success of an organization depends on the presence of its unique resources and organizational abilities (competencies) of the personnel, who determine the competitive advantage of the organization (Ryan & Deci, 2000).

As it can be seen from the above, the concepts of "com petence" and "core competencies" for the business environment are given great attention. It should be pointed out that the concept of "core competencies" has been insufficiently studied in depth, and in particular in relation to small innovative firms. Hereinafter, the study will focus on core competencies of small innovative firms and characteristics of their formation in innovative mesoeconomics .

1.2 Formation of the core competencies of small innovative firms in the innovation mesoeconomics

As noted above, in the innovation mesoeconomics a micro level is identified within which small innovative firms operate and where the formation of their core competencies appears to be most important. In it is shown that the core competencies of small innovative firms may be defined as the skills and abilities that allow providing consumers with benefits and ensuring competitive advantage (Kotler at al., 2012). Competitions has been posited as a motivating force on people̓s self-set goals. (Brown at al., 1998). According to the author, the core competencies of small innovative firms can take various forms including technical / substantive expertise and reliable process and / or long-term relationships with customers and suppliers (Solomennikova, 2012; Peng at al., 2009).

To form the core competencies of small innovative firms it is necessary to provide certain conditions. Such conditions are created by innovative mesoeconomics. At the microeconomic level, a scientific, technological, legal, manufacturing, financial base, as well as the scope of the provision of innovative services are formed.

As a result of the interaction of all elements of the created system, core competencies are developed. It is worth mentioning that not only the formation of meso-economic space is important but also creation of an innovative segment in it that is capable of bringing mesoeconomics to sustainable economic growth due to the factors of endogenous nature (Adams at al., 2013; Budd & Hirmis, 2004). For this to happen, interaction of two levels is necessary: mesoeconomics and microeconomics. As a result of their union, a synergistic effect is created that promotes the development of small innovative firms and the formation of their core competencies.

2. Conclusion

The first results of the study have brought to the conclusion that in the foreign and Russian practices, core competencies of small innovative firms have been insufficiently studied and it is innovative mesoeconomics and its main elements that contribute to their formation.

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INNOVATION AND INNOVATION MANAGEMENT IN THE TOURISM INDUSTRY IN THE CONTEXT OF GLOBALIZATION

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Abstract. A prerequisite for attaining the strategic objectives of the tourism industry in Slovakia is the continuous improvement of services provided to clients, gradual expansion of the structure of offered services and the constant innovation and modernization of facilities, which provide these services. Innovation and innovation management are the tools that enable companies operating in the tourism industry to optimally respond to constant changes in the external environment and to internal and external opportunities, namely by using new ideas and practices. The implementation of innovation and innovation management ultimately contributes to the overall development of services on offer in the tourism industry and additionally promotes these services. More efficient use of the potential opportunities in the tourism industry in Slovakia has a number of advantages, significantly the elimination of regional disparities and the creation of new jobs, which further stimulates employment. Innovation management and innovation in the tourism industry is one of the methods which fully unlocks the potential of the facilities operating in Slovakia and is an essential prerequisite for business success. At the same time it sparks a domino effect in tourism, as one good innovative idea creates opportunities for repeat business and for related services. Innovative application is closely related to the promotion of the country and the region both domestically and internationally. A comprehensive and active promotion strategy for tourism is a prerequisite for success. Slovakia presents massive potential in terms of strategic location and natural beauty, however the standard and innovation of services is falling behind, especially when compared with foreign competitors.

Keywords: innovation, tourism industry, management, client, services

JEL Classification: L83, M20, O31, Z32

1. Introduction

The development of tourism is presently dependent on innovation and innovation management of all entities that provide services in that specific expanse. The established innovation literature (reviewed excellently by Dosi, 1988 and contributors in Landau & Rosenberg, 1986) has, until recently, primarily been concerned with manufacturing industries and patenting intensity. The general emerging service economy, as well as the upcoming software boom of the 1980s, changed the notion of innovation in order to include immaterial products, with the result of service industries also being gradually recognized for their measurable innovative potential (Miles, 2003; OECD & Eurostat, 2005). It has been repeatedly claimed that rigid innovation research has been applied to tourism to only a limited extent and empirical tests of the phenomenon have been modest (Hjalager, 2002; Sundbo, Orfila-Sintes, & Sørensen, 2007). Tourism in general generates a vastly expansive as well as extremely sharp competitive environment within the global space where identification is possible only for local competitors and even that solely in a limited time. Therefore, the road to success in the tourism business leads not through the comparison and battle with competitors, but rather through differentiation. Differentiation becomes the road to applying innovation and innovation management.

Innovation can be defined as the selection of ways of providing products or services. Joseph Schumpeter (1934), the indisputable leader in innovation, had a clear idea of this concept when he believed that innovation includes new products, new production processes, new markets, new materials and new forms of organization and management. The role of innovation in economic development caught the attention of other authors in this area (Nelson and Winter, 1982). In this context it is more appropriate to include innovation as defined by Hall & Williams (2008, p 5) whereby "innovation refers to the process of bringing any new, problem solving idea into use. Ideas for reorganizing, cutting cost, putting in new budgetary systems, improving communication or assembling products in teams are also innovations. Innovation is the generation, acceptance and implementation of new ideas, processes, products or services. Acceptance and implementation is central to this definition; it involves the capacity to chase and adapt."

To innovate does not necessarily mean to create something from scratch. This is why it is crucial to distinguish innovation from creativity, respectively invention. While creativity is associated with the creation of new thoughts, new approaches and ideas, innovation signifies a practical application and implementation of new creative thoughts. Thus, the implementation of innovation signifies a creative destruction such as the replacement of old and inefficient procedures and processes for modern and efficient features. However, it should be noted that such an exchange does not automatically mean success. In reality, risk becomes a central element of the innovator with this risk increasing with the uncertainty of knowing when such innovation becomes radical. It is important to stress that often the risk that is associated with innovation is much greater than the risk of not innovating, which in practice can often mean failure and collapse.

People often misinterpret the word innovation. They are unable to grasp the word's true meaning and the characteristics that build it. This misjudgment of the word likewise lies in its proximity and false synonymity with the word invention. What invention stands for is an effective idea with a beginning process of transformation. "Invention is part of innovation or the innovation process."(Otterbacher, 2008, p. 342)

2. Innovation in tourism

The service sector is the largest productive sector in most OECD economies. Many authors have recently conducted research into services (Sundbo 2001, 2007, Sundbo, 2007, Sundbo et al. 2007, Gallouj 2002, Schianetz et al. 2007, Miles 2005, Hjalager 2002, Carvalho 2008, Korauš et al. 2015, Belás et al. 2016, Dobrovič et al. 2016, Korauš et al. 2016).

The tourism industry belongs to the service sector (Mattson & Sundbo & Fussing–Jensen, 2005, p. 359), and thus theories of service innovation are likewise applicable for this sector.

Researchers are also able to help in ‘digging’ deeper insight into tourism’s innovation however; innovation theories in tourism also have their limits. Hjalager (1997, 2002) has analyzed the use of the term innovation in tourism research, and concluded “innovation policies should emphasize sustainability and initiatives coming from other sectors.”

“The service industry is highly heterogeneous and includes a great variety of interesting, complex and often highly innovative activities.” (Martínez-Ros & Orfila – Sintes, 2009, p. 634). Miles (2000) expressed that this is the reason as to why it is impossible to give a generalized account of the innovation of services.

For 21st century tourism it is characteristic how the current client differs from the previous generations of clients, this being due to the globalization of the market. Today's clients not only constantly yearn for technical achievements, online connections, new applications and new information, but clients also expect a high quality service as well as a personal experience. Since this century offers unrestricted access to information, customers are aware of the high standard of quality services and products. What is however even more imperative is that customers are open and disposed to sharing their personal experiences on social networks and platforms.

New trends in the world thus dictate new requirements for companies, providing services in this sector. Clients of tourism mainly want honest and transparent services without any hidden charges. Clients want service packages, offers of services, and products, which are sufficiently creative and imaginative whilst wanting to feel secure and confident that they are getting adequate value for their money. Current clients in this segment like to identify with the brand selling a specific product or service and simultaneously like to share everything on their social networks, which become a platform for their daily entertainment. They post their personal experiences online, these experiences automatically becoming freely accessible information. Since they can see and experience everything through social networks, their expectations grow, making it more difficult to reach a point of full satisfaction. People thus search for interesting and unusual solutions, they care about stories that remain in their memory and these types of stories can solely be created through innovation.

Each country and region aims to increase the interest of both local and foreign clients for the specific area as a tourist destination. With this they want to encourage the competitiveness of entities operating in the field of tourism but most importantly use its potential in terms of the strategic location and their nature’s beauty, and thus likewise expand the appeal of the country in becoming an attractive tourist destination. The aim of this work is to identify and characterize, respectively address and name, the general and basic attributes of innovation and innovation management in comparison to the real situation and implementation of this trend in our circumstances. Throughout the development of this work the used material was mainly based on years of practical experience of authors based around tourism. Methods of comparison have been used, which examine the level of innovation and innovation management in Slovakia in comparison with the generally applicable requirements of the global market. Another scientific method used was primary and secondary research and analysis of the data and data fusion of selected entities operating in the tourism sector in Slovakia. The core consisted of documents from the database of the National Statistical Office, annual reports and statistics, Slovak Tourist Board (SACR) in the last five years, annual reports and financial statements of the selected entities operating in the sector of tourism in Slovakia over the past five years, their strategy, product portfolio, internal guidelines, organizational regulations, systems of motivation, wage setting and manuals and other materials available on the internet.

3. Innovation management in tourism

Innovation management in tourism should consist of a comprehensive and coherent system of knowledge, which enterprises operating in this sector, as well as authorities managing tourism, could use to effectively manage the actual processes of innovation. This system would ultimately and significantly contribute to increasing competitiveness in the market.

Innovation management not only brings innovative improvements of products and services, but also effectively and responsibly manages the whole application process. Throughout all of the events a huge role is played by the very ability of the creative activity of human resources. Technical and specialized professions in this process are replaced by so called innovative engineers, sales and marketing innovators, innovators of thinking as well as innovation managers. Those entities that are concerned with the development of this kind of human potential are able to receive a competitive advantage and a leading position in the area of tourism. That what brings customers satisfaction is not only the result of science and technology but also most importantly the result of the reactions of innovative managers to the creation of new business opportunities. Successful managers are able to identify business opportunities, create synergies within business relationships and properly use the potential of the country. Managers can likewise detect functioning economic and legal systems of the existing unused potential, while at the same time use the psychology and philosophy of management control. They are able to combine all of this into an innovation process within business and marketing with the effective use of company resources, a system of organization and management. It is almost always about processes and activities, in which there is a combination of existing solutions with new, possibly unique, and creative solutions. Innovation management ensures change, which, while painful, is ultimately useful to the business subject, as well as the human resources within it, since change signifies a progress in thinking and education. This method of management is not at all the result of geniality but rather the opposite. It is the result of relentless hard work combined with creativity and creative thinking. Often times it is the combination of settings for the business subject such as the changes to the settings within the organizational structure, new ways of working payroll, creating an innovative and transparent social policy in the company, the introduction of motivators in human resource management, the creation and ownership of the vision of the company that reflects the principles and rules according to which the company should operate, innovative setting of supplier-customer relationships, innovative approaches to the perception of economic competition, as well as at competitors in terms of a partner and ally relationship. All of these aforementioned processes and activities of an innovative manager should mirror the existing situation in tourism and the possible potential of its further development. Managers should combine the individual segments in this field and create a synergy with other agents of this sector, these being the public administration, competitive companies, suppliers and partners, and employers. Great influences on the creation of a company's wide synergy in tourism are also internal and transnational factors, which directly and indirectly affect the future direction.

All companies operating in the tourism industry must have the drive for innovation otherwise; the company will gradually lose its ability to use its potential. As a result, it will slow down its own development and in the end lose its reason for existence since in this global world the actual profit of the company lies in the company's change and constant renewal of itself. A company, which is able to push forward is a company that constantly innovates. Management and leadership of innovation and innovation processes must be strongly anchored to the actual managers who lead subjects within the tourism industry. Their philosophy and their principles must be in conformity with their own convictions regarding the functioning of the company and its future direction. Managerial creativity is for this reason immensely crucial and key since in the process of renewal, as well as the process of starting new activities, it guarantees initial business success. Innovation management uses several tools that help overcome initial difficulties. These include experimentation, introduction of different products and services, creation of a company culture, introduction of a company standard for individual products, processes and services, the ability to motivate and inspire people, the art of mediation and communication with partners, the ability to attract and gain key people and key positions, and the ability to create stories in individual facilities and centers. Innovation management comes hand in hand with the ability of trustworthy managers to honestly acknowledge and appreciate initiative and the ability of being visionaries and leaders with the willingness of leading a company through all pitfalls. Lastly, managers must remain loyal to the ethos of the company. Innovative management in tourism is not only about internal processes of the company but likewise about the external ones. Innovative management thus implies much more. Innovative management encompasses business ethics towards suppliers and partners, but most importantly the creation of a new corporate culture for its employees and everyone else, as ultimately we are all clients of tourism. Corporate culture encompasses a way of communication and expression of employees of tourism, cooperation with clients, feedback from employees and further communication. Innovation management creates a synergy with the surrounding environment, it is an ambassador of its high quality products and services, and it actively communicates and cooperates with educational institutions as well as the public administration. It tries to simultaneously create a mutually beneficial synergy, as it understands the connectivity of the development of its own business activities with the functioning and developing of the region in which it operates. Improving perceptions of future actions can also cultivate a climate for innovation and create a set of positive externalities for the rest of the economy. “Innovativeness in an organization’s culture generates more innovative behaviors and outcomes but more innovative behaviors and outcomes also increase the innovativeness of the culture ” (Hurley et al., 2005).

Nowadays, all businesses in the tourism industry operate in a highly competitive environment and therefore in order to secure a stable position in the market, they must constantly come up with something new and unique. This comes in the form of a product, innovative practices, and ways in which services are provided.

Innovation and innovation management in tourism therefore signifies a change towards something new and better. Whether it's a new product or service, use of new materials, use of new sources of supply, introducing a new procedure of sale or service, the process management, a new way of organizing services, changes in the organization of the provision of services, as well as the opening of a new market entry, it always implies the use of a properly planned, coordinated, and controlled change of the system towards a newer and better one. It is the materialization and transfer of new ideas and creative practices into each service, product or process of managing and leading people. There is thus a deliberate intention to enter into the existing way of thinking and entrepreneurship with the sole purpose of achieving a positive change. Such a response to the constant changes in the external environment and to the ever-growing needs and requirements of customers, gives companies the opportunity to use innovation and innovation management as a tool and a means of creating new wealth and added social and economic value.

Products and services in the tourism sector are generally perceived as experiences which, depending on their personal experience, customers positively remember. These are closely linked to the cultural as well as sport activities of clients, respectively leisure activities that the company has available in the area. Therefore, when we talk about innovation in tourism, let us always remember that tourism is closely linked to the cultural environment, developed infrastructure, the natural environment as well as the public administration These are all attributes that play an immense and significant role in developing innovation in tourism, in a particular place, a particular region and a particular time. Therefore, innovation in the tourism industry should always be seen as an intersection and synergy of complementary industries, cultural and environmental spaces, but also as the possibility of using their mutual potential.

Innovation in tourism can in theory be observed and examined on several levels. Among the so-called standard innovations we can include innovations regarding the promotion of new investments that increase productivity, innovation in training personnel and management, and innovations that improve the quality of services, products and profitability. Another level is called architectural innovation. This is where we can include the creation and offering of new events and attractions, the change and redefinition of organizational and legal structures, as well as research based on knowledge. In both of these levels it is difficult to find a parallel to Slovak conditions since both levels require a great deal of creative thinking and a willingness to change already implemented structures and statuses of equipment operating in tourism. When examining innovation it is seen that the interesting levels are revolutionary innovations. These include for example the creation of new technologies in tourism, the introduction of new management methods, which completely change the composition of personnel and the structure of the company, or the change of relationships towards the same markets with the use of new approaches and methods. This kind of innovation is far too difficult to enforce in Slovak tourism. The so-called innovations of market gaps, amongst which are the promotion of entry of new entrepreneurs, the encouragement of companies to enter into marketing alliances, and new ways of combinations of existing products, are all still absent in our country. The last two levels of innovation require a strong personal commitment of managers and corporate leaders who are visionaries, who are completely comfortable in the tourism market and those that can motivate themselves and lead others. They should fully engage and simultaneously draw in other parties of tourism into their innovative projects.

4. Discussion and conclusion

The implementation of an innovative status in tourism seems to be a strategic priority for the country. It will always be beneficial to promote innovation as a top priority since it is closely connected with business success. There are assumptions that innovation is based on the search for new products, making better use of the already existing ones, having knowledge of the market, making better use of the potential of the company and identifying opportunities for innovation. Regardless of these assumptions, the motivation of companies, managers and people working in this field should always be a primary concern of the government and the competent authorities working in the sphere of tourism. The quality and level of manpower functioning in the process of innovation hugely contributes to creating added value of individual companies operating in tourism and the creation of synergy, which in the end supports the increase in employment, and the protection and creation of national wealth.

Innovation in tourism is often solely associated with the product and is only rarely associated with real innovation processes. Product innovation in this case means that there is a consolidation of individual products into a certain thematically formed product, respectively the composition of services and their often times not thought-through marketing support.

Regarding the aforementioned non-existent innovation of processes, their implementation is often hindered by the lack of knowledge of laws and principles of operation of tourism in the world, prevailing outdated prescriptive management, undervalued people and low motivation for human potential. Those competent are often times poorly educated in this field yet they also often hold a strong decision-making power. The reason may be a lack of high quality schools, education and professional training, which are all needed for the labor market to be supplied with high quality professional managers. A problem connected to this is often the missing standardization of products and services. The motive of entrepreneurship in this segment is often profitability and thus the decision making of managers ends up being intuitive without any strategic thinking or vision. Entrepreneurs most probably invest in innovation only when they are confident that their investments will be quick in returns and high margins.

It is also important to mention the hotel industry, which is considered to be the most important branch of tourism as well as the most significant type of accommodation due to its ability to provide revenue and satisfy the needs of its guests. There is tense competition in the hotel industry and therefore in order for a hotel to maintain or improve its market position and reputation it needs to develop innovations. The challenge does not lie in copying innovation ideas from one another but rather in having to think about the ways of building distinct hotels for particular target groups. Innovation raises attention, helps positioning, and invites brand recognition and differentiation.

Furthermore, innovation plays a significant part in all of today’s economies. Companies are incapable of surviving in today’s changing environment without the ability to innovate. Innovation is considered a major source of competitive advantage and economic growth (Porter & Ketels, 2003), and research about innovation is plentiful and diverse. A literature review suggests that theory related to innovation in product development is expansive; nevertheless there are concerns about its ambiguity of terminology and measurements. As the service sector continues to grow relative to the manufacturing sector, research applicable to innovate services becomes progressively valuable. There are many opportunities for academic research in the tourism marketplace regarding innovation because the extant literature is scarce.

The globalization of the world economy caused, and is currently still causing, increased competition within all areas. This trend touches upon, as well as affects, the development of tourism in Slovakia. This sector thus becomes the bearer of the latest trends in the range of products, new technologies, techniques, the quality and diversity of services, marketing, innovation and innovation management. Slovakia can therefore stand out in the global tourism market solely based on innovation and innovation management, which can combine the authenticity of historical monuments, the natural environment, the traditional culture, the unique localization, an innovative and creative approach, the latest information technology, the unique design, the unique atmosphere, as well as the courage and dedication of the staff and others competent in this field of products and services, which will be able to build a stable position amongst the global and competitive nature of the market.

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UNEMPLOYMENT – A PHENOMENON OF GLOBALIZATION?

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Abstract. Declining amount of live human labor, desirability of which is based on the biologically embedded share of everyday strain in human satisfaction, has become the main anthropological and social problem of today. The author therefore discusses the consequences of involuntary unemployment and the wider context of this phenomenon including its impacts on professional orientation of people. Based on her experience and research of the unemployment phenomenon in a country with transformed economy she describes how people cope with a loss of job and how they adapt to the new stressful situation. Furthermore, the author discusses the social and cultural context of unemployment in the current globalized world. According to her, the involuntary unemployment demands changes in the professional career consultancy services. The author also stresses the transformation of the content and sense of human labor, the decreasing need of the human labor and the change in the competence level among the population. She points out the consequences of the missing labor activity in adolescence and young adulthood (15 – 25 years old people). The last part of the study stresses how complex the problem of unemployment is and how important are the personality characteristics and competences of researchers who study it.

Keywords: job, involuntary jobloss, unemployment, social, psychological and medical consequence, perceived job insecurity

JEL Classification: M51, M54, I15

1. Introduction

Dlouhodobě se zabývám tématem práce, zejména významem práce pro člověka. Nejprve z pohledu gerontologie, tj. s ohledem na změny pracovních schopností v průběhu stárnutí a stáří a později v souvislosti s transformací české ekonomiky v 90. letech, se zabývám důsledky nedobrovolné ztráty práce.

Úbytek živé lidské práce se dnes stává hlavním antropologickým i sociálním problémem. V letech 1990–91 ztratilo práci ve střední a východní Evropě v průmyslových, zemědělských a stavebních oborech 3,7 milionu lidí. V období hospodářské krize v letech 2008–2010 bylo v EU celkem 23 milionů nezaměstnaných. V současné době je v EU 23,3 milionů lidí bez práce (Eurostat, 2016), z toho je 4,7 milionů lidí mladších dvaceti pěti let.

Nezaměstnanost znamená dramatickou změnu pro postižené jedince, jejich rodiny a způsob života. Násilné vyřazení práce z osobního života člověka má průkazné negativní následky – ekonomické, sociální a samozřejmě i psychologické a zdravotní. Dlouhodobou ztrátou placeného zaměstnání mizí odměna jako hlavní zdroj uspokojování životních potřeb, ničí se obvyklé časové rozvržení pracovního dne, absentuje možnost získávání a udržování pracovních návyků a dovedností. Bez práce se vytrácí smysl života člověka, dochází k omezení sociálních kontaktů a nastává postupný rozklad integrity osobnosti. Atrofují totiž činnosti, které byly součástí denního rytmu člověka. Dlouhodobá ztráta práce jakoby odděluje lidi od sociální reality a je v naší kultuře, kde se zaměstnanost vnímá jako vřazení člověka do řádu sociálních vztahů a kde je klíčem k jeho životním aspiracím, zdrojem identity a sebeúcty, stresujícím zážitkem (Buchtová et al., 2013). Zdá se, že potřeba užitečné fyzické a psychické zátěže, podobně jako potřeba jazykové komunikace, je u lidského druhu biologicky zakotvená (Šmajs, 2016).

Z hlediska životní dráhy práce určuje začátek i konec ekonomické aktivity lidí. Práce ukazuje obecně platné hodnoty nejen těm, kteří pracují, ale i těm, které teprve vychováváme – dětem. Jde o vliv ztotožnění, nápodoby a osobního příkladu. I když děti dnes obvykle nevidí rodiče pracovat, prožívají jejich pracovní vzestup i traumata.

2. Ztráta práce jako životní událost

Ztráta zaměstnání[24] je životní událostí (Holmes & Rahe, 1967), která člověku nedobrovolně odebírá placenou práci. Důležitou roli tu hraje doba trvání, která odlišuje ztrátu práce jako události od nezaměstnanosti jako stavu. Pokud tedy jedinec nezíská nové zaměstnání, vede ztráta práce k nezaměstnanosti (krátkodobé nebo chronické, dlouhodobé).

Model teorie životních událostí ukazuje, že ztráta sociálních interakcí může mít rozhodující význam pro vznik stresu. Nedobrovolný odchod ze zaměstnání zaujímá v seznamu životních událostí vysokou hodnotu závažnosti a potvrzuje, že ztráta práce je pro mnoho lidí velkou psychosociální zátěží.[25]

Zvládání situace dlouhodobé ztráty práce je dramatický proměnlivý proces, který se liší od běžného adaptivního chování. Mezi faktory, které mohou odtlumit účinky stresu a pomoci člověku vyrovnat se s danou situací, patří dobré zdraví a životní energie, pozitivní motivy, cíle a hodnoty, ale i obratnost při řešení problémů. Patří sem i společenská přizpůsobivost jedince, způsob a míra jeho společenské opory i jeho finanční zdroje.

3. Výzkumné zkušenosti[26]

Závěry výzkumů nezaměstnanosti ze zemí s rozvinutou ekonomikou opakovaně ukazují, že ztráta zaměstnání, anebo samotný strach z této ztráty (Burgard et el., 2009; Buchtová, 2010; Stuckler & Basu, 2014), jsou zdrojem frustrací s vážným dopadem na duševní a tělesné zdraví člověka (Buchtová, 2000; Dean, 1993; Murphy & Athanasou, 1999; Bambra, 2010; Paul & Moser, 2006 a další). Uvedené poznatky se plně potvrdily i ve výzkumu nezaměstnaných v

[24]Termín ztráta zaměstnání používáme v této studii pro zachování souladu s literaturou zabývající se životními událostmi. Ta zdůrazňuje, že po určité prožité události dochází k přizpůsobení se této životní události.

[25]Psychosociální zátěže byly zařazeny do oficiálních psychiatrických klasifikací v podobě tzv. IV. diagnostické osy klasifikace DSM-III-R (Diagnostický a statistický manuál ve třetí revizi z roku l987). Tato klasifikace hodnotí nezaměstnanost čtvrtým stupněm závažnosti na šestistupňové škále.

[26]Naše poznatky vycházejí z výzkumných prací a grantů: „K psychické dimenzi nezaměstnanosti"; „Nezaměstnanost a zdraví"; „Kvalita života dlouhodobě nezaměstnaných"; „Psychické, zdravotní a sociálně-ekonomické důsledky ztráty práce"; „Ontogenetická podmíněnost nezaměstnanosti"; „Vybrané psychologické teorie a modely chování lidí v nezaměstnanosti" - (viz. literatura).

českém prostředí. Více než polovina nezaměstnaných v našich výzkumech (Buchtová, 2000, 2002), (Buchtová et al. 2013) uváděla zhoršení zdravotního stavu.

I když jsou pracovníci o propuštění předem informováni, nejčastější příčinou jejich duševního strádání je strach z toho, „co bude dál". Ten pak provokuje stálou sebeanalýzu a úzkostné stavy. Týká se to i případů, kdy jsou s pracovníky uzavírány smlouvy na dobu určitou. Těsně před vypršením termínu smlouvy totiž často neznají svoji pracovní perspektivu. Dlouhodobá ztráta zaměstnání (více než jeden rok bez práce, u absolventů škol po půl roce) postihuje ve svých důsledcích celou psychiku člověka, a to jak jeho intelektovou a citovou oblast, tak i oblast vůle. Chování lidí je často provázeno sociální izolovaností, uzavíráním se do sebe a úbytkem sociálních kontaktů. Zjistili jsme, že již šest měsíců po ztrátě práce se lidem stále obtížněji daří uspokojovat psychické potřeby: udržování sociálních kontaktů, získávání nových zkušeností, udržování aktivity a výkonu. Poznatky z dalších výzkumů dlouhodobě nezaměstnaných uvádějí ztrátu dlouhodobých cílů a stavy deprese, poruchy sebeřízení spolu s pasivitou, která jim brání uspět na pracovním trhu (Buchtová, 2010).

Většina nezaměstnaných ve svých výpovědích uváděla, že rodinné zázemí je pro ně hlavní životní oporou, která jim významně pomáhá překonávat obtížnou situaci. Vliv sociální opory však podstatně ovlivňovala také délka nezaměstnanosti. U dlouhodobě nezaměstnaných byli největší oporou zejména životní partner a děti, tedy lidé, žijící v bezprostřední blízkosti nezaměstnaného člověka. U jedinců s kratší dobou ztráty práce byli oporou především příbuzní, přátelé a kamarádi (Buchtová, 2002). V současné době přibývá v České republice nesezdaných párů a vzrůstá podíl domácností jednotlivců. Ten se dokonce blíží jedné třetině. Singlovství jako životní styl si vybírají převážně mladí lidé budující kariéru, pro něž děti nemají "tržní hodnotu", jak uvádí profesor I. Možný z brněnské Masarykovy univerzity. Tito jedinci jsou také často zbaveni ochrany vlastní rodinou v tíživých životních situacích.

Nezaměstnaný jedinec má často negativní vliv na kvalitu života rodiny. V rodině dochází v souvislosti se ztrátou zaměstnání především k různě dlouhodobému stavu finanční nouze. Ta je způsobena snížením příjmu nezaměstnaného, a tím i celé rodiny, dále odebráním poskytovaných benefitů. Finanční nouze může být i prohloubena dřívější zadlužeností. Tyto negativní skutečnosti vedou ve svých důsledcích k dalšímu vytváření stresů. Jde o neschopnost plnit své závazky, změny sociálních a materiálních podmínek rodiny, změny životního stylu členů rodiny, tj. v mnoha případech dochází k proměnám socioekonomického statusu rodiny (Wadsworth et al., 1999).

V oblasti partnerských vztahů často dochází k jejich kvalitativní proměně - mnohdy se zvyšuje rodinné napětí a narůstají interpersonální konflikty, klesá zájem o partnera. Jednotlivé konflikty, jejichž spouštěčem ztráta zaměstnání může být, pak kumulativně vedou v krajních případech až k rozpadu partnerského vztahu, manželství nebo rodiny (Siegel et al., 2003). Ztráta zaměstnání také ovlivňuje kvalitu vztahu k dětem. Může dojít k přenesení stresu na děti, což bývá doprovázeno nezájmem o dítě, nebo naopak zvýšenou starostlivostí, častějšími konflikty apod. (Buchtová, 2002).

Na podkladě dat mezinárodního projektu European Longitudinal Study of Parenthood and Childhood (ESPAC)[27] jsme v retrospektivním šetření srovnávali skupinu zaměstnaných a

[27]ELSPAC je epidemiologická prospektivní studie realizovaná pod záštitou WHO, jíž se účastní několik evropských zemí (Rusko, Ukrajina, Slovensko, Velká Británie, Česká republika). Zabývá se dlouhodobým sledováním rizikových a protektivních faktorů biopsychosociálního vývoje dětí narozených na počátku devadesátých let. Bližší informace jsou dostupné na adrese: http//www.med.muni.cz/elspac.

nezaměstnaných mužů a zkoumali jsme: 1. v čem se lišilo jejich dětství; 2. v jakém rozsahu se přenášejí výchovné přístupy z rodičů na děti; 3. jaký vliv mají negativní důsledky prožitého dětství na budoucí uplatnění mužů na trhu práce.

Náš výzkum (Buchtová et al., 2014) prokázal, že nezaměstnaní otcové ve srovnání se zaměstnanými žili v rodině, kde rodiče měli: vážnější rozpory, popřípadě od sebe odešli nebo se rozvedli. V době jejich rozvodu bylo našim respondentům – nezaměstnaným otcům – v průměru 9,69 roků. Své dětství častěji prožili nezaměstnaní otcové ve srovnání se zaměstnanými (jak jsme již uvedli) v péči dětského domova, dětské vesničky, v pěstounské péči nebo v náhradní rodině.

Zjistili jsme, že prožívání rodinných konfliktů v dětství se u zkoumaných nezaměstnaných negativně projevilo v jejich dospělosti. Ukazuje se, že náš vzorek respondentů – nezaměstnaní otcové, jako by „kopíroval" své rodiče. Nezaměstnaní otcové ve srovnání se zaměstnanými měli častěji spory s partnerkami, častěji se rozešli s partnerkou, častěji jsou svobodní a opakovaně ženatí. Z celkového počtu 396 nezaměstnaných otců mělo, ve srovnání se zaměstnanými, 75,5 % úplnou rodinu a 24,5 % rodinu neúplnou. Přitom se jedná o nezaměstnané muže, nastávající otce zkoumaných dětí, z nichž mnozí měli negativní zkušenosti s kvalitou soužití vlastních rodičů. I když rodiče ovlivňují zdravotní stav a úspěšnost svých dětí nejen svým chováním a výchovou, ale i geneticky předávanými dispozicemi, dospíváme k závěru, že patologii duševního zdraví a poruchy adaptace jako důsledek negativně prožitého dětství je možné v dospělosti předpokládat.

Domníváme se, že harmonická rodina je sociálně nezávislým předpokladem pozdějšího uplatnění dospělých dětí ve společenské dělbě práce. Nezaviněné negativně prožité dětství má proto vliv na budoucí uplatnění na trhu práce. Také sociální role mladých mužů (otců) může být deformována už prvním formativním obdobím raného dětství. Spolu s rozpadem rodiny se proto sociální integrace a sociální úspěšnost u skupiny mužů bez práce vyvíjejí nepříznivým směrem (Buchtová et al., 2014).

Nezaměstnanost je pro mnohé jedince zraňující zkušeností. Prozrazují to výpovědi znovu zaměstnaných, a to nezávisle na kvalitě nalezených zaměstnání. Pocit osobního neúspěchu přetrvává, vracejí se pochybnosti o vlastních schopnostech. Někteří popisují změny vlastního chování v důsledku přímé zkušenosti s nezaměstnaností. Přiznávají například mnohem menší odevzdanost sebe sama organizaci, značnou pozornost věnují tomu, aby nebyli „zviditelňováni" např. tím, že kritizují jiné či firmu. Prostě se snaží, aby zapadli do průměru. Hodnoty přežití a bezpečí u nich dominují nad jejich zájmy, úspěchy a postavením. Cítí daleko větší odpovědnost za rodinu, která jim vytvořila v době ztráty práce sociální oporu. Ve vzácných případech měla nezaměstnanost také pozitivní dopad na toho, kdo cítil potřebu se osvobodit ze stresového nebo svazujícího prostředí svého předcházejícího zaměstnání. Dědictví nezaměstnanosti tedy může být výjimečně i pozitivní (Buchtová, 2012).

Zvládání ztráty práce je vysoce individuální a je podmíněno odolností konkrétního člověka vůči psychické zátěži vůbec. Konstruktivní adaptivní strategii zaujímají obyčejně lidé, kteří jsou již v průběhu života vhodně predisponováni svými osobnostními vlastnostmi nebo způsobem práce, sportem atp. Dále je tato schopnost podmíněna věkem (rozdílností v pociťované odpovědnosti vůči nejbližšímu okolí, která koreluje s fázemi životního cyklu), pohlavím (ženy jsou znevýhodněny starostí o děti a o domácnost), dosaženou kvalifikací (nekvalifikovaní lidé snadněji přijdou o práci a obtížně ji znovu najdou), zkušenostmi jedince (větší stresovou zátěž prožívají jedinci se silnou pracovní motivací a úspěšností v minulém zaměstnání) dále i předchozí profesní rigiditou či pružností. Do hry pochopitelně vstupují i finanční možnosti nezaměstnaného, sociální opora (ztráta práce „prověřuje" pevnost vztahů mezi životními partnery i přáteli; platí tu známé „v nouzi poznáš přítele") a další faktory.

Vysoké procento dlouhodobé nezaměstnanosti má nežádoucí vliv nejen na nejbližší jednotlivce, nýbrž i na celou společnost. Takto postiženou společnost provází zvýšený výskyt sociálně patologických jevů, které se projevují spíše nepřímo: zvýšenou konzumací alkoholu, nikotinu a drog (zejména u mladých lidí), vyšší nemocností a rostoucí spotřebou léků, vyšším výskytem sebevražedných pokusů.

4. Společenské a kulturní souvislosti nezaměstnanosti v globalizované kultuře

I když v devadesátých letech byla ztráta práce pro většinu lidí velkým zásahem do jejich života, řada z nich nabývala postupně přesvědčení, že propouštění je daní za politické uvolnění a přechod na tržní hospodářství, které bude mezinárodně konkurenceschopné a v němž je změna pracovního místa objektivní nutností. Do popředí tehdy vystoupily rysy nezaměstnanosti dané z velké části minulým vývojem naší společnosti. Tyto faktory ovlivňovaly strategii chování lidí a často znemožňovaly jejich adekvátní reakce na nové podmínky na trhu práce. V osobnostní rovině šlo o snížený pocit občanské odpovědnosti, nedostatečnou reflexi sebe sama, myšlenkovou rigiditu, ale také o neprožitou zkušenost změny zaměstnání a ztráty práce. Jednalo se o různé varianty pocitu méněcennosti při ztrátě práce, o chybějící osobní odvahu a ochotu investovat do vlastní kvalifikace, o chybějící dovednost zvládat nepřízně. V rovině výrobních organizací však byla často porušována etická pravidla práce s lidmi.

V roce 2008 – 2010 byly ovšem vlny propouštění spojeny s finanční a hospodářskou krizí, která u nás nevznikla, pouze nás zahrnula. Nedobrovolně propuštění lidé z práce nevěřili, že je to strukturní pozitivní změna, měli za to, že jsou obětí expanze světového kapitálu, obětí selhání tržní regulace, selhání neoliberálního dogmatu tržního hospodářství. Část lidí podléhala depresi, mnozí totiž měli malou šanci znovu najít zaměstnání.

Ekonomická a hospodářská krize, podobně jako krize předešlé, zasáhla zdraví mnoha lidí. Lidé ani nemusejí ztratit práci, ale mohou se o ni dlouhodobě bát – žijí v napětí, úzkosti, strachu, více kouří, pijí, méně spí … Stres si vybírá daň až po letech. Ekonomické krize a nezaměstnanost mají negativní dopad nejen na zdravotní stav lidí, kteří ztratili práci, nýbrž i na chování a zdraví lidí zaměstnaných. V krizových letech jsou zaměstnanci jakoby zdravější než v době hospodářské konjunktury. Ve skutečnosti tu však působí strach z represí ze strany zaměstnavatele: zaměstnanci se bojí, aby nepřišli o pracovní místo, a proto odsunují návštěvy lékařů, léčení v nemocnici a pobyty v lázních až na nejzazší možnou dobu. Bojí se o své pracovní místo. Po jisté době krize pak utajovaný zdravotní stav nezadržitelně vypluje na povrch.

4.1 Proměny obsahu a smyslu lidské práce

Práce, která po staletí určovala obsah i strukturu lidského života, dávala obyčejnému životu širší nadosobní smysl, étos a transcendenci, je dnes sama pod vlivem proměňujícího se způsobu života, který člověku vnucuje neovladatelný anonymní systém globalizující se spotřební kultury.

Vznik informační společnosti však provokuje otázky, co se stalo s tradiční lidskou prací? Jak se proměnila? Ze dvou složek lidské práce – fyzické a mentální, vědeckotechnický pokrok snižuje zejména potřebu práce fyzické.

Ukazuje se, že na jedné straně bude moderní společnost vyžadovat hluboký duševní ponor do intelektuálně náročných profesí, například v oblastech informačních technologií, genetiky, bankovnictví, mezinárodního obchodu atp., ale že na druhé straně budou stále žádána i tradiční povolání například ve stavebnictví, v pohostinství, ve službách atp. Stále větší část běžné populace bude však sužována pracovní flexibilitou doprovázenou trvalým psychickým tlakem, úzkostí a strachem z nového povolání. Luxus trvalé, osobnost obohacující práce bude, jak se zdá, patřit pouze nejschopnějším a nejvíce vzdělaným lidem. V tzv. potenciální nezaměstnanosti se bude patrně ocitat čím dál větší část populace, která nezvládne požadavek flexibility a stane se trvale závislou na systému podpor od státu (Buchtová, 2009).

Vzhledem k přesunu ekonomického zájmu z výroby na spotřebu a služby budou proto stále více vyžadovány specifické formy mentální lidské práce ve sféře marketingu, reklamy, leasingu, pojišťovnictví, právního zajištění, služeb všeho druhu.

To je v souladu s tím, že navzdory vysoké osobní spotřebě lidí bude ekonomika technicky vyspělých zemí, ovládaná současným globálně mobilním kapitálem, tradiční lidskou práci potřebovat stále méně.

4.2 Snižující se potřeba živé lidské práce

Člověk jako kulturně tvořivý živočišný druh s konzervativní biologickou konstitucí potřebuje ke svému zdravému vývoji, ale i k pozdějšímu šťastnému životu neustálý pohyb, trvalou smysluplnou aktivitu. Aktivita je totiž podstatou všech neživých i živých systémů včetně člověka jako živočicha, který jejím prostřednictvím vytváří kulturu. Ale ani v případě pracovní aktivity člověka to nemůže být aktivita prázdná, umělá a samoúčelná. Patrně také proto se potřeba živé lidské práce, stimulované kulturním poznáním, stala výrazným polidšťujícím prvkem každého individuálního života. Aktivita je součástí lidské přirozenosti, je jakoby předepsaná již na úrovni genomu člověka. A tak má zdravý člověk vedle základních lidských potřeb silnou potřebu práce, účelové aktivity spojené s námahou, poznáváním a hrou. Dlouhodobou ztrátou plnohodnotné práce lidský organismus strádá, biologicky se poškozuje stejně jako v případě dlouhodobé nemoci, ztráty možnosti komunikace či snížené pohyblivosti po úrazu (Šmajs, 2013).

Právě proto spolu s dalšími autory hájíme tezi, že práce dnes přestává být hlavní ekonomickou kategorií, stává se bohužel kategorií psychologickou a medicínsko-terapeutickou. Plnohodnotnou práci, kterou dnes stále méně potřebuje globalizující se ekonomika, stále více potřebuje nejen kultura, ale i člověk jako živá bytost z masa a kostí, jako aktivní společenský živočich s konzervativní biologickou přirozeností (Šmajs, 2016).

4.3 Problém mladých nezaměstnaných

Z hlediska lidské ontogeneze považujeme absenci tradiční pracovní aktivity za zvláště závažnou v období mladé dospělosti (15-25 roků).

Pracovní činnost má ve svých začátcích pro mladého člověka nezastupitelnou funkci. Podílí se na vytváření řádu života, upevňování mezilidských vztahů a vědomí odpovědnosti za vykonanou práci. Pracovní činnost spolupůsobí při utváření životního stylu. Práce je totiž podmínkou postupné nezávislosti a osamostatnění se mladého muže a ženy. Absence pracovní činnosti v tomto věku se podílí na diskontinuitě vývoje osobnosti, která je tím závažnější, čím je jedinec mladší. Déle trvající nezaměstnanost narušuje časovou perspektivu, tzv. „zónu budoucnosti“, která má centrální význam v chování a jednání mladých lidí. Ztráta orientace na budoucnost se může stát příčinou celkové životní rezignace a nacházení pochybného východiska v životním stylu, který je obvykle spojen s rizikovými faktory včetně zneužívání drog.[28]

4.4 Proměny kvalifikace

Kvalifikace je především investicí do lidské schopnosti vykonávat náročnou práci v budoucnosti, není zbožím k okamžité konzumaci. Je investicí, kterou je třeba neustále obnovovat a její působení prohlubovat a rozšiřovat. Její kvalita však musí být dobře prodejná na trhu práce. Dnes již nelze počítat s tím, že jednou získaná kvalifikace bude uplatnitelná po celý život. Rychlé tempo kulturního života způsobuje vznik a zánik povolání, získané znalosti a dovednosti mají omezenou časovou platnost. Nashromážděné zkušenosti a získaná odborná kompetence se v průběhu pracovního života (povolání) vlivem rychlých změn technického vybavení, zavádění informačních technologií, stěhování firem na jiné místo atp. nedají pouze sčítat, člověk jimi nebohatne, ale mohou se mu stát také přítěží při adaptaci na nové podmínky.

5. Conclusion

Na základě našich výzkumných zkušeností jsme zjistili, že lidé (jak v ústním, tak i v písemném sdělení prožitku ztráty práce) uvádějí tři oblasti negativního vlivu na svou psychiku: 1. oblast emocionální – a to jak krátkodobé afektivní reakce, tak dlouhodobější změny nálad přecházejících až do depresivních symptomů a akutních depresí; 2. oblast kognitivní – jedinec si klade otázky a hledá vysvětlení své životní situace (kauzální atribuce), mění postoje k práci, k lidem, k okolnímu světu; 3. oblast chování, kdy jedinec hledá, jak zvládnout situaci ztráty práce (jedná se o různé copingové pozitivní i negativní strategie).

Pro pochopení složitého problému nezaměstnanosti a jejího prožívání lidmi jsou především důležité osobnostní předpoklady výzkumníka. Na tento problém nepřehlédnutelným způsobem upozornila již Marie Jahodová ve známé Marienthalské studii.

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[28]V nedávném šetření Ministerstva práce a sociálních věcí se potvrdil negativní vliv problematického rodinného zázemí na vzdělávání děti. Nízká úroveň vzdělání rodičů, jejich dlouhodobá nezaměstnanost, jejich nízké vzdělanostní aspirace, jsou příčinou nedostatečné aktivní podpory a zájmu o vzdělávání dítěte. Mají vliv na selhávání dětí na vzdělávací cestě a bývají často skrytým zdrojem potenciální dlouhodobé nezaměstnanosti. Problémy mladistvých se střední úrovní vzdělání a následným pracovním uplatněním jsou tedy podmíněny nejen jejich mentálními schopnostmi a psychologickými charakteristikami, ale i specifickou socializací, hrozbou mezigeneračního přenosu nízkých životních a vzdělávacích aspirací z generace rodičů na generaci dětí. Dochází k vytváření skupin mladistvých s nebezpečím sociálního vyloučení (Truhlíková et al., 2000).

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LIMITS OF USE OF BITCOIN AS A GLOBAL MEANS OF EXCHANGE

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Abstract. 2008 is the year of creation of the Bitcoin network consisting of a decentralized database, which is storing all transactions of bitcoin tokens, whose quantity is predetermined by a protocol and independent of any authority. The aim of this article is to describe the limits in the use of Bitcoin as medium of exchange. Bitcoin network operation is carried out at high costs of electrical energy consumption, which, will over time be reflected in the price of transactions. Low transaction prices, which is one of the main arguments of Bitcoin promoters, are only possible with continuous issuance of new bitcoins to circulation. Bitcoin's – “prove of work” – is the most energetically demanding method from all currently existing methods securing cryptoplatforms. Halving mechanism which reduces the rewards of miners create pressure to decrease hash rate, which is a reflection of the rate of network security. The pressure to decrease hash rate is for now overrun by the increasing efficiency of mining devices. The future will therefore probably bring us fundamental questions: What will it mean for Bitcoin network, if the real costs of running the network will be reflected in costs of transaction? How will Bitcoin network be able to compete with other cryptocurrencies, whose operation is carried out at a much lower cost? Will halving mechanism ultimately cause a declined hash rate, and thereby also a reduction in network security?

Keywords: bitcoin, mining, cost of transaction

JEL Classification: E41,E42,E51

1. Introduction

Bitcoin and blockchain technology is one of the most important innovation of 3rd millennium, however it’s impact and benefits for society are not perceived in the same way. (Hulburt & Bojanova, 2014) By some author mainly the monetary potential is examined. (Maurer, et al. 2013), (Gervais, 2014). There can be seen a very positive opinion about bitcoin potential but there are also authors who say that bitcoin do not provide any of the 3 basic function that money does as (Yermack, 2014). One of the important aspect of Bitcoin is it ’ s privacy. (Miers et al., 2013), (Van Hout & Bingham, 2014) Many authors are trying to conceptualize the value of bitcoin, which is not backed by anything and does not have any “intrinsic value” (Selgin, 2015), (Kristoufek, 2015) On the other side there is a group of authors questioning sustainability of the system (Eyal & Sirer, 2014)

2. Characteristics of Bitcoin network

2.1 Bitcoin

Bitcoin is a decentralized P2P network, which provides highly encrypted transactions of "tokens" called bitcoin between the network users. Bitcoin is not subject to any formal authority, the value of each Bitcoin is not covered by anything, it is determined only by the supply and the demand of the network users. The decentralized nature of the network literally makes it impossible for the regulatory authorities to destruct the network and the regulation of the network is also very difficult. All transactions are stored in a publicly accessible database called blockchain. The rules under which the system works are in publicly known because Bitcoin system is an open-source project. Rules for the issue of new Bitcoins are given by the protocol and their quantity in circulation will converge to the 21,000,000. (Nakamoto, 2008)

2.2 Price development

One of the biggest cons of the cryptocurrencies is the volatility of their price. Price of 1 bitcoin has undergone a dynamic development practically from 0 USD to the current 680 USD. The first known purchase made by the use Bitcoin was on May 22nd, 2010. The programmer Laszlo Hanyecz paid for two pizzas 10,000 BTC, which at today's exchange rate is 6,800,000 USD. The price of 1 bitcoin peaked 3 times. The price in each peak was higher than in the previous one and the price achieved after the burst of each bubble remained higher than before the formation of the bubble. The peak firstly occurred in 2011 at a price of 32 USD, secondly in 2013 at a price of 266 USD and thirdly at the end of 2013 at a price of 1216 USD.

Fig 1: The development of the exchange rate BTC/USD from the creation till 2016

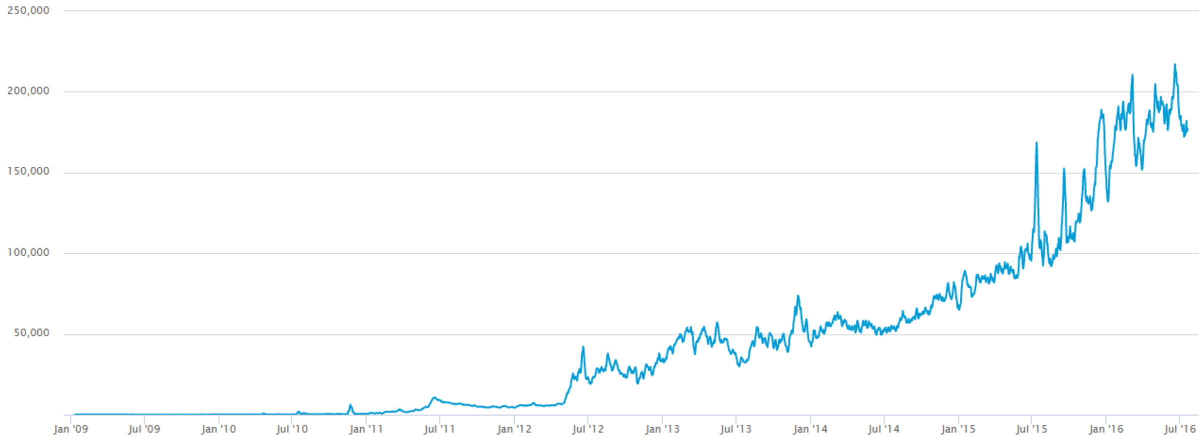
Source: www.blockchain.info

Despite its fluctuating price, Bitcoin reaches a market capitalization of $ 10,532,558,013 by 19/07/2016, which represents approximately 75% of the market capitalization of the Bitcoin network in December 2013, when the price reached a historic maximum. Bitcoin market value exceeded the value of one of the most popular social networks Twitter. (Reese, 2016)

2.3 The volume of transactions

The number of transactions made in the Bitcoin network has a growing trend since the creation of the network. To July 19th 2016, there were recorded 222,146 transactions per one day (Number of transactions, 2016) with an estimated value of all transactions in one day of approximately 237,841,256 USD. (Estimated transaction volume, 2016)

Fig 2: Development of the number of transactions per 1 day since the creation till 2016



Source: www.blockchain.info

3. Bitcoin – money or speculative commodity?

The above mentioned statistics indicate the growing establishment of Bitcoin in the economy. For the purpose of our work, it is important to distinguish the speculative purchases or other non-monetary use of Bitcoin from the transactions carried out in order to buy goods and services. Due to the pseudonymous nature of the network is such determination very difficult and so far there are no statistics that would capture the nature of the transactions. Blockchain is a publicly available database capturing all transactions but does not provide information on the purpose of the transactions. A typical entry in the blockchain database provide the address of the sender and the recipient, the date of the transaction and the transferred amount. It does not contain the name of the sender nor the name of the recipient and it contains no record describing the purpose of the transaction or what product was purchased.

The quantification of the percentage of transactions carried out in order to purchase real goods and services is very difficult due to the anonymous nature of the transactions. To obtain approximate values, we will analyse a report of the largest processor of bitcoin payments - Bitpay. Based on the quarterly report of 2015, the payments by Bitcoin were accepted by about 100,000 traders, while 60% were over Bitpay. (Patterson, 2015) The company processed about 100,000 bitcoin transactions in December 2015. (Understanding Bitcoins growth, 2016) The number of the transactions recorded in blockchain in December 2015 was about 180,000 per day. Assuming that the payments through Bitpay accounted for 60% of all payments for goods and services made in BTC, then the transactions of the real economy accounted for only about 3% of all transactions registered in blockchain.

4. The cons of Bitcoin

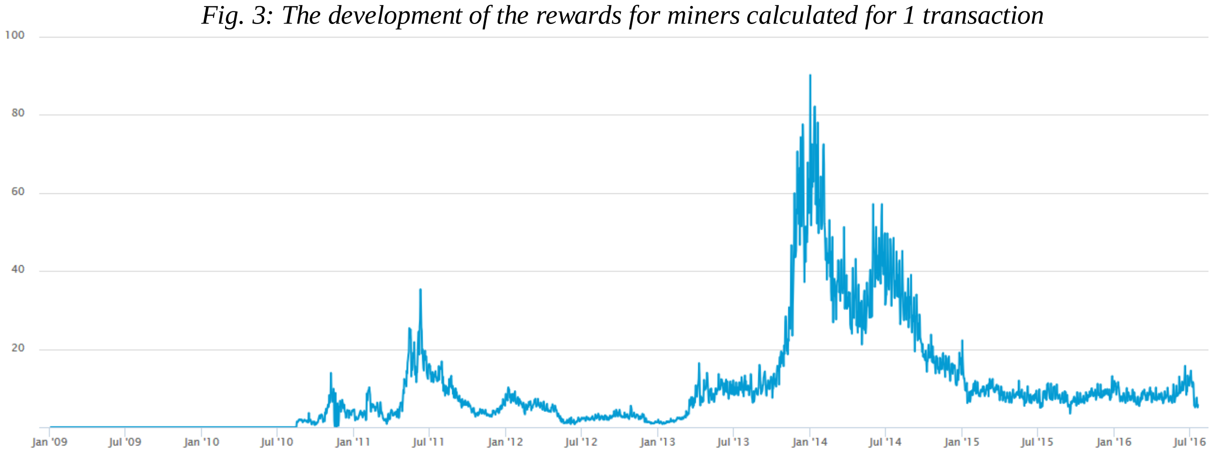
In this part of the paper, we will discuss two key aspects of Bitcoin network, which question the sustainability of the system. These are the electricity consumption and the centralisation.

4.1 Bitcoin and environmental impacts

The transactions in the Bitcoin network are validated by a decentralized network of nodes, which are trying to create a block of transactions using computationally demanding operations. The node receives a reward for the creation of each block. Nodes called "miners" are competing with each other. The node with a bigger computing power is more likely to create a block. From the miner's viewpoint, the decision to mine is given by two factors: the cost of mining and the earnings from mining. As long as the value of the mined Bitcoins is higher than the cost of power consumption, the miner continues mining. (Deetman, 2016)

In 2016, the fee for one generated block is 12.5 BTC. The time needed for generating 1 block is in average 10 minutes, which creates up to 1,800 BTC per day. At the rate of 663 USD per 1 BTC, it is 1,193,400 USD per day. The price of the consumed energy is under the influence of market forces thus the energy cost is approaching the value of miner's rewards. The amount of energy needed for 1 transaction is equal to 1.57 times the daily consumption of a US household. (Malmo, 2015) The following chart depicts the price of one transaction, which is the average pay that the miners receive per transaction.

Fig. 3: The development of the rewards for miners calculated for 1 transaction



Source: www.blockchain.info

Currently, the cost of 1 transaction is about 5 USD. It is important to note that the miner's rewards are newly created Bitcoins and from the perspective of the Bitcoin network user, the transaction is almost free. Low transaction costs are one of the main arguments of the Bitcoin promoters. However, these costs do not reflect the real costs of the network.

When calculating the total consumption of Bitcoin network, we will analyse the overall performance and parameters of the devices, which are used to mine Bitcoins. In 2016, the Antminter S3 device is at the limit of profitability. Because of its efficiency, the revenue equals to the costs. (Donnely, 2016) The energy consumption of this device is 0.77 J/GH. (Antminter S3, 2016) The most efficient device on the market Antminter S9 has a consumption of 0.098 J/GH. (Antminter S9) By the overall network performance of 1500 TH/s, (Hash rate, 2016) the electric power of the Bitcoin network is therefore between 015GW and 1,15GW[29]. For comparison, the largest Slovak power station Gabčíkovo has the electric power of 0,746 GW.

[29]Calculation of the author

When analysing the possibilities for further development of the Bitcoin network, it is important to analyse the factors that affect its energy consumption. Energy intensity is influenced by three factors:

- price of 1 bitcoin
- the reward for one block
- voluntary contributions of the performers of transactions

The price of 1 bitcoin effects the costs linearly. Doubling the price would double the purchasing power of rewards received by the miners. This would create a space for the entrance of new miners. Finaly, the electricity consumption would double as well.

The amount of reward is established by the protocol, which states that there is a reduction of the rewards by half approximately every four years. If the price of 1 bitcoin grew at the same rate as the decline in reward for the miners, the electricity consumption of the Bitcoin network would be constant. Every reduction of the rewards in half results in the reduction of the upper limit of electricity consumption in half.

Everyone who sends Bitcoins can include a transaction fee, which is credited to an account of the miner who classifies the transaction to a block. In 2016, it is usual to include a transaction fee of 0,0002BTC. Miners may not include to blocks the transactions without such voluntary bonuses. It is expected that once the last bitcoin is mined (circa in 2140), miners will secure the network for voluntary fees. The real costs of the electricity consumption will be paid directly from transaction fees.

4.2 Centralization of Bitcoin

Bitcoin was created as money abiding libertarian values. Money that would not be under the influence of any central authority. The extraction of Bitcoin was similar to gold mining, the limited quantity should be a protection against inflation. (Dhaliwal, 2016)

In 2016, there is a relatively strong centralization. China provides 70% of mining, which gives considerable power to the Chinese miners. (Chen, Nakamura, 2016). The tensions between the development team and the growing power of the Chinese miners resulted in the withdrawal of one of the main developers Mike Hearn, who said "Bitcoin experiment… failed". Bitcoin network is at the limits of its capacity. Miners' support is needed to promote changes, however at the time it is impossible due to the approach of the Chinese miners.

The centralization of the network also causes risk to the rules given by the protocol. With a sufficient support of the miners and exchanges, there can be enforced rules, which could change almost any original setting. There can be modified the limit of the amount of bitcoins in circulation, emissions rules or the mechanism of bitcoin minig can be modified and even removed. Originally, when the network was composed of a large number of small miners, this risk was virtually non-existent. The assumption that the majority wanted to agree on a "fraud" and change the rules was minimal.

5. Conclusion

Bitcoin is one of the most important inventions of third millennium, however its potential to be used as a commonly accepted money is very low. Real cost of bitcoin transaction will be soon or later reason why bitcoin will be too expensive to be used as money. The future of bitcoin is also undermined by huge centralisation by Chinese mining companies, which will cause the end of neutrality of the network.

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SOCIO-DEMOGRAPHIC FACTORS INFLUENCING ATTITUDE TOWARDS REFUGEES: AN ANALYSIS OF DATA FROM EUROPEAN SOCIAL SURVEY

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Abstract. Globalization causes socio-demographic transformations and one of the most relevant is refugee crisis. In 2015, over 1 mil. people – refugees, displaced persons and other international migrants – have made their way to the EU. The EU has confronted the problem of illegal and extensive international migration. Recently it has been even more in the public focus of international organizations and separate countries as the influx of refugees has rapidly increased due to economic problems and wars in the Middle East. Most people have developed an attitude towards refugees and refugee crisis, as the topic has received a lot of publicity and media coverage. Therefore, a research concerning the socio-demographic factors influencing attitudes towards refugees is relevant offering an insight to the background of people's attitudes. Research results show that attitude towards refugees is highly associated with income level, country of residence, employment status and family structure but not with age, gender, education level and place of living. The results of research can be useful for understanding and perhaps solving many unwanted social problems, for example racism and discrimination based on religion or social status. Knowing the factors influencing the attitude formation eases the creation of multicultural society with a very diverse population in globalization context.

Keywords: refugees, socio-demographic factors, globalization

JEL Classification: F60, F22, C21, Z13

1. Introduction

One of the key elements of globalization is migration which takes various forms: legal and illegal, voluntary and forced. According to estimates of UN Refugee Agency, there are over 21 mils. Refugees in the world. More than 50 percent of them come from three countries: Somalia, Afghanistan and Syria. Societies' attitudes towards this problem influence government refugee policies, so it is important to analyse what socio-demographic factors influence these attitudes. The goal of the paper is to evaluate which socio-demographic factors influence attitudes towards refugees in the EU. The rest of the paper is organized as follows: Section 2 presents the literature review on determinants of attitudes towards refugees. Section 3 describes research variables, hypotheses and model. Section 4 presents the estimation results and summarises research findings. The last section concludes the paper.

2. Determinants of attitudes towards refugees – literature review

Existing literature on attitude towards refugees is limited. In recent years there have been a lot of discussions about refugee issue due to the increasing number of refugees in the EU and other countries of the world, but not about factors influencing attitude towards this issue. It is very important to identify attitude towards refugees, determine its causes and manage it because negative attitude influences conflict in multicultural society.

Although immigrants and refugees do not belong to the same category, scientific literature usually analyses attitudes towards migration with no special focus on refugees and in most cases focuses on economic and non-economic factors influencing these attitudes. The main difference of definitions "immigrant" and "refugee" is that migration is a voluntary decision and refugees usually are forced to move from their country of origin. Despite this difference, this research assumes that factors forming attitudes toward immigrants and refugees in most cases can be similar.

There are different sociological theories which analyse factors influencing societies' attitudes towards immigrants / refugees. *Human capital theory* analyses the influence of education on attitude towards immigration / refugees. Theory states that higher level of education causes higher tolerance, more support for immigrants / refugees, as people with higher education do not need to compete with immigrants / refugees (mostly low educated) for simpler and more abundant jobs (Mayda, 2006). It is also noted that the skill level of immigrants does not change significantly the highly educated natives' attitudes toward immigrants (Rustenbach, 2010).

The theory of economic competition is applied at three levels: regional, national and individual. At individual level, people perceive a threat from immigrants because of the competition with local natives for jobs. At regional level, people with negative attitudes towards immigrants live most likely in areas and districts where the main source of income is low-skilled work and therefore there is harsh competition with immigrants for those jobs (Rustenbach, 2010). Higher unemployment rate at national level leads to a more negative attitude toward immigrants. The explanation of this effect can be similar to the aforementioned "greater competition in the labour market makes natives feel threatened" (Paas & Halapuu, 2012).

The contact theory originated from Allport (l954) describes the impact of different encounters and relations on the development of attitudes towards immigration. Fetzer (2011) found that when contact with immigrants appears without any further knowledge or intimate relations with the encountered immigrant, then the outcome was usually negative. People tend to have a lot of prejudice towards things they do not know. Close relations with immigrants create positive attitudes towards immigration and that extends to every type of immigrants.

Neighbourhood safety theory also emphasizes above mentioned fear of the uncertain and new. Immigrants provide a lot of new and unknown to the communities, which enables the natives to attribute many negative aspects of the community's attitude to the immigrants (Rustenbach, 2010). Earlier, some positive relations have been found between the unsafety of a neighbourhood and negative attitude towards immigration (Chandler &Tsai, 2001).

There are many factors which influence societies' attitudes towards specific issues: demographic, economic, social and cultural, political, geographical and etc. It is crucial to understand how different factors influence societies' opinion because that influences refugee acceptance in destination country. Table 1 shows different factors influencing attitude towards refugees and researches which analysed them in the context of migration.

Table 1: Factors influencing attitudes towards refugees

Determinants		Authors
Demographic	Gender, age, generational status, marital status, race	Schweitzer et al., 2005; Mayda, 2006; Dustmann & Preston, 2007; Berg, 2010; Facchini et al., 2011; Paas & Halapuu, 2012; Murray & Marx, 2013; Bullard, 2015.
Social	Education, social class, primary language, migration experience	Schweitzer et al., 2005; Mayda, 2006; Dustmann & Preston, 2007; Facchini et al., 2011; Gang et al., 2013; Murray & Marx, 2013; Bullard, 2015.
Political	Political and political party affiliation, religion	Chandler & Tsai, 2001; Dustmann & Preston, 2007; Bullard, 2015.
Economic	Income, national pride, labour market status, economic security, fiscal cost	Mayda, 2006; Dustmann & Preston, 2007; Hainmueller & Hiscox, 2007; Facchini & Mayda, 2009, 2012; Boeri, 2010; Facchini et al., 2011; Paas & Halapuu, 2012; Gang et al., 2013; Hatton, 2016.
Geographical	Location, town size	Finney& Peach, 2004

Source: authors' contributions.

Researches explaining different factors influencing attitudes towards refugees/immigrants are diverse. In general, most positive and tolerant attitudes are associated with youth, high socio-economic status, high educational attainment and left wing political sympathies (Hainmueller & Hiscox, 2007). Women seem generally more opposed to immigration than men (Citrin et al., 1997). People with non-native or immigrant family members generally show more positive attitudes toward immigrants than people from families without a recent history of immigration (Mayda, 2006; Murray & Marx, 2013). People who are not born in the country where they live, people who have ever belonged to a group discriminated against in the country they live in, and people who have worked abroad have more tolerant attitudes towards immigrants (Paas & Halapuu, 2012). In general, personal experience of migration (immigration, emigration, and internal migration) can generate more tolerant and empathetic attitudes (Finney & Peach, 2004). Individuals with right wing or conservative political ideologies, and those evincing more national pride, are generally more likely to oppose immigration (Chandler & Tsai, 2001). Other authors (Murray & Marx, 2013) find that political orientation had no effect on respondents' attitudes toward refugees. Highly-skilled individuals are more likely to adopt tolerant attitudes towards immigration than low-skilled, and this effect is greater in richer countries than in poorer countries, and in more equal countries than in more unequal ones. In Western countries this is caused by western educational systems which are designed to increase social tolerance (Gang et al., 2013). Chandler and Tsai (2001) point out that education fosters tolerance, not just by increasing students' knowledge of foreign cultures and raising levels of critical thinking, but also by generating more diverse and cosmopolitan social networks. Analysing economic determinants, it was found that individuals with less economic security tend to have more intolerant attitudes towards refugees (Paas & Halapuu, 2012). A variety of studies, particularly those by political scientists, argue that social and cultural values are more important in shaping immigration opinion than economic considerations (Citrin et al., 1997; Rustenbach, 2010; Manevska & Achterberg, 2013).

Results of research vary according to the specifics of country and period. It cannot be stated whether it is negative or positive attitude towards refugees and there is a need for continuing research of society's perceptions towards refugees. Furthermore, investigations should include not only economic-social factors, but also demographic ones influencing public attitudes towards refugees. This is proved in the present article.

3. Variables, hypotheses and model

The theory and results of empirical researches on immigration clearly show that the attitude towards refugees is potentially related to many socio-economic factors. In accordance with a previous part of the paper, having analysed various researches concerning this topic, in this research binary logistic regression was chosen as the most suitable statistical tool for empirical estimation of factors influencing attitude towards refugees and European Social Survey (ESS) database as source of raw data. The attitude towards refugees was originally measured in various Likert-type scales, ranging from 1-4 to 0-10 scales. To simplify interpretation, all the above mentioned scales are re-encoded into only two values, using simple mathematical division. In cases when scales had an uneven number of answer possibilities, the "leftover value" in the neutral middle was counted as negative attitude. To this end, dependent variable, describing European peoples' attitude towards refugees, i.e. their positive or negative nature of answers to questions regarding refugees, is encoded into binary form. Positive attitude was described as value "1" and negative one as "0".

The factors potentially influencing attitude towards refugees, i.e. independent variables in the model, are chosen as follows: (i) *Education level*. It was originally categorized in ESS data by ES-ISCED, a variant of ISCED (International Standard Classification of Education) especially developed for working with ESS data. In this analysis four dummy variables are assigned to the existing data: "basic education", "high school diploma", "vocational school diploma" and "higher education". "Primary education" is chosen as benchmark group. (ii) *Employment status* consists of two dummy variables: "people without job looking for one" and "people who are neither working nor looking for a job". "Working people" is chosen as benchmark group. (iii) *Income* of people in this research is described only by the subjective opinion of the respondents, their answers coded into binary form: people who answered they can manage (or even manage well) with their income – "0" and people who encounter difficulties managing with their family's income – "1". Thus this dummy variable can be named "*insufficient income*". (iv) *Gender* coded into binary form: male – "0" and female – "1". Thus this dummy variable can be named "*female*". (v) *Marital status* consists of three dummy variables: "divorced", "widowed" and "never married" people. "Married people" is chosen as benchmark group. (vi) *Children in family*, like gender, are by essence dummy variable having only two values: people either have children – "1" or they do not – "1". Thus this dummy variable can be named "*children*". (vii) *Religiosity* is divided into two groups and encoded into binary form: people who consider themselves religious – "1" and people not so – "0". Thus this dummy variable can be named "*Religious*". (viii) *Place of living* conveniently reduced to binary variable: people who live in cities encoded as "0" and people living in countryside as "1". Thus this dummy variable can be named "*Countryside*". (ix) *Nationality* as variable was recorded into two categories, both representing about half of the whole sample. Citizens of Northern and Eastern European countries are encoded as "0", people of Central and Western European countries as "1". Thus this dummy variable can be named "*Central/Western Europe*". (x) *Age* was grouped into four categories and three dummy variables are assigned to following groups "from 21 to 40", "from 41 to 60" and "61 and above". "Up to 20" is chosen as benchmark group. (xi) *Neighbourhood safety* was categorized and "feeling safe walking home after dark" assigned to “0” and the opposite of that to “1”. Thus this dummy variable can be named “*lack of safety*”.

From theoretical background we can predict the possible impact of factor, i.e. independent variables, on attitude towards refugees in the model. As many research papers emphasized, the level of education is very important factor to consider. From that comes our first hypothesis:*H1: People with higher level of education possess more probability for positive attitude towards refugees*. From neighbourhood safety theory appears another testable hypothesis: *H2: People feeling safe will have more likely positive attitudes towards refugees*. From theories about natives’ financial situation two hypotheses can be deduced: *H3: People whose work are more likely to have positive attitudes towards refugees* and *H4: People who are satisfied with their family’s financial situation are more likely to have positive attitudes towards refugees*. For the rest, following hypotheses are formulated: *H5: People living in cities are more likely to have positive attitudes towards refugees*; *H6: Females are more likely than males to have positive attitudes towards refugees*; *H7: Younger people are more likely to have positive attitudes towards refugees than older people*; *H8: Natives from Central and Western European countries are more likely to have positive attitudes towards refugees than people from Eastern and Northern Europe; H9: People who are married possess higher probability for positive attitude than those never married, divorced or widowed*; *H10: People who consider themselves religious are more likely to have positive attitude towards refugees than people who do not consider themselves religious* and *H11: Families without children are more likely to have positive attitudes towards refugees than families who have children*.

The regression model for empirical estimations is composed as follows:

$$P(Y) = \frac{1}{1 + e^{-(\beta_0 + \beta_1 X_1 + \cdots + \beta_{11} X_{11} + \varepsilon)}} \tag{1}$$

where *P(Y)* is a probability of occurrence of a positive attitude over negative attitude towards refugees, as negative attitude in the model is the benchmark value. $x_1,...,x_{11}$ marks all eleven independent variables, i.e. factors, in the model starting from *education level*. $\beta_1,...,\beta_{11}$ as usual marks the regression coefficients, giving information how strongly and in which direction independent variables respectively affect the odds ratio of the dependent variable.

4. Estimation results and discussion

On the whole ESS database consists of about 47 thousand respondents. Rather scare is data about marital and work statuses (data about these factors is available for a bit more than 60% of all questioned respondents). Incomplete data (nevertheless for some of variables we had data from almost 99.9% of respondents) reduces sample size for our research and in our case it is 27598.In general, it appears that people in the EU have positive attitude towards refugees. 69.9% out of sample supports inflow of refugees into the EU, and think, that government should be generous when assigning refugee statuses. Nevertheless, slightly more than half of respondents think that refugees could make country’s crime problems worse.

Estimation results of binary logistic regression model linking factors with odds ratios of the positive attitude towards refugees are presented in Table 2. Surprisingly education, gender, religiosity, place of living, age and neighbourhood safety were estimated as statistically insignificant factors not affecting attitude towards refugees at 95% confidence level. Because of the globalization when people meet other cultures, change experience and traditions, familiarize with religions, society becomes more tolerant to different people. As it was proved in previous research that attitude towards immigrants/refugees changes over time (see Facchini et al., 2011). Thus we should reject hypotheses H1, H2, H5, H6, H7 and H10 because we do not have clear statistical evidence, that factors corresponding to these hypotheses affect attitude towards refugees.

Table 2: Estimation results of the model

Factors in the model	Estimated β coefficient (B)	Standard error	p-value	Exp(B)	95% C.I. for Exp(B)	
					Lower	Upper
Constant	1.659	0.631	0.009	5.254		
Education level			0.428			
Basic education	-0.058	0.317	0.854	0.943	0.507	1.755
High school diploma	-0,151	0.299	0.615	0.860	0.479	1.546
Vocational school diploma	-0.094	0.338	0.780	0.910	0.469	1.766
Higher education	0.190	0.321	0.555	1.209	0.644	2.270
Employment status			0.109			
people without job looking for one	0.340	0.415	0.413	1.405	0.623	3.170
people who are neither working nor looking for a job	0.317	0.154	0.040	1.373	1.015	1.858
Insufficient income	-0.434	0.174	0.013	0.648	0.461	0.912
Female	0.129	0.141	0.360	1.138	0.863	1.501
Marital status			0.117			
Divorced	-0.737	0.484	0.128	0.479	0.185	1.237
Widowed	-1.070	0.491	0.029	0.343	0.131	0.898
Never married	-0,642	0.494	0.194	0.526	0.200	1.358
Children	0.459	0.209	0.028	1.586	1.052	2.382
Religious	0.125	0.143	0.383	1.133	0.856	1.500
Countryside	-0.045	0.147	0.758	0.956	0.716	1.276
Central/Western Europe	-0.459	0.134	0.001	0.632	0.486	0.821
Age			0.505			
from 21 to 40	-0.154	0.246	0.530	0.857	0.530	1.387
from 41 to 60	-0.224	0.293	0.446	0.800	0.450	1.421
61 and above	0.103	0.321	0.748	1.109	0.591	2.081
Lack of safety	-0.308	0.174	0.078	0.735	0.522	1.035
N	27598					
-2 Log likelihood	1406.493					
Pseudo R^2						
Cox&Snell	0.044					
Negelkerke	0.065					
Hosmer and Lemeshow test						
χ^2	12.022					
p-value	0.150					

Source: authors' calculations.

We do not see statistically significant difference in attitude towards refugees between people who work and people without job but looking for one. But we estimated that people who are neither working nor looking for a job 1.4 times are more likely to have positive attitude towards refugees than those who are recorded as active labour force. Thus we should reject hypothesis H3, because we see impact in opposite direction than it was sensible from theoretical point of view. This is contrary to theoretical explanation that individuals with less economic security have more intolerant attitude towards refugees. Active labour force has negative attitudes because of the tougher competition in labour market and also wage decrease.

Confident feeling about household income affects the probability of positive attitude towards refugees. People with insufficient income, according to model estimation, 1.6 (1/Exp(B)) times are more likely to have negative attitude towards refugees than those who feel confident feeling about household income. Thus we do not reject hypothesis H4.

Concerning the question of how generous should the government be supporting asylum seeker flows and assigning refugee statuses, the people from Western and Central European countries are 1.6 ((1/Exp(B)) times more not to agree with the statement compared with Northern and Eastern European countries' citizens. The explanation comes from the current refugee crisis in the EU. In 2015, European countries received more than 1,3 million asylum claims (Western countries receive majority of claims) and this caused different conflicts and increase of crimes. Also we could state that Northern countries are more tolerant to refugees. Eastern European countries are less developed so they are not very attractive to refugees and do not face with this problem. Thus we should reject hypothesis H8, because natives from Central and Western European countries seem less likely to have positive attitudes towards refugees than people from Eastern and Northern Europe.

We do not see statistically significant difference in attitude towards refugees between married, never married and divorced people. But we estimated that the widowed almost 3 times are more likely to have negative attitude towards refugees than people with other marital statuses. This factor has no theoretical background so it is needed for deeper research. Thus we partly reject hypothesis H9, because we see difference in attitude towards refugees just between married and widowed and no difference in attitudes between married and divorced, married and never married.

People who have or ever had children, according to the model, 1.6 times are more likely to have positive attitude towards refugees than those without. The value itself falls into rather wide confidence interval of 95% confidence so the result should be interpreted with healthy scepticism. Thus we have some statistical evidence to reject hypothesis H11 stating that people without children have more probability of positive attitude towards refugees.

5. Conclusion

Society's attitudes towards refugees are influenced by various factors: demographic, economic, social and cultural, political, geographical and etc. These attitudes influence policy towards refugees in destination countries. Thus research concerning the socio-demographic factors influencing attitudes towards refugees is relevant offering an insight to the background of people's attitudes.

For this research binary logistic regression was chosen as the most suitable statistical tool for empirical estimation of factors influencing attitude towards refugees and ESS database as source of raw data. We developed 11 hypotheses about factors influencing attitudes towards refugees in EU. As the research shows people who are neither working nor looking for a job, feel confident about household income, originated from Central and Western European countries, married and with children are more likely to have positive attitude towards refugees. And in opposite – active labour force, people with insufficient income, living in Eastern and Northern Europe countries, the widowed have negative attitude towards refugees.

We can conclude that some of our findings were confirmed by previous research but some results are controversial and there is a need for continuing research of society's perceptions towards this issue.

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THE SIGNIFICANCE AND IMPORTANCE OF CRISIS COMMUNICATION IN THE CONDITIONS OF GLOBAL CRISIS

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Abstract. Business is currently characterized by relatively high degree of risk. This state is characteristic specifically for current turbulent environment of global crisis and with that connected uncompromising competition struggle and it brings along the need for solution of the whole array of different reactions of affected target groups. The result is the launch of defence mechanisms, which aim for minimizing the damage and securing the survival of the company. Effective communication in global crisis is more important than ever before. Any company regardless of its size and sector of operation can be hit by the crisis. Companies must simply count with crisis. The fundamental question nowadays is not whether the company will be affected by a crisis yet when the crisis comes and in what form it will come. Every company should be ready in advance for the crisis so it can eliminate potential damage, which the crisis will bring along. The management of the company must know how to proceed, when the crisis hits it. Paper deals with significance and importance of crisis communication in conditions of global crisis. The crisis communication is an important tool, through which the company can influence the progress of crisis situation. The main goal of crisis communication is to provide the right information, at the right time, at the right place. Although the crisis communication is an important tool, in our businesses it is often underestimated and the management does not pay it enough attention, time and preparation. Failure to manage the crisis situation can result in threatening the sole essence and existence of the company that is why it is important to pay more attention to this issue.

Keywords: crisis, crisis communication, company, management

JEL Classification: M00, M20, M29

1. Introduction

New intentions and consequences of globalization processes pose new needs and new tasks for managerial practice. Number of principles accepted until now are useless in constantly and unpredictably modifying environment. Now more than ever it is clear that future of businesses will depend largely on their readiness to withstand common as well as new threats and crisis, on involvement of global community on ensuring development towards socially, politically, economically and ecologically sustainable future. Theory and practice of comprehensive understanding of crisis management, crisis communication, search for theoretical background, principles, methods and principles which would aid that are a part of it (Mika, 2011).

Globalization phenomena are reflected on individual economies through increasing competitive pressures. Competitiveness, which is in today´s market environment a primary sign of success of any business, creates constant pressure on improving and executing decisive transformations in all continuity in which the business founds itself. As the main precondition for maintenance and growth of competitiveness we take the ability to implement changes, which respond to the environment of the company. Different innovations and investments into prospective areas of the business are the driving force of change. One of the scientific disciplines is also management in which new findings, theories, opinions, discussions and empiricisms, that push forward the area of business management, are emerging. Expansion of technologies and constant changes of current business environment impose great requirement on managers of all the businesses. Successful fulfilment of complex duties in times of digitalization, where business activities are having new measures, does not depend only on so far used information and production technologies but more and more widely on knowledge and availability of human factor. For each company today´s global economy in business environment creates not only opportunities but also possible risks that can result in company crisis (Hrašková & Bartošová, 2014).

2. Crisis

The word crisis is very frequently used in everyday life as well as in social sciences. We can say that companies go through a whole array of different stages during their existence in which growth as well as decline, economic boom, economic stagnation and also economic recession take place.

We can say, that companies go through different time phases during their existence, which signalize various deviations from steady economic state. Given deviations are caused by number of internal and external factors that have different intensity and impact on business economy (Gozora, 2000). Crisis indicates a significant problem or situation when damages occur.

Definitions of current crisis of company are constantly changing, as well as techniques, through which they fight it. There is no unified definition.

We agree with the opinion of Bednárik that crisis *"emerges as a culmination of risk. In nature crisis occurs as an unpredictable catastrophe. In company and in society in general a crisis is a result of unresolved or outstanding risks. Risks are here an essential objects of solution and that is why there is an effort to understand them. Sometimes it is possible to identify potential risks, even though it is very difficult, and sometimes it is almost impossible. It is similar with a crisis"* (2010).

Cause of emergence, effects, means of crisis solving lead to destruction of common beliefs, values and assumptions. It has unpredictable or hard to predict course. During the crisis decision making is under pressure due to lack of time and incomplete information. That is a serious threat to survival of the whole system, time pressure on actions, limited resources to manage, vague, incomplete, conflict information, difficult, poorly structured situation, social impacts, does not operate in isolation (one crisis can cause another one), bring with it a mental and emotional load (confusion, tension). From the institutional point of view a crisis is anything that threatens stability of the organization (Mikušová, 2014).

3. Impacts of global crisis to the world and Slovak economy

World economy faced serious risks due to global crisis. Among the most important ones are worsening of the state of public finances in many countries as a result of loss of income to the state budget, increasing expenditures to support unemployed people and rescuing businesses due to financial and economic crisis. Financial gap of states can thus create long-term debt of states, worsen global macroeconomic balance in terms of higher level of inflation in the near future.

Among the risks arising for world economy as well as for Slovakia from the consequences of the global crisis are dramatic decline of financial and non-financial assets, for example decline of commodity and real estate prices. Since this sharp decline in prices can lead even to bankruptcy of some companies and to vicious circle of insolvency, which we ultimately witnessed (Workie, 2009).

One of the biggest crisis that companies had to fight with regardless of their size was in past years the global economic crisis that broke out in time when the Slovak economy was on top of its economic cycle, which had major impact on the growth of GDP.

The economic crisis broke out in Slovakia in major extend in the second half of 2008. Yet, already in the first half of 2007 there were discussions about the financial crisis, which has roots of origin in the US. Hardly anyone expected what effects it will have on the whole society. Economic crisis or financial crisis is very hard to define. It can be characterized as vigorous, sudden, ultra-cyclical deterioration of all or large majority of financial indicators – short-term interest rate, asset prices (stocks, real estate, land), insolvency.

The list of given reasons of emergence of the financial crisis in the US included low interest rates of FED as a product of monetary expansion, trying to eliminate a bad atmosphere that broke out after outbreak of financial crisis. An improper setting of legislation managing financial sector also helped to trigger the crisis. Financial derivatives which presented a mean of risk diversification, and which the lender on mortgage market had to bear, became the next factor of destabilization due to negligence of so called system risk while spreading structural securities that mortgages included. We can simply state that it was a reckless behaviour of mortgage institutes that were providing mortgages even to people whose income was not satisfactory and in times when banks changed the interest rates they were not able to pay and debtors were not able to pay their loans. In American banks the bonds of mortgage institutes as for example long-term securities were mixed with stocks of other companies. These bonds were relatively highly valued despite the fact that they were secured by sub-prime mortgages. They were sold by this method worldwide and literally infected the financial market also in Europe. Foolishness in the actions of bankers and financiers and dishonest interbank marketing helped to overall spread of risk activities (Kovanda, 2010).

As we mentioned above, hardly anyone expected that the crisis will grow to such proportions that a whole societal global crisis will breakout out of it and that it will impact also Slovak companies. At times of its outbreak it only appeared as a financial crisis, later as an economic crisis and after some period it had also a deep social character. We do agree with approach which takes it as qualitatively new crisis process of global civilization nature. Representatives of Slovak government as well as the media were telling Slovak businesses that Slovakia is not included among countries that the crisis would target in the full range and they should not worry. However, the truth was different, while also history is a proof that prognosis of analysists on development and implications on society can be totally different than what they say (Veselý, 2009).

4. Slovakia in the process of globalization and the global index KOF from 2008 to 2015

According to Lysák globalization in Slovakia is often presented as a single, in principle one-way paradigm of integration and internationalization current in worldwide and global dimension. Talks about globalization in Slovakia started from year 1999 when first foreign investors started to come to Slovak market, the next impetus were first words about Slovak accession to the European Union. Thus, in 21st century Slovakia became a part of globalization megatrends, while the economy of Slovakia does not act individually in the globalized world economy yet as a part of European Union grouping. An overall position of Slovakia in evaluation of globalization value comes interesting (Mišún & Mišúnová, 2009).

Since 2002 the globalization index KOF has enabled quantification of the level of globalization. Data from this index are available annually for 207 countries. Authors of this index understand globalization as a process of creating relationships among actors across continents through different flows: people, ideas, information, capital, services and products. Globalization presents a process of disruption of national borders that integrates national economies, cultures, technologies and governments, while creating complex system of relations of mutual interdependence. This index is the only world index which provides the states information on the level of globalization in three dimensions:

- economic (EI),
- social (SI),
- political (PI).

Under economic globalization we understand flows of products and services, capital and also flows of information, which are related to market activities at a longer distance. In social globalization we include spreading of ideas, information, thoughts and mainly people. In political globalization we include spread and interconnection of government policies. Calculation in three partial indexes according to given criteria forms a basis for calculation of the overall index of the level of globalization, which covers:

- real economic flow,
- economic constraints,
- data on information flows,
- data on personal contacts,
- data on cultural proximity (Pelegrinová & Lačný, 2013).

Graphic interpretation of globalization index KOF is shown in the table 1 and values of globalization index in Slovakia for period 2008 – 2015.

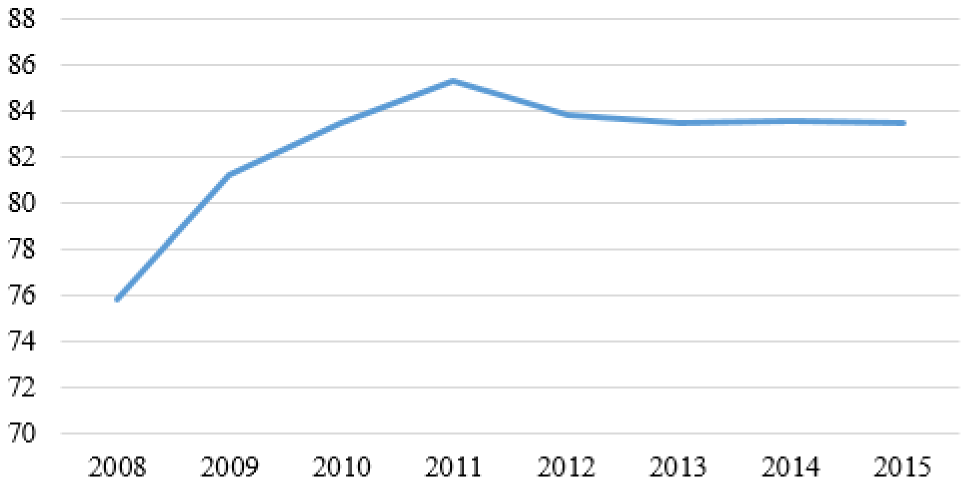
Table 1: Globalization index in Slovakia for period 2008 – 2015

Year	2008	2009	2010	2011	2012	2013	2014	2015
Total globalization	75.82	81.24	83.49	85.30	83.83	83.49	83.55	83.52
Economic globalization	79.32	84.13	83.55	84.77	84.06	83.55	84.58	83.20

Social globalization	79.59	77.44	82.06	85.41	82.33	82.06	81.28	82.63
Political globalization	65.07	82.81	85.44	85.89	85.66	85.44	85.44	85.22

Source: our own resources according to http://globalization.kof.ethz.ch, 2016

Figure 1: Globalization index in Slovakia for period 2008 – 2015



Source: our own resources, 2016

Through the graph we have shown how the globalization index KOF gradually grew since the outbreak of the financial crisis in Slovakia up to year 2015. From the above graph we see that through the whole reviewed period from 2008 to 2015 the lowest rate of globalization in Slovakia was just at the time of outbreak of the economic crisis, when it represented value 75.82 and also all other indexes show the lowest values. Difference between year 2008 and 2015 presents increase of the globalization rate for about 9%. The highest rate of globalization for Slovakia was in year 2011. Gradual increase of the overall globalization was reflected as well in the growth of foreign trade turnover and also in foreign direct investments inflow. In comparison with 207 world states according to the globalization index in 2015 the most globalized country was Ireland (91.30), Slovak Republic reached 17th place. The highest rate of economic index was achieved by Singapore (95.69), Slovakia was on the 16th place. In the index of social globalization the highest value was reached by Austria 91.54. (Slovakia was on the 16th place) and in the case of political globalization Italy was on the first place (97.52) and Slovakia was behind at the 44th place. Individual index values in the reviewed years are shown in the table 1.

5. Significance of crisis communication in times of global crisis

It is necessary to count with possible emerged crisis, to be able to predict them as well as to be able to prepare for them. A part of this preparation is also the readiness to lead crisis communication. The same as we consider the crisis management a specific form of general management we also need to consider the crisis communication a specific form of general communication.

Let´s s start from the statement that crisis communication is not only communication in times of crisis but it is also a communication before the crisis situation. The difference is that the company will use the pre-crisis situation communication intentionally – voluntarily, it is its free decision but post-crisis situation communication – is forced, under time pressure and often in stress. Companies must realize that in case a crisis communication arise the media will immediately become interested in it (Antušák & Kopecký, 2007).

According to Hálek we can define crisis communication as "*a specific form of social communication and at the same time a tool of crisis management. It can have a verbal as well as non-verbal form. Defined by its nature it is mainly interpersonal, intrapersonal, group and mass communication*" (2008).

Vymětal defines crisis communication as "*an exchange of information among responsible authorities, organizations, media, individuals and groups before special events, during and after their end* "(2009).

Global crisis brought a lot of lessons, mainly a new perspective on solving crisis situations to the business sphere. Companies operating on the Slovak market reacted differently on the emerged global financial crisis. Most of the companies answered by decreasing their production. For example an automobile company KIA switched from three-shift operation to one shift, and as well started with gradual dismissal of employees. In times of crisis the companies should know how to communicate with internal as well as external environment. To be able to explain their decisions to tackle the crisis. Regardless of the number of changes and adjustments in crisis communication of companies compared to conventional methods there must be a certain coherence between both types of communication. The coherence should be represented mainly by the value-ethic principles, consistently present in any communication statement of the company. Communication pillars ensure not only coherence between standard and crisis communication but provide important backing points to communication.

If the business partner or public see this „communication stability" of the company the crisis communication is then a logical continuation of standard communication in crisis situation. To a certain extend it removes the feeling of insecurity of all the participants of communication. It makes the representatives of the company relaxed and allows them to give better communication performances, and it relieves the feeling of mistrust from public, business partners, and employees. If in the time of crisis the company succeeds to communicate convincingly its primarily ethical backing points, and so its true identity, it is a sing of firm and long-term codification of this identity. Only this crisis communication which is based on principles, rules that are made already before the crisis, has a prospects for success. For this reason it is important to draw upon the overall value-ethical principles of the company. Respect to the communication partner, avoiding lies and half-truths, rational character and not adding different stressful factors into the crisis situation – these are the main principles of crisis communication (Jaššo, 1998).

The outbreak of the crisis can also be beneficial if the company knows how to turn into their favour through crisis communication. One of the examples of missed chance in the time of economic crisis are banks in Slovakia. When the crisis already broke out in the West, Slovak banks knew already that it will come to Slovakia as well and that it will affect Slovak companies. They knew basic circumstances and also possible questions.

None of the Slovak banks did use the opportunity to actively communicate for example its great economic condition, to confront its results with other countries. It can be understood as if it was a shame to show in Slovakia that they are successful.

They missed the chance to come with a good presentation at the time when negative news dominate, though according to him it could lead to strengthening the relationship between bank and its employees as well as customers at the time of transition from Slovak crown to euro.

Information that media bring influence also the opinions of employees, clients, shareholders, investors, as well as the government. The team responsible for crisis communication must not forget any of these groups. It covers not only external but also internal communication.

In this context, it is also necessary to devote attention to measuring effectiveness of crisis communication. Effectiveness of the crisis communication is dependent on the readiness of subjects for its release into practice. It should be a rule, that crisis communication is applied only in real crisis moments and not in common modus operandi for any communication activities in time pressure or similar (Humenský, 2008).

6. Conclusion

Doing business today is characterized by relatively high degree of risk. Nowadays, more than ever the existence of companies depends on the readiness to face different challenges. Many of the previously acknowledged methods are useless in the unpredictably changing environment. New conditions of development of globalization phenomena, development of external, internal environment of companies bring new incentives for development of crisis communication theories. Crisis communication is one of the preconditions of crisis solution preparedness of companies in conditions of global crisis and can prevent damaging the company name. Company managers cannot avoid the crisis, they must be constantly ready for it, because it can threaten them in any moment and they must be able to cope with it, be ready for it. Properly managed crisis communication is a prerequisite for a successful take out of a company from the crisis.

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CORPORATE SOCIAL RESPONSIBILITY IN A SUPPLY CHAIN CONTEXT IN THE PROCESS OF GLOBALIZATION

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Abstract. Organizations of the 21st century can no longer limit themselves to producing and marketing products or services without any concerns for the impact they have on society. If they want to be trusted by their customers, employees and the public at large, they have to be more socially responsible. The article deals with the possibilities and applying the principles of Corporate Social Responsibility (CSR) in a supply chain context in the process of globalization. Corporate social responsibility is an impulse and a mean to discuss the extent of any obligations of the organization towards its immediate environment. With increased globalization and offshore sourcing, global supply chain management is becoming an important issue for many businesses. Supply chain management is an area with increasing of strategic importance due to global competition, outsourcing of noncore activities to developing countries, short product life cycle, and time compression in all aspects of the supply chain. Management attention has moved from competition between firms to competition between supply chains. The capability to establish close and long-term relationships with suppliers and other strategic partners has become a crucial factor in creating competitive advantage. The aim of the article is to focus attention on the most important application area of corporate social responsibility within an integrated supply chain.

Keywords: Corporate Social Responsibility, Supply Chain Management, Globalization

JEL Classification: M10, M14, M15

1. Introduction

Globalization affects the economy, business life, society and environment in different way and almost all corporations have been affected by these changes. We can see these changes mostly related with increasing competition and the rapid changing of the technology and information transfer. This issue makes corporations more profit oriented than a long term and sustainable company. We need some social norms, rules and principles in society and business life for socially responsible behaviour. The development and implementation of strategy is of course important for every organization, and this has always been so. Increasingly however in the present CSR is being considered as a crucial part of that strategy with corresponding advantages to the organization. In this paper therefore we will consider aspects of this in the context of the objectives of the firm and its procedures for governance. (Gereffi and Le, 2016)

With globalization of production networks, corporations have to extend the reach of their CSR policies not only to their overseas subsidiaries but also to suppliers over which they have varying degrees of operational control. The magnitude of the challenge involved in promoting CSR within Multinational corporations (MNCs) and along their supply chains is illustrated by the fact that there are over 63,000 MNCs with over 800,000 subsidiaries multiplied by millions of suppliers and distributors (UNCTAD, 2001). For developing country firms, the challenge is how to use CSR to competitive advantage, avoiding the risk that weak CSR practices exclude them from global supply chains. CSR is a considerable investment for small and medium-sized enterprises (SMEs) but at the same time the investment has the potential to contribute to long term competitiveness.

Following to this trend an increasing amount of supply chain activities are transferred to the logistic service providers. Following to the internationalisation of the economy value chain activities (sourcing, production, manufacturing and sales sites) are spread out all over the globe. Monitoring the supply chain from source to consumer is a quest for optimisation. International success is guaranteed by the continuity of the supply chain and sharp control of the logistics costs, improving customer and shareholder satisfaction. (Pernica, 2004)

2. Corporate Social Responsibility

Corporate Social Responsibility is associated with the conduct of corporations and in particular whether corporations owe a duty to stakeholders other than shareholders. (Ogrean, 2014) Whilst the phrase ‘Corporate Social Responsibility’ may be gaining momentum, the concept itself is not new. The CSR debate has largely revolved around the conduct of multinational corporations (MNEs) and other large private companies which, due to their size, have the ability to significantly influence domestic and international policy and the communities in which they operate (Wisser, 2007). Central to the debate is the perceived deficiency of national and international law remedies regarding corporate accountability, in particular the ability of available regulation to successfully regulate a corporation’s conduct in jurisdictions outside the corporation’s home state. Proponents of CSR argue that the efficient functioning of global market depends on socially responsible business conduct. (Asgary and Li, 2016)

2.1 Definition of CSR

A single globally-accepted definition of CSR does not exist, as the concept is still evolving. The language used in relation to CSR is often used interchangeably with other related topics, such as corporate sustainability, corporate social investment, triple bottom line, socially responsible investment and corporate governance. However, various individuals and organisations have developed formal definitions of CSR, including:

- ‘The commitment of business to contribute to sustainable economic development, working with employees, their families, the local community and society at large to improve their quality of life’ (World Business Council on Sustainable Development).
- ‘Operating a business in a manner that meets or exceeds the ethical, legal, commercial and public expectations that society has of business’ (Business for Social Responsibility).

- 'A set of management practices that ensure the company minimises the negative impacts of its operations on society while maximising its positive impacts' (Canadian Centre for Philanthropy).
- 'The integration of business operations and values whereby the interests of all stakeholders including customers, employees, investors, and the environment are reflected in the company's policies and actions' (The Corporate Social Responsibility Newswire Service).

A traditional view of the corporation suggests that its primary responsibility is to its owners, or stockholders. In accordance (Bebbington, 2008) CSR requires companies to accept a broader view of its responsibilities that includes not only stockholders, but many other stakeholders as well, such as employees, suppliers, customers, the local community, state, and federal governments, environmental groups, etc. Corporate social responsibility is related to, but not identical with, business ethics. Business ethics usually focuses on the moral judgments and behaviour of individuals and groups within organizations. (Feri et al., 2016)

2.2 Corporate Responsibility and Global Markets

The European Commission underlines how corporate responsibility is not an additional element with respect to companies' fundamental activities, but rather linked to companies' management itself. Recently the belief according to which corporate social and environmental responsibility correspond to 'the set of rules through which a company operates on the market, respecting the well-being of a wide group of stakeholders, including workers, business partners, the community and the environment, thus safeguarding long term business sustainability' has been spreading around. Today, the urgency to adopt socially responsible management policies is due also to the growing importance of characteristics related to companies' reputation and to the trust relationship between the company and its main interlocutors, as regards the choices of both consumers –that, as we will see, prefer companies that follow such a behaviour- and trade partners, large-scale distribution, where the continuous assessment of the respect of human and social rights by their suppliers has become the normal practice. (Mzembe et al., 2016)

Several partnership projects have in fact been started in Europe, both in France and Germany, among large scale retailers, to verify the respect of SA8000 standards by their suppliers, in particular those from developing Countries, believing in the need for everybody to assess risks and in the opportunity to maximize profits and reduce costs. A company does not have to distinguish itself for specific solidarity initiatives, but it should rather adopt a socially responsible global management of its activity. This is a long and sometimes complicated process, where the collaboration between the different market actors becomes a key success element. There's been for some years, at a European level, the political conviction that corporate social responsibility is 'closely related to the concept of long-lasting development', by which the European Community wants to be inspired for its political and operational choices.(The Charter of Fundamental Rights of the European Union, 2000).

3. Corporate Social Responsibility in Supply Chain

CSR can play a fundamental role in achieving worldwide objectives of growth, competitiveness, better governance, and overall sustainable development. Those companies acting according to CSR principles are expected to contribute to economic development while improving the quality of life of the workforce and their families, as well as of that of the local community and society at large (Markley & Davis, 2007). It is therefore worth advancing in those efforts aimed at promoting CSR practices at any level. According to CSR principles, companies adopting CSR are compelled to integrate ecological and social aspects into their decisions and actions across their supply chains and they should hold themselves accountable for the social and environmental impacts arising from their activity. Of course, logistics represents a key element at most stages of the products' lifecycle. (Ceniga & Šukalová, 2012)

3.1 Areas of Social Responsibility in Supply Chains

Supply Chain Management is a process comprised of several distinct but interconnected functions and activities. Internal and external transportation management, warehousing, inventory management, acquisition management, logistics service provider management, resource management, packaging and assembly, customer services are among the most important ones. It is also possible to break down the supply chain management process into two main flows; i.e. forward flow and reverse flow. Taking into consideration those processes, main areas of social responsibility in supply chains are (Andersen and Skjoett-Larsen, 2009):

- Organizational practices
- Ethical practices
- Environmental practices
- Practices of human rights and working conditions
- Practices of occupational health and safety
- Practices to establish relationship with society

3.2 Monitoring Supply Chain CSR

The outsourcing trend has stretched supply chains around the globe (Pande et al., 2006). The different players in the supply chain are at different tiers in the process, and each has different capabilities and incentives to implement a given MNC's CSR program, making management of the supply chain increasingly intricate. Management aside, the issue becomes complex due to the pressure from multiple stakeholders requiring the corporation to be more responsible through the lifecycle of the product. The pressure from some quarters is to ensure a sustainable product lifecycle, from environmental and social impacts arising from material extraction and manufacturing, to product use and disposal (Majerova, 2015). This is a challenging task that requires additional company investment. Monitoring suppliers from around the world requires significant financial and human resources. Partly as a response to CSR pressures, but partly also for competitiveness reasons, the overall trend is to collapse the supply chain and develop longer-term relations with a smaller number of suppliers.

Large companies often prefer to rely on in-house programs to evaluate and strengthen CSR along supply chains. Hewlett-Packard (HP), for example, monitors its supply chain by using a self-assessment questionnaire. HP then works collaboratively with suppliers to achieve the required standard in areas identified as falling below requirements. (Ahmad et al., 2016)

3.3 Implementing CSR Policy in Supply Chains

Many suppliers operate on thin margins and short-term business horizons. Compounded by low barriers to entry in labour-intensive industries leading to overcapacity in the supply chain, and the high costs involved in adopting different codes of conduct for different clients, they are often wary of CSR (Vogel, 2005). While some supply chain partners are beginning to appreciate the opportunities for greater market access provided by CSR, most are sellers of intermediate or generic final goods (where CSR compliance is not a visible attribute associated with their own brand) and hence are less likely to feel threatened by challenges to their reputation for non-compliance with codes.

One way to address the potentially high costs to small producers of participation in CSR initiatives is for industry associations to assume some of those costs on behalf of their members. Progressive industry participants have an interest in such schemes to the extent that they can limit the risk of negative publicity spill overs from less responsible industry participants. The chocolate industry, for example, has developed an industry-wide program aimed to prevent child labour. (He et al., 2016)

4. Affects of Globalization and Limitations of CSR

In order to encompass this broad impact area globalization covers all dimensions of the world economy, environment and society. Moreover it is apparent all over the world and the world is changing dramatically. Every government has a responsibility to protect all of their economy and domestic market from this rapid changing. The question is how a company will adapt to this changing. First of all companies have to know different effects of globalization. Globalization has some opportunities and threats. A company might have learned how to protect itself from some negative effects and how to get opportunities from this situation.

4.1 Factors affecting Globalization Theory

Globalization affects the economy, business life, society and environment in different ways:

- Increasing competition.
- Technological development.
- Knowledge/Information transfer.
- Portfolio investment (fund transfer between developed countries and emerging markets).
- Regulation/deregulation, International standards.
- Market integration.
- Intellectual capital mobility.
- Financial crisis-contagion effect-global crisis.

Financial crises are mostly determined through globalization and as a result of the globalization impact. In fact, this is quite a true explanation. The financial world has witnessed a number of crises cases. In accordance (Aras, & Crowther, 2008) generally financial crises come out from international funds/capital flows (portfolio investments), lack proper regulations and standards, complex financial instruments, rapid development of financial markets, asymmetric information and information transfers. One country crisis can turn into a global crisis with systemic risk effect. Systemic risk refers to a spreading financial crisis from one country to another country. In some cases, crises spread even between countries which do not appear to have any common economic fundamentals/problems. Previous global crises have also showed that one of the reasons for the crisis is unregulated market (Vogel, 2005).

4.2 Globalization affects on CSR

The question might be how globalization affects CSR. But the answer to this question is not only related to the last quarter of the 20th century but also related to previous centuries. John Maynard Keynes calculated that the standard of living had increased 100 percent over four thousand years. Adam Smith had an important (seminal) idea about the wealth of communities and in 1776 he described conditions which would lead to increasing income and prosperity. Similarly there is much evidence from economic history to demonstrate the benefit of moral behaviour; for example, Robert Owen in New Lanark, and Jedediah Strutt in Derbyshire both in the UK showed the economic benefits of caring for stakeholders. More recently Friedman has paid attention to the moral impact of the economic growth and development of society.

Moreover, they are responsible to the shareholders for making more profit to keep their interest long term in the company. Therefore they are taking risk for their benefit/profit. This risk is not opposed to the social or moral/ethical principles which they have to apply in the company. (Sherer & Palazzo, 2008) say that there are many reasons for ethical and socially responsible behaviour of the company. However, there are many cases of misbehaviour and some illegal operations of some companies. Increasing competition makes business more difficult than before in the globalised world. The good news and our expectations are that competition will not have any longer bad influence on company behaviour. According to international norms (practice) and expectations, companies have to take into account social, ethical and environmental issues more than during the last two decades. One of the reasons is great competition not always more profit; another reason is consumer expectation is not only related to the cost of products but also related to quality, proper production process and environmental sensitivity. (Sherer et al., 2016)

Moreover shareholders are more interested in long term benefit and profit from the company. The key word of this concept is long term which represents also a sustainable company. Shareholders want to get long term benefit with a sustainable company instead of only short term profit. (Ghadini et al., 2016) say that this is not only related to the company profit but also related to the social and environmental performance of the company. Thus, managers have to make strategic plans for the company concerning all stakeholder expectations which are sustainable and provide long term benefit for the companies with their investments.

Globalization has had a very sharp effect on company behaviour and still we can see many problems particularly in developing countries. This is one of the realities of the globalization process. However we are hoping to see some different approaches and improvements to this process with some of them naturally related to some international principles, rules and norms. But most of them are related to the end of this flawed system and the problems of capitalization. (Klieštik et al., 2015)

4.3 Globalization - Opportunity and Threat for CSR

We have no certain answer for this question which is depends on from where are you are looking. It is clear that the globalization has different effects on the social responsibility of the company and the behaviour of managers. Some of these are supporting companies/managers for motivating towards socially responsible behaviour, while others of them are destroying fair business and all principles, norms and regulations which are the result of increasing competition. Globalization has been created bigger companies in terms of turnover, market capitalization, and amount of assets. This causes imperfect competition with other small and medium size companies which is a major threat for them. (Bebbington, 2008)

But it might also provide to companies great opportunities for reaching people and customers, and for collaboration with other companies from all over the world. In fact we have to accept that globalization is an inevitable phenomenon for which we have no alternative yet. Well-regulated and controlled markets are not a big problem and threat, but lack of regulation and norms is the main problem in a developing country which globalization has a big influence in these economies. Moreover CSR implementation is the one of the most important issues for globalised economies and markets. CSR requires some rules for the determination of the relationship between the corporation and society, which is still a complicated process. The implication is that CSR is not merely a simple process but also needs a long term strategic approach by companies which need to learn socially responsible behaviour and their decision makers must enforce these principles in the company.

The duty of corporations is serving their shareholder through providing proper products and services. The purchasing decision of the customer is not only related with price and quality but also based on a consideration of the social behaviour of the company. (Zerk, 2006) considers that socially responsible investment and behaviour gives some opportunities to the company which is more visible than others and show more concern for stakeholders also. In particular, the development of information technology is helpful for the company for trading in any place in the world to any customer. Customers want the corporation to behave properly to its suppliers, and their suppliers to treat their labourers fairly even in far distant countries. When the company behaves unethically then people will know this problem all over the word and its effect on company sales and stakeholder interests for the company.

5. Conclusion

Under the strong influence of increasing competition, globalization, communication and information technologies, companies trying to keep their positions in the market and to maintain a sustainable growth are increasingly inclined to apply corporate social responsibility activities and practices. Corporate Social Responsibility can be defined as companies' voluntary integration of social and environmental concerns in their business processes and in their relationships with other companies and stakeholders. As companies successfully adapt social and environmental practices, they can achieve economic benefits by reducing costs, increasing productivity and profits, enhancing corporate image and reputation. However, for supply chains to be successful in terms of CSR, companies, including all suppliers and manufacturers in the chain, need to increase their own awareness and act in a socially and environmentally responsible manner. Moreover, they are obliged to comply with the environmental laws and regulations, to meet national and international standards and to integrate CSR practices in their business processes.

Finally, adoption of CSR by supply chain firms in developing countries can result in positive spill overs and redefine industry standards. By linking to communities of CSR practice, developing country firms may be able to compensate for weak enabling environments - e.g., absence of the rule of law and weak local standards of corporate governance. Future research could focus on determining which organisations or institutions, such as industry bodies or regulators, are responsible for driving the changes required to ensure consistency in CSR supply chain reporting disclosures. Future research could also be based on the assurance requirements, if any, of private sector CSR supply chain reporting and the audit of the legislative compliance requirements of public sector supply chains to ensure the quality and level of CSR disclosures are both reliable and relevant.

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INTEROPERABILITY OF IT SYSTEMS IN THE INTERNATIONAL RAILWAYS

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Abstract. Railway similar to the other branches of global economy commonly uses information technologies in its business. This includes, inter alia, issues such as railway traffic management, rolling stock management, stacking timetables, information for passengers, booking and selling tickets. Variety aspects of international railway operations as well as a large number of companies operating in the global railway market causes that currently we use a lot of independent systems that often should work together. The lack of international standards for data structures and protocols causes the need to design and maintain multiple interfaces. This approach is inefficient, time consuming and expensive. Therefore, the initiative to develop an open, international standard for the exchange of data for railway application was established. This standard was named railML. In this paper, we will also focus on a new topological model suitable to be used with members of the UIC (International Union of Railways) - RailTopoModel. This International Railway Standard (IRS) define data model and a corresponding data exchange format. Unified and standardised data structures, which are application-independent and producer-independent, should simplify data exchange between railway systems and reduce number of interfaces which are required for systems cooperation. It is useful and cost-effective technological solution. The current state of railML and RailTopoModel specification and the trend of development will be discussed.

Keywords: international railway IT systems, railML, RailTopoModel, XML, interoperability

JEL Classification: R41, R42, L63

1. Introduction

It is hard to imagine the functioning of the modern world without information technologies. It is a result of numerous advantages of the modern IT solutions. One of the most important arguments for using IT systems is cost optimisation (Hanning et al., 2011), (Łukasik & Nowakowski, 2014), (Łukasik et al., 2016). Variety aspects of railway operations as well as a large number of international companies operating in the railway market causes that currently we use a lot of independent systems (Hu, 2004) that often should cooperate (Montigel, 2002) (Gnaegi & Stahel, 2006). The lack of standards (Kornaszewski & Lukasik, 2008) for data structures and protocols causes the need to design and maintain multiple individual interfaces that provide interoperability of railway applications. Therefore, the initiative to develop an open standard for the exchange of data for railway application was established. This standard was named railML (Nash et al., 2004). This standard was developed in cooperation with the railway, traffic and standardization sector e.g. Union Internationale des Chemins de Fer (UIC), European Organisation for the Safety of Air Navigation (EUROCONTROL), European Railway Agency (ERA). railML is an excellent tool for data exchange between IT systems, but the topological models and support tools which simplify its usage still are not in common use. At the same time exchanged data apply to railway network topology, its properties, location of objects and its interactions. The lack of standards in this area caused the railway companies were still forced to develop new data formats for individual projects.

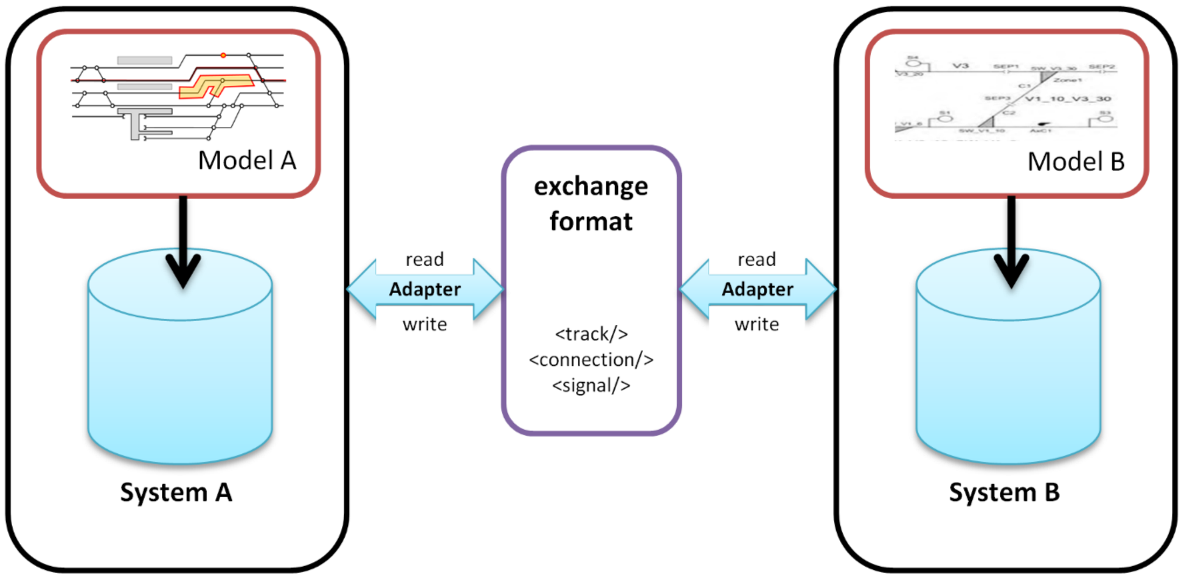
New, open and free industry standard RailTopoModel define logic representation of railway infrastructure-related data. In cooperation with railML positively changes the methods of exchanging data used in the rail industry. RailTopoModel has been developed under patronage of the International Union of Railways (UIC) and was released in April 2016 as International Railway Standard (IRS) 30100:2016.

In this paper the current state of railML and RailTopoModel specification and the trend of development were discussed.

2. Data exchange problem

Railway similar to the other branches of economy commonly uses information technologies (IT) in its business. It can be considered that this is a requirement of the modern world, which try to build an information society capable of competing on the global market. The growing importance of IT systems in railway transport is caused by large number of companies which offer their specialised software. The lack of standards for data structures and protocols causes the need to design and maintain multiple individual interfaces that provide interoperability of railway applications (Łukasik et al., 2016).

Figure 1: Models and data exchange format



Source: own preparation

The variety of data structures is the characteristic of the system, and cooperation with other system requires data conversion to the new format each time (Fig. 1). Data conversion is inefficient, time-consuming and expensive process. If we assume that n particular systems need data transfer between them then the number of necessary bidirectional interfaces will be L (Nash et al., 2004):

$$L = \frac{n(n-1)}{2} \tag{1}$$

In general terms, if the number of programs increases linearly, the number of interfaces increases quadratically. In addition, for each pair of cooperating systems, must be defined requirements for the model and the data exchange format and specify how these systems will exchange data.

Model defines objects, their attributes, and topological representation. The selected format is one of possible representation of the model. Different models can use a common data exchange format, and conversion is then performed by the adapters (Fig. 1). The unification of data structures would allow to solve data exchange problem. Then the number of interfaces will be equal to the number of cooperating applications (Eq. 2).

$$L = n \tag{2}$$

For example, if we assume that there is a need to exchange data between 6 different railway applications it means, according to equation (1), a need to develop 15 bidirectional interfaces. If we assume that the data structures are standardised the number of new interfaces to be developed is reduced to 6. This example clearly shows a great need for unifying data structures. This becomes even more significant if we notice that the number of railway applications is steadily increasing. It should be noted that the requirements for the model and the data format need to be independent of purpose of data usage, existing tools and interfaces.

3. XML and RailML

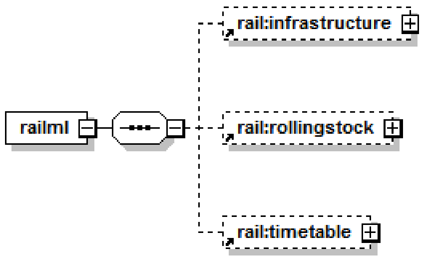
The data structure specification for cooperating railway applications should take into consideration modern IT standards. Currently there are several such standards. The most important are XML (Extensible Markup Language) (Tagarelli, 2012) and ASN.1 (Abstract Syntax Notation One) (Łukasik & Nowakowski, 2008), (Łukasik & Nowakowski, 2009), (Łukasik & Nowakowski, 2010). XML is open W3C (World Wide Web Consortium) standard supported by software industry market leaders, and based on international standards. What is important, XML allows the simultaneous data storage and data structure description. The XML documents are divided into markup and content, that may be distinguished by the simple syntactic rules. XML Schema Definition is recommended by W3C and currently the most popular standard which describes the elements and the attributes that can appear in an XML document. This definition specifies also the number of child element, data types and default values for elements and attributes. Developing data schema make possible syntax, structure and content validation of XML documents. Based on the XML specification many new markup languages were developed and acknowledged as standards, for example xHTML, RSS, MathML, CML, FpML, ebXML, GML, SVG, MusicML, SMIL, RDF, OWL, TransXML as well as described in this article Railway Markup Language (railML).

RailML is open XML-based standard for railway application. Applications can exchange data via railML either via exporting respectively importing railML files, or as a direct inter-process communication via TCP/IP. This standard is being developed since 2002, initially by a group of researchers from German Fraunhofer Institute for Transportation Systems and

Infrastructure in Dresden and the Swiss Federal Institute of Technology's Institute for Transportation Planning and Systems. At present, the railML Consortium was extended to include researchers from several universities, railroad operating companies, private research institutes, and consulting firms. RailML standards are developed in the context of technical discussions that are open to everyone interested in developing applications for the international railroad industry. The Fraunhofer Institute serves as the partnership's technical coordinator providing resources such as the web page and discussion forum (railML, 2016). The first stable version 1.0 was released in 2005 for productive usage. A version 2.3 published in 2016 is the latest production version. The publication of the railML 3 version which will consider the RailTopoModel standard (International Railway Standard - IRS 30100) developed under the auspices of UIC is planned (railML, 2016), (RailTopoModel, 2016), (Łukasik et al., 2016).

As mentioned above the railML data structure is defined using XML Schema. Similar to all XML documents hierarchical form is used. Root element is the parent of all other elements. All elements can have sub (child) elements. Sub elements must be in pairs and correctly nested within their parent element. Additionally, all elements can have attributes for more detailed description. In case of railML the root element is named <railml> and contains three sub elements <infrastructure>, <rollingstock> and <timetable> (Fig. 2).

Figure 2: Root element <railml> and its sub elements



Source:own preparation based on (Łukasik et al., 2016).

Element <infrastructure> allows to save in XML files railway infrastructure parameters, among others, the following elements: <infraAttrGroups>, <tracks> (states, trackDescr, trackTopology, trackElements, ocsElements, infraAttrGroupRefs), <trackGroups> , <operationControlPoints>, <controllers> and <speedProfiles>.

Another element is the <rollingstock> which defines XML data structures designed to save rolling stock data. It includes inter alia the following elements: <vehicles> and <formations>.

The last element is <timetable>, which specifies the timetables data structures. It includes, inter alia: <timetablePeriods>, <operatingPeriods>, <categories>, <annotations>, <trainParts>, <trains>, <trainGroups> and <rosterings>.

In railML3 interlocking schema (Bosschaart, 2013) (Bosschaart et al., 2015) which focuses on interlocking information inter alia signal plans, blocks and route locking table is planned.

Sample section <infrastructure> in railML format was shown in (Fig. 3).

Figure 3: Sample <infrastructure> section in RailML format

```
<infrastructure id="d2e4">
  <tracks>
    <track id="d2e8">
      <trackTopology>
        <trackBegin pos="0" id="d2e12">
          <macroscopicNode ocpRef="d2e311" />
```

```
          </trackBegin>
          <trackEnd pos="300" id="d2e24">
            <macroscopicNode ocpRef="d2e313" />
          </trackEnd>
        </trackTopology>
      </track>
      [...]
    </tracks>
    <operationControlPoints>
      <ocp id="d2e12" name="FD" description="Krakow" />
      [...]
    </operationControlPoints>
  </infrastructure>
```

Source: own preparation

4. RailTopoModel

The gaps in railML specifications and the need of universal railway business model, which goal is to define and describe railway objects as well as system events in a UML diagram (UML, 2016) to show how they can be used, and how they cooperate and interact led to the initiation of work on the RailTopoModel standard.

In the feasibility study (UIC, 2013) conducted in 2013 by ERIM (European Rail Infrastructure Masterplan) Task Force of UIC the possibility of creating an international infrastructure data model for railway topology and corresponding common data exchange format was checked. In this study existing models, determined requirements and universal data exchange format (especially railML) were analysed. This analysis led to the fallowing conclusions (UIC, 2013):

- 95% of features in topological models are compatible (iron network is similar in every country),
- topological models are often built for specify usages,
- systemic and scalable core model would the most appropriate,
- the availability and precision of data can vary considerably between railways,
- this model need to support data at different levels of detail: micro (detailed level, e.g. track geometry, signalling, ETCS), meso (track level, e.g. train dispatching), macro (line level, e.g. timetabling, stations), corridor (international level, e.g. cartography, economical analysis).

Additionally content, functional, structural and organizational requirements were structured. Finally railML data definitions and exchange format were checked as a suited tools to fulfil the requirements. However railML benefits IT solid experience, good documentation and finished implementation for infrastructure, interlocking, rolling stock and timetables area still topological model and support tools are missing.

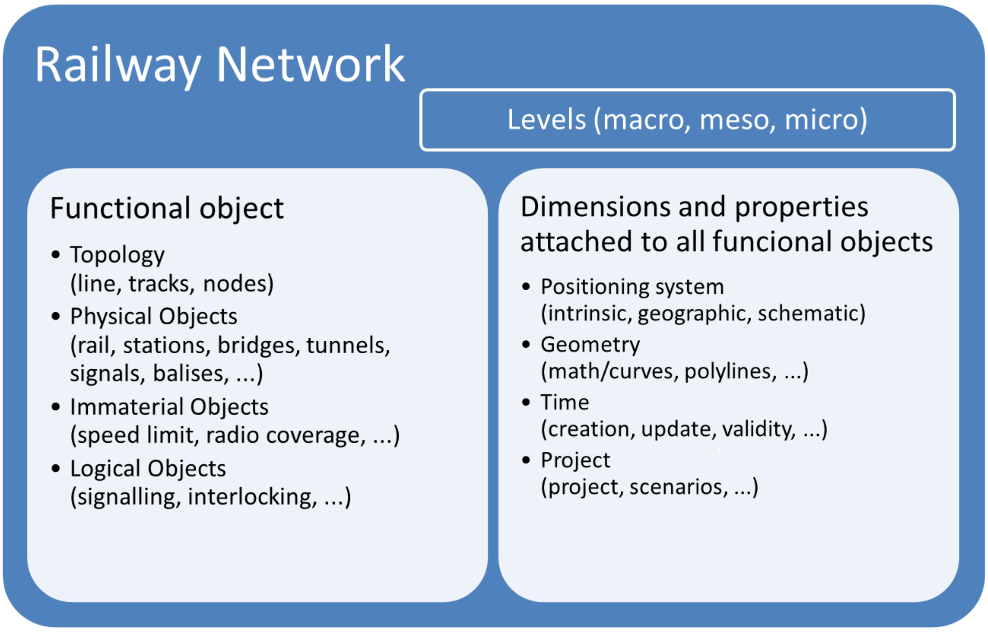
As a result of this study the authors determined inter alia the following recommendations (IRS 2016), (UIC, 2013), (Fernández et al., 2004):

- the UIC RailTopoModel should be a minimal core model and should allow for national and functional extensions in a coordinated and pre-defined way,
- topology should be the foundation of this model,
- standardisation of model and exchange format is the best way to interoperability,
- the model should use existing standards

- model is designed to be enriched progressively, layer after layer, with new concepts to support business usages as they evolve.

The RailTopoModel abstracts the basic concepts in UML class diagram. An important part of these concepts is supported by a generic model description of the railway topology, in such a way that it applies to any aggregation level (Kampczyk, 2015) in which a railway network may be represented. Consequently all objects are in abstract terms (classes) directly or indirectly related or connected to the topology of their appropriate aggregation level. Besides physical railway constituents, objects also refer to several kinds of characteristics of a railway. Also, the positioning of objects and instances of classes is covered by different kinds of positioning methods (IRS 2016). The main objects and dimensions of RailTopoModel were presented in (Fig 4).

Figure 4: Functional coverage of RailTopoModel



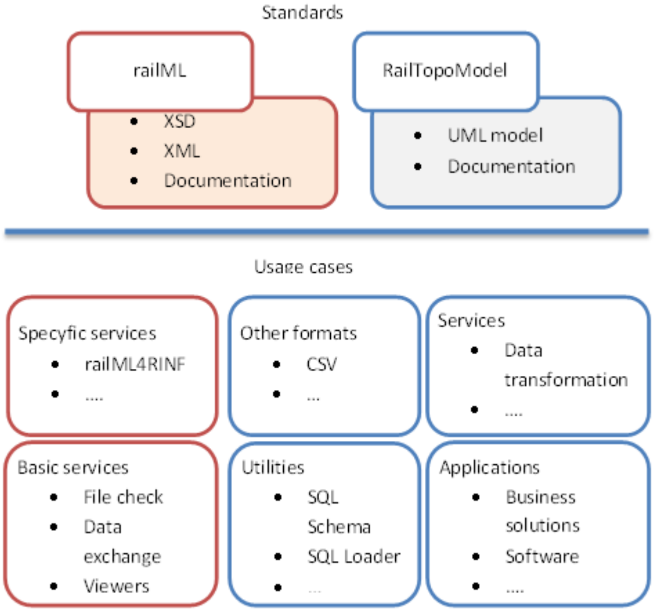
Source: own preparation based on (RailTopoModel, 2016)

RailTopoModel is founded on Graph Theory and the model is independent of any physical or technical items used to represent it. All objects in network are represented as nodes or edges and called NetElements.

5. Conclusions

The application of IT systems on the railway is related to number of problems and issues. This includes, inter alia, issues such as railway traffic management, rolling stock management, stacking timetables, information for passengers, booking and selling tickets. Variety aspects of railway operations causes that we use a lot of independent IT systems that often should cooperate. Additionally each of the producers offers their own railway applications what increase the number of solutions. This variety of solutions enforces the need to develop an open and universally usable standards for defining data structures. Unified data structures, which are application-independent and producer-independent, should simplify data exchange between railway systems and reduce number of interfaces which are required for systems cooperation. The railML, described in this paper, is an example of the practical standard which meets these requirements. This standard is being still developed by the railML Consortium and supported by a large number of companies operating on the European market e.g. ABB, Alstom, Bombardier Transportation, Siemens, DB Engineering & Consulting, Thales, Toshiba Corporation. These companies use railML standard in own solutions offered on the market or allow to import\export data using railML format. Nowadays railML Schema includes three subschemas: infrastructure, rollingstock and timetable. Interlocking subschema is currently intensively developed and should be published soon (Bosschaart et al., 2015), (RailTopoModel, 2016), (Łukasik et al., 2016).

Figure 5: railML and RailTopoModels – case of usage



Source: own preparation based on (RailTopoModel, 2016)

RailTopoModel has been developed for a specific needs of the railway companies and is suitable in case of the need to describe structure and topology of railway network with different precision. It could be fitted to intended usage and information accessibility. The description can be as general as corridors; it can be brought at line level, track level, down to physical components such as switches, lineside signals or balises (IRS, 2016).

RailTopoModel is designed and standardised (IRS, 2016) by the railway community to support their requirements (Fig. 5) (Doppelbauer, 2015). As a model it should stay independent of any usage. RailTopoModel defines only UML model and documentation but railML allows to exchange data with all kind of partners. RailTopoModel and railML are complementary initiative. RailML3 was specially developed to ensure compliance with RailTopoModel and is one of the first practical implementation of the model.

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CREATING OF A COMPETENCY MODEL FOR A FINANCIAL MANAGER POSITION IN A PRODUCTION COMPANY

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Abstract. In present globalization period in which the knowledge, skills and abilities of people play differential role, the organization concentrates on the aim to find out what the characteristics of high output are. Every work position requires different knowledge, skills, abilities and attitudes, i. e. authority. People differ in the view of their competencies, as well. But how to recognize and describe the necessary demands for the output of individual work positions? And how to choose the right people for them? Who should win promotion and who has reached his/her limits? The competency models which represent the complex of differently arranged competencies answer these questions. The competency models are used worldwide and recently in the Czech Republic too. The aim of the paper is to create the competency model for the position of financial manager in an international production company. The issues of competencies and competency models will be cleared up in the introduction part of the article and then the process of creating of the competency model will be described. The technique of expert panels, direct examination and analysis of work assignment have been chosen for the identification of the competency. Questionnaire has been selected to find out the levels of importance and required levels of individual competencies. The final form of competency model will be introduced in the conclusion of this article. The article will be enriched by the results of a research focused on using the competency models in organizations in the Czech Republic.

Keywords: Competency, Competency model, Competency level, Scale of importance, Human resource management

JEL Classification: M12**,** M50, M29

1. Introduction

V současném vysoce globalizačním prostředí musí mnoho organizací zaměřit své podnikání do více než jedné země. Jedná se převážně o outsourcing a offshoring, které jsou nyní běžné a vyžadují, aby manažeři byli schopni uspořádat postupy, metody a intervence, které mohou být vhodně využity v různých zemích. Avšak úspěšné přenesení manažerských praktik, jež jsou používány v jedné zemi do země jiné, představuje nelehký úkol z důvodu rozdílů v kulturních hodnotách, obchodních postupech a komunikačních stylech (Chong, 2011).

Cílem tohoto příspěvku je vytvořit kompetenční model pro pozici finančního manažera v zahraniční výrobní společnosti, jehož součástí budou právě i kompetence týkající se znalostí mezinárodních účetních standardů a znalosti kulturních rozdílů vybraných zemí.

Kompetence můžeme chápat jako komplexní soubor znalostí, dovedností, schopností, zkušeností, postojů a ostatních charakteristik, které jsou nutné pro podávání efektivního výkonu jednotlivce na dané pracovní pozici (Rodriguez et al., 2002; Schippmann et al., 2000; Mikušová & Čopíková, 2016). Rovněž sociální dovednosti, integrita a motivace jsou považovány za kompetence, protože mohou přispívat k významným pracovním výsledkům (Hennekam, 2015). Soubor těchto kompetencí tvoří kompetenční model, který představuje důležitý nástroj při procesech výběru, rozvoji, odměňování, hodnocení a kariérním růstu zaměstnanců (Rejas-Muslera et al., 2012).

V roce 2015 byl autorkami proveden průzkum pro zjištění, zda jsou v organizacích v ČR kompetenční modely používány a k jakým účelům. Tohoto průzkumu se účastnilo 210 respondentů (personalistů) z náhodně vybraných středně velkých a velkých organizací (českých i zahraničních) v soukromém sektoru. Průzkum ukázal, že kompetenční modely jsou zavedeny v 38% organizací, ale využívá je jen 34% organizací. Nejčastěji jsou kompetenční modely používány při definování požadavků na pracovní místo (97%), při získávání a výběru zaměstnanců (96%), při vzdělávání a rozvoji zaměstnanců (91%) a při hodnocení zaměstnanců (87%).

2. Pojetí kompetence

Boyatzis (1982, p. 23) definuje kompetenci jako „schopnost člověka chovat se způsobem odpovídajícím požadavkům práce a v parametrech daných prostředím organizace, a tak přinášet žádoucí výsledky“. Jednodušeji řečeno, kompetence jsou chápány jako „charakteristiky, které jsou kauzálně spojené s efektivním a výjimečným pracovním výkonem.“ Scott Parry (1998 in Cooper, 2000) uvedl výstižnou „čtyřdílnou“ definici kompetence: 1) soubor souvisejících znalostí, postojů a schopností, které ovlivňují významnější část práce jednotlivce; 2) které korelují s pracovním výkonem; 3) které mohou být měřeny na základě dobře nastavených standardů; 4) a které mohou být zdokonalovány prostřednictvím vzdělávání a rozvoje. Znalosti můžeme definovat jako informace, které jsou spojené se zkušeností, souvislostmi, interpretací, poznáním a kreativitou. Dovednosti představují důležitou, specifickou naučenou aktivitu, a postoje se týkají osobních pocitů, dispozic nebo pozice vůči druhé osobě, či předmětu (Osagie et al., 2016).

2.1 Členění kompetencí

Členění kompetencí je velmi důležité, protože každý kompetenční model by měl být strukturován do určitých dílčích částí. Při tvorbě kompetenčního modelu na pozici finančního manažera bylo použito členění kompetencí, které je založeno na typu práce a na něj navázaných potřebných dovednostech. Výsledný profil konkrétní pozice vzniká jako kombinace dovedností z těchto tří kategorií: manažerské, interpersonální a technické kompetence.

Manažerské kompetence jsou tvořeny dovednostmi a schopnostmi, které přispívají k vynikajícímu výkonu v roli manažera, např. řešení konfliktů, strategické myšlení, time management, koučování, inspirování a motivování ostatních, delegování a další (Horváthová et al., 2016; Koenigsfeld et al., 2012). Dle Hroníka (2007) lze manažerské kompetence rozdělit na kompetence technické a kompetence v jednání s lidmi. Manažerské kompetence jsou využívány jak pro měření výkonu, tak i jako prediktory výkonu. Manažerské kompetence jsou velmi důležité pro zlepšování budoucího výkonu (Bucur, 2013). Interpersonální kompetence jsou nezbytné pro budování pozitivních vztahů s ostatními, např. komunikační dovednosti (psaní, mluvení a poslouchání), empatie, vyjednávání, prezentační dovednosti, poskytování zpětné vazby a další (Koenigsfeld et al., 2012). Technické kompetence zahrnují znalosti, dovednosti a chování vztahující se ke konkrétní pracovní pozici, ke specifickým oblastem managementu (finanční řízení, marketing, řízení lidských zdrojů apod.) nebo k plnění specifických úkolů (Hu, 2010; Mahlangu (Kubheka) & Govender, 2015).

2.2 Měření úrovně kompetencí

Kubeš et al., (2004) tvrdí, že jsou-li kompetence pro pracovní pozici definovány, je potřebné „změřit“, do jaké míry je u zaměstnance daná kompetence rozvinuta. Měřením zjistíme velikost rozdílu mezi skutečným stavem a žádoucím stavem. Velkou skupinou metod pro posouzení kompetencí představují metody využívající analogie reálných a simulovaných situací, tzv. analogové metody. K těmto metodám se řadí např. skupinová cvičení, hraní rolí, případové studie a prezentace. Druhou skupinou metod jsou tzv. analytické metody, jako jsou testy mentálních schopností, motivační dotazníky, dotazníky zjišťující míru temperamentu a dotazníky všech zájmů. K dalším metodám posuzování úrovně kompetencí patří 360° zpětná vazba, assessment centre a competency based interview.

3. Metodika tvorby kompetenčního modelu

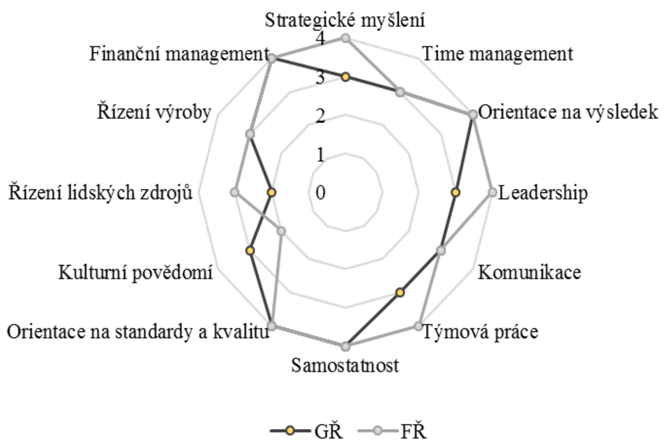
Proces návrhu kompetenčního modelu na vybranou pracovní pozici byl rozdělen do následujících fází:

1. Přípravná fáze. V této fázi byly získány informace o cílech a strategických záměrech vybrané organizace, kritických faktorech úspěchu, vizi, poslání a o organizační struktuře vybrané organizace.
2. Fáze získávání dat. Cílem této fáze bylo získat podrobné informace o pracovní pozici, pro niž bude kompetenční model vytvořen. K identifikaci kompetencí byla použita technika panelu expertů, technika přímého pozorování a analýza pracovních úkolů.
3. Fáze analýzy a klasifikace kompetencí. Na základě získaných a následně zpracovaných informací z přímého pozorování, z analýzy pracovních úkolů a na základě použité techniky panelu expertů byla vytvořena databáze kompetencí. Bylo navrženo 12 kompetencí, které byly rozděleny do tří skupin, a to na manažerské (strategické myšlení, time management, orientace na výsledek a leadership), interpersonální (komunikace, týmová práce, samostatnost a kulturní povědomí) a technické kompetence (orientace na standardy a kvalitu, řízení lidských zdrojů, řízení výroby a finanční management).
4. Fáze popisu a tvorby kompetencí. Cílem této fáze bylo popsat vybrané kompetence. Byla vytvořena stupnice důležitosti kompetencí se čtyřmi stupni důležitosti: 1 – kompetence má pro dosažení excelentní úrovně výkonnosti vysoce marginální význam; 2 – kompetence je pro dosažení excelentní úrovně výkonnosti důležitá; 3 – kompetence je pro dosažení excelentní úrovně výkonnosti velmi důležitá; 4 – kompetence má pro dosažení excelentní úrovně výkonnosti rozhodující význam. Stupeň důležitosti udává, jak důležitá je daná kompetence pro úspěšné fungování na dané pozici. Dále bylo nutno nadefinovat úrovně kompetencí. To znamená popsat různé projevy kompetence podle úrovně jejího rozvoje.

Úrovně kompetencí slouží k tomu, aby bylo možno posoudit úroveň rozvoje kompetence jednotlivých zaměstnanců. Při popisu úrovní kompetencí byla použita databáze centrálních kompetencí, která byla zpracována v rámci projektu Národní soustava povolání. Byla zvolena stupnice obsahující pět úrovní kompetencí: 1- slabá úroveň; 2 – základní úroveň; 3 – střední úroveň; 4 – vysoká úroveň; 5 – excelentní úroveň.

5. Fáze tvorby kompetenčního modelu. Pro tvorbu kompetenčního modelu byla použita metoda dotazníkového šetření. Pomocí dotazníku byla zjišťována důležitost a požadovaná úroveň jednotlivých kompetencí. Dotazník byl vyplněn nadřízeným vybrané pracovní pozice (generálním ředitelem) a držitelem pracovního místa (finančním ředitelem). V dotazníku byly nadefinovány všechny kompetence včetně popisu jednotlivých úrovní rozvoje kompetence. Rovněž zde byly uvedeny tabulky se stupnicí důležitosti a s úrovněmi kompetencí. Vybraní zaměstnanci byli vyzváni k určení důležitosti a požadované úrovně jednotlivých kompetencí pro danou pracovní pozici. V dotazníku jsme taky zjišťovaly, zda jsou námi navržené kompetence pro pozici finančního ředitele vhodné, či je nutné některé nové definovat, nebo naopak některé vyřadit. Hodnocení požadované důležitosti kompetencí je znázorněno v Grafu 1.

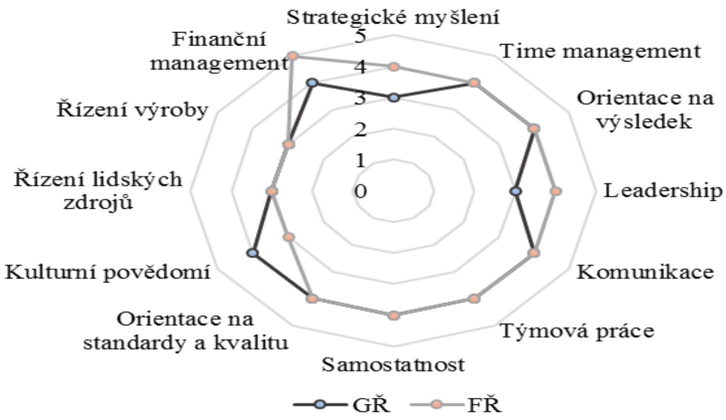
Figure 1: Důležitost kompetencí



Source: vlastní zpracování

Z Grafu 1 vyplývá, že mezi dotázanými došlo k rozporu u těchto kompetencí: strategické myšlení, leadership, týmová práce, kulturní povědomí a řízení lidských zdrojů. Výsledky dotazování týkající se požadované úrovně kompetencí jsou znázorněny v Grafu 2. Jak je z tohoto grafu zřejmé, finanční ředitel a jeho nadřízený mají rozdílný pohled na tyto kompetence: strategické myšlení, leadership, kulturní povědomí a finanční management. Dalším krokem k vytvoření konečné podoby kompetenčního modelu je v rámci diskuse vyjasnění si rozdílného pohledu na důležitost kompetencí a jejich požadovanou úroveň neboli cílovou hodnotu.

Figure 2: Požadovaná úroveň kompetencí



Source: vlastní zpracování

6. Fáze vyjasnění očekávání. Výsledky dotazníkového šetření byly předány vybraným respondentům s vysvětlením dalšího postupu k vytvoření kompetenčního modelu pro pozici finančního ředitele. Generální a finanční ředitel se v rámci diskuse dohodli na stupních důležitosti a cílových hodnotách kompetencí. Na základě těchto skutečností byl vytvořen kompetenční model pro pozici finančního ředitele (viz Obrázek 1).
7. Fáze ověření a validizace kompetenčního modelu. Tato fáze procesu návrhu kompetenčního modelu je zaměřena na ověření faktu, zda kompetenční model skutečně popisuje takové chování, díky kterému manažeři dosahují excelentních výsledků. Proces ověření a validizace kompetenčního modelu již částečně proběhl prostřednictvím dotazníkového šetření, na jehož základě byly vybrány požadované kompetence, byla ověřena důležitost a požadovaná úroveň těchto kompetencí. Jako další způsob validizace bylo autorkami navrženo transformovat popisy chování u jednotlivých kompetencí do položek dotazníku a vytvořit nástroj pro 360° zpětnou vazbu.
8. Fáze implementace kompetenčního modelu do systému řízení lidských zdrojů. Kompetenční model je v současné době ve vybrané organizaci používán především při výběru, hodnocení a rozvoji manažera.

4. Vytvořený kompetenční model a jeho využití v organizaci

Námi vytvořený kompetenční model vychází z veškerých informací získaných během procesu tvorby kompetenčního modelu. V modelu jsou podrobně popsány jednotlivé úrovně kompetencí, jejich cílová hodnota (požadovaná úroveň) a stupeň důležitosti (viz Obrázek 1). Z důvodu obsáhlosti kompetenčního modelu, zde nejsou podrobně nadefinovány jednotlivé úrovně kompetencí, ale jsou zde uvedeny jen příklady pozorovatelného chování u každé kompetence. Na základě námi navržené metodiky byly v organizaci vytvořeny kompetenční modely pro všechny manažerské pozice. Pro hodnocení manažerů byla autorkami doporučena metoda 360° zpětné vazby, která spočívá v tom, že hodnocený je hodnocen různými lidmi podle stejných kritérií. Hodnocení kompetencí v rámci 360° zpětné vazby bude probíhat prostřednictvím dotazníku, který byl autorkami vytvořen. Otázky v dotazníku, které popisují konkrétní chování, byly odvozeny z jednotlivých kompetencí. Při vyhodnocování dotazníku budou otázky přiřazeny k jednotlivým kompetencím a z odpovědí hodnotitelů budou vypočteny průměrné hodnoty.

Figure 3: Kompetenční model pro finančního ředitele

Kompetenční model pro finančního manažera				
Kompetence		**Příklady pozorovatelného chování**	**Cílová hodnota**	**Důležitost kompetence**
Manažerské kompetence	**Strategické myšlení**	Myslí strategicky. Předvídá a zvažuje širší souvislosti. Je schopen samostatně se podílet na tvorbě strategie. Projevuje podnikatelského ducha.	**3**	**3**
	Time management	Plánuje krátkodobě i dlouhodobě v souladu s plány okolí. Dokáže odlišit naléhavé a důležité a podle toho se rozhoduje a jedná. Vytváří varianty plánu. Standardně organizuje činnost svou i druhých. Efektivně deleguje.	**4**	**3**
	Orientace na výsledek	Jeho výkon a výsledek je spolehlivý a stabilní. Je schopen sebekontroly i sebemotivace. Úkoly plní v požadovaném termínu. Poradí si i v komplikovaných situacích.	**4**	**4**
	Leadership	Zřetelně cítí odpovědnost za svá rozhodnutí i pracovní výsledky. Prosazuje týmového ducha. Využívá formální autoritu a moc správným způsobem. Dobře motivuje.	**4**	**3**
Interpersonální kompetence				
	Komunikace	Formulování myšlenek v písemné i ústní podobě je na výborné úrovni. Aktivně naslouchá ostatním. Dokáže prezentovat před skupinou. Vytváří prostředí, aby komunikovali i druzí.	**4**	**3**
	Týmová práce	V rámci týmu aktivně spolupracuje a zaujímá pozitivní roli v týmu. Své aktivity směřuje k týmovému cíli. Bere v úvahu nápady a stanoviska druhých.	**4**	**4**
	Samostatnost	Všechny zadané úkoly plní samostatně a spolehlivě. Samostatně získává informace. Nebojí se odpovědnosti a přijímá určitou míru rizika.	**4**	**4**
	Kulturní povědomí	Zná firemní kulturu a ztotožňuje se s ní. Má základní znalosti kulturních odlišností vybraných zemí a respektuje je.	**3**	**3**
Kompetence		**Příklady pozorovatelného chování**	**Cílová hodnota**	**Důležitost kompetence**

Technické kompetence	**Orientace na standardy a kvalitu**	Zná všechny firemní předpisy a dodržuje je. Svou práci dělá pečlivě a výsledné zpracování je zpravidla bez chyb. Odstraňuje odchylky a dodržuje termíny.	**4**	**4**
	Řízení lidských zdrojů	Zná pracovněprávní legislativu a je schopen se orientovat v běžných pracovněprávních situacích na pracovišti. Orientuje se v interních předpisech a normách. Aktivně spolupracuje s personalisty.	**3**	**3**
	Řízení výroby	Dobře zná výrobní proces a organizaci práce na pracovištích. Zná dobře produkty organizace. Má základní znalost technologie.	**3**	**3**
	Finanční management	Velmi dobrá znalost finanční analýzy a ukazatelů. Chápe podstatu a principy finančního řízení. Znalost účetní a daňové soustavy a mezinárodních standardů účetního výkaznictví. Znalost legislativy.	**4**	**4**

Source: vlastní zpracování

5. Conclusion

Příspěvek poskytuje pro specialisty na lidské zdroje, manažery na všech úrovních a pro podnikatele praktické a užitečné informace o možném postupu při tvorbě kompetenčních modelů v organizaci. Cílem článku bylo vytvořit kompetenční model pro pozici finančního ředitele ve výrobní organizaci. Proces tvorby kompetenčního modelu byl rozdělen do těchto osmi fází: přípravná fáze, fáze získávání dat, fáze analýzy a klasifikace kompetencí, fáze popisu a tvorby kompetencí, fáze tvorby kompetenčního modelu, fáze vyjasnění očekávání, fáze ověření a validizace vytvořeného modelu a fáze implementace modelu do systému řízení lidských zdrojů. Konečná podoba kompetenčního modelu byla vytvořena na základě výsledků dotazníkového šetření. Vytvořený kompetenční model obsahuje dvanáct kompetencí rozdělených do tří skupin, a to na manažerské, interpersonální a technické kompetence. V kompetenčním modelu jsou popsány jednotlivé úrovně vybraných kompetencí včetně jejich důležitosti a cílových hodnot.

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KNOWLEDGE TRIANGLE, INNOVATION PERFORMANCE AND GLOBAL VALUE CHAIN

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Abstract. The paper deals with knowledge triangle in Visegrad countries (e.g. Czech Republic, Poland, Hungary and Slovak Republic) and Baltic countries (Estonia, Lithuania, Latvia). Six of these seven countries are classified as the high income countries and one as the upper middle income country. Also, they are all transition economy countries. The relation between the employment and innovation, innovation activities and innovation performance is based on the OECD data related to global innovation index both the input and output sides indexes as well as on the data about the employment in high- and medium-high technology manufacturing sectors and knowledge-intensive service sectors. The changes of indexes by the Visegrad and Baltic countries are identified as well as the trends. The contribution discusses differences or distances between the indexes and their stability in the context of employment structure as well as global value chain. The comparison of global innovation index and its sub-indexes in Visegrad and Baltic countries shows the opportunities for better understanding of the innovation activity conditions, performance in the innovation, the employment tendencies and rates of high-tech exports in these countries. In the context of knowledge triangle and improving the innovation performance, the key challenge is developing skills for innovation in education and training systems. The aim is connected with the preparing more people with the knowledge and skills related to innovation and creativity in all its forms. All countries have to increase the outputs based on the knowledge, innovation and creativity.

Keywords: knowledge triangle, transition economy, innovation index, employment, global value chain

JEL Classification: F63, O30, O57

1. Introduction

The qualitative and quantitative changes going on in the world economy become reflected in also the approaches to national and regional policy. Within the global economic space, the principles of win-win strategies and creation of networks started gradually replacing traditional view on the regional business environment and on the role of regional institutions including the regional innovation policy. The factors of competitiveness and influencing on network creation include above all development of knowledge, innovations and drive. Prahalad, C.K. and Krishnan, M.S. (2008) describe the ongoing fundamental transformation of business. They identify that many new innovative businesses are based on the value concept based on unique, personalized experiences of consumers and that the focus is on the accessibility to resources, not ownership of resources. The analysis of the performance in innovation, the factors influencing the innovation processes and impacts of innovation lead to the creation new innovation model or concepts. Lisbon strategy of EU is based on the knowledge triangle concept realized in triple or quadruple helix environment. The fast changes of technology, policy and markets influence the innovation model from linear to non-linear. Direct foreign investments influenced the regional or state performance and have impacts on global value chain.

2. Theoretical background

Within a knowledge economy, knowledge transfer is about transferring good ideas, research results and skills between universities, other research organisations, business and the wider community to enable innovative new products and services to be developed. Blackler (1995) expands on a categorization of knowledge types that were suggested by Collins (1993), being: embrained, embodied uncultured, embedded and encoded. It is important to note that these knowledge types could be indicative of any organization, not just those that are knowledge-based heavy. Now, we are discussing about the concept of knowledge triangle e.g. education, research and innovation. We can enlarge the education on the tertiary education as well as on the graduate’s number in science and engineering, the research on the number of researchers as well as the ranking of research institutions, the innovation on the competitiveness and performance. But the good relations among these three areas are very important. In the relation with the global market of goods and services, with the capital and with the foreign investment the knowledge triangle is developed through the countries and continents and has impact on the global value chain. This contribution compares the effects or impacts on the competitiveness of selected European countries, exactly Visegrad countries and Baltic countries.

The knowledge triangle is a central concept on the European innovation, research and education policy landscape and is at the core of the next generation of policies and programmes.[30] It relates to the need for improving the impact of investments in the education, research and innovation by systemic and continuous interaction as well as their impact on growth, competitiveness and sustainability (Rothwell, 2007, Cooper, 2009, Greenhalgh 2010). The concept of knowledge triangle reflects the non-linear innovation processes both technological and non-technological innovations and focuses on the feedback loop of research and innovations to the education. The learning by developing model in education processes has been evolving since early 2003 in resonance with the knowledge triangle. The knowledge triangle concept by Lappalainen, P., Markkula, M. (2013, 2014) is connected with many concepts as for Triple Helix (Etzkowitz &Leydesdorff, 1998), the Entrepreneurial University (Etzkowitz, 2004), The Living Laboratories (ENoLL), the National Innovation System (Miettinen, 2002; Lundvall & Borras, 2005), the Regional Innovation System (Kautonen, 2006, Bucek, 2010) and the Innovation Ecosystem (Bahrami &Evans, 1995; Wessner, 2007; Hämäläinen 2005, 2006, 2007) (Hirvikoski 2009). The axiomatic nature of the innovation system and Triple Helix that are poor scientific preciseness have been criticized by Miettinen (2002). Killinc (2015) deals with the changing client role in driving innovation. The role of business factors including the brand building in triangle are discussed by Krizanova (2015) and

[30] Conclusions of the Council and of the Representatives of the Governments of the Member States, meeting within the Council, of 26 November 2009 on developing the role of education in a fully- functioning knowledge triangle (2009/C 302/03)

Jankalova (2013) and the creative aspects by Madudova, Rostasova and Ciba (2014). Buno, Hraskova and Bartosova (2015) highlight some negative phenomena in transition countries that influences the performance, competitiveness and innovativeness of economy. On the quantitative aspects of processes are focused Kliestik and Dengov (2015).

3. Data and methodology

The performance of country economy from the point of innovativeness could be quantify by global innovativeness index and its output and input sides, effectiveness ratio as well as by five parts of input side and 2 parts of output sides (OECD). For the comparison of different countries it is necessary to include regional aspects. The levels and trends of innovativeness indices should be used for measuring of the efficiency of processes included to the knowledge triangle. So, the research question: is it possible use the concept of global innovativeness index for investigation of relation in knowledge triangle?

For compare of individual countries we have to indicate their living standard, economic development or growth indexes connected to GDP and innovation index. The proportion between index of innovation inputs and outputs expresses the effectiveness. GII is evaluated by OECD within 141 countries in the world. Innovation input sub-index includes five areas and each of them three subareas. There are evaluated the pre-conditions for innovation activities in economy of the country, e.g. institutions, human capital and research, infrastructure, market sophistication and business sophistication. Innovation output sub-index includes two categories of output with three subareas knowledge and technology, creative outputs. Innovation sub-index express the areas influencing and enabling innovation and competitiveness of national economy. The both sides input and output represent of 81 individual indicators (OECD, 2015).

In our contribution we compare the selected countries, which were previously referred to as transition economies and are members of the EU since 2004. The countries also represent two regional entities, the Baltic countries (Estonia, Latvia and Lithuania) and Visegrad countries (Czech Republic, Hungary, Poland, Slovakia). The individual data related to the competitiveness and innovation in countries is based on the OECD statistics.

4. Results of comparison

A table 1 contains the initial data for seven countries that indicate the value of GDP per capita in USD and ranks countries to the high income countries or upper-middle countries. Visegrad countries represent 64.3 mil, Baltic countries 6.3 mil., together 70.6 mil. EU inhabitants.

Table 1: Main indicators for Visegrad and Baltic countries in 2013-2015 (OECD 2012-2015)

Country	Indicators	2013	2014	2015
Czech Republic (CR)	Population (mil.)	11.0	10.5	10.7
	GDP per capita (USD)	27,164.8	27,200.1	28,086.5
Hungary (H)	Population (mil.)	10.4	9.9	9.9
	GDP per capita (USD)	*19,754.0*	*20,065.1*	*20,817.4*
Poland (PL)	Population (mil.)	39.7	38.5	38.2
	GDP per capita (USD)	20,976.1	21,214.3	22,201.1
Hungary (H)	Population (mil.)	10.4	9.9	9.9
	GDP per capita (USD)	19,754.0	20,065.1	20,817.4
Estonia (EE)	Population (mil.)	1,4	1,3	1,3

	GDP per capita (USD)	21,226.6	23,144,0	23,213.4
Latvia (LV)	Population (mil.)	2,3	2	2
	GDP per capita (USD)	*18,140.1*	19,119.5	20,204.4
Lithuania (LT)	Population (mil.)	3,4	3	3
	GDP per capita (USD)	*20,088.6*	22,747.2	23,978.1

All countries are in 2015 classified as the high income countries excluding the Hungary (upper middle income country) but in 2013 and 2014 were also Latvia and Lithuania included to the upper middle income countries group. By the levels of global innovation index including its sub-indices on the input and output sides in comparison with the average level in Europe the heat maps are created (see Table 2 and 3). The analysis of heat map shows that the Czech Republic and Estonia are leading countries in these two regions. Estonia is ranked on 23th and the Czech Republic 24th position in the 2015. During the last three years 2013-2015 the improvement of both countries is continual (Estonia up one position each year and the Czech Republic up two position each year). The ratio innovation efficiency index both countries is up the Europe average. It indicates the changes in innovation policy in both economies. Positive movement are identified also in Latvia and Lithuania.

Table 2: Heat map of GII for Visegrad and Baltic economies in comparison with regional averages in 2015

Index	CZ	Hungary	Poland	Slovakia	Lithuania	Latvia	Estonia	Europe - Region
Global Innovation Index	**51,3**	43,0	40,2	43,0	42,3	45,5	**52,8**	**48,0**
Innovation Output Sub-Index	**48,5**	37,7	31,9	37,1	34,7	40,6	**48,8**	**42,5**
Innovation Input Sub-Index	**54,2**	48,2	48,4	48,9	49,9	50,4	**56,8**	**53,5**
Ratio Innovation Efficiency Index	**0,9**	0,8	0,7	0,8	0,7	0,8	**0,9**	**0,8**

Table 3: Heat map of sub-indices of GII for Visegrad and Baltic economies in comparison with regional averages in 2015

Sub-indices of GII	CZ	Hungary	Poland	Slovakia	Lithuania	Latvia	Estonia	Europe - Region
Institutions	**76,4**	73,4	75,3	75,1	73,6	**77,7**	**80,8**	**76,37**
Human capital and research	**45,8**	37,7	37,2	33,2	39,2	33,1	**44,2**	**44,15**
Infrastructure	**51,0**	47,2	45,5	49,3	48,2	**50,6**	**60,9**	**49,61**
Market sophistication	52,4	46,0	49,0	50,4	51,9	52,4	54,6	**54,95**
Business sophistication	**45,3**	36,8	35,2	36,7	36,4	38,2	**43,4**	**42,29**
Knowledge and technology outputs	**46,7**	34,7	28,3	33,7	28,3	34,9	**42,1**	**39,44**
Creative outputs	**50,2**	40,7	35,4	40,4	41,0	**46,3**	**55,6**	**45,56**

By the heat map (Table 3) the main problems of innovation performance in all countries are influenced mainly by the level of market sophistication. The values of the innovation indexes and sub-indexes in the Visegrad and Baltic countries are determined by the gaps in the innovation and knowledge processes (creation, education, skills, diffusion etc.) (Table 4).

Table 4: Strengths and weaknesses by the sub-indices of the global innovation index of Visegrad and Baltic countries in 2015

Country	Strengths	Weaknesses
Czech Republic	- political stability (15th) - ecological sustainability (6th) - high-tech imports less re-imports (12th)	- salary weeks - regulatory environment (40th) - easy of starting a business (90th)

	- knowledge and technology outputs (15th) - creative goods exports % total trade (4th)	- easy of paying taxes (93rd) - market sophistication (45th) mainly investment (118th) - joint-venture strategic alliances (65th)
Hungary	- ecological sustainability (18th) - easy of getting credit (16th) - knowledge impact (24th) - high-tech imports less re-imports (18th) - medium high tech manufactures (8th)	- market sophistication (77th), including credit (73rd), investment (132nd). - net inflow as percentage of GDP (132nd), g - gross capital formation (103rd) - knowledge workers (60th), innovation linkages (83rd), state of cluster development (88th) and joint venture strategic alliance deals (69th). - tertiary education sub-pillar (63rd) with the graduates in science and engineering (67th).
Poland	- political stability (20th) - PISA scales in reading, math and science (9th) together with pupil-teacher secondary ratio (14th) - tertiary enrolment (21st) - royalty and licences fees payments as % of total trade (23rd) - citable documents H index (24th) - creative goods exports as % of total trade (12th) and cultural and creative services export of total trade (14th)	- performance in innovation outputs (56th) and in innovation inputs (39th). - business sophistication (66th) - market sophistication (60th) including investment (84th) - innovation linkage (102nd) - intangible assets (108th) - ICT and business model creation (95th) - knowledge impact (81st) with the new businesses (86nd) and knowledge diffusion (89th) with the FDI net outflows in %GDP (119th).
Slovakia	- political stability (13th), - ecological sustainability (10th) including ISO 14001 certificates (7th), - high-tech imports less re-imports (14th), - knowledge impact (19th) including high and medium high-tech manufactures in % (4th), - creative goods and services (17th) including creative goods export as % total trade (2nd).	- human capital and research (53rd) - expenditures on education as % of GDP (85th) - weak the innovation linkages (69th) including the university/industry research collaboration (81st), state of cluster development (66th), royalty and license fees payments (92nd) or communication, computer and information services import (105th). - domestic resident patent application (59th), knowledge diffusion (69nd), FDI net outflows as %GDP (51st), in intangible assets (81st), in printing and publishing manufactures (87th).
Lithuania	- pupil-teacher secondary ratio (10th) - easy of starting a business (11th) - government online service (21st) - ISO 14001 certificates (10th), - Knowledge intensive employment (19th) - Females employed w/advanced degrees as % of total (6th) -	- salary week (110th) - market sophistication (48th) mainly investment (108th) - innovation linkages (55th) including JV-strategic alliances deals (68th) and knowledge absorption (135th) - communication, computer and information services import (91st) - high-tech imports less re-imports (103rd)
Latvia	- ISO14001 environ. certificates (18th) - females employed w/advanced degrees as % of total (13th) - pupil-teacher secondary ratio (6th) - knowledge impact (13th) including new business per thousand pop.15-64 (9th) - creative goods and services (6th)	- market sophistication (44th) mainly investment (117th) and market capitalization (104th) - graduates in engineering and science (62nd) - QS university ranking (73rd) - State of cluster development (87th) and JV alliances (54th)
Estonia	- infrastructure (10th) - ecological sustainability (11th) including ISO 14001 certificates (1st), - knowledge and technology outputs (19th) including scientific and	- market sophistication (37th) with the investment (94th), market capitalization in %ˇGDP (88th) and total value of stocks traded in %GDP (70th) - GDP per energy use unit (104th) - innovation linkages (70th) including state of cluster development (73rd)

	technical articles (9th), knowledge impact (9th) - creative outputs (9th) including ICT and business model creation (3rd) and ICT and organization model creation (2nd), creative goods and services (11th) and video uploads on YouTube per pop. 15-69 (7th)	- royalty and licences fees payments as % total trade (80th) as well as receipts (70th) - domestic resident patents app/bn PPP GDP (68th)

The relations between the area of human resources and research represented by the following the input indicators: expenditures on education and research and development including the university ranking of 3 top and the area of knowledge creation represented by citation documents H index are represented by the fig. 1 and 2.

The potential of Visegrad and Baltic states to increase the GII level lies in the supporting the linkages between education and research, research and innovation, education and innovation, e.g. fulfil the concept of knowledge triangle. The level of citable documents as well as the domestic patent applications reflects the level of expenditures on research and development. In the terms of university performance (citable documents and patent applications) the highest level among the countries achieves Poland. The lowest level in expenditures on education achieves Slovak republic, in gross expenditures on research and development achieve Slovakia and Latvia and these levels influence the knowledge outputs represented by patent and citable documents.

Figure 1: QS University rankings (average score top 3) and citable documents H index in Visegrad and Baltic countries

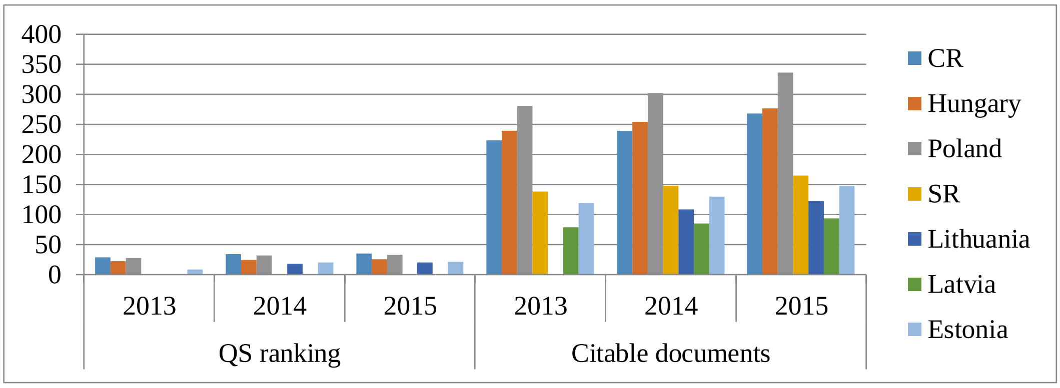
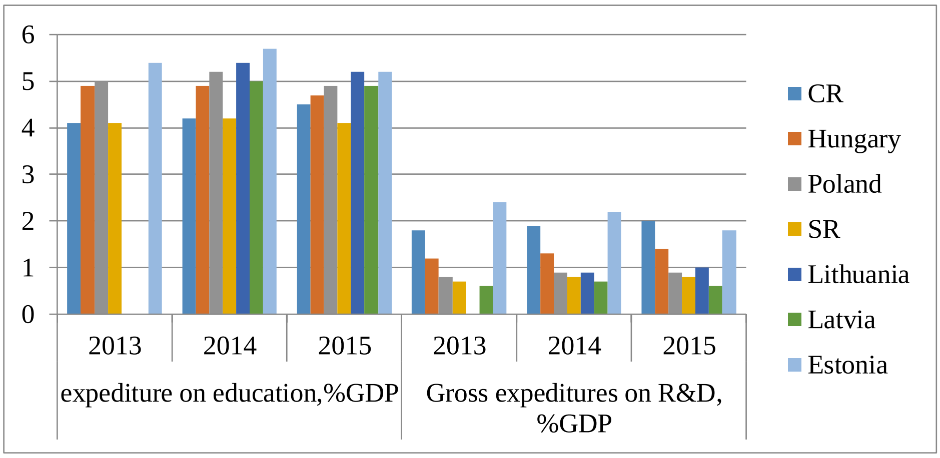


Figure 2: Expenditure on education and R&D as a % of GDP in Visegrad and Baltic countries



5. Conclusion

The traditional access to production function was focused on labour and capital, the knowledge and technologies had only intermediary effect on production itself. The changes in society and technology lead to the new position of knowledge as the most important factor for competitiveness and performance of economy, industries and business subjects.

The analysis of global innovation index, its sub-indexes and individual indicators provides better understanding of the relations between the innovation inputs and outputs as well as measures of innovation. On the basis of analysis of Visegrad and Baltic countries global innovation index it is possible to show the importance of non-technological innovation processes. The non-technological innovation has to include the innovation in market sophistication of these countries. This is also the challenge of optimizing the institutional systems and processes. The key challenge is developing skills for innovation in education and training systems. The target is connected with the equipment more people with the skills related to innovation and creativity in all its forms. The levels of GDP per capita in PPP$ and global innovation index score indicate that the Czech Republic and Estonia rank among the innovation leaders, Hungary, Latvia, Lithuania, Slovakia and Poland are on the way from the achievers to leaders.

From the comparison and analyses the certain implications result for the Visegrad and Baltic countries in relation to intangible assets, intellectually property with its creation and protection as an important production factor of the future. According to supported directions and focus on research (e.g. smart specialization), the outputs aimed to relevant industries influence the choice of form of transfer of knowledge, knowledge absorption and changes in global value chain in relation with foreign direct investment and focusing on clients or region as well as in R&D on the RDDT, e.g. research, development, design and testing.

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FOREIGN PRESENCE, CULTURAL DISTANCE AND TECHNOLOGY GAP AS INDICATORS OF GLOBALIZATION IN THE CZECH REGION

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Abstract. The aim of this paper is to evaluate the impact of all foreign direct investment into Pardubice region in the Czech Republic. These analysed multinational companies gained the institutional support in the form of investment incentives. Based on the comparative analysis of data from the companies` annual reports and Czech statistical office and CzechInvestin 1999-2013, foreign presence is calculated. The foreign presence is together with the technology gap considered as key determinant of spillover effects`creation. The calculated values illustrate low degree of foreign presence – till 8 %, more precisely low potential for the creation of spillover effects. This conclusion confirms the technology gap probed by the Shift-share analysis. It means the decomposition of the technology level of region on the technology, sectors and combination of both these effects. The result is corresponding with the localization of manufactures or manufactures` fragmentation with low added value to the analyzed region. In addition to that, the paper quantifies cultural distance between source countries of the investment and the Czech Republic. The calculation of cultural distance is based on Hofstede´s cultural dimensions by Kogut-Singh index and Euclidean index. In examined time period, investors from total 10 countries invested in Pardubice region and 36 % of them came from Germany. Differences between Germany and Czech Republic in cultural dimensions prove previous studies about their relation to the development of foreign direct investment. Significantly highest cultural distance between Czech Republic and considered countries was found out with Denmark, followed by Netherlands and Great Britain.

Keywords: cultural distance, foreign direct investment, foreign presence, spillover effects, technology gap

JEL Classification: F16, F18, F21, F23, F63

1. Introduction

Global economic structure changes through effects of globalization creating interdependence among nations, foreign markets and companies. To maximize profits, investors are seeking new markets. As Ghemawat (2001) notes, the distance between two markets hasnot onlygeographical but also institutional, cultural and economic dimensions. Foreign direct investment (FDI) is considered as very popular area for their application (Shenkar, 2001).

This paper focuses on the economic effects of FDI localized in the analyzed region that received investment incentives. Economic effects of FDI can be divided into primary (direct) and secondary (indirect) impacts. Secondary positive effects are in literature frequently referred to as spillover effects. Secondary effects are not clearly specified link to FDI. Nevertheless, they both result from the direct effects and the location of FDI (Mišun &Tomšík, 2002).

Secondary effects of FDI have the character of externalities for whose existence anybody does not pay or does not get paid. This is similar principle which it is considered in the theory of public goods (Benáček, 2000). Spillover effects are kind of type “public interest", their existence is necessary to support government institutions that currently have a form of investment incentives (Pavlínek, 2004).

Spillover effects are one of positive economic externalities. Respectively, an external benefit for a host economy arises beyond the direct effects of FDI in terms of market transactions. It is anticipated that the overall contribution of FDI will be higher than the range granted institutional support. The government carries the risk in creating the appropriate institutional conditions that FDI brings with its not only positive but as well as negative effects, which can cause contra productivity of the whole system of investment incentives (Kotíková, 2016).

2. Determinants of spillover effects

It depends on a number of factors ifthe overall indirect effect FDI in the host region is positive or negative and whether any indirect action occurs. The key determinants of the indirect effect’s creation can include degree of foreign presence, technological gap or absorptive capacity of the firms in the host economy (Kotíková, 2016).

The first who started researching the secondary impact of FDI on the host economies was Finlay (1978), who found those spillover effects as part of his research and called them as relative lagging. It means the technological gap between the parent and the host economy. Finlay in his work argues that the larger the technological gap, the greater the scope for spillover effects. The author proceeds from the assumption that the foreign investor is always a more advanced economy than the area to which FDI locates.

On the other hand, Cohen and Levinthal (1990) and Görg and Greenaway (2001) modify opinions on the position factor of the technological gap and its impact on the spillover effects. Their findings show that if the technology gap is too large, domestic companies are unable to technology transfer. Great technological gap may lead to a crowding-out effect, where local firms are not able to compete with FDI. However, too small technology gap leaves no room for learning and technology transfer. In conclusion is possible to say that the most likely positive spillover effects occur at a moderate technological gap (Finlay, 1978).

Kokko (1996) concerned the question if exists a link between the degree of foreign presence *(FP)* and spillover effects. He concluded from the analysis of competition in the case of Mexico that this relationship is not always true. On the one hand, he found that the crowding-in effect does not occur in areas with a dominant MNCs, but on the other hand in areas where the proportion of foreign presence is to 50% and at a time is increasing, this effect was identified.

The fact of whether the effects will finally happen depends not only on the foreign presence. The actual location of FDI is just kind of a first step, the final effect is dependent primarily on the interaction between domestic and foreign firms (Blomström, 2002). The above also shows that spillover effects are conditioned by the size of the technology gap and the mutual position of the firms(Kotíková, 2016).

3. Methodology

Foreign presence is the level of state of foreign investment in the economy or region, expressed by foreign companies' employment in total employment in the economy, region or selected sectors (Görg and Greenaway, 2004).

$$FP = \frac{\sum_{i=1}^{n} E_{FDI_i}}{E} * 100 \quad (1)$$

E_{FDI}represents the number of employees in FDI, which received investment incentives in individual regions. This figure was obtained from annual reports analyzed FDI in each year (Ministry of Justice, 2016), E represents the number of people employed in the region, according to CSO statistics (2016).

Development of the technology gap will be probed by the Shift-share analysis. It means the decomposition of the technology level of region on the technology, sectors and combination of both these effects (Šimanová&Trešl, 2011).

$$TG = \sum_{i=1}^{n} \frac{(AP_{L_i}^{Par} - AP_{L_i}^{Prag})S_i^{Prag}}{AP_{L_i}^{Prag}} + \sum_{i=1}^{n} \frac{(FP_i^{Par} - S_i^{Prag})AP_{L_i}^{Prag}}{AP_{L_i}^{Prag}} + \sum_{i=1}^{n} \frac{(AP_{L_i}^{Par} - AP_{L_i}^{Prag})(FP_i^{Par} - S_i^{Prag})}{AP_{L_i}^{Prag}} \quad (2)$$

The technological level is illustrated by productivity of labour (AP_L). The productivity of labour is expressed as a proportion of regional GDP and the number of employees in the region. S_i^{Prag} is a share of FDI that are localized in the selected benchmark - the Capital City of Prague.FP_i^{Par}represents the degree of foreign presence in the region, which is analyzed in comparison with the selected benchmark.

The first member of the Eq. 2 shows the contribution of the difference of the technological level of the same sectors regardless the difference of sectoral structure of regions. It means what extent the gap is reached, if thePardubice region should have the same sectoral structure as a chosen benchmark of technological convergence - a region with the highest and rising productivity of labour Capital City of Prague.The second member expresses the contribution of the difference of the regional sectoral structure, if the region showed the same productivity of labour as a benchmark. The third member is a combination of both effects. For the calculation has been used regional data of Czech Statistical Office (2016).

Cultural distance measured in this paper is based on dimensional framework of national cultural differences resulting from Hofstede´s study (2010) with the most updated scores (2015). Four original cultural dimensions: PDI - power distance index, INV - individualism, MAS - masculinity and UAI- uncertainty avoidance index are complemented with two later-added dimensions: LTO - long term orientation and IND - indulgence.

Kogut-Singh index (1988) and Euclidean index (Barkema and Vermeulen, 1997) were chosen as very common measurements.First, Kogut-Singh formula (1988)is calculated:

$$CD_{jk} = \sum_{i=1}^{n} \{(I_{ij} - I_{ik})^2 / V_i\} / n \quad (3)$$

where CD_{jk} is the cultural distance between the *j*th and *k*th country, *Iij* and *Iik* are indicators of the *i*th cultural dimension for the *j*th and *k*th country, $V_i$stands for the variance of the *i*th cultural dimension, n is the number of cultural dimensions (Kogut and Singh, 1988). Secondly, Euclidean index with the symbols of the same meaning as in the previous formula is used:

$$CD_{jk} = \sqrt{\sum_{i=1}^{n}\left\{(I_{ij} - I_{ik})^2\right\}/V_i} \qquad (4)$$

The calculations in this paper use mentioned indexesseparately for four and for six cultural dimensions which provides interesting comparison. Cultural dimensions stated by Hofstede (2010) are very briefly described in footnote.[31]

4. Calculations of chosen indicators of globalization in the Pardubice region

Pardubice region, one of 14 administrative units in the Czech Republic, is neighboringwith Polish border and its location was a reason for theanalysis. The industry is a base of regional economy and especially the chemical industry is the largest in the country.

The present paper examines the economic effects of 22 investment cases with received investment incentives localized in the specified region (CzechInvest, 2016).In order to analyze the effects of globalization in the chosen region, indicators of foreign presence and technology gap were measured. For getting more compact picture of the investment situation there, cultural distance as a concept influencing foreign market attractiveness, technology transfer, expansion strategies or management practices (Ghemawat, 2001; Zaheer et al, 2012; Čuhlová, 2016) was calculated on the top of that.

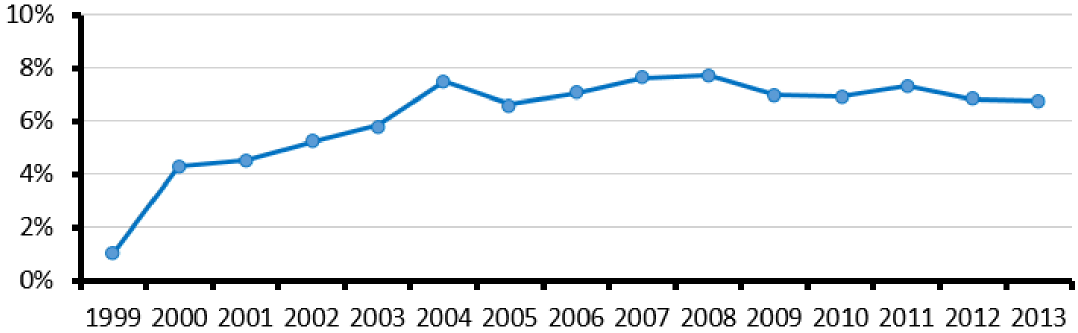
4.1 Measurement of foreign presence in the Pardubice region

Foreign presence was calculated for the period 1999 - 2013. Due to comparability, 2013 is the last analyzed year. MNC´s annual report, containing information on the number of employees, are released with a time lag.

Fig. 1 illustrates the results of calculation of the foreign presence in the Pardubice region. It should be noted that this indicator does not correspond with values of the indicators of FDI inflow. Indicator of FDI inflows into the region does not reflect the kind of the investment. Respectively it does not reflect whether and how much influences the local labor market. FDI inflowsdo not reflect if growth of the indicator was achieved by incoming of new investors to the local market or rise of the investments´ value etc. Foreign presence is therefore measured using the Eq. 1 that enables these drawbacks at least partly eliminated through the monitoring of the development of numbers of jobs (Kotíková, 2016).

[31] Power distance refers to power distribution in society and the inequality among people. Individualism deals with group orientation and individual or group goals. Masculinity stands for assertiveness and competitiveness orientation as opposite to feminine values, such as empathy. Uncertainty avoidance is a degree of feeling uncomfortable in unknown situations. Long term vs. Short term orientation represents the focus towards past, presence and future. Indulgence vs. Restrain explains the attitude of society towards free human gratification of enjoying life and freedom generally (Hofstede et al., 2010).

Fig. 1: Foreign presence in the Pardubice region



Source: own processing based on own calculations and data from the CSO and annual reports analyzed FDI

Figure reflects the low degree of foreign presence in all analyzed regions. This situation should indicate low potential of creation spillover effect of FDI.

4.2 The technology gap in the Pardubice region

The calculated value of the technological gap using methods Shift-share analysis indicates the presence of relatively high technology gap. Tab. 1 shows that the time-series of values are relatively stable without dramatically fluctuations. It means that no identification of increasing as degreasing of technology gapshould bein the Pardubice region.

Table 1: The calculation of the technology gap in the Pardubice region via Shift-share analysis

Year	Technology effect	Sectors effect	Combination of both effects	Sum
1999	-19,890	-47,217	19,457	-47,649
2000	-19,608	-43,275	17,835	-45,048
2001	-21,904	-44,833	19,904	-46,833
2002	-23,086	-47,384	20,797	-49,673
2003	-20,604	-40,432	18,009	-43,028
2004	-22,589	-39,232	18,958	-42,863
2005	-27,434	-47,086	24,051	-50,469
2006	-26,436	-46,070	22,928	-49,578
2007	-26,241	-44,014	22,373	-47,882
2008	-28,572	-45,717	24,453	-49,837
2009	-25,754	-44,294	22,244	-47,805
2010	-24,964	-45,119	21,630	-48,452
2011	-24,689	-44,940	21,224	-48,405
2012	-27,136	-46,437	23,658	-49,915
2013	-26,896	-46,691	23,499	-50,088
Mean	**-24,387**	**-44,849**	**21,401**	**-47,835**

Source: own processing based on own calculations and data from the CSO and RISY

According to opinions of Finlay (1978) and on the basis of the performed calculations, thereisa considerablescopefor spillover effects. Howevercould be argued (Cohen and Levinthal, 1990; Görg and Greenaway, 2001)that technological gap in the region is relatively large and it is not reduced in the time. Regional firms thus seem to have little absorption capacity and only low technology transfer and a risk of crowding-out effect could be identified there.

4.3 Cultural distance

During the analysedperiod 1999-2013, the foreign investors attracted by the system of investment incentivecame to Pardubice region from ten countries in total: Denmark, France, Germany, Great Britain, Italy, India, Japan, Netherlands, Spain and Switzerland. It is important to note that many multinational corporations invest via third countries due to benefits of the local tax systems. This is for example a case of investors established in Netherlands (Čuhlová, 2016). As data from CzechInvest agency (2016) shows,most of the international investors,in 36 % cases, came from Germany. This supports the importance of traditional Czech-German relationship in terms of business and investment environment.

Table 2 shows cultural distances between investors´s countries and the Czech Republic as their host country. As previously mentioned, these distances are calculated separately for four original Hofstede´s dimensions and then for all six cultural dimensions.

Table 2: Cultural distance investment source countries from the Czech Republic

Country	Kogut-Singh index		Euclidean index	
	Dimensions PDI, INV, MAS, UAI	Dimensions PDI, INV, MAS, UAI, LTO, IND	Dimensions PDI, INV, MAS, UAI	Dimensions PDI, INV, MAS, UAI, LTO, IND
Denmark	3,39	3,19	3,68	4,37
France	0,35	0,37	1,18	1,49
Germany	0,40	0,36	1,27	1,47
Great Britain	1,48	1,63	2,43	3,13
Italy	0,29	0,22	1,07	1,14
India	0,82	0,66	1,81	1,98
Japan	1,24	0,98	2,22	2,41
Netherlands	1,92	1,81	2,77	3,29
Spain	0,25	0,38	0,99	1,51
Switzerland	0,58	0,86	1,52	2,27

Source: own processing based on own calculations and data from Hofstede (2015)

When looking at Table 2, differences based on calculations using Kogut-Singh index and Euclidean index can be observed however it also shows the same trendwith closer look.The highest cultural distance from the Czech Republic was measured in case of Denmark, Netherlands and Great Britain. On the other hand, South European cultures, such as Spanish and Italian, were found to be the closest to the Czech culture.Since culture represents quite constant factor (Hofstede et al, 2010), cultural distance is consequently unchanging determinant influencing investors´ decision making (Čuhlová, 2016).

5. Conclusion

According to the methodology of A. Kokko (1996), there was identified very low potential of spillover effect creation in the analyzed region. The values of calculated degrees of foreign presence in analyzed period are very low – under 8 % and in average 6.15 %. Together with values of technology gap that are close to 50 % in average, itis possible to expect relative low potential of spillover effect. In the context of these facts it could be speculating about efficiency of investment incentives in this particular case in view of spillover effects.

Globalization has resulted in increased investment opportunities at a greater distance as well as new economic options. Both workers and investors consider foreign country attractiveness based on several factors, including cultural proximity or distance. Calculations in the paper provide comparison of cultural distances based on Kogut-Singh index and Euclidean index. The results show the same trend; the highest cultural distance between the Czech Republic and Denmark. Further investigation of the cultural differences and its implications is recommended for future research.

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EUROPE 2020 TARGETS AS LIFE QUALITY MEASURES IN A GLOBAL ECONOMY – AN ATTEMPT OF EVALUATION BASED ON THE EXAMPLE OF POLAND

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Abstract. The concept of sustainable development has become a new paradigm of development, addressing a variety of consequences stemming from globalisation processes in the world economy. One approach to verifying the effectiveness of development strategies in different countries involves life quality indicators. The principal types of such indicators are either based on GDP, e.g. the Green GDP, the Index of Sustainable Economic Welfare, or disregard it, e.g. the Happy Life Expectancy, the Living Planet Index, the Ecological Footprint. Great importance is also attached to synthetic measures, such as the Human Development Index or the Well-Being Index, and sets of indices, e.g. the Sustainable Development Goals 2030. Globalisation has caused a necessity to review the existing measures and create new ones, as development disparities often make it impossible to evaluate quality of life with the use of the same measures in different regions of the world economy. The Europe 2020 strategy and the targets set out in the strategy are the life quality measures monitored both in particular EU member states and the entire European Union. The article is an attempt to evaluate the Europe 2020 targets as quality of life measures compared to other indicators frequently used to measure quality of life in a global economy based on the example of Poland. The following conclusions were formulated: 1) sustainable development caused a change in the approach to the measurement of quality of life, 2) the achievement of the Europe 2020 targets may contribute to improved life quality in Poland.

Keywords: quality life measures, Poland, development strategy, Europe 2020

JEL Classification: I31, F63, F64

1. Introduction

The globalisation of the world economy has resulted, on one hand, in the unprecedented growth in many fields and, on the other hand, in the increasingly significant stratification both within particular countries and internationally. The need to account for these tendencies is reflected in the concept of sustainable development as a new paradigm of development, addressing a variety of consequences stemming from the globalisation processes occurring in the world economy.

One of the elements of the verification of the effectiveness of development strategies adopted in different countries is the assessment of life quality. A great number of types of indices are used to measure quality of life. Their multitude demonstrates the complexity and ambiguity of the concept of quality of life and well-being.

The adoption of sustainable development as a development strategy capable of addressing the consequences of globalization has also led to redefining the quality of life concept so that it can embrace environment-related issues (Howarth & Kennedy, 2016), (Morone, 2016).

Globalisation has caused significant development disparities, in many cases making it impossible to evaluate quality of life with the use of the same measures in different regions of the world economy (cf., e.g., Broadberry & Gardner, 2016).

This created the need to develop the measures to evaluate and monitor changes in the standards of living in the groups of countries similar to each other. The Europe 2020 sustainable development strategy and the targets set out in the strategy are the example of the life quality measures monitored both in the particular EU member states and the entire European Union.

Poland's EU membership causes that the situation in other EU member states is the point of reference for comparisons involving the assessment of quality of life and well-being.

The article attempts to evaluate the targets of the Europe 2020 strategy as life quality measures in comparison to other indicators frequently used to measure quality of life in a global economy based on the example of Poland. The study used the desk research method and comparative analysis.

2. Life quality measurement – a review of selected measures

The problem involved in the measurement of life quality stems from difficulties in formulating an unambiguous definition of well-being despite the attempts being made since the Antiquity. Aristotle and Plato spoke about happiness that was related to their understanding of well-being (Arystoteles, 2011), (Platon, 1994). In modern times, the quality of life became the determinant of a variety of actions undertaken by people and is an important element characterising the actors of the contemporary world economy (Mc Call, 1980), (Frey & Stutzer, 2005), (Sessa & Ricci, 2014), (Aslanbay & Varnali, 2014), (Dasgupta, 2014).

Nowadays, life quality is most frequently defined at the level of international organisations during the process of developing new measures allowing for the comparisons between countries. The definition that is particularly interesting was proposed by UNDP, which referred to quality of life as the notion of human welfare measured by social indicators rather than by "quantitative" measures of income and production (UNDP, 2015). In their definition of life quality, the World Health Organisation distinguishes six subjective and objective domains of life quality: physical health, psychological state, level of independence, social relationships, environment, and spirituality. These domains are assigned 24 facets that make up the comprehensive reference framework for quality of life evaluation according to WHO (WHO, 1997).

The EU defines quality of life as a broad concept that encompasses a number of different dimensions (by which we understand the elements or factors making up a complete entity that can be measured through a set of sub dimensions with an associated number of indicators for each). It encompasses both objective factors (e.g. command of material resources, health, work status, living conditions and many others) and the subjective perception one has of them. The latter depends significantly on citizens' priorities and needs (COM, 2009).

The classic quality of life measure was and often still is GDP. Nowadays, its most frequently applied form in this role is GDP per capita – PPP. Although the conclusions concerning well-being can only be drawn based on GDP to a limited extent, it is still used as one of the measures or an element of composite indicators (Kuznets, 1934), (Abramowitz, 1956). It is also worthwhile to mention that in 1999 the U.S. Commerce Department referred to GDP as one of great innovations of the 20th century. At the same time, it should be noted that the concept of GDP as a quality of life measure evolved considerably, while in 2006, in China, the concept of green GDP was created. Certainly, GDP is not an indicator that can sufficiently evaluate quality of life in the global economy, in which sustainable development has become a new paradigm of growth, promoting the balance between the economic, social and environmental spheres (Daly, 1990), (Osberg, 2005), (Cairns & Martinet, 2014), (Brad et al., 2016).

In this respect, the authors of the report delivered by the Commission on the Measurement of Economic Performance and Social Progress (Stiglitz et al., 2010) clearly identified the weaknesses of GDP and discussed a variety of concepts concerning quality of life measurement and their subjective and objective determinants.

Due to the complexity of the well-being concept, considerable significance is attached to the so-called synthetic measures of quality of life (Pinar et al.,2015). The most popular ones are:

- Human Development Index (HDI)
- Happy Planet Index (HPI)
- Well-Being Index – (WI)

Their popularity stems from the fact that their construction accounts for both subjective and objective factors of social, economic or even environmental nature. It is agreed that HDI measures primarily social development, which UNDP defines as "the process of creating opportunities for people" (UNDP, 2015). HPI, in turn, is an indicator that, according to its authors, measures the ecological effectiveness of delivering human well-being in the world (NEF, 2016). Finally, the WI research uses surveys to investigate five elements of well-being, based on the assumption that an improvement in how people feel about their life increases their productivity and decreases health care costs (Gallup-Healthways, 2015).

The search for an optimal quality of life measure has led to the development of the set of indicators that enable a more comprehensive and precise evaluation of the quality of life of research target groups and propose more effective solutions contributing to its improvement (Ivaldi et al.,2016). Two sets seem to be of particular interest:

- on a global scale – UNDP Sustainable Development Goals (SDGs), which replaced the Millennium Development Goals,
- on a regional scale – the EU Sustainable Development Indicators (EU SDIs) the Europe 2020 targets.

The need for a model well-being indicator or a set of such indicators stems from extremely varied results obtained with the use of selected quality of life measures, which is confirmed by the data in Table 1.

Table 1: Country ranking by selected quality of life measures. Poland and world leaders.

Ranked by GDP per capita (2015)	Country	GDP per capita (PPP, 2015) USD	Ranked by HDI (2014)	Country	HDI (2014)	Ranked by HPI (2016)	Country	HPI (2016)	Ranked by WI (2014)	Country	WI (2014) % thriving in 3+ elements
1.	Qatar	143,788	1.	**Norway**	0.944	1.	**Costa Rica**	64.0	1.	Panama	53.0
2.	Luxemburg	101,926	2.	Australia	0.935	2.	Vietnam	60.4	2.	**Costa Rica**	47.6
3.	Singapore	85,208	3.	**Switzerland**	0.930	3.	Columbia	59.8	3.	Puerto Rico	45.8
4.	Kuwait	71,312	4.	**Denmark**	0.923	4.	**Belize**	59.3	4.	**Switzerland**	39.4
5.	**Norway**	61,471	5.	**Netherlands**	0.922	5.	El Salvador	58.9	5.	**Belize**	38.9

6.	**Switzerland**	60,535	6.	**Germany**	0.916	6.	Jamaica	58.5	6.	Chile	38.7
7.	**United States**	55,838	6.	Ireland	0.916	7.	Panama	57.8	7.	**Denmark**	37.0
8.	Saudi Arabia	53,430	8.	**United States**	0.915	8.	Nicaragua	57.1	8.	**Guatemala**	36.3
9.	**Netherlands**	48,458	9.	Canada	0.913	9.	Venezuela	56.9	9.	Austria	35.6
10.	**Germany**	47,268	9.	New Zealand	0.913	9.	**Guatemala**	56.9	10.	Mexico	35.6
…	…	…	…	…	…	…	…	…	…	…	…
67.	Poland	26,135	36.	Poland	0.843	71.	Poland	42.6	57	Poland	21

Source: elaborated based on: Human Development Report 2015, Work for Human Development, UNDP 2015, The World Bank, http://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD (accessed on 15.07.2016), The World CIA Factbook 2015, https://www.cia.gov/library/publications/the-world-factbook/geos/pl.html (accessed on 15.07.2015), The Happy Planet Index: 2012 Report. A global index of sustainable well-being, NEF London http://www.happyplanetindex.org/assets/happy-planet-index-poster.pdf,

In 2015 as in earlier years, the country ranking by GDP per capita PPP was dominated by wealthy countries with relatively small populations. On the other hand, the ranking by HDI manifestly misses out the Asian countries high in the previous ranking and deriving wealth mostly from natural resources. This may stem from significant inequalities in these countries, caused by the fact that the profits generated as a result of their good economic condition are consumed by a small proportion of their society. It is notable that the three European countries and the USA ranked in the top ten of both rankings.

The country rankings by HPI and WI are significantly different from the ones by GDP per capita and HDI. Top countries by HPI do not include a single country that ranked high by the two previous indicators. According to the data presented in Table 1, the top ranking countries are mostly South American. This may point to the conclusion that despite relatively worse living conditions in these countries compared to, for example, Western Europe or the United States, their citizens seem to be happier. The mindset of these communities or certain cultural patterns may be the underlying causes for this situation. On the other hand, the lower level of economic development means that the industries creating a particularly heavy environmental burden are less developed in these countries. Finally, the country ranking by WI includes two European countries ranked high by HDI and two Latin American countries with the highest HPI measures.

Since the paper discusses the quality of life measures using Poland as an example, it is worthwhile to mention that Poland was classified in the lowest position in the HPI ranking. This is most likely connected with the mindset-related factor and resultant dissatisfaction that many Poles feel about their life, which leads to a relatively low level of happiness that they perceive.

Based on the compilations presented, the society of the highest quality of life lives in Switzerland, which achieved top ranks in the three out of four rankings. This confirms the complexity of the quality of life concept and the necessity to account for many elements in order to arrive at its most comprehensive evaluation.

3. The significance the Europe 2020 sustainable development strategy targets for improved quality of life in the EU member states

The prime goal of the Europe 2020 Strategy, in place since 2010, is to achieve smart, sustainable and inclusive growth in the EU member states and the improved competitiveness of the bloc on a global scale. The achievement of this goal is pursued through the accomplishment of its priorities that encompass smart growth – developing an economy based on knowledge and innovation, inclusive growth – fostering a high-employment economy delivering economic, social and territorial cohesion, and sustainable growth – promoting a more resource efficient, greener and more competitive economy (COM, 2010). To monitor progress towards the implementation of the strategy, the EU defined the targets the achievement of which should ensure the successful pursuit of the strategy goals by 2020. The priorities formulated within the strategy are related to an improvement in broadly understood well-being, so their accomplishment seems to be a measurable element of the evaluation of whether quality of life has grown in the EU member states, in addition to the more complex set of EU-SDI indicators that are more difficult to monitor. The Europe 2020 targets involve: the employment rate of the population aged 20-64, R&D investment targets, climate and energy related targets including increased share of renewable energy sources, reduced greenhouse gas emissions, and increased energy efficiency, targets on educational attainment which tackle the problem of early school leavers and the number of people completing tertiary education, and, finally, a reduction in the number of people living below the national poverty lines or at the risk of social exclusion (COM, 2010).

The idea behind the EU development strategy and the targets involved in its implementation are part of the problem that well-being measures need to be adjusted to particular countries and regions representing varying development levels. Accordingly, the UNDP sustainable development goals (SDGs) do not pose a challenge for the EU member states in terms of improving citizen well-being because they already enjoy a relatively high rate of socio-economic development compared to, for example, African or South American countries and many Asian countries.

As a result, the Europe 2020 targets can be seen as a set of indicators used to measure quality of life corresponding to the level of and aspirations for development in the EU member states. Unlike many other measures (e.g. HDI, HPI, GDP per capita, WI), the Europe 2020 shows precise values that, when achieved, will prove the successful implementation of the strategy (similarly to SDGs). Moreover, the recognition that the EU member states vary in terms of socio-economic growth allowed for the adjustment of the targets to the capabilities of particular countries within the National Reform Programmes. Obviously, the targets formulated as part of the strategy are not always aligned with the interests of particular countries. The most controversial targets concern environmental issues, on one hand, and the expected increase in industrial output in less developed EU countries such as Poland,, on the other hand. This target is often at conflict with the greenhouse gas emission reduction, also set out in the Europe 2020 strategy.

Nevertheless, the Europe 2020 targets account for such elements as employment and education, that are extremely important for research on quality of life, and they aspire to lift people out of poverty and satisfy their basic needs, but they also concern the quality of the natural environment and innovation, which may in turn contribute to the fulfillment of higher order needs.

4. Quality of life in Poland and the pursuit of Europe 2020 targets – an attempt at evaluation

The period of socio-economic transformation that started in Poland in 1989 involved the confrontation of the Polish economy and its social situation with both the situation and Europe and globally. The adoption of the rules of market economy revealed the differences in terms of development between Poland and the so-called Western European countries, which was also reflected in the level of well-being. In 1990, the value of HDI stood at only 0.713, while GDP per capita – at USD 5,995 (WB, UNDP).

Poland’s position in commonly compared rankings of quality of life measures is not impressive. It is worthwhile, however, to consider the change in the relevant measures in the years 1990-2015. GDP per capita grew by more than 400% in this period, while HDI increased to 0.843. The broadly defined improvement in well-being is the goal of national development strategies such as Poland 2030. Additionally, Poland’s EU membership imposes an obligation on the country to pursue the EU strategies. Poland has access to financial backing to support its implementation of the Europe 2020 strategy, which accelerates socio-economic growth and contributes to improved well-being and enhanced quality of life. As mentioned above, the Europe 2020 goals are of varied nature as they relate to economic, social and environmental issues, becoming part of the sustainable development paradigm. This is of significance for the improvement in quality of life, as nowadays it is such complex measures that are growing in importance.

The analysis of the Europe 2020 targets assigned to Poland and compared to the whole EU reveals a varied scale of divergences at the level of particular facets of quality. With respect to the employment rate and the share of GDP allocated to R&D, the target for Poland differs not only from the one set for the 28 member states, but also from the new member states, which is confirmed by the data in Table 2. On the other hand, educational targets are set both above the EU13 targets and the targets for the entire EU. These factors have a positive impact on quality of life in Poland.

The compilation of the Europe 2020 targets and other quality of life measures for the years 2010-2014 (2015) for Poland presented in Table 3 shows an improvement in their values. The improved Europe 2020 targets are accompanied by the increases in HDI, GDP per capita, and HPI, although in this case the timeframe is slightly different.[32]

Table 2: Selected Europe 2020 targets – Poland and the EU

Countries	Employment rate (%)	R&D expenditure as % GDP	Reduced greenhouse gas emissions (%)	Share of renewable energy (%)	Early school leaving (%)	Tertiary education (%)
Europe 2020 target for the EU	**75%**	**3%**	**by 20% compared to 1990**	**20%**	**<10%**	**40%**
EU-13	72.66	1.88	10.38	19.74	8.86	32.63
EU-15	75.05	2.75	-14	23.13	10.2	43.57
Poland	71 ↓	1.7 ↓	+14	15 ↓	4.5 ↑	45 ↑

↓,↑ *- refer to the national target below or above the target for the EU respectively.*
Source: elaborated based on: Europe 2020 Targets, Europe_2020_Targets-1.pdf (15.11.2015).

Table 3: Selected Europe 2020 quality of life measures in the years 2010-2015 in Poland, as compared with GDP per capita, HDI, and HPI

	2010	2011	2012	2013	2014	2015
Employment rate (20-64) in %	64.3	64.5	64.7	64.9	66.5	67.8
R&D expenses as % GDP	0.72	0.75	0.88	0.87	0.94	--
Early leavers from education and training in %	5.4	5.6	5.7	5.6	5.4	5.3

[32]Due to the lack of comparable data, WI is not included in the compilation.

The share of the population aged 30-34 years who have successfully completed university in %	34.8	36.5	39.1	40.5	42.1	43.4
People at risk of poverty or social exclusion in % of total population**	27.8	27.2	26.7	25.8	24.7	--
GDP per capita PPP (USD)	20,883.1	22,520	23,598.6	24,493.8	25,262.3	26,135.3
HDI	0.829	0.833	0.838	0.840	0.843	--
HPI	39.3 (2006)	--	42.6	--	--	--

*** % of population with disposable income below 60% in relation to the national median*
Source: As in Table 1 and
http://epp.eurostat.ec.europa.eu/portal/page/portal/europe_2020_indicators/headline_indicators

A positive change in terms of the analysed quality of life measures for Poland can be observed and their improvement has been acknowledged and declared by Poles. This is definitely connected with a variety of investment projects co-financed with EU funds.

5. Conclusion

For many years, scholars and research centres have been searching for the optimal quality of life measure/s accounting for new facets of well-being or eliminating them. The differences also involve the ways of defining the notions that make up the concept of well-being. In the light of a variety of proposals and a limited usability of the oldest and simplest of the measures, GDP, a still growing problem is the lack of the universal character of the measures, connected with increasing disparities caused by globalization (SDGs). Another important issue is an increasingly complicated and costly methodology, which makes the annual publications of the data impossible, preventing the continuous monitoring of the situation on a global scale. The emergence of the concept of sustainable development resulted in a changed approach towards the notion of quality of life, supplementing the list of its characteristics with the ones relating to the natural environment and its condition.

The targets proposed within the Europe 2020 sustainable development strategy concern relevant objective and measurable factors affecting quality of life in the EU. Their achievement has a positive effect on improving the living standards in particular EU member states. It is especially important in the case of a country such as Poland, where the level of well-being differs from the EU average. It should also be stressed that the EU allocates substantial funds to finance the initiatives pursuing the Europe 2020 targets, especially within the EU Cohesion Policy.

As a result, permanent and favourable changes can be expected in the Polish socio-economic reality, which will be facilitated by improved quality of life achieved in the conditions of sustainable development. Initiatives undertaken to pursue the Europe 2020 targets in Poland, frequently co-funded by the EU, offer an unprecedented opportunity to improve quality of life. It should also be noted that the improvement that is observed (sometimes minor) in relation to other quality of life measures points to their positive relation with the implementation of the Europe 2020 strategy.

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THE IMPACT OF GLOBALIZATION ON TEAM COMPOSITION: VIRTUAL AND LOCAL TEAM

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Abstract. The information and communication technology (ICT) has been evolutionary changing the known way of working and living through interconnecting people across time and space and enabling globalization. The revolutionary development of ICTs enabled the global information exchange to increase in volume and speed rapidly and continuously during last decades. ICT created a new environment globally accessible for individuals to interact with each other in one common place that is reachable from everywhere - the virtual world. People across the globe meet, communicate and collaborate together building one interdependent working unit, the virtual team. Virtual teaming and collaboration are opening new ways of processing the organizational business operations and becoming a daily praxis in the world of business. On the other hand, the migration of people who leave their original country to work and live abroad has been continuously increasing in last decades. The globalization and migration factors are changing the local composition of teams in organizations turning them into multicultural environments. This paper aims to analyze the impact of globalization on team composition in business organizations that became multinational not only in virtual, but also in the local form where cultural diversity positively influences creativity and team performance as well as causes performance losses.

Keywords: globalization, virtual team, virtual collaboration, collaboration tools

JEL Classification: M15, M54, M12

1. Introduction

Since the earliest signs of human existence, people are interacting with each other, communicating continuously and developing new more effective ways of information exchange. With the beginning of today's Digital Era the information and communication technology has been developed allowing real-time communication across space and time zones in one common environment reachable from everywhere around the globe - the virtual reality. Virtual environment enables the access of broad public to civilization knowledge, allows to share and acquire expertize in various fields across borders without geographical limitations (Dávideková & Hvorecký, 2016). This advantages are continuously being integrated into business organizations to stay competitive and increase economic performance. Information and communication technology (ICT) enables creating virtual teams compromising of members in distributed geographical locations through computer mediated communication (Stowell & Cooray, 2016).

While information and communication technologies are connecting various nations, cultures and languages in the virtual reality, the physical reality is being influenced by movement of people creating multinational and multicultural environment in the real world. The migration triggers phenomenon of cultural shock by forced interaction of people from nations, languages and cultures (Bodziany, 2008). Nowadays, it is not unusual to have foreigners as colleagues, schoolmates or even neighbors or life partners, whereas in the recent past this was rare. This shift affects the structure of people and workforce available for business organizations and carries the cultural diversity along.

This paper aims to analyze the globalization impacts of ICT and migration on the daily business processes and operations in form of team composition differences in selected companies. It intends to address the affinities and diversities of virtual and physical realities in functioning of a team and contribute to a better understanding of the differences between these two environments in today´s multicultural conditions.

This paper is organized as follows: Section 2 briefly describes the globalization influence of ICT with its straightforward and indirect impacts. On the other hand, section 3 depicts the impact of migration dragging globalization along. The methodology of our research is described in section 4. Section 5 describes the outcomes and results of performed research with corresponding discussion. Conclusion summarizes the research findings, limitations of executed research and addresses areas suitable for future research endeavors and efforts.

2. Globalization Impact of ICT

Throughout history of mankind, the cultural development of civilization was influenced by short life expectancy, small volume of memorable or storable knowledge, geographical remoteness, slow and delayed information exchange, time-consuming task performing, cultural differences and communication issues. The development of ICT enabled overcoming of large geographical distances, raised the amount of storable knowledge into very large data volumes, notably cut down the execution times of task conducting, extended the space for collaboration and excessively increased the rate of informational exchange around the globe (Dávideková & Greguš, 2016). Through the use of ICTs, the knowledge and expertise acquired during millennia became instantly globally accessible to broad public, to each one individual on the planet. No other technology has had such a global impact on the same level as ICT (Al-Rodhan, 2011). It bolstered the productivity and capacity of the civilization more effectively than any other previous technology (Pérez & Lopéz, 2015). ICT enabled large spectrum of possibilities that changed the way of our daily life, perception and imagination and became a substantial part of our lives (Dávideková et al., 2016).

The virtual environment became very important for the business processes by increasing efficiency of processing, execution and operation as the main dominant driver of output per worker through which ICT has a relatively high contributory power for the long-term support of the economic growth (Kumar et al., 2015).

ICT drives the globalization through overcoming spatial farness, shrinking execution times, omnipotent accessibility and storing, processing and distributing of huge volumes of information. Together with the air travel that enables traveling over far distances and migration of individuals transferring to another countries for living, these factors are pushing the impact of globalization forwards. The globalization is bringing together people from various countries into one local or virtual place building one team committed to a common goal and purpose composed of different nations, languages, customs and mentalities.

3. Globalization Impact of Migration

In the area of west and central Europe, another highly important factor strongly impacts the globalization, namely the migration. The Schengen area represents “an area without internal frontiers in which the free movement of goods, persons, services and capital is ensured” (EU Publications Office, 2010). This area of passport-free travel enables free individual travel and transport allowing people to commute to work abroad, to another country, nation and culture (Brady, 2012). Freedom of movement represents a focal feature of the supranational status of EU citizenship. This freedom was primarily intended for the free movement of workforce (Atger, 2008) and is providing educated and specialized workers from one location with insufficient or unsatisfactory vacancies in given specialized field to the place of need today. Such a shift of workers from one country to another foreign area triggers cultural conflicts stemming from collisions of different customs and habits.

Another recent cause of migration, besides the previously mentioned one so-called economic migration (Bartram, 2011), is represented by the war and post-war migration. In other words, armed conflict in some locations is causing people to leave their homes built in nowadays highly dangerous areas those once peaceful places. Refugees threatened by military groups try to flee away towards a safer place to live, desiring to escape the death and/or misery. The United Nations Organization defines them as “persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters” (UN, 2004). The current fights in the Middle East have triggered a huge wave of refugees coming to Europe, a location of very different culture, religion, customs and habits.

The global cultural exchange is dynamically reshaping the contemporary society and present migration with no single origin and no simple end represents a never-ending ongoing process (Papastergiadis, 2013). This exchange stands for both mentioned types of migration, namely the economic migration as well as the migration caused by warfare.

4. Methodology and Sample

The research carried out for this paper included secondary research in form of literature review based on sources found in scientific indexed databases and primary research of few cooperating business organizations where the actual team composition was studied in form of case studies.

Literature review included search in scientific indexed databases as ScienceDirect powered by Elsevier, Willey Online Library of Willey-Blackwell, SpringerLink of Springer, Scopus and Web of Science provided by Thomson Reuters. The literature review included several searches with key words relevant to the topic of this paper. The relevant and cited sources are included in the reference section of this paper.

The companies involved in this research effort corresponded to individual participating teams where members were questioned and observed aiming to specify the team compositions in participating companies. The selection of representative sample was made on voluntary basis by following contributors:

- National company of middle size where the personnel consisted only of people stemming from one nation located in capital city of Slovakia.
- National subsidiaries of international corporates with headquarters overseas and in Europe located in the capital of Slovakia.
- National subsidiary of an international corporate located in its country of corporate origin, located in remote landscape, far from capital city.

Even if the number of participating organizations was very small, the representatives of typical company types were included. The authors assume the relatively small participants number to be influenced by summer holiday times and voluntary basis. Therefore, the research concentrated only on the understanding of team dynamic and composition in virtual and local form and the change of it during the last decades.

5. Findings and Discussion

The middle size organization consisted of people from Slovakia and a very few Czech workers. The second nation was represented only by very few individuals who were less than 5% of whole company stuff. The teams were built of one nation and therefore, no notable cultural, national or language barriers were detected. The workers were collaborating mostly locally, yet they had also experiences in multicultural collaboration with their business partners coming from other parts of Europe. However, such cooperation did not build a substantial part of their professional path. This company had its own subsidiary in Czech Republic where the cooperation of workers was closely connected to the outputs of headquarter in Slovakia. The national differences between Slovaks and Czechs have not represented any noticeably barriers and have not lead to any conflicts as both nations are experienced with usual frequent among use of both languages in the contact environment, i.e. speaker alternating between Czech and Slovak (Nábělková, 2007). The authors assume the cultural affinity to be very high and the mutual understanding of these two nations to be stemming from long joined history of these nations. The working language was Slovak and Czech alternated according to the needs.

The contributing national subsidiaries of international corporates were of two types. First corporate type was working onsite in the capital of Slovakia for Slovak and foreign markets. The departments of this corporate type were divided to the domestic market and to the foreign markets. The teams consisted of members located in Bratislava. However, the workers belonging to the foreign market department were sent abroad for a necessary period of time for initial training. Some were there only for a day and some for three months. This differed with the position and working tasks. After that, these workers of the foreign department were located in Bratislava, daily collaborating with foreign counterparts via ICT on interdependent tasks. From time to time, ca once per half a year, the team members visited the other subsidiary and met personally. In other words, they built up virtual teams with regular personal meetings.

In this type, also an amount of foreigners was working in the local subsidiary located in Bratislava. There were various nations from across Europe and overseas. However, the Asian nations were not included. The working language was English. There were noticeable language conflicts causing tensions and delays in both environments, in the virtual as well as in the physical. The cooperation was often forced by building ethnical subgroups holding together. The language barrier was often used as the reason for delay and non-collaborative attitude.

However, some individual bright examples of culturally tolerant workers were also detected where the cooperation was flourishing. Here, the factor of very similar interests was blending together the particular unit.

If some nation was isolated, i.e. a foreigner was hired by the Slovak subsidiary, he/she was voluntarily cooperating with his/her team mates. The Slovak workers seemed to be more tolerant to cultural diversity as they were aware of the small size of their nation. This was detected in the attitude of Slovaks who were trying to understand the cultural differences of the isolated foreigner. On the other hand, the foreign subsidiary located in a nation more than ten times bigger than Slovak population was somewhat closed up, less tolerant to the cultural diversities pushing through their customs and habits. This attitude was detected by local workers with limited knowledge in foreign languages and with no or limited experience of working abroad. Nevertheless, local workers who had long experience with foreigners, i.e. working abroad several years or coupled with a foreigner, were very tolerant to cultural differences and showed great understanding and help. The rate of employed foreigners was still relatively small in overall, ca. >10-15%.

The second corporate type was sending its workers abroad to work at the client on a weekly base. This company representative type denotes a typical consulting company that provides the know-how of employed experts to the client according to his/her needs (Springer Gabler, 2016). The teams consisted of employees from several nations, all employed at the subsidiary in Bratislava. The workers were collaborating also with colleagues from foreign subsidiary when assigned to the same project. In this case, the Slovak workers working abroad collaborated with their direct foreign colleagues of their corporate and with the foreign workers of the client. At the client, the half of the workers was of local nation and the other half consisted of foreigners contracted from consulting companies or even employed. As here, the working environment was completely multicultural, multinational, international and diversified, the tolerance against the missing cultural affinity was present. The working form was onsite, local international team. The composition of working force of the foreign consulting subsidiary employed a considerably high rate of foreigners alike the Slovak subsidiary, ca. 30-40%.

The last representative of participant types depicted a national subsidiary of an international corporate located in its country of corporate origin, located in remote landscape. Surprisingly, the rate of foreigners was actually relatively high 20-30% despite the remote location. The cultural tolerance of local people was deliberately high despite the language barrier and cultural divergence. Team members were collaborating with each other on a mutual base. Teams were lead in local form.

Based on the research findings, the authors consider the effectivity of the virtual team collaboration to be far more affected by the cultural diversity hence the delays and conflicts credited to the language barrier caused relatively high performance losses. Whereas the locally gathered teams showed better performance despite the cultural differences. The decisive advantage of the local group is the very short reaction time to a misunderstanding and the possibility of immediate visual presentation. This is mostly not present in the asynchronous remote collaboration.

According to the statements of individual workers of analyzed companies, the amount of foreigners was almost null twenty years ago and since then it has been slowly increasing with time. In overall, the cultural diversity provided new insights to work problems and tasks and enriched the team on that way. This is in compliance with former research findings analyzing the impact of cultural diversity in working environment (Han & Beyerlein, 2016).

6. Conclusion

Already in the first experiments with team building in virtual environment, found in scientific indexed sources, realized in military conditions in early 90ies researching the potential of ICTs ("virtual reality technology" there) represented by the possibilities to facilitate communication across cultures through visual presentations of the concepts highlight the lack of contextual information for mutual understanding and the negative impact of cultural differences and the language barrier (Downes-Martin et al., 1992). Despite the fact, that nowadays these same impacting factors of cultural diversity and language barrier became present in geographically located local teams consisting from various nations, religions and cultures, through the ongoing migration of people, the impact of the differences was relatively lower thanks to the fast detection and reaction time as well as the immediate possibility of visualization and presentation of meant and not understood matters.

Another finding of conducted research showed that people with several foreign experiences are far more tolerant to other nations and able to cooperate in a multicultural and multinational environment we experience today. Therefore, the exchange study programs and rotations of workers across countries seem to provide the necessary experiences for a cultural tolerance among workers. The global experiences can be achieved also through virtual work in collaboration with people across the world. Experiences of global virtual work lead to positive work's complexity and learning potential that in turn improves innovation, satisfaction and engagement (Nurmi & Hinds, 2016).

As confirmed through the carried out research the team leader has very important role of facilitating communication in a multicultural and multinational team to ensure understanding among team members (Lisak et al., 2016). Creation, leadership and maintenance of such an international team require high level of leadership skills and experience of the team manager in charge (Dávideková et al., 2015). For a functioning collaborative team, mutual sharing of knowledge among team members is of high importance. Factors significantly influencing the positive attitude for it are trust, reciprocal benefits and enjoyments that are impacted by the team atmosphere created by the team lead (Killingsworth et al., 2016).

The conducted research included only a relatively small, but representative sample of various constellations of companies and teams. Further analyses of a larger sample of several companies identifying the national compositions of teams and the causes of disturbances in virtual collaboration would be necessary.

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GLOBALIZATION IN THE FIELD OF FOOD RETAIL ST.PETERSBURG: ANALYSIS OF THE PRICE POLICY

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Abstract. The disastrous state of the food market was one of the reasons for the breakup of the USSR in 1991, while the filling of the consumer market with the food products became the first, though rather painful due to the dramatic increase of prices, result of Russia's transition to the market economy. Within a short time, the imported goods, virtually unseen before, including the production of the well-known global manufacturers, appeared on the Russian market. Though not all of the food products delivered to Russia at that time were of equal and acceptable quality, e.g. the American chicken quarters, (Alali et al., 2012), the process of Russia's entry into the global food markets has definitely started. Globalization did not only lead to the growth of the delivery of the imported goods into the Russian market. The major well-known food companies from Finland, U.S.A. and other countries started opening their manufacturing facilities and sales outlets within the Russian territory. The local production of agricultural products has also experienced a revival. In a dozen years, from a highly dependent on the global markets food importer Russia successfully transformed into one of the major exporters of certain food products (for instance, grains). In this series of two articles devoted to the same research and incorporating a rich factual and statistical material, we analyze the modern condition of the Russian food market, estimate the consequences of its inclusion into the globalization process and attempt to determine its type.

Keywords: food retail market, market segmentation, type of market, price policy.

JEL Classification: D12, D21, D43

1. Introduction

The area of academic expertise of the authors of this article has since a long time included the study of the specifics and the determination of types of the industrial markets. (Dengov & Melnikova, 2012, Dengov & Gregova, 2015, Dengov & Tulyakova, 2015).

In the 1990s, the structure of the Russian food retail market was easily definable as a *monopolistic competition* with a few elements characteristic for the *perfectly competitive markets*. At that time, there were no major retail chains, which could dictate their rules to the food market, whatsoever. The truly revolutionary change in the food retail market of the country did not occur until the beginning of the first decade of the 21st century, when both Russian (*Lenta*, *O'KEY*, *Karusel*', *Magnit* etc.) and foreign (*Auchan* and *PRIZMA*) powerful retail chains entered the market, starting with the major Russian cities of Moscow and St. Petersburg. Due to the definite cutting-edge they had over the small food stores in regards of the operational costs, product assortment, sales geography etc., the major food chains then started to gradually replace the small to medium business within this important industry, both as a result of the open competition, but also by the administrative measures.

2. Object of research and methodology

To determine the current type of the food retail market, its present state and prospects of further development, one needs to evaluate the levels of its concentration and centralization, and to analyze the pricing policies of the major retail chains.

The food market of St. Petersburg has been chosen as the *object* of our studies. Within the country, St. Petersburg positions itself as the cultural capital of Russia. Due to this status, it is equally famous outside the Russia, making it an international tourist attraction. (Pashkus et al., 2015). However, coming to St. Petersburg to visit its historical and cultural sites, the tourist should also be aware of the economic achievements, in the field of food retail amongst other things. On the other hand, for the promotion of Russian high quality food to world markets, it is useful to use the experience of other countries, for example in Italy (Aiello et al., 2015).

As a *working hypothesis* that needed to be proved, we assumed that the food retail market in St. Petersburg most closely resembles the market of *«fuzzy oligopoly»*, which besides the price competition uses also the product mix policy and the growing number of the sales outlets. It should be noted that the problem of assessing the food markets in terms of competition and market power of large companies is relevant not only for Russia but also for other countries (Soregaroli et al., 2011, Marini et al., 2015, Fašiang, 2015, Kajanová, 2015).

The factual and statistical basis of the study came from the open sources available to the authors of this article. The method of the analysis included monitoring, the processing of the acquired information using the statistical methods, and the calculation of the concentration ratios. To evaluate the concentration of the food retail market in St. Petersburg we used such indexes as the Herfindahl-Hirschman Index (HHI), the Linda index (IL) etc.

3. Segmentation of the food retail market in St. Petersburg and the position of the major "players"

In order to better understand the structure of Russian retail and the situation in the currently researched industry, it is necessary to divide the general retail system into several sectors. The traditional way of its division looks as follows: 1) FMCG (the food retail) – the sector, which is the subject of this research. It is worth noting, that the term FMSG (fast moving consumer goods) is more precise, since the «food retail» is often understood exclusively as the sales of the production of the food industry. That is, however, not completely correct: part of the general food retail consists of the goods of a non-food variety (the «non-food products»), everyday consumer goods, such as toothpaste, soap, lightbulbs, and hygiene products; 2) Household appliances and electronics; 3) Home products and DIY (Do It Yourself), including the textiles, household cleaning products, housewares, and flooring and construction materials; 4) Furniture; 5)

Cosmetics and perfumes; 6) Health care products; 7) Other lesser sectors, such as jewelry, animal care products, cellphones, juvenile products, etc.

The global economic recession, strongly felt in Russia as well as in other countries. The recession also affected the food products consumption. The average purchase amount decreased, the customers now tend to frequent a greater variety of outlets of different food retail chains in search of discounts and bargains, while the counter-sanctions led to the generally poorer product mix. In general, buyers also tend to switch to the cheaper products, even if they are usually of the inferior quality. The imports phase-out is undoubtedly taking place, however, in such a short period it still unable to fully compensate for the loss of the imported food products.

Thus, according to the data of the Russian Federal State Statistics Service, the retail sales in Russia in 2015 constituted 27575,7 billion rubles (showing a decrease of 10% on a year-on-year basis). Within the structure of the last year retail sales, the share of the food products, including beverages, and tobacco constituted 48.6%, of the non-food products – 51.4% (in 2014 they constituted 47% and 53% accordingly). The share of St. Petersburg in the total retail sales in the Russian market is 4% (844,76 billion rubles). The share of the retail sales of food products, including beverages, and tobacco within the structure of the total retail sales in St. Petersburg in 2014 constituted 35%, with the share of the non-food products – 65%, which is comparable to the conditions of 2013 (Administration of St. Petersburg Official site, 2015).

If in 2013 Russia had climbed to the 23rd place in the Global Retail Development Index (the rating evaluating the feasibility of investments into the retail business of each country) as compared to the 26th place in 2012, the following years (2014-2016) saw it lose this position again.

Before we continue to the analysis of the food retail industry, which is the subject of this study, it is necessary to mention that this segment in St. Petersburg appears to be highly consolidated: the share of the retail chains constitutes approximately 90% of the total volume of the market.

According to the data of the *INFO-line* information and consulting agency, the first seven places in St. Petersburg and Leningrad region according to the total revenue belonged to the FMCG-retailers. The next FMCG retail chain is only in the 14th place with the share, which is 35% lower than the share of the player that occupies the 7th place. Thus, we take to analyze only the first seven positions (tab.1).

Table 1: Top food retailers St. Petersburg according to the consulting agency InfoLine (1 half of 2013)

Retail chain	The number of stores	Market share
Lenta	16	20,7%
O'KEY	38	18,43%
Pyaterochka	212	11,45%
Sem'Ya	201	7,6%
Karusel'	16	6,76%
DIXY	157	6,43%
Perekrestok	37	6,42%
AUCHAN	9	4,9%
Polushka	150	4,17%

Source: http://infoline.spb.ru/news/?news=54931 [22.04.16]

To begin with, it is necessary to point out that the industry consists of the separate market segments, with each of them addressing their own kind of customer. This aspect is a vital one for our research: if the companies are the part of one industry, yet belong to the different market segments – they will not compete. Therefore, the analysis of the price factor should be performed not for the industry as a whole, but rather for each of its segments in particular.

The main criteria of segmentation generally include: 1) the size of the segment; 2) its stability (growth perspectives); 3) the segment's profitability; 4) its availability; 5) competition within the segment. The industry in question can be divided into the three main segments.

Segment 1 consists of the hypermarket-scale retail chains. Their primary customers are the people doing «family shopping», where they buy the products for the family for the whole week. The outlets of this segment have the largest floor space and, consequently, the richest products mix. The retail chains belonging to this segment are as follows:

1. ***Lenta*** – often proclaimed as the first retail chain in Russia. Up to 2013, the chain worked exclusively in the hypermarket form; however, its entrance into the Moscow market in the March of the same year led to the introduction of a new form – a supermarket. As of April 2016, *Lenta* has 180 sales outlets throughout Russia (142 hypermarkets and 38 supermarkets), with 21 hypermarket and 6 supermarkets in St. Petersburg. For the sake of the comparison, in 2013 it had only 70 outlets throughout the country (63 hypermarkets and 7 supermarkets) – 16 of them in St. Petersburg. The market share of *Lenta* in St. Petersburg in 2013 constituted 20.7%.
2. ***O'KEY*** – a dynamically developing Russian retail chain, which by today counts more than 100 shopping centers. In 2010 in St. Petersburg *O'KEY* was proclaimed the strongest brand. The company works in the forms of hypermarket *O'KEY* (the main form) and supermarket *O'KEY – Express*. Within St. Petersburg, the company has 39 sales outlets (20 hypermarkets) and its share in St. Petersburg market constitutes 18.43%.
3. ***Karusel'*** – a retail chain that works in the hypermarket form and since 2008 is a part of the leading Russian multiform retailer - X5 Retail Group. The *Karusel'* chain has 16 hypermarkets in St. Petersburg and 85 shopping centers altogether in Russia.
4. ***Auchan Group*** – foreign retail chain, specializing in hypermarkets. Among the companies in question it is the youngest player on the St. Petersburg market (it works there since 2006). Its main form is hypermarket (9 sales outlets in St. Petersburg), but it also works in the form of supermarket under the *Auchan City* brand.

Until the most recent time, there were ample reasons to suppose that in the nearest future the share of the Finnish *PRIZMA* retail chain, which had been speedily developing in Petersburg in the last few years, would considerably grow in this segment. Within this study, we will not consider *PRIZMA*, since, according to the *INFO-line* rating, its market share in 2013 constituted less than 2%.

Segment 2 is represented by trading networks format supermarket. The primary customers of the retail chains of this segment are people with high to medium income: their product mix includes expensive goods, some of which may not be present in the segment 1, their pricing policy is the highest among the segments in question, and the companies usually pay a lot of attention to the quality of their products. The shop floor space in the segment 2 is smaller in comparison to segment 1. Another difference from the hypermarkets of the first segment is that the customers in segment 2 are supposed to make smaller purchase, but shop more frequently (every day or every two days at most). The segment includes the following players:

1. ***O'KEY – Express.*** In St. Petersburg operates 19 supermarkets.
2. ***Auchan City.*** The city has 3 points of sale.
3. ***Perekrestok*** – a retail chain that is a part of a multiform company. In its segment, it holds the first place in regards of the number of outlets (41 supermarket within St. Petersburg).

Segment 3 encompasses the retail chains, functioning in the form of "shops walking distance". A big number of outlets with relatively small floor space is characteristic for the retail chains of this segment. The customers shop there every day, but the average purchase is much smaller than the one in the retail outlets of the first and second segments. Due to the limited floor space, the product mix is the poorest compared to the previous segments (the share of non-food goods is no more than 10%, whereas for the hypermarkets it can rise as high as 40%). The retail chains working within this segment are as follows:

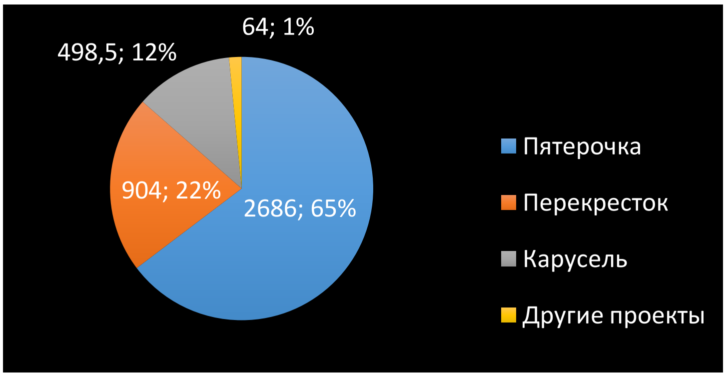
1. *Pyaterochka* – a retail chain of convenience stores for people with modest income, with 260 shops throughout St. Petersburg. It is the third major chain of the *X5 Retail Group* (2014) company and the most profitable among them (fig.1).

2. *INTERTORG Trading Company* consists of three retail chains: *Sem'Ya, NORMA, IdeA*. The latter two will not be included in this study, since their share is negligible even within their own company structure. As to the *Sem'Ya* chain, it is worth mentioning, that it primary zone of operation is the North-West District of Russia. In St. Petersburg, it owns 265 convenience stores.

3. *DIXI* – one of the leading Russian companies, specializing in the development of the general convenience stores of the "shops walking distance" form in Moscow, St. Petersburg and three Federal Districts of the Russian Federation: Central, North-West, and Urals. In St. Petersburg, the chain has about 200 shops.

4. *Polushka* – a retail chain with the main specialization in the general "shops walking distance", similar to *DIXI*. Unlike the previously mentioned players, it has the least spread within the country and works almost exclusively in St. Petersburg, as well as in the Leningrad and Novgorod regions. In Moscow, the company owns only one outlet.

Figure 1: The share of trading networks in the structure of the company X5 Retail Group (profit for the 1st quarter of 2013, in mln. Rub.)



Source: Available: http://www.x5.ru/common/img/uploaded/files/2013.05.21_X5_Q1_2013_Financials_RUS.pdf

This leads us to the conclusion that the chief criterion of segmentation in this study is the form of the outlets themselves: segment 1 – the hypermarkets; segment 2 – the supermarkets; and segment 3 – the "shops walking distance".

Such a review of all the major food retailers in St. Petersburg shows two obvious problems for our prospective study:

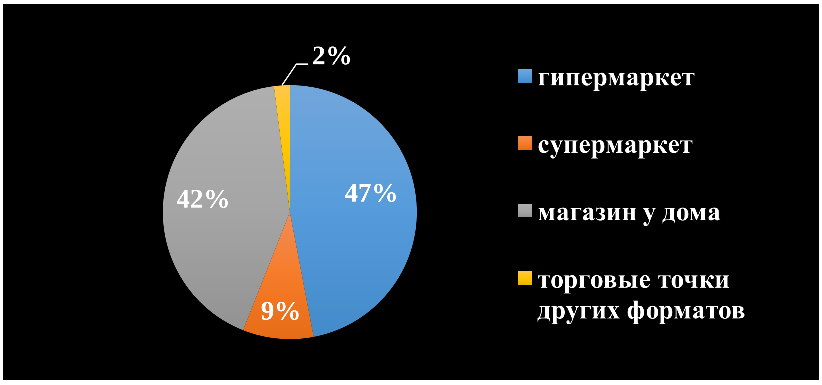
1. The retail chains operate in different forms, which accounts for the differing levels of competition between them (so, for instance, the *X5 Retail Group* company is the owner of the three big chains within the industry, and it is a well-known fact that the brands of one and the same company cannot compete with each other).

2. The *O'KEY* Company and the *Auchan Group* are multiform retailers (their chains in St. Petersburg work in different forms), and this fact should be properly accounted for within the research.

Before continuing to the solution of these problems, one should point out that the first problem is already solved on this stage of our study through the division of the industry into segments. The next necessary step is the calculation of the share of each segment within the industry as a whole.

The share of each format retail chains in St. Petersburg was designed research agency InfoLine (2014), the last time in 2012 - is shown in Figure 2.

Figure 2: The share of the major formats (segments) of retail chains in the food retail industry structure (FMCG)



Source: Available: http://infoline.spb.ru/upload/pptx/FMCG.pdf.

The segmentation of the food retail industry provides an additional opportunity to evaluate the level of market concentration and the pricing behavior of the players not just for the industry as a whole, but also for each of its segments in particular. However, one has to take into the account that the interpretation of the results obtained for each segment is possible only in comparison with the results for other segments. For instance, it is obvious that the share of the chain within its particular segment will be higher than within the industry in general, and thus the indexes, obtained as a result of the calculation of the concentration levels, will be overestimated. Because of that, the segments within this study will be viewed exclusively in comparison to each other.

The formula for the calculation of the share of the chain within the segment is as follows:

$$S = \frac{100\%}{The\ share\ of\ the\ segment\ in\ the\ branch\ FMCG} \times Share\ trading\ network\ in\ the\ branch\ FMCG \qquad (1)$$

Let us show this calculation on the example of the hypermarket *Lenta*. The hypermarket belongs to the segment 1, and the share of this segment within the industry is 47% (Fig. 2), whereas the share of *Lenta* within the industry is 20.7% (Tab.1). As a result, the share of *Lenta* within the segment 1 is: $S_L = \frac{100}{47} \cdot 20{,}7 = 44{,}04\%$. The full calculation of the shares of particular chains within their segments will be given in the second article on this topic.

It is somewhat harder to overcome the second difficulty arising from the analysis of the players within this industry, since neither the *O'KEY*, nor the *Auchan Group* provide the separate figures for the total revenue of supermarkets vs. hypermarkets. However, the form of hypermarket is a basic one for both chains; the supermarket is only a later addition. Considering this, it makes sense to ascribe the shares according to the same ratio as exists between the segments of hypermarket and supermarket, meaning – to compare them as 47/9 – hypermarket/supermarket. In this approach:

1) share *O'KEY* (hypermarket) will be: $S_{O'K(H)} = \frac{18{,}43}{56} \cdot 47 = 15{,}46\%$;
2) share *O'KEY– Express*: $S_{O'K(E)} = \frac{18{,}43}{56} \cdot 9 = 2{,}96\%$;
3) share *Auchan* (hypermarket): $S_{Auchan(H)} = \frac{4{,}9}{56} \cdot 47 = 4{,}11\%$;

4) share *Auchan City*: $S_{Auchan(S)} = \frac{4,9}{56} \cdot 9 = 0,79\%$.

The last problem that one needs to solve on this stage of the research is the estimation of the total revenues of each retail chain (Tab. 2), since we will need this information for the last chapter of our work in order to calculate the concentration indexes of the market.

Table 2: Revenues of the largest retail chains of food retail in St. Petersburg (2012)

№	Brand	The Group of companies	Number of stores	Commerce Square shops,thousand sq. m.	Revenue, billions. rub. (excl. VAT)
1	Pyaterochka Perekrestok Karusel'	X5 Retail Group	458	317,63	78,4 Pyaterochka - 50,97 Perekrestok - 13,72 Karusel' - 13,71
2	Lenta	Lenta	16	123,6	65,94
3	O'KEY O'KEY– Express	O'KEY	38	159,25	58,7 O'KEY – 49,54 O'KEY– Express - 9,16
4	Sem'Ya	INTERTORG	201	76,17	24,2
5	DIXI	DIXI	228	54,47	20,5
6	Auchan, Auchan City	Auchan Groupe	9	60,65	15,67 Auchan - 13,46 Auchan City - 2,21
7	Polushka	Polushka	144	56,65	13,3

Source: http://russian-consumer.ru/?p=15548 [01.11.2014]

Please, note that within the structure of the net revenue of the X5 Group the share of Pyate-rochka for Petersburg is 65%, whereas Perekrestok and Karusel' have approximately equal shares.

4. Analysis of the pricing policy of retail chains of food retail market of St. Petersburg

To fulfil the main task of this study and determine the type of the market structure, the sector of the food retail in Petersburg belongs to, one needs to analyze the industry for the possible symptoms of the oligopoly and monopolistic competition. The thing that will help us with this task is the study of the pricing policies of the major retail chains. The study included the following stages:

1) finding out the number of the main players and their shares in the industry;
2) establishing the presence of the symptoms of the price differentiation within the industry;
3) comparison of the pricing policies of the companies;
4) establishing the presence of the symptoms of coordinated oligopoly within the industry.

The previous chapter shows the main body of work on the *first stage* of our study. In the course of the study, we determined that the leading positions in the industry belong to seven major companies, owning 11 retail chains. We also found out that it is impossible to analyze the industry in general. It consists of three segments and the competition within each segment is much stronger than within the market as a whole.

The study of the price differentiation forms used by the competitors on the *second stage* of our research has been performed by two methods:

1. The empirical analysis (the compilation of the data on the «promotional» prices in the shops themselves). The date of the analysis was October 16, 2014, and the outlets chosen for the analysis were as follows:

- Hypermarkets: Lenta, Auchan, Karusel'
- Supermarkets: Perekrestok, O'KEY– Express, Auchan City
- Self-service store: DIXI, Sem'Ya, Polushka
- Discount store: Pyaterochka

2. The analysis of the secondary sources (primarily – the official web sites of the retail chains). In the course of the analysis of the retail chains in the ***segment 1***, the methods of price differentiation were found in the operations of all the representatives within the analyzed segment. The price differentiation is the weakest within the *Auchan* retail chain, which uses only temporal discounts on the limited number of goods (the poorest choice of discount goods among the 4 hypermarkets of this segment) and does not provide the information about the actual rate of the discount (does not cite the previous price of the product). The hypermarkets *Lenta, Karusel',* and *O'KEY* use generally similar methods of price differentiation for a variety of products:

1. Regular catalogues of «promotional» goods: *O'KEY* issues a new one every 2-3 weeks, while *Lenta* and *Karusel'* do it every two weeks. All the chains show the exact amount of the discount. In *Karusel',* the discount is available to any customer, in *Lenta* – exclusively to the return clients, in *O'KEY* - the discount on some of the products is available to everybody, however, in general to receive the discount in *O'KEY* one would need to have a loyalty card.
2. The seasonal catalogue differs from the regular one by the period of validity (the seasonal one is usually valid for a longer time) and its association with a specific occasion, which usually influences the structure of the «promotional» product mix. The seasonal catalogues are characteristic only to the hypermarkets *Lenta* and *O'KEY.*
3. Special offers – products with lowered prices that do not adhere to the catalogue periods or demand the fulfilment of certain conditions (e.g. «buy two, get third free»). Such offers exist in the hypermarkets *Lenta, Karusel'* and *O'KEY.*
4. The policy of «double» pricing – each product has two prices, the lower of which is only valid if the customer owns the frequent buyer card.

Thus, the analysis of the price differentiation demonstrated that the «promotional» assortment provided by the retail chains shows some considerable differences. On the one hand, the differentiation (monopolistic competition) is definitely there, on the other hand, there exists a notable coordination of actions, making allowances for the behavior of the rival companies (characteristic for oligopoly).

The analysis of the ***segment 2*** demonstrated much less variety in the implementation of the price differentiation. In the course of the analysis of the factors of the price differentiation we were able to make the following observations:

1. *Auchan City* supermarkets follow the same strategy as the hypermarkets *Auchan* – minimal use of the temporal discounts on the limited number of products (The discounts in *Auchan* and *Auchan City* mostly correspond with each other;
2. *O'KEY – Express* has a separate price differentiation policy from the hypermarkets *O'KEY* (separate catalogues, different choice of the «promotional» products).

The segment in general shows the following methods of price differentiation:

- Regular catalogue of products – found in the retail chains *O'KEY – Express* and *Perekrestok*. The period of validity of the *Perekrestok* catalogue is one week, whereas in *O'KEY* it is two weeks.
- Special offers – used by *O'KEY – Express* and *Perekrestok*.
- Discount on frequent buyer cards – provided by both *O'KEY – Express* and *Perekrestok*.

Thus, the price differentiation within the second segment is weaker than within the first one. The forms of the price differentiation in the supermarkets *Auchan City* are the same as in the hypermarkets *Auchan*. At the same time, *O'KEY – Express* implements its own price differentiation policy, which is different from the one in the hypermarkets *O'KEY*. The «promotional» product mix of the supermarkets is also somewhat different.

The analysis of the ***segment 3*** demonstrated that the price differentiation is actively implemented only by two retail chains out of four.

The "promotional" products are nearly absent within the *DIXI* retail chain (only nine positions offered at a discount) and *Sem'Ya* convenience stores (less than 20 product positions with "special" prices).

The *Polushka* convenience stores and *Pyaterochka* discounter shops demonstrate the following methods of price differentiation:

1. Regular catalogue of products – found in both *Pyaterochka* and *Polushka* chains. The duration of the catalogue in *Pyaterochka* is one month; in *Polushka* chain of convenience stores it is valid for three weeks.
2. Special offers – only used by *Pyaterochka* chain. A certain product list is offered at a discount for one week.

Thus, the price differentiation in the segment 3 is even weaker than in the segments 1 and 2. Within the industry as a whole most of the companies (7 out of 11) are sensitive to the behavior of their rivals (there is reason to suspect the possibility of co-coordinated actions), since there are considerable differences in the groups of products chosen for the discount. As a whole, the industry demonstrates the following forms of sales promotion:

- special occasion pricing (seasonal catalogues);
- temporal discounts on the normal prices (regular catalogues, time-limited special offers);
- discount prices (special prices for discount card holders).

Thus, the second stage of our research did not provide any conclusive results in regards of the one prevailing type of the market structure. The segment 1 has likely a few characteristics of an oligopolistic competition: three out of four major players show nearly identical forms of price differentiation, and there are ample reasons to conclude that the retail chains within the segment 1 look out to the behavior of their rivals and artificially differentiate their products (through different choice of «promotional» goods).

For the *third stage* of our study (the analysis of the pricing policies), we used the empirical method of research. We compiled a list of everyday consumption products of different categories. The only criterion for choosing a particular product was its presence in outlets of each of the retail chains. We considered only the normal prices of the products (without the discounts). As a result, the compiled list included 16 chosen positions (2 non-food and 14 food products). By the end of the monitoring, the list was further shortened to 10 identical positions actually present in each of the retail chains. The final product list considered in our study was as follows (the figure in brackets shows the position number in the tables 3, 4 and 5):

Table 3. The pricing policy of retail networks of St. Petersburg (Segment 1)

№	Commodity	Price				Max price	Min price	Difference
		Lenta	Auchan	O'KEY	Karusel'			
2	Schauma Shampoo, 380 ml	78,46	79,19	77,9	79,6	79,6	77,9	1,7
3	Tea "Princess Nuri",25 bags	28,24	28,01	24,4	24,99	28,24	24,4	3,84
4	Nectar "My Family",1.93 l	87,19	65,11	88,4	83	88,4	65,11	23,29
5	Flour "Makfa", 2 kg	65,19	63,91	62,3	62,8	65,19	62,3	2,89
6	Sugar, 1 kg	27,4	27,14	29,4	28	29,4	27,14	2,26
8	Rice "National", 900 gr	56,59	54,12	53,9	53,9	56,59	53,9	2,69
11	Apples, 1 kg	46,4	34,65	39,9	42	46,4	34,65	11,75
12	Sunflower "Golden", 1 l	71,4	72,43	69,4	68	72,43	68	4,43
16	Sol "EXTRA", 1 kg	7,9	7,32	7,4	7,8	7,9	7,32	0,58
17	Bread "Stolovyiy", 375 gr	16,1	13,24	19,9	18,7	19,9	13,24	6,66
Σ		484,87	445,12	472,9	468,79	484,87	445,12	39,75

Source: Calculated by the authors based on official sites: http://www.slideshow.lenta.com/index. php?count= 3008; http://www.okmarket.ru/ customers/catalogs/view/2869; http://karusel.ru/prod.php?c =spb&p=prod; http://www.auchan.ru [Online][16.10.2014]

Table 4. The pricing policy of retail networks of St. Petersburg (Segment 2)

№	Commodity	Price			Max price	Min price	Difference
		Auchan Sity	O'KEY–express	Perekrestok			
2	Schauma Shampoo, 380 ml	81,29	78,9	82	82	78,9	3,1
3	Tea "Princess Nuri",25 bags	28,01	26,2	26,9	28,01	26,2	1,81
4	Nectar "My Family",1.93 l	69,13	88,4	85	88,4	69,13	19,27
5	Flour "Makfa", 2 kg	64,72	63,4	63	64,72	63	1,72
6	Sugar, 1 kg	27,14	29,4	27,7	29,4	27,14	2,26
8	Rice "National", 900 gr	54,12	55,4	51	55,4	51	4,4
11	Apples, 1 kg	38,86	41,9	39,9	41,9	38,86	3,04
12	Sunflower "Golden", 1 l	76,81	71,2	69	76,81	69	7,81
16	Sol "EXTRA", 1 kg	7,32	7,4	7,9	7,9	7,32	0,58
17	Bread "Stolovyiy", 375 gr	16,22	19,9	16,9	19,9	16,22	3,68
Σ		463,62	482,1	469,3	482,1	463,62	18,48

Source: Calculated by the authors based on official sites: http://www.auchan.ru; http://www.perekrestok.ru; http://www.okmarket.ru/ customers/catalogs/view/2869, [Online][16.10.2014]

Table 5. The pricing policy of retail networks of St. Petersburg (Segment 3)

№	Commodity	Price				Max price	Min price	Difference
		Pyaterochka	Diksi	Polushka	Sem'Ya			
2	Schauma Shampoo, 380 ml	76,95	76,5	94,7	78,9	94,7	76,5	18,2
3	Tea "Princess Nuri",25 bags	24,05	30,7	30,7	23,5	30,7	23,5	7,2
4	Nectar "My Family",1.93 l	76,25	79,9	86,6	79,9	86,6	76,25	10,35
5	Flour "Makfa", 2 kg	61,65	71,5	62,1	60,9	71,5	60,9	10,6
6	Sugar, 1 kg	27,15	27	27	26,9	27,15	26,9	0,25
8	Rice "National", 900 gr	53,85	59	54,9	53,9	59	53,85	5,15
11	Apples, 1 kg	44,2	42	40,7	44,9	44,9	40,7	4,2
12	Sunflower "Golden", 1 l	76,75	67	66,9	73,4	76,75	66,9	9,85
16	Sol "EXTRA", 1 kg	7,5	7,7	7,2	7,6	7,7	7,2	0,5
17	Bread "Stolovyiy", 375 gr	19,45	21,6	19,8	20,4	21,6	19,45	2,15
Σ		467,8	482,9	490,6	470,3	490,6	467,8	22,8

Source: Calculated by the authors based on official sites: http://pyaterochka.ru; http://dixy.ru; http://www.polushka.info; http://www.7-ya.ru [Online][16.10.2014]

The obtained results lead to the following conclusions:

1. The hypermarket *Auchan* shows the lowest pricing policy (445 rub. for 10 positions). It also worth mentioning that within the first segment the pricing policy is linearly related to the level of the price differentiation: hypermarket *Lenta* demonstrates the highest level of price differentiation, as well as the highest pricing policy (484 rub. for 10 pos.), whereas the situation in *Auchan* is the direct opposite – it has the lowest price differentiation and the lowest pricing policy. The *O'KEY* and *Karusel'* retail chains take up medium positions in both the aggregate price and the level of differentiation. This observation shows only that economically the customer will gain almost nothing by choosing any particular retail chain within the segment 1 (the general prices in *Auchan* are lower, but there are virtually no discounts; on the other hand, *Lenta* offers a lot of discounts, yet the price of the «non-promotional» goods there is higher than in any of its rival companies).
2. Within the segment 2, we could not find any obvious relationship between the pricing policy and the level of the price differentiation. The aggregate price in the supermarket *Auchan City* is the lowest (463.62 rub.). At the same time, *Perekrestok* and *O'KEY – Express* show similar levels of price differentiation, yet the pricing policy of *O'KEY – Express* is higher.
3. The analysis of the pricing policy within the segment 3 demonstrated that the pricing policy of *Pyaterochka* is lower than in the case of its rivals. At the same time, this chain shows the highest level of the price differentiation This results lead to two assumptions:
   - The segment has an obvious price leader, which is the *Pyaterochka* retail chain.
   - The higher prices of the *DIXI*, *Sem'Ya* and *Polushka* are caused by the non-price differentiation factors.
4. On the whole, we can say that we did not find any marked difference in the pricing policies of the retail chains. Since the companies with the highest prices are generally more actively implementing some forms of price differentiation, the existing difference is hardly a considerable one, and thus, we can make two possible assumptions:
   - The industry has the prevailing characteristics of the oligopolistic market, where the retail chains demonstrate a strong interdependence between themselves. The model of oligopoly most suitable for this situation is the «price leadership model» (or the so called «Forchheimer model»).
   - The industry has also some characteristics of the monopolistic competition; however, the competitors look out to accommodate the pricing behavior of each other. The main methods of differentiation though are other instruments.

The *last stage* of this study is looking for the symptoms of a coordinated oligopoly. In the course of our work on the second and third stages, we concluded that there were no reasons to suspect that any one of the segments had a price leader. Thus, the task of the fourth stage is limited to establishing whether there is a price-fixing collusion within the industry.

One of the most prominent breaches of the article 11 of the Federal Law "On Protection of Competition" happened in 2010. The documented collusion about the prices of floor and buckwheat included six of the retail chains analyzed in this article: *Lenta, Sem'Ya, O'KEY, DIXI, Pyaterochka, Perekrestok.* Thus, the presence of the symptoms of oligopoly within the industry is a proven fact.

5. Conclusions

Summing up the first part of our study, you can make the following conclusions:

1. The FMCG retail industry in St. Petersburg is highly consolidated, the total share of the seven major companies constitutes more than 86% of the market.
2. To obtain the most objective results, one has to analyze the price factor on the segment-by-segment basis (not for the industry as a whole), since the retail chains of different segments nearly do not compete with each other at all. This conclusion is proved by the existence of the multiform chains. In regards to the calculation of the concentration indexes, the segmentation of the industry allows one to evaluate the level of concentration not only within the industry as a whole, but also within a segment (and this is the topic of the second part of our research).
3. The most popular forms of retail outlets in the St. Petersburg market are still the hypermarket and the «neighborhood convenience store», whereas 58 outlets (hypermarkets) constitute about 47% of the market in general.
4. There is a marked price differentiation within the companies of the industry (a characteristic of the monopolistic competition), especially within the first and second segments, however, in the implementation of this price differentiation the companies look out to accommodate the behavior of their rivals (oligopoly).
5. The customer gains almost nothing by choosing a particular retail chain within the segment 1. The choice of a retail chain within the segments 2 and 3 can provide some minimal economical benefit.
6. Without due regard to the forms of price differentiation the maximum divergence in the pricing policies of the companies constitutes approximately 10%.

To sum up the results, the only positive conclusion on this stage is that it is necessary to consider additional factors, which is going to be the subject of the next article.

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BREXIT AND MIGRATION WAVE FROM THE MIDDLE EAST: POSSIBLE IMPACTS ON FUTURE DEVELOPMENT OF THE SCHENGEN AREA

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Abstract. After a long time of promising development, two big events recently shook the EU. Contradictions of agreed rules and the reality of everyday life have been displayed after the migration wave from the Middle East, which hit the Schengen area recently. Then one of the pillar of the Schengen system – free movement of people and labour within common market thus became one of the main reasons for so called Brexit. As the migration crisis displayed, borderland regions are those spaces, where many different problems come up due to the concentration of refugees in unfavourable conditions. Moreover, impacts on labour markets on both borderland as well as in core and peripheral areas will perhaps be immense. Schengen area's rules became suddenly very important due to the fact, that migrants have to be controlled on external borders of the Schengen area. These borders failed to fulfil its protective function. Some states thus tended to control their borders, including those states having their borders inside of the Schengen area. In spite of the fact, they acted in accord with EU conventions, they have been unjustly criticized by EU politicians. Because of that, a question has raised, whether "the Schengen Phenomenon" is suitable and functioning system, bringing plenty of benefits to EU citizens, or just a fiction. This paper would like to discuss possible development of the Schengen influenced by Brexit and migration crisis, and how expected changes could impact smaller territorial units, especially Czech borderland areas.

Keywords: borderland, migration, Schengen area, Brexit, development

JEL Classification: F50, F20, F22

1. Introduction

Česká republika se po roce 1989 stala aktivním účastníkem regionálně politických změn ve střední Evropě. Vstoupila do Evropské unie - ekonomicky i politicky nejvýznamnější evropské integrace, stala se součástí schengenského prostoru. Státní hranice přestala být bariérou pro pohyb osob, zboží, služeb a kapitálu, což zásadně změnilo situaci v příhraničních regionech. Pro příhraniční regiony se tak otevřely nové rozvojové šance, přičemž regiony u vnější hranice EU čelí specifickým výzvám oproti regionům u mezistátních hranic uvnitř EU (Bański & Janicki, 2012).

Příhraniční region je velmi specifickým územím, které je v kontaktu se sousedními regiony, tvořícími ochrannou zónu svých jader. Jeho rozvoj ovlivňuje jak vlastní jádrový region, tak i sousední, v tomto případě zahraniční regiony. Příhraniční region je však také nejvzdálenějším územím od centra společného životního prostoru, což se projevuje v jeho regionálním rozvoji. Především infrastruktura vykazuje horší kvalitu oproti centrálním regionům. Kvantita, kvalita i polarita vztahů v příhraničním regionu jsou závislé na ekonomické úrovni vlastní jádrové oblasti, ale i vyspělosti sousedních regionů. Pokud je ekonomická úroveň sousedních regionů srovnatelná, je základem oboustranně orientovaných vztahů ze sociálně-ekonomického pohledu rozšíření a doplnění sortimentu zboží a služeb. Pokud je ekonomická úroveň regionů rozdílná, je základem jednostranně se vyvíjejících vztahů využití, profitace z ekonomické rozdílnosti regionů. Tyto postřehy vycházejí z objektivních skutečností, často však situaci navíc komplikují subjektivní aspekty (Drbohlav, 2003).

Po roce 1989 se u mnohých příhraničních regionů významně změnil jejich polohový potenciál. Zatímco v mikro- resp. mezoúrovni zůstaly okrajovými, periferními regiony, v makroúrovni se mnohé staly významnými tranzitními regiony (Drbohlav, 2011). Tento fakt je velmi významný pro plánování jejich regionálního rozvoje. K využití nabízejících se rozvojových šancí je však potřebný nový přístup k regionální problematice, nový přístup jak v regionálních vědách, tak i v regionálních aplikacích, v regionálně plánovací praxi. Tento nový přístup přinesl českým příhraničním regionům vstup do Evropské unie, která věnuje pohraničí významnou pozornost včetně vyčlenění finančních prostředků v podobě programů PHARE a INTERREG. Zároveň byl klíčový pro příhraniční regiony vstup do schengenského prostoru, který umožňuje překročení vnitřní státní hranice kdekoliv a kdykoliv na území Evropské unie a zároveň stanovuje povinnost přísnější kontroly vnějších hranic.

Po dlouhou dobu stabilně fungující a slibně se vyvíjející Evropskou unií otřásly v nedávné době „neočekávané" události. Především migrační vlna z Blízkého a Středního východu a její dopady v schengenském prostoru ukázaly na rozpory mezi dohodnutými pravidly fungování schengenského systému a realitou každodenního života (Peers, 2016). Následně byl jeden ze stabilních sloupů schengenského systému – tedy volný pohyb osob/pracovních sil v rámci společného trhu hlavní příčinou tzv. Brexitu. Tato událost je podle Bermana (2016) milníkem v evropské integraci, a je třeba si klást otázku, zda se původně legitimní projekt sjednocené Evropy dostal na scestí. Příspěvek si tak klade za cíl diskutovat nejen možný vývoj schengenského prostoru, ale rovněž to, co tyto makroskopické změny mohou znamenat pro obyvatele žijící v příhraničních regionech v České republice.

Jak ukázala uprchlická vlna, byly a jsou příhraniční regiony prostorem, ve kterém se odehrávají související problematické, někdy velmi dramatické, jevy – díky obrovské koncentraci uprchlíků zde vznikaly provizorní stanové tábory s nedostatečným zásobováním potravinami a dalšími potřebami, s problematickými hygienickými podmínkami, nedostatečným zdravotnickým zajištěním. Koncentrace uprchlíků se promítla do dopravy i do dalších služeb. Projevil se zde tlak jak na místní obyvatele, tak i na zdejší přírodu. Ve zmíněných problémech a souvislostech se umocňuje potřeba poznání fungování hranic a příhraničních regionů ve střední Evropě v rámci schengenského systému.

Rovněž dopady obou zmíněných jevů na trh práce nejen v pohraničí, ale i v jádrových oblastech budou markantní. Jsou zahraniční pracovníci „škodnou" na trhu práce nebo vyplňují mezery na trhu práce? Tento problém je jednou z klíčových příčin tzv. Brexitu: jen ze zemí V4 žilo a pracovalo na území Spojeného království 1 milión lidí, nejvíc Poláků (Office for National Statistics, 2015 in Wiejski, 2016). Vžila se domněnka, která byla mimo jiné součástí euroskeptické britské kampaně za vystoupení z Evropské unie, že obyvatelé z bývalého východního bloku berou Britům práci a zneužívají dávky tamního sociálního systému. Data však ukázala, že kromě toho, že přispívali do britského systému v průměru více, než dostávali (a to i v porovnání s rodilými Brity), byli v průměru vzdělanější, vykazovali daleko nižší nezaměstnanost a pracovali za hodinovou sazbu v průměru až o pět liber nižší než Britové.

Pravidla schengenského prostoru vyvstala na významu v souvislosti s migrační vlnou směřující do Evropské unie v posledních letech. Kontrola na vnějších hranicích schengenského prostoru nefungovala, státy jako Řecko či Itálie nezvládaly obrovský nápor uprchlíků ze Sýrie, Afghánistánu a dalších zemí. Vnější hranice schengenského prostoru tak neplnila kontrolní funkci. Některé státy proto začaly z obavy o zajištění bezpečnosti svého území kontrolovat své hranice, byť se jednalo o vnitřní hranice schengenského prostoru, což se týká i států středoevropského prostoru. Ač tak konaly v souladu s principy fungování schengenského prostoru, byly unijními politiky neprávem kritizovány. Významně tak posílila role zemí V4, která se navzdory odlišným politickým vládním garniturám sjednotila a stala se důležitým aktérem v řešení problematiky nejen migrační krize, ale také například v angažovanosti v tvorbě společné evropské obrany (Gruberová, 2016). Vyvstává tedy otázka, zda je fenomén „Schengenu“ vhodným fungujícím systémem, který přináší pozitiva pro své občany nebo pouhou fikcí některých unijních politiků?

2. Socioekonomické faktory rozvoje periferních regionů

V novém evropském uspořádání hraje klíčovou úlohu makropolohový faktor, v případě České republiky je to západovýchodní gradient. V důsledku tohoto gradientu je v mnohých periferních regionech vidět významný vliv vnějšího prostředí na vnitřní společenský pohyb, lze porovnávat vliv Bavorska - významného obchodního partnera Česka, v západních Čechách, oproti vlivu Polska či Slovenska na severovýchodní Moravě. Vývoj událostí v souvislosti s migrační krizí může přinést změny do působnosti polohového faktoru.

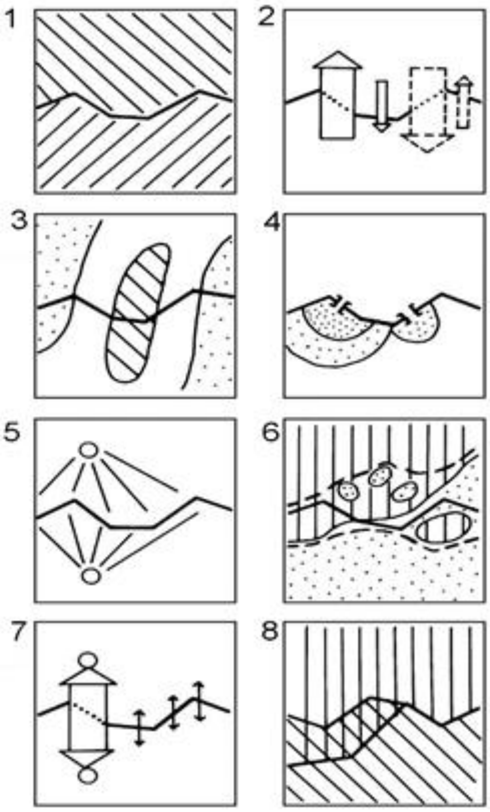
V problematice sousedních příhraničních regionů je nutné věnovat pozornost diferencujícím resp. integrujícím faktorům rozvoje. Diferencujícím aspektům v periferních speciálně příhraničních regionech se věnoval v české geografii v posledním období M. Hampl (Hampl, 2001). Jeho teorii lze aplikovat obecněji na periferní regiony. I zde se projevují dva navzájem se prolínající, nikoliv překrývající, diferencující aspekty. Jedná se o periferní polohu, která vyjadřuje vymezení periferie vůči centrům vyššího řádu uvnitř celku a periferní efekt, respektující dělící linii, pás mezi sousedními jádrovými regiony.

Existující hranice vytváří kolem sebe „zónu tlaku“ patrnou v příhraničním regionu. Tato zóna tlaku může mít, a v případě česko-bavorského prostoru má, různou kvalitu (Jeřábek et al., 2004). Dochází tak ke vzájemnému ovlivňování aktivit v příhraničním prostoru, jehož charakter a sílu lze vyjádřit hraničními efekty (viz obr. 1).

Z představených hraničních efektů si přibližme efekt areálový, který je typický pro uzavřenou hranici a znamená odlišný vývoj sociálně-ekonomických systémů. Naproti tomu efekt kontinuální je typický pro přírodní složky krajiny na uzavřené hranici, která není bariérou (např. kvalita ovzduší). Po otevření hranic nabývá na významu efekt difúzní, tzn. pronikání sousedních struktur, vzorců chování, způsobů hospodaření přes otevřenou hranici.

Periferní regiony jsou rovněž diferencovány kombinací polohových a místních faktorů, podobně jako kterýkoliv region. Periferní region je však specifický tím, že polohové faktory, které determinují prostorovou periferii, jsou určovány polohou mezi ekonomicky či sociálně rozdílnými útvary (Chilla et al., 2012). Místní faktory, které jsou určovány potenciálem místního regionu, lze členit na faktory fyzicko-geografické a společensko-ekonomické. Fyzicko-geografické faktory nejsou výrazněji ovlivněny polohou mezi ekonomickými celky, avšak ovlivňují sociálně-ekonomické prostředí místního regionu (Chilla, 2016). U sociálně-ekonomických faktorů je vliv polohy mezi ekonomickými celky významnější.

Figure 1: Hraniční efekty



1. efekt areálový; 2. efekt potenciálně;
3. efekt kontinuální; 4. efekt difúzní;
5. efekt periferie; 7. efekt přeskoku diferenční;
6., 8. efekty politicko-historické

Source: Seger, Beluszky 1993

Výrazně diferencujícím aspektem periferních regionů je otázka hierarchie regionů, která je rovněž ovlivňována polohovými poměry. Pro vlastní hierarchii regionů je významná problematika hranic, ať již se jedná o hierarchii fyzicko-geografickou, tak především sociálně-ekonomickou. Kvalita i kvantita regionálních vztahů určuje řádovostně měřítkovou hierarchii, homogennost regionů lze spíše očekávat u regionů přírodních, vztahovost naproti tomu u regionů společenských.

Diferencující aspekty působí mezi sousedními česko-bavorskými příhraničními regiony divergenčně. Absence politických motivů pro přeshraniční spolupráci byla vstupem Česka do Evropské unie setřena, což potvrdil i rychlý vstup do schengenského prostoru. Historické zkušenosti jsou v dnešní době již spíše generační problém, neboť především u mladší generace ztrácí tento aspekt na významu. Ekonomická rozdílnost je stále významná. Podle některých odborníků se rozdíly mezi původním unijním jádrem a novými zeměmi tzv. EU-8, které vstoupily do Unie v roce 2004 a do Schengenu na konci roku 2007, příliš nezměnily. Podle V. Špidly je právě pomalá konvergence příčinou tzv. Brexitu – neboť lidem z bývalého východního bloku se stále vyplácí jezdit pracovat např. do Spojeného království za mnohem nižší sazby (Housková, 2016). Statisíce Východoevropanů pracující ve Spojeném království, ale také například v Německu, posílá do svých domovských zemí remitance, které jsou významným příspěvkem domácím ekonomikám (Stojanov et al., 2011). Jinými slovy – ekonomická rozdílnost mezi sousedícími regiony může být jak brzdou, tak i akcelerátorem přeshraničního rozvoje. Příkladem jsou investice pendlerů (Čechů, dojíždějících za prací do Bavorska) jak do svého nemovitého majetku, tak i do služeb v pohraničí. Polští ekonomičtí migranti žijící a pracující na britských ostrovech posílají ročně domů okolo 1 biliónu Eur. Aspekt rozdílných právních a správních struktur se přijetím evropského práva neustále zeslabuje. Významnou bariérou tak zůstávají rozdílné jazyky, omezující přeshraniční komunikaci. V případě, že dojde ke zpřísnění a omezení pohybu uvnitř Schengenu vlivem tlaku migrační vlny z Blízkého a Středního východu, a také k tomu, že Spojené království vystoupí z EU, nebude již snadné dojíždět za prací a ztíží se podmínky i pro ekonomické migranty ze zemí stávajícího evropského společenství. Statisíce lidí se budou nuceni vrátit domů nebo omezit své pracovní aktivity, což v posledku může vést v zemích, které budou nuceni opustit, k ekonomické stagnaci a zpomalení ekonomiky (Sakurai, 2016). Dopad na zemědělství (ve kterém pracuje mnoho ekonomických migrantu z EU-8) diskutuje také Jongeneel (Jongeneel et al., 2016), přičemž připomíná, že dopady Brexitu budou pro zemědělské producenty pozitivní (nikoliv však na spotřebitele).

Periferní regiony jsou také integrovány kombinací polohových a místních faktorů. Specifičnost polohy mezi ekonomicky silnějšími regiony znamená posílení tranzitní funkce periferních regionů s pozitivními, ale i negativními dopady na vlastní region. Potenciál místního regionu však nemusí být využit pouze pro svůj tranzitivní význam, ale i jako doplňkový k potenciálu jádrových oblastí. Doplňkový význam mohou mít jak fyzicko-geografické, tak i společenské faktory. Významným integrujícím aspektem periferních regionů je i hierarchie regionů a poloha periferie v jejím rámci. Vzrůst či pokles integrity periferního regionu je dán vývojem kvality a kvantity regionálních vztahů a lze jej odvodit v přímé závislosti od řádovostně měřítkové hierarchie.

3. Vliv politických rozhodnutí na situaci v příhraničních regionech

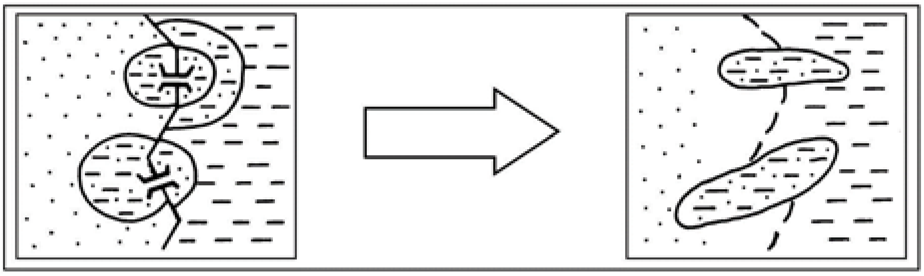
Změny diferencujících a integrujících aspektů jsou jak výsledkem přirozeného historického vývoje daného periferního regionu, tak i výsledkem významných politických či ekonomických rozhodnutí.

Významné politické změny umožňují posílení integrity periferních regionů s pomocí nástrojů regionální politiky v různých hierarchických úrovních. Integritu periferních regionů tak posilují investice do infrastrukturních sítí, cílené investice do místního potenciálu, ať již přírodního či sociálního. Zmíněné investice posilují vazby mezi jádrovými a periferními regiony. Jistým nebezpečím pro periferie je rychlý růst a propojování jednotlivých jádrových oblastí. Tranzitnost regionu v kontrastu s naznačeným pozitivním rozvojem však může vyvolat vznik nového typu periferie - periferie vnitřní v souvislosti s možným posilováním efektu mostu resp. tunelu mezi centrálními regiony na úkor hospodářského rozvoje periferního regionu. Rychlý rozvoj technologií a postupující globalizace světa smazává dřívější hlavní negativní rys periferních regionů, tedy odlehlost periferie, její špatnou dopravní dostupnost. Tak jako v dřívější době telefonizace znamenala pro periferní regiony zvýšení jejich životní úrovně, tak v dnešní době rozšiřující se internetizace a další rozšiřování nových informačních technologií bude význam periferního efektu nadále snižovat a v souladu s jinými pozitivními přírodními rysy periferních regionů jejich integritu s jádrovými oblastmi posilovat.

Vstupem do schengenského prostoru umožňuje otevřená hranice de facto i de jure přeshraniční komunikaci, přeshraniční spolupráci a nakonec i společný přeshraniční rozvoj. Tím se postupně překonává areálový hraniční efekt, který je typický pro existenci železné opony a otevírá se prostor pro efektivní a udržitelnou spolupráci (Knippschild, 2011). Zmíněné procesy na otevřené hranici posilují efekt kontinua, díky kterému se postupně stírají rozdíly na obou stranách hranice (viz obr. 2).

Nedávná politická rozhodnutí v Evropské unii – přístup k migrační vlně uprchlíků, vystoupení Spojeného království z Evropské unie, mají specifické dopady jak na situaci v pohraničí při respektování přirozeného socioekonomického vývoje (Drbohlav, 2009), tak i na celkovou situaci v zemích V4.

Obr. 2: Přerůstání difúzního efektu v efekt kontinua



Source: Dokoupil, 2001

Velmi významného spojence ztratí země V4 ve Velké Británii, která svým postojem doposavad vyvažovala francouzsko-německý blok, o němž se předpokládá, že bude po výstupu Spojeného království unijním vnitřním uskupením s rozhodující vahou utvářet další budoucnost evropského společenství. Dá se ovšem předpokládat, že se země V4, přes svůj antagonismus vůči německým plánům na migrantské kvóty, přimknou k evropskému jádru z toho důvodu, že je pro ně evropský trh klíčový – unijní státy odebírají od zemí V4 80% jejich vývozu, a ohrožení nebo zkomplikování přístupu na odbytiště v unijních zemích si státy V4 nemohou dovolit (Sakurai, 2016). Problémem ovšem je, že kromě Slovenska tyto země neplatí Eurem, a tudíž se mohou přece jen ocitnout v určité izolaci (Schweiger, 2016).

4. Conclusion

Pozitivním efektem dosavadní politiky na evropské i národní úrovni je zlepšení technické infrastruktury v příhraničních regionech, navázání přeshraničních kontaktů (na státní i vnitřní hranici) včetně spolupráce při získávání dotací. Rozvojové plány, rozvojové strategie pomáhají těmto strategiím. Příhraniční regiony tak procházejí rozvojem nejen coby tranzitní regiony mezi jádrovými oblastmi, ale jako společné či sobě velmi blízké regiony, které se snaží vzájemnou spoluprací odolávat konkurenčním jádrovým oblastem ve veřejné regionální soutěži.

Specifický význam v regionálním rozvoji periferií mají jejich efekty. Meziregionální difúze nových myšlenek, rozdílných metodologických přístupů, odlišného společenského chování jsou potenciálním impulsem dalšího rozvoje. Jmenované efekty mohou mít jak pozitivní, tak i negativní vliv na periferní region. Pozitivem lze nazvat budování dopravní i obslužné infrastruktury podél dopravních komunikací, což má dopad na posilování geografického potenciálu periferie, negativa vyvstávají v souvislosti s častou tranzitní funkcí těchto regionů, kdy koncentrační efekt přináší v silniční dopravě podél komunikací zhoršení životního prostředí. Míra vlivu jmenovaných efektů závisí na vyrovnanosti resp. nevyrovnanosti gravitační síly jádrových oblastí a dále na popsaných diferencujících aspektech, tedy kombinaci polohových a místních faktorů a na řádovostně měřítkové hierarchizaci sousedních regionů i jejich polohových poměrů. Na základě uvedených faktorů se u nevyrovnané gravitační síly jader sousedních regionů významně uplatňují efekty diverzifikace až polarizace.

Tyto přirozeně se vyvíjející jevy jsou významně narušeny diskutovanými politickými událostmi. Slibně se vyvíjející přeshraniční spolupráce v rámci schengenského prostoru je ohrožena, jednotlivé státy se připravují na opětovné zavedení hraničních kontrol, což bude mít významný dopad no rozvoj příhraničních regionů. Z pohledu hraničních efektů se začne opět více projevovat efekt periferie až efekt areálový místo očekávaného rozšiřování efektu kontinua. A budou to opět lidé v příhraničních regionech, kterých se nejvíce negativně dotknou necitlivá centrální politická rozhodnutí v Bruselu.

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EVALUATION OF INVESTMENT EFFICIENCY IN THE NEW DATABASE SOLUTION FOR RAIL FREIGHT TRANSPORT IN THE CONTEXT OF GLOBALIZATION

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Abstract. Globalization has brought the many advantages for rail freight transport. The positive effects of globalization in the EU in the freight transport area are achievement complex liberalization of the rail freight market and the gradual increase of its competitiveness in relation to other transport mode. Therefore, it is needed to update the legal framework so that it reflects the changing business conditions. Besides the basic legislation (primary and secondary EU law, national legal framework) operators of rail freight transport must also abide with other regulations and rules by the EU and UIC, which are primarily related to technical and technological transport conditions. New database solution simplifies monitoring and update these regulations and rules by providing them in the form of software application. The paper deals with evaluation of investment efficiency in the new database solution for rail freight transport. The methodology is based on economic analysis costs and benefits of investment i.e. CBA. Financial analysis is founded on dynamic methods of investment evaluation. One of the most difficult tasks is cash flow estimation. The difficulty of this task consists in the issue of counting all cash flow related to this investment whom they will occur in the future. The paper describes the forecast of cash flow concerning using of new database solution. Beside financial and risk analysis it takes into consideration the complex investment evaluation i.e. direct and indirect benefits for carriers and costumers.

Keywords: cash flow, cost-benefit analysis, investment, rail freight transport

JEL Classification: D61, R40, R42

1. Introduction

Currently, the rail companies need the qualitative informative systems to be a success in global rail transport market. The implementing a new informative system increases an effectiveness of control and management activities as well as can provide superior information for customers. Productivity of labour increases by using informative systems in view of the fact that the time of technological processes decreases. Informative systems, which are used in economics area, can increase available the relevant information needed for controlling activities and so business management can be more effectively.

Purchase the new informative system can be regard as investment. “Firm's capital purchases have focused upon implication for a firm's costs structure and generally ignored one important aspect of capital investment that distinguishes capital from labour, the fact that capital goods are durable. Non-durable inputs in the production process are good purchases and labour that are used in the same periods. Capital goods are longer-lived inputs a firm acquires in one period but productively uses over long period of time.” (McCarthy, 2001)

2. Transport investment

Investment decision making is ranked among the most difficult manager decision. Investment decision making in the transport sector must respect their specific characteristic and effects on society. (Eliasson et al., 2015)

2.1 Evaluation of transport investment

Simple economic theory provides straightforward guidelines for investment decision making; essentially, they involve pricing and output decisions where the constraints of fixed production capacity cease to be binding. (Buton, 2010) Evaluation of transport investment should into account not only financial issues, but also technical or social costs. (Bujna & Mikulsky, 2012) Traditional methods of evaluation have not been very successful in accounting for non-transport benefits resulting from rail investments. But increasingly, these factors are becoming more important in well-developed transport networks, as the effects of additional links or capacity cannot be justified in transport terms alone. (Banister & Thurstain-Goodwin, 2011)

Methods of investment evaluation can be divided into static and dynamic. Static methods use the nominal value of financial factors and can be divided into

- Methods utilizing profitability – the basic principle of this methods are calculation of ratio indicators, which make provision for ratio profit to funds deposited. *ROE* (Return of Equity and *ROA* (Return of Assets) are more frequently using indicators. (Janson, 1989)
- Method of term of expiration – is based on ratio between investment costs and term of recovery of investment.
- The average cost methods – are based on annual average indicators, namely the average annual income and the average annual rate of return of investment.

Dynamic methods take into account the effect of time on the value of the cash flows. These methods should be used every time that the investment project, separated in time in the actual implementation or exploitation (longer life cycle of investment). Impact of the time factor make provision for discounting.

The determination of the discount rate significantly influenced the decision to acceptance or non-acceptance of the transport investment project. The discount rate also depends on the type of investment. Significantly lower discount rate used in the so-called social transport investment (e.g. investment to modernize rail corridors) than for business investment (investment in business development, implementation of rationalization measures, etc.). (Nedeliakova et al., 2007)

Practically there is most frequently used from dynamic methods:

- Net Present Value method
- Methods of Economic Rate of Return
- Profitability Index.

Net present value method is considered to a basic criterion for evaluation of transport investment.

2.2 CBA analysis – using in rail transport investment

The methodology of investment appraisal through cost–benefit analysis has received a lot of attention in the economics literature. However, the major part of the work has focused on the evaluation of yearly benefits and their components. Most guidelines list some indicators, such as the internal rate of return, the net present value per euro spent or the first-year benefit–cost ratio, but with no clear indication of how and in which cases they should be used. (Quinet, 2011) In the fact that the transport investment has not only direct but indirect benefit from their utilization we decided to applicate the CBA method for evaluation of investment efficiency in the new database solution.

Tea analytical framework of CBA refers to a list of underlying concepts which as follow (Sartori et al., 2014):

- ***Opportunity costs.*** The opportunity costs of a good or services is defined as the potential gain from the best alternative forgone, when a choice needs to be made between several mutually exclusive alternatives. The rationale of CBA lies in the observation that investment decisions taken on the basis of profit motivations and price mechanisms lead, in some circumstances, to socially undesirable outcomes.
- ***Log-term perspective.*** A long-term outlook is adopted, ranging from a minimum of 10 a maximum of 30 years or more, depending on the sector of intervention. Although, traditionally, the main application is for project appraisal in the ex-ante phase, CBA can also be used for in medias res and ex post evaluation.
- ***Calculation of economic performance indicators expressed in monetary terms.*** CBA is based on a set predetermined project objectives, giving a monetary value to all the positive (benefits) and negative (costs) welfare effects of the intervention. These values are discounted and then totalled in order to calculate a net total benefit. The project overall performance is measured by indicators, namely the Economic Net Present Value, expressed in monetary value, and the Economic Rate of Return, allowing comparability and ranking for competing project or alternatives.
- ***Microeconomics approach.*** CBA is typically a microeconomics approach enabling the assessment of the project's impact on society as whole via the calculation of economic performance indicators, thereby providing an assessment of expected welfare changes. While direct employment or external environmental effects realised by the project reflected in the Economic Net Present Value, indirect and wider effects should be excluded.
- ***Incremental approach.*** CBA compares a scenario with-the-project with a counterfactual baseline scenario without-the-project.

CBA methods is very difficult for application in small companies as said Borjesson “CBA rankings are robust to all of the studied,” (Borjesson et al., 2014) but it is very useful instrument for accounting direct and indirect effects of rail transport investment.

The situation is different in the case of high rail transport investment. In the decision making process needs to incorporate formally other aspects, apart from the economic ones, to support this process. Furthermore, public opinion should be taken into account explicitly into the decision making, particularly when information regarding the projects that will affect them can be provided by the authority accurately and timely. (Tudela et al., 2006)

3. Evaluation of effectiveness of the new database solution for rail freight transport

Investment in the new database solution can be regarded as log-term investment because it is assumption that company will use the information system or your upgrade in the long term. (Leibrecht & Liebensteiner, 2012)

Methodology of evaluation of new database solution should be based on basic framework of CBA. Process of evaluation must start from individual company conditions, e.g. there must into account concrete conditions in which company provide the services. Concept of evaluation can be as follows:

- goalsetting of investment;
- valuation of technical and technological level;
- financial analysis;
- sensibility and risk analysis;
- complex valuation.

3.1 Goalsetting of investment

The basic objective of investment of this type is to achieve maximal benefit. The other goals can be innovation, growth of goodwill, liquidity, etc. The benefits from this investment are not growth of revenues but decrease of costs so saving operating costs should be put on the effects of investment. (Majercak et al., 2014) The evaluation of this investments must be based on relevant information as are:

- basic characteristic of new database solutions;
- list of rules and standards in the field of investment (for example rules of loading and fixation of goods on a wagon);
- realization time of investment, etc.

3.2 Valuation of technical and technological level

In this part of evaluation there must be described all specifications of investment, i.e. what services and how the new database solution will provide. Therefore, it is necessary to quantify (Cerna & Masek, 2015):

- hardware criteria;
- software criteria;
- know-how of staffs which will work with new database solutions.

Investor must identify all related processes:

- form of safety of new database solution in the process of utilization time;
- form of upgrade of software;

- determining actual number of rules or standards from this matters;
- relevant evaluations of number of employee working hours;
- analysis of computers suitable requires hardware and software, etc.

This phase of evaluation must provide precise quantification all technical and technological and other requires in order that new database solution should use effectively in the future.

3.3 Financial analysis

The basic goal of financial analysis is to determine acceptance, postponement or non-acceptance of evaluation of investment. Investment in new database solutions presumes their long-term use so that there is needed use dynamic methods for evaluation. Before the calculation of NPV and IRR must be an estimation of capital expenditures and Cash Flow prognosis.

The company must take into account all **capital expenditures**, i.e. all direct and indirect costs which are related to investment. (Potkany et al., 2012) These costs include:

- purchase price of database;
- purchase price of new computers;
- purchase price of a new software;
- training costs of staffs;
- capital costs, etc.

Cash Flow prognosis is the most difficult task of investment evaluation. It is needed to calculation all cash flow that will be in the future. The prognosis is less accurate with increases in long-return investment. Estimation of investment efficiency can realize using CBA method in view of the fact that it is simple investment compare with infrastructure projects (for example rail infrastructure modernization). The basic element is costs because it is assumed that new database solution decreases the operation costs. Cash Flow can be defined according to the following equation:

$$CF_i = \Delta C_i = \left(C_i^0 - C_i^{DS}\right) + C_i^S \tag{1}$$

where:

CF_i = Cash flow in year *i*,

ΔC_i = change of cost in year *i*,

ΔC_i^o = probable cost without new database solution in year *i*,

ΔC_i^{DS} = probable cost with new database solution in year *i*,

ΔC_i^S = probable saving of indirect cost related to investment to new database in year *i*.

It is needed take into account possibilities of change these costs. Cost increase may be due to an increase of price of rules and standards in the print version, wages and other costs.

3.4 Sensibility and risk analysis

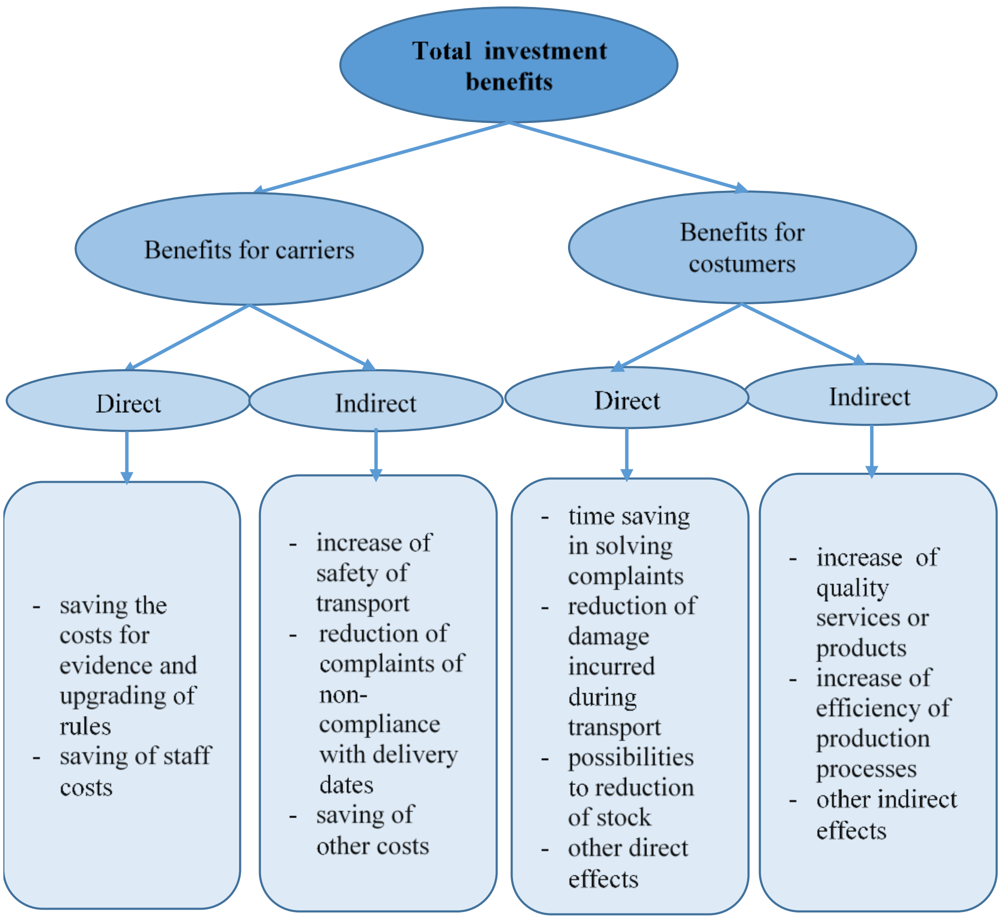
Risk in transport investment evaluation should into account different approaches as well as Value at Risk, Conditional Value at Risk, Downside Risk Measures, and Efficiency Ratio. (de Palma et al., 2012)

The goal of sensibility and risk analysis is to find out of global of investment effects if probable input factors change. A simple examination can be carried out with respect to the Net Present Value method or Methods of Economic Rate of Return. There is searched for alternatives of input factors so that Net Present Value is equal to 0 or Economic Rate of Return is acceptable. Excepting these simple methods, it can be use complex methods, which take into account risk portfolio and its probability distribution.

3.5 Complex valuation

New database solution can evocate not only reduction of operation costs, but increase of quality of services for customers. Complex valuation (Figure 1) includes investment benefits for the company and for the customer.

Figure 1: Total benefits to new database solutions



Source: Authors

Increase the quality of services through the use of new database solutions may bring additional benefits for carriers and costumers in the future.

4. Conclusion

Evaluation of investment efficiency in the new database solution for rail freight transport cannot be based only on classical dynamic methods such as Net Present Value or Economic

Rate of Return. It is needed evaluate other benefits. This evaluation is very difficult because it improves the quality of services. Oher benefits can describe verbally and can be supplementary assessment tool for decision making about acceptance or non-acceptance of investment.

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THE INFLUENCE OF GLOBALIZATION FOR HUMAN RESOURCES EDUCATION

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Abstract. The article describes the ways of human resources education in the companies in Slovak republic. Human resources are the biggest wealth of the companies in the competitive struggle. The development of companies is linked to the development of human resources, so at the first place of companies priorities should be the interest to develop the potential of human resources. The education of human resources is a permanent process in which occur changes and adaptation in working behaviour, level of knowledge, skills and motivation of company human resources that learn based on the use of different methods. The result of education and training is a reduction in the difference between the current competencies of human resources and the requirements imposed on them. The educational requirements are qualitative and quantitative nature. The aim of the article is to describe the change in the approach in management of human resources education and training thanks influence of globalization. On the base of analysing and comparing of the surveys realized in the years 2010-2012 and in the year 2016 will be identified the difference in human resources education. The detected gaps will be analysed a will be generated the possible root causes that could make them and will be recommend the next possible ways of increasing quality of human resources education in the companies in Slovak republic.

Keywords: education, human resources, personnel management, training.

JEL Classification: M12, M53, O15

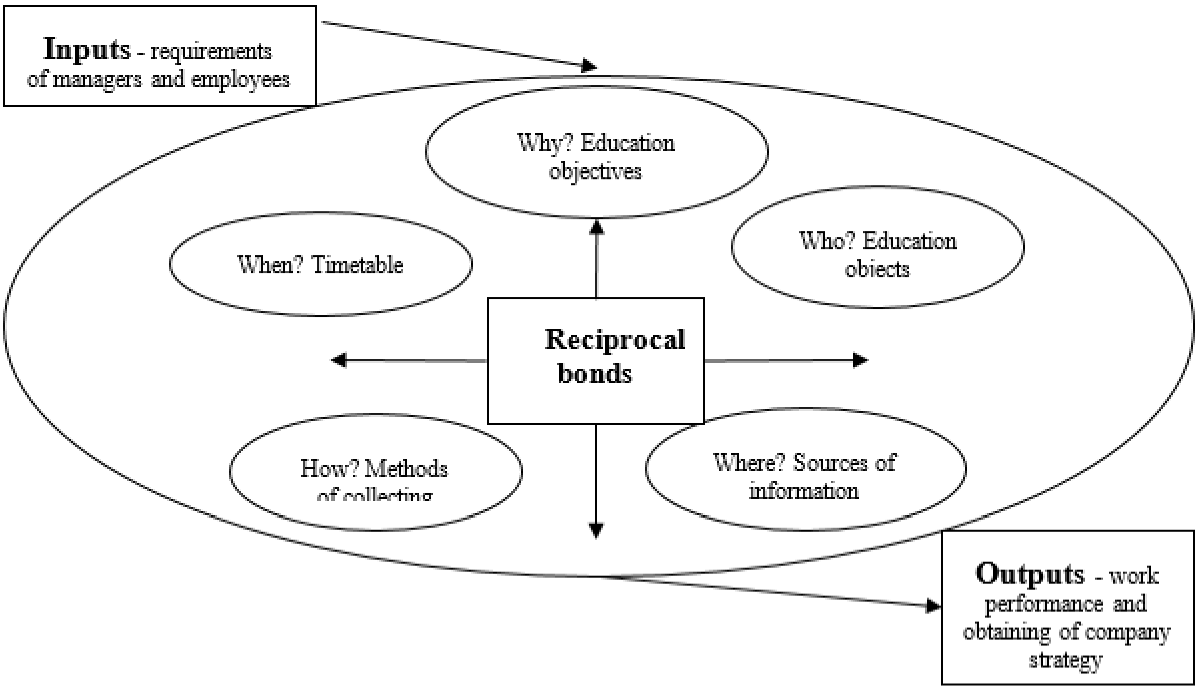
1. Introduction

Human resources are the most important resources for effective functioning of the company, but also the most sensitive resource for management. For obtaining and involvement of people to the system of personnel management, it is on its implementation, maintenance and continuous improvement of its effectiveness in accordance with the requirement of increasing customer satisfaction, company management must explain to your employees the importance of all of their activities to the achievement of company results, inform employees about job duties, obligations and responsibilities, permanently educate employees at all levels, motivate them to better performance, remuneration for labour services and guide them to an open discussion about their weaknesses and find suitable solutions.

2. Theoretical background

The education provides company trained human resources without the often difficult search in the labour market. Systematic training enables continuous formation of the working ability of employees to the specific needs of company, constantly improving qualifications, knowledge, skills and personality of employees (Lado & Wilson, 1994). It also contributes to improving work performance, productivity and quality of products and services more strongly than other methods of learning. Systematic training is considered one of the most effective ways of finding internal sources cover the necessary staff (Rebetak & Farkasova, 2015). It enables continuous improvement of learning processes by the experience of the previous cycle are taken into account in the next cycle, it improves employee relationship to the company and increases their motivation, increases the company attractiveness on the labour market and facilitate the acquisition and stabilization of employees (Antosova, 2008). The continuing education as a consequence of globalization is made up of elements that are shown in figure one.

Figure 1: System of employees education



Source: Mateides, 2006.

2.1 Education objectives

The basic objective of education of employees is throughout systematic and constantly forming their work potential to create the conditions for the effective performance of the company tasks and to increase its competitiveness (Jarina, 2013).

Arthur (1994), Becker & Gerhart (1996), Hatch & Dyer (2004) and Huselid (1995) confirm that investment in human resources are reflected in increased performance of employees and service levels, improve business competitiveness, increase employee satisfaction, their loyalty to the company, the possibility of using its own resources to cover the needs of employees, saving time and financial costs of the deployment of staff, faster response to changes in conditions market, improving the overall review and strengthen contacts in the profession, strengthening teamwork, building employees in their self, reinforcing their own prestige and many other ways.

For the analysis of training needs are used the following methods: written questionnaires, personal interviews with staff, assessment of actual and potential work performance of employees, tests and inspections, observing the working behaviour in the workplace, group discussions, analysis of internal documents, initiatives and information management (Van der Sluis & Van Praag, 2008).

2.2 Education objects

When educational activities are planned, it is necessary to adjust all elements of the learning object that personnel activities, which the staff involved in the educational process (Lepak & Snell, 1999). The content of educational activities is determined to taking into account factors which include intellectual abilities of human resources, their mental ability and mental status, education and age (Brown, 2001).

2.3 Education subjects

Company can provide training its own staff or may call for the cooperation of outside experts, or educational institutions (Wright & Mcmahan, 1992). To decide how to select a suitable training partner may use the following criteria:

a) experience with specific educational institutions,
b) references from other sources about the level and conditions of educational activities,
c) price level of training,
d) the possibility of obtaining a certificate of attendance,
e) the possibility of cooperation with the educational institution in the drafting of the training program, as well as in the application of acquired knowledge in practice (Lin, 2007).

2.4 Education methods

The effectiveness of educational programs is largely contingent on the selection of appropriate methods of training of staff are compositions and methods used in the transmission and acquiring knowledge, skills, attitudes and experience (Mateides, 2006). Methods of education are changing influenced globalization and are divided into:

a) education within the company during performing work is performed by training managers, heads of groups or trainers. It can be done individually or in groups (Fenwick, 2008). Its advantage is the reality and immediacy. An employee works and athe same he is learning. The main methods of education within the company include: instruction in work performance, coaching (single instruction by the educator), mentoring (employees choose of choice their educator), counselling (education based on advice), assisting, assignment of tasks, work rotation and workshops;
b) education within the company outside of work performance - training can be carried out in the company sued for it. The advantage is that the employees gets the feeling that they pay special attention and focus only on the production of new knowledge (Stefanikova et al., 2015). The most used methods are: lecture, seminar, demonstration, model situations, case studies, workshops, brainstorming, simulation, role playing, e-learning (Mihalcova, 2007);

c) training outside the company - is particularly useful for the development of managers and team leaders knowledge (Stefanikova & Masarova, 2013). It should be used if it is not possible to ensure training throughout internal resources or if it would be more economic. Among the best known methods are classified: assessment centre (diagnostic-training program), outdoortraining (training outdoors), adventure education (education based on unconventional crisis situations), team building.

Although the group of methods used in training in the workplace considers appropriate for the training of executive staff and the methods used outside the workplace for training managers and specialists, in practice, used by both groups of methods for the training of all categories (Snell & Dean, 1992).

2.5 Frequency of training

Education of human resources is a fundamental goal, but also a consequence of modern society (Scullion & Starkey, 2000). This is caused by challenging turbulent environment of globalization that requires constant improvement, deepening, adapting and developing the educational level of the people. This means that education must be permanent and should take into account all the current needs caused by both external and internal changes (Gogolova et al., 2015).

3. Paper objective and methodology

The target of paper is to analyse current situation of human resources education in Slovak companies and to compare to situation in the past. There were 2 key issues of finding out:

1. an existence of human resources training,
2. methods used to human resources training.

There was a research question too: the current situation in both areas of finding out has been getting better than in the past. The percentage of companies that use scheduled training or use different methods of human resources training in 2016 will be bigger or the same than in the years 2010-2012.

The information used in the article was gained from the primary and secondary sources:

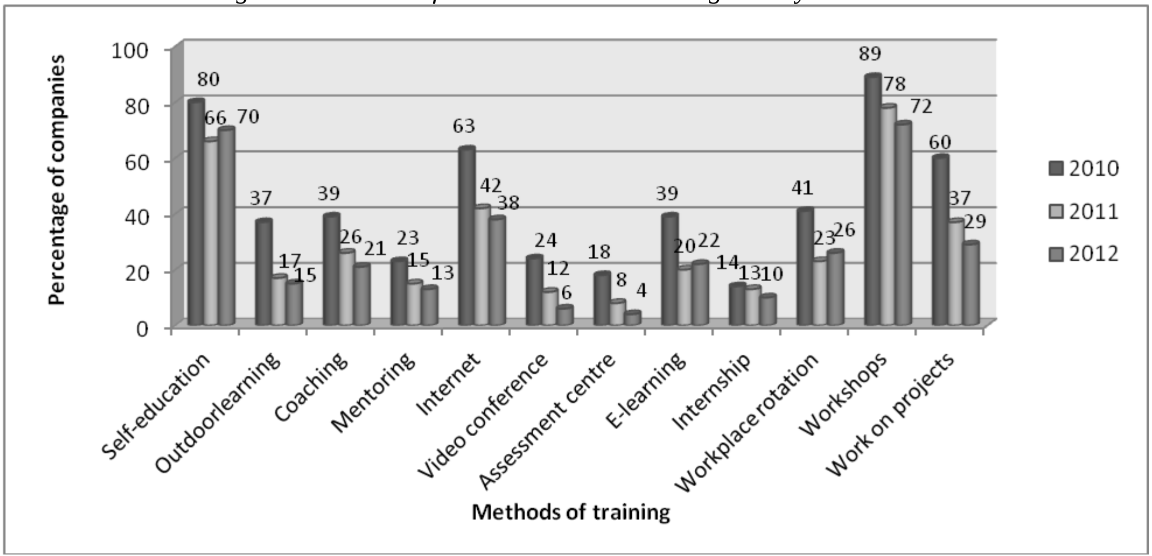
a) **primary sources** – survey made by authors. The survey was realized in the year 2016. There were 322 respondents and the aim of survey was to detect the level of human resources training in Slovak companies. The questions had close form.
b) **secondary sources** – survey made by Kachaňáková, Stachová and Stacho in the years 2010 – 2012. The survey sample of companies was randomly addressed. There were 239 respondents in the 1. stage and there were 340 respondents in 2. and 3. stage of survey. The questions had form of an open, close and scale questions. The main objective of annual survey was to detect the way of human resources management in Slovak companies. The next sources were foreign and domestic literature and articles linked to presented issue. The key area of interest was training of human resources.

Some else methods that were used too: the **analysis** of results and gained information from primary and secondary sources, **synthesis** and the method of **deduction**, the first as a tool for overall review of level of human resources education in Slovak companies and the second in order to support the conclusions, the method of **induction** when the theories of development of training in Slovak companies were discussed.

4. Results and discussion

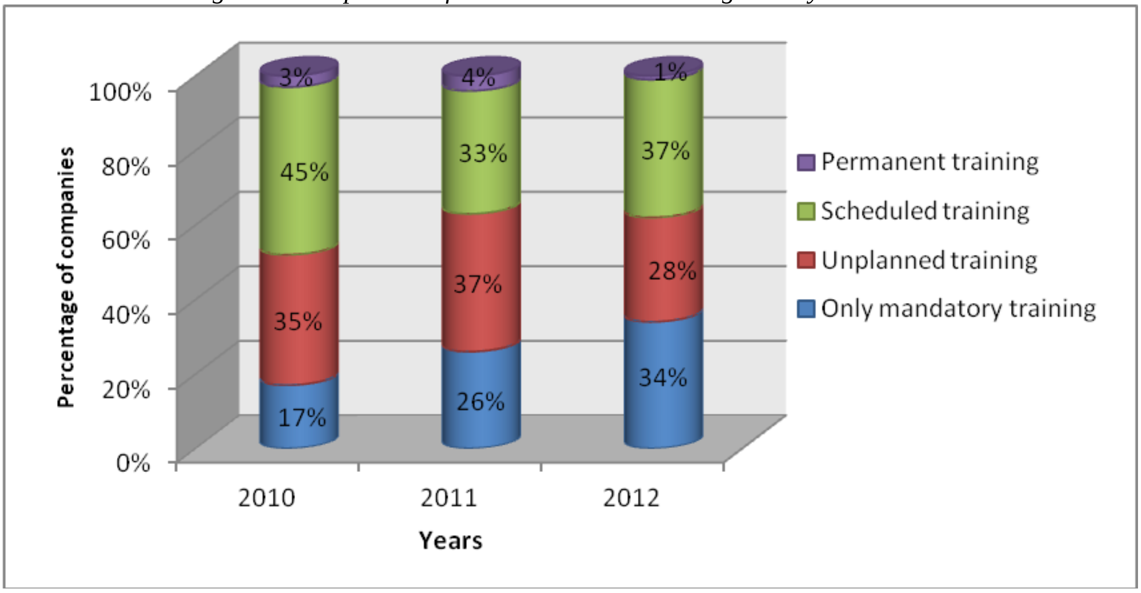
Training is very good starting point in increasing potential of human resources. Firstly the survey detected kind of training method and percentage of companies it used in years 2010-2012. The most used methods were workshops, self-education and internet and the least used were video conference, internship and assessment centre. In every case the biggest value of use was in the year 2010 and then the values got down, it was result of economic crises.

Figure 2: Methods of human resources training in the years 2010-2012



Source: Authors on base of Kachanakova et al., 2013.

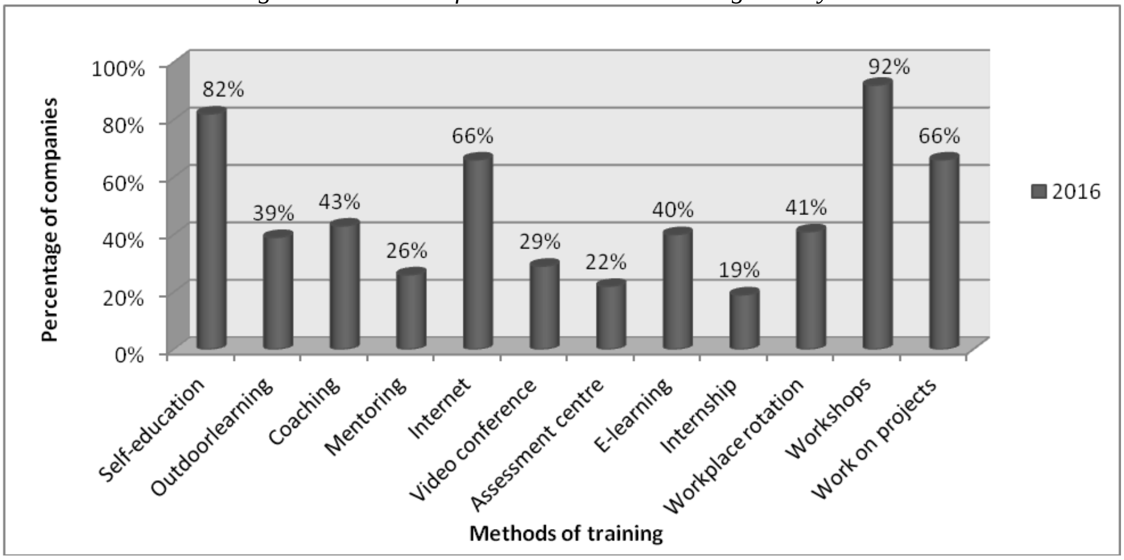
Figure 3: The process of human resources training in the years 2010-2012



Source: Authors on base of Kachanakova et al., 2013.

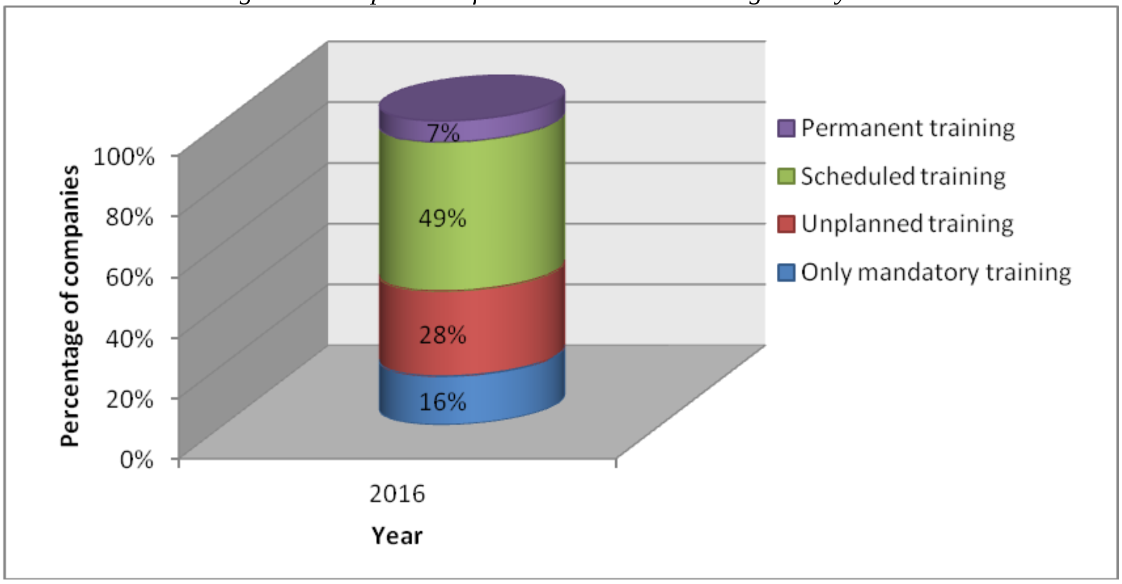
Secondly the survey detected the process of human resources training in years 2010-2012. The values of only mandatory training got up what was not positive trend. The values scheduled and unplanned training were variable. The permanent training was neglected, the biggest value was only 4%, in this area had Slovak companies major gaps.

Figure 4: Methods of human resources training in the year 2016



Source: By authors

Figure 5: The process of human resources training in the year 2016



Source: By authors

Thirdly the survey made by authors in 2016 looked at the use of the same methods of training which use was found out in years 2010-2012. The result confirm the research question, it means the Slovak companies use method of training methods in bigger or at least in the same way like in year 2010. The most used methods are the same like in past, they are workshops, self-education and internet and the least used are video conference, internship, mentoring and assessment centre. The values get better as a positive reaction to ending of economic crisis, effect of globalized market, new way of thinking and innovation.

Finally the survey made by authors in 2016 examine the process of human resources training in Slovak companies. The scheduled training made almost the half, the permanent training grows as well, but its value generate small share of whole. Only mandatory training falls, but there is still place to bigger reduction. In this case confirm the research question too, the percentage of Slovak companies that use scheduled training in 2016 is bigger than in years 2010-2012.

5. Conclusion

The education is a process of conscious and purposeful mediation and actively shaping and acquisition system of scientific and technical knowledge, intellectual and practical skills and human experience, creating moral traits and special interests.

The situation in human resources education in Slovak companies in year 2016 has got better than in years 2010-2012. Slovak companies pay bigger attention to system of human resources training, but in their systems there are still some gaps, so these systems stay in front of way of development and improvement, especially in the area of permanent training and use of mentoring.

Acknowledgment

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COUNTERFACTUAL METHODS USED FOR EVALUATION OF ACTIVE LABOUR MARKET POLICIES IN EUROPEAN UNION

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Abstract. Long-term high unemployment rate is a social problem affecting not only the Slovak republic but also many other countries of European Union. One way how the government of EU is trying to solve this problem is application of various interventions through active labour market policies. The funding sources for these interventions come mostly from structures of EU. The EU therefore calls for rigorous analyses, especially counterfactual evaluations, of the effectiveness of these interventions. There exist many globally accepted counterfactual methods for evaluation. The paper deals with analysis of selected methods in the field of their applicability, restrictions and assumptions of their use. We focused on the most commonly used counterfactual methods such as propensity score matching with exact matching technique and with nearest neighbor matching, difference–in–difference method and exact matching method. All these ex-post methods evaluate the intervention as a whole. The main principle of counterfactual methods is to compare the results of employability and sustainability of supported jobseekers with eventuality that would have happened if the intervention has not been granted. This comparison is made by matching the jobseekers that have been supported by the intervention with the individuals that have not obtained the grant based on their individual characteristics and characteristics of their living environment. The result of the evaluation is whether the evaluated intervention provides the desired effect or not.

Keywords: counterfactual method, evaluation, jobseeker, intervention

JEL Classification: C50, C52, J08

1. Active labour market policy measures in Slovakia and their evaluation

Increasing of the employment rate and effort to decrease the unemployment were some of the main aims applied in Slovakia in the Operational Programme Employment and Social Inclusion in the period 2007 – 2013. This objective was set up as a reaction to the situation in the country with very high unemployment rate of economically active population (13,4% in the year 2006). Due to fulfilling the aim of assisting in the improvement of the population's employability, specific interventions of active labour market policy (ALMP) were proposed in Slovakia. (Borik et al., 2015)

Graduate practice and self-employment are frequently used measures within ALMP measures. *Graduate practice* is an intervention focused on young unemployed jobseekers to increase their ability to be placed on the labour market by improving of their skills. The promoting of *self-employment* is also an actual tool for dealing with the high unemployment rate and lack of free jobs on the open labour market. This measure gives jobseekers an initial impulse to start with self-employment.

In 2014 – 2015 the evaluation aimed at the net effects of graduate practice and the promotion of self-employment as two intervened measures has been carried out under the Pilot Counterfactual Impact Evaluation (CIE) of Self-employment and Graduate Practice granted by the European Commission by evaluation team of the Ministry of Labour, Social Affairs and Family of the Slovak Republic and external experts. The principal role of the Pilot CIE was to estimate the net effect of the graduate practice and self-employment interventions. This evaluation has been made using counterfactual methods globally used in European union for this purpose. These methods showed the net effects based on the employability of the jobseekers due to the intervention. For Graduate practice intervention there were four evaluated reference periods during 2007 and 2014 and two reference periods for Self-employment.

1.1 Evaluation of interventions in European Union

Active labour market policies are a favored measures used by policymakers in the European Union as tools for regional revitalization. (Bondonio & Greenbaum, 2014) The main European instrument to support employment and social inclusion is The European Social Fund (ESF). In the programming period 2007 - 2013, the ESF spent nearly € 76,5 billion on ALMP implemented through operational programmes in the 27 Member States of European Union. Evaluations of interventions of ALMP aim to improve the quality, effectiveness, and consistency of the assistance from the Funds, strategy and implementation of the operational programmes. (https://crie.jrc.ec.europa.eu, 2012)

In the programming period 2014 – 2020, performance and results will receive increased attention. This requires a review of current monitoring and evaluation systems and capacities, including data collection arrangements. As a variety of methods are available to capture the impacts of ESF supported interventions, it is for the managing authorities to decide which one, or which combination of methods, is most suitable in satisfying the regulatory requirements. A rigorous quantification of impacts of interventions involves counterfactuals. (https://crie.jrc.ec.europa.eu, 2012)

In Slovakia the counterfactual evaluation of two selected interventions have been made based on the call for proposal VP/2013/015 (Pilot Projects to carry out ESF related Counterfactual Impact Evaluations) from European Commission. Under this project, the evaluations have been made in several countries of European Union: Slovakia, Lithuania, Portugal, Spain, Poland, etc.

2. Counterfactual impact evaluations design and approaches

The main role of counterfactual methods is to give an answer to a question: what would have happened if the person would have not been supported by the intervention? (Wooldridge, 2010) This is made by collecting the data about those who participate in the intervention and comparing them with the data collected about the non-participants who are similar in their personal characteristics to participants in the intervention being evaluated. (Ragazzi, 2014) By comparing the results of place-ability, employability and sustainability of individuals in these two groups on the open labour market we obtain the effects of an intervention on those who participate in it.

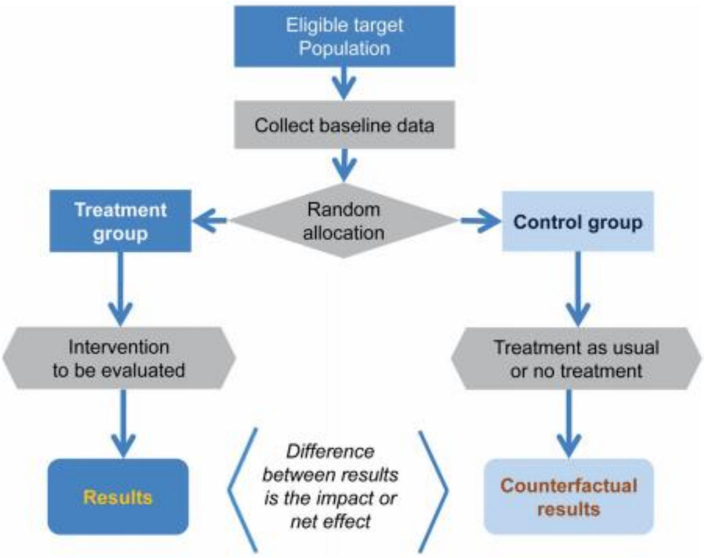
The main distinction in CIE is between evaluation designs that are *experimental* and *quasi-experimental*. (Potluka & Bruha, 2011)

2.1 Experimental design of evaluation

The experimental approach is commonly called "randomized control trial", and sometimes also "social experimentation". This randomized design is considered to be "the golden standard" among CIE methods. The key point is that the randomization ensures the two groups are statistically equivalent in all respects at the point they are randomized. (Angrist & Pischke, 2009). Then, because treatment and control groups are statistically equivalent at randomization and exposure of the individuals in them to subsequent treatments is controlled, differences in their results can be attributed to the intervention being evaluated. (https://crie.jrc.ec.europa.eu, 2012)

Figure 1 illustrates a simple randomized design for two groups used for evaluation: treatment group of individuals, who have obtained the support by the intervention and control group of those, who have not been supported.

Figure 1: Two-group randomized control trial design



Source: (https://crie.jrc.ec.europa.eu/sites/default/files/documents/CIE_Guidance_EN.pdf)

Randomized design techniques are highly favored because of providing strong evidence of an intervention's effects. On the other hand, they require early and detailed planning and are quite complicated to design and administer. They are often better implemented in evaluating new pilot interventions rather than existing ones, because they require some control over how participants are selected to the intervention. This control is harder to achieve in existing programme than in new interventions. Furthermore, programme managers face significant challenges in implementing them correctly. In some circumstances randomized control trial designs can be expensive to implement. For these and other reasons, many evaluations of ESF financed instruments and interventions are not made using a randomized approach. (https://crie.jrc.ec.europa.eu, 2012)

2.2 Quasi-experimental designs of evaluation

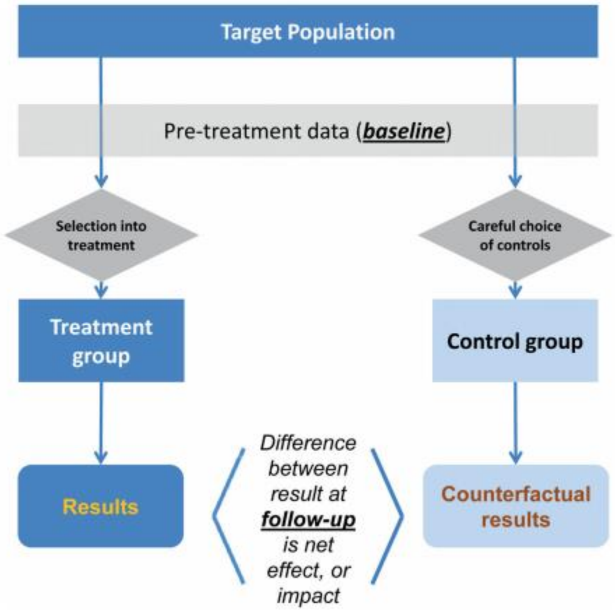
There are a wide range of approaches where in principle imitation of randomization is used. These are referred to as being quasi-experimental. The most likely to be implemented in evaluations of ESF financed supports are:

- propensity score matching;
- difference-in-differences;
- regression discontinuity design;
- instrumental variables. (Lee & Lemieux, 2010)

In quasi-experimental designs, individuals receiving the intervention (treatment group) are compared to a control group of non-randomly selected individuals that do not received the intervention. (Khanker, 2010) The objective of these methods is to obtain an unbiased estimate of the intervention effect. Because treatment and control groups are not randomly formed, these designs require more attention to methods accounting for potential differences between treatment group members and potential controls.

The key principle of quasi-experimental designs is illustrated in Figure 2.

Figure 2: Quasi-experimental design with treatment group and control group



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In Slovakia, in evaluation of the net effects of graduate practice and the promotion of self-employment made in 2014-2015, the following evaluation methods have been used:

- difference-in-difference technique,
- propensity score matching with
  - exact matching technique,
  - nearest neighbor matching,
- exact matching.

The first and second method with both matching techniques are counterfactual methods, the third method of exact matching was used for the strengthening the obtained results. In following sections of this contribution we will discuss these three evaluation methods, how they have been implemented for evaluation of Slovak interventions, their advantages and disadvantages and their restrictions and assumptions.

3. Evaluation of interventions in Slovakia using some selected techniques

3.1 Evaluation using exact matching technique

The exact matching technique is a weaker quasi-experimental design than the other one. This method is based on the comparison of post-intervention data. The influence of the intervention on the treatment group individuals in the field of their employability and sustainability on the open labour market is measured by matching them with the individuals from the control group who have not been participating in the intervention. (Borik et al., 2015) The matching of the treated and non-treated individuals is based on their individual characteristics and characteristics of their living environment. Matched pairs or groups of treated and non-treated units are created with individuals with exactly the same personal characteristics such as age, marital status, gender, permanent residence, level of education, driving license etc. It is also possible to include the characteristics of the living environment such as unemployment rate, the average gross wage, the proportion of women in the region where the person lives etc. Individuals with exactly the same values of these selected variables are matched together and then the difference between their results on the open labour market in the period after the intervention is attributed to the intervention.

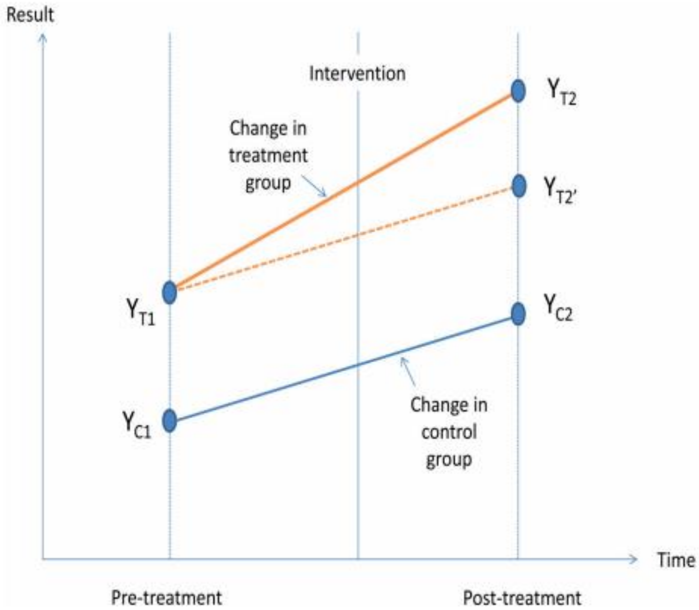
A major problem of exact matching method is that the treatment or intervention group and the controls may not have started at the same place. So, while we know the end situation of the two groups members on the open labour market after the intervention period, we do not know where they began. That means that differences between the treated and non-treated could reflect differences in their starting situation instead of the effect of the interventions. (Borik et al., 2015) To make treated and non-treated groups more equivalent, it is necessary match individuals in these groups as closely as possible. On the other hand of the disadvantages, in general this may be the best design the ex-post situation allows, for example because of the lack of the data about the unemployed individuals before the intervention period. And last but not least, this method is relatively simple to apply. Data requirements of this method are quite simple: for application of the exact matching, the post-intervention data are needed about both treated and non-treated individuals. Of course, it could be very useful to have a sufficient number of individuals in the sample, because of the matching with the condition of exactly the same values of personal characteristics. Then a sufficient number of matched pairs or groups is possible to obtain.

3.2 Evaluation using difference-in-differences method

In this method, the difference in results before and after treatment in a control group is subtracted from the same difference observed among a treated group. (https://crie.jrc.ec.europa.eu, 2012) By this subtraction we obtain an estimate of an intervention's impact. Impact of the intervention calculated with difference-in-differences technique is usually derived using a regression. (Potluka et al., 2012)

Figure 3 provides a visual representation of this evaluation approach.

Figure 3: Illustration of difference-in-difference technique of evaluation



Source: (https://crie.jrc.ec.europa.eu/sites/default/files/documents/CIE_Guidance_EN.pdf)

The graphical representation given in Figure 4 can be the following. The *x*-axis represents the time and the *y*-axis the average results of treated and control groups, for example the employability or sustainability of the unemployed jobseekers on the open labour market or for example the average wages of the groups in the period after the intervention. The average result for the treatment group in the period before intervention is Y_{T1}, for the control group the average result is Y_{C1}. In the period after the intervention the results are Y_{T2} and Y_{C2} for the treated and control groups respectively. The solid upper orange line represents the change in results in the intervened group, the solid lower blue line the change in the control group. (https://crie.jrc.ec.europa.eu, 2012)

An estimate of the intervention impact results from a comparison of results in treatment and control groups in the post-treatment period, with subtracting from it the pre-treatment difference in results. So that the intervention influence on the jobseekers' results is given by the "difference in differences" $(Y_{T2} - Y_{C2}) - (Y_{T1} - Y_{C1})$.

Data requirements of this counterfactual evaluation technique are similar to other approaches. In addition, here is the requirement for the data about the individuals included in the evaluation before the intervention: pre-intervention data. (Szitasiova, 2015)

Main assumption for the difference-in-differences approach rests is that the trends in results within treatment and control groups are equivalent in the absence of the intervention. For testing this assumption, rich pre-treatment data about the results of individuals are required. Limitation of this method is that the analysis using this technique can become quite complex and this could lead to misinterpretation of the results of evaluation. Moreover, this method cannot be used for estimation of multiple treatment effects. (https://crie.jrc.ec.europa.eu, 2012)

3.3 Evaluation using propensity score matching

Propensity score matching constructs a control group that is based on a model of the probability of participating to be intervened. That means, propensity score matching entails estimating a statistical model for the entire sample (treated individuals and potential controls) using observable characteristics. (Dallara and Rizzi, 2013) This model yields an estimated propensity score to participate on intervention for each individual or firm - regardless of whether they actually participated or not. Treated individuals are then matched - either to one untreated individual or to many untreated individuals on the basis of the propensity score. (Dehejia & Wahba, 2002) The average treatment effect of the intervention is then calculated as the mean difference in results on the open labour market in the post-intervention period across these two groups.

For matching the participants and non-participant using their propensity score, different approaches are used: exact matching, nearest neighbor matching, Kernel matching etc. (Heckman, 1998). In the counterfactual evaluation in Slovakia have been used two methods: nearest-neighbor matching and exact propensity score matching.

3.3.1 Exact propensity score matching

Exact matching based on propensity score was made using a propensity score rounded up to four digits. The choice of digits or the accuracy of matching could be selected as the most optimal to keep the largest number of treated and non-treated individuals in the sample to match as much pairs or groups as possible. Then, the participants and non-participants with the same propensity score are matched together. Here is possible to use the technique with replacement of treated individuals, or without replacement. Then, the non-participants assume the impact period from matched participants and this is the period where their results on the open labour market are monitored.

3.3.2 Nearest neighbor propensity score matching

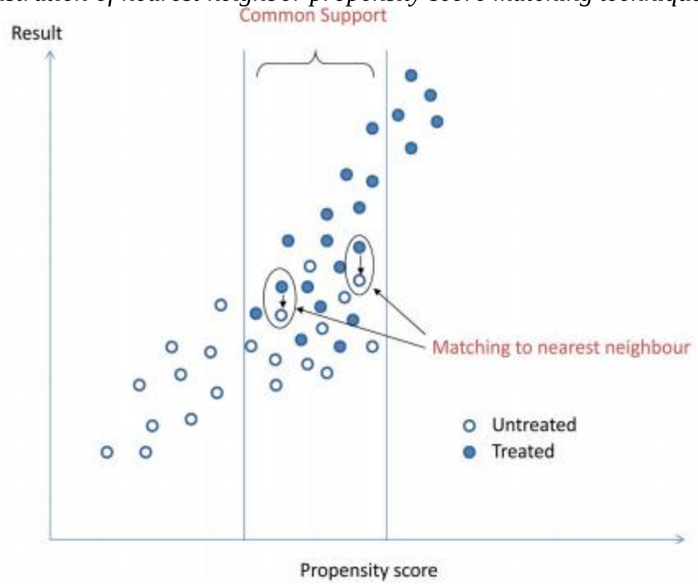
Nearest-neighbor matching is one of the most frequently used matching techniques. Every one individual from treated group is matched to the individual from control group (or to more controls) with the closest propensity score. (Borik et al., 2015) In Slovak counterfactual evaluation have been used the matching with five nearest neighbors. Matching can be done with or without replacement similarly as in the above-mentioned method. The illustration of this propensity score matching technique is in the Figure 4.

The impact of the intervention in both matching techniques is measured as the average difference in the results of matched treated and control individuals in their individual impact period.

One advantage of this approach of evaluation is for example that because the propensity score is estimated using a logistic regression method, there is no need for assumptions as in standard regression models. (Terek et al., 2010) Moreover, this method is possible to be used for estimation of multiple treatment effects. (https://crie.jrc.ec.europa.eu, 2012)

On the other hand, the disadvantage of the method is that it is very data-demanding to construct a sufficiently large number of matched pairs or groups. So that this method requires a considerable amount of data that allows a characterization of the selection process to the intervention (Antonie, 2012). The validity of results also depends on quality of controls and their selection. And we cannot forget to mention the problem of self-selection process, because the plausibility of the propensity score approach rests on the assumption that selection into treatment can be fully characterized by the observable data about the individuals.

Figure 4: Illustration of nearest neighbor propensity score matching technique of evaluation



Source: (https://crie.jrc.ec.europa.eu/sites/default/files/documents/CIE_Guidance_EN.pdf)

4. Conclusion

Long-term high unemployment rate is a social problem affecting not only Slovak republic but also the whole European Union. Large number of long-term unemployed jobseekers and their non-applicability on the labour market is a problem which could be at least partially alleviated by measures of Active labour market policies. Since funding sources for these interventions come mostly from structures of European union, is necessary to submit the impact of the interventions to rigorous evaluations of their effectiveness. The most common used methods for these evaluations are counterfactual methods. In the evaluation of two selected interventions that have been done in Slovakia in 2014-2015 several evaluation methods have been used. In this paper we described the basic principles of these methods, their advantages and limitations and data requirements.

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SPECIFICS OF THE ECONOMIC MANAGEMENT PROCESS IN NON-GOVERNMENTAL NON-PROFIT ORGANIZATIONS IN THE CONDITIONS OF GLOBALIZED ECONOMY

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Abstract. In the conditions of globalized economy of the 21st century the significance of non-profit organizations is increasing in the context of their participatory, service and integration role. Non-profit organizations help to create opinion plurality by their diversity and offer alternative solutions of economic and social problems. The paper presents the results of qualitative and quantitative research in the area of non-governmental non-profit organizations economic management. Identification, analysis and evaluation of the specifics of non-governmental non-profit organizations economic management were performed in the context of specific functions of a non-governmental non-profit organization in the conditions of globalized economy. The multiple-source character of a non-governmental non-profit organization financing demands strategic planning, optimal combination of available public and non-public financial sources and a thorough linking of the economic management with the main activity and the mission of a non-governmental non-profit organization. Within the quantitative research the structure of income sources and the structure of expenses were identified and analysed in a selected segment of non-governmental non-profit organizations with the target to evaluate the relations between the financial income and the number of members of a non-governmental non-profit organization.

Keywords: economic management, multiple-source financing, non-governmental non-profit organization (NNO), synergy

JEL Classification: L31, L32

1. Introduction

We live in a diverse society where all individuals can find their use and place. A lot of possibilities for individuals‘ realization can be found in non-profit sector organizations, where the target is not the profit but the benefit and growth of an individual, the welfare and growth of the whole society. **It is mainly about the synergy and reciprocity between the private and the common good** (Dvořáková & Macková, 2014; Aldashev et al., 2015). It is rather unfortunate to consider a „non-profit organization" to be a subject whose concept feature is the absence of profit (Vít, 2015; Verbruggen & Christiaens, 2012). This opinion is incorrect and cosequently even dangerous – a non-profit organization is not characterized by the absence of profit but by the fact that gaining profit is not the main meaning of its existence – it usually is the service to a certain public sector. It is very well expressed by the term used in the anglophone environment – non for profit organisation. Of course, a non-profit organization can make profit but it is not its primary purpose, and this profit, if it is achieved, is not meant to serve its founders or members but to be reinvested back in its activities. Another generally acknowledged feature of a non-profit organization which is not expressed in the name itself is the service to a certain general (public) interest. The international taxonomy of non-profit organizations‘ features was processed by the scientists Salamon and Anheier (1993). Both the authors see the non-governmental non-profit organizations (NNO) as a set of institutions which exist outside the state structures but basically serve the public interests unlike the non-governmental interests. The financial management process plays a significant role in the economic management of business subjects as well as non-profit organizations. The paper presents the results of qualitative and quantitative research focused on the topic of economic management in the area of non-governmental non-profit organizations (NNO) in the conditions of globalized economy.

2. Problem formulation and methodology

The multiple character of NNO financing requires strategic planning, optimal combination of achievable non-public and public financial sources and a thorough interconnection of economic management with the main activity and mission of a non-governmental non-profit organization. The results presented in the paper are based on qualitative research of literary and electronically processed sources of authors coming from the academic sphere as well as the practice. Namely they are primarily monographic publications, research reports, professional studies, papers and review articles in professional journals published in relation to the topic of financial and economic management of non-profit sector in the worldwide context (Polonsky et al., 2016; Boateng et al., 2016; Iwu et al., 2015). The target of the qualitative research was to perform identification, analysis and evaluation of non-governmental non-profit organization management specifics in the context of specific NNO functions in the global economy conditions. The target of the quantitative research was identification, analysis and evaluation of the sources and income structure and the structure of expenses in a selected segment of non-governmental non-profit organizations with the aim to evaluate the connection between financial income and the number of NNO members. The empiric data were obtained by a questionnaire survey in a selected sector of non-governmental non-profit organizations which operate in a global context.

3. Problem solution

3.1 Identification, analysis and evaluation of non-governmental non-profit organizations management specifics

Non-profit organizations play a significant role in market economies (Synek et al., 2015; Sun & Fuschi, 2015). According to the Czech Republic legislation they include associations, foundations, endowment funds, philanthropic organizations and churches‘ targeted facilities. Also other forms of corporations (organizations) can have a non-profit character. **The basic characteristics of non-governmental non-profit organizations is their multiple sources financing and their specific roles.**

The non-governmental non-profit organizations' role

Non-profit organizations play an irreplaceable role in modern democracies, or better to say roles (Rakušanová, 2007). The first of them is the **participatory role**. The citizens try to express their common interests and demands through uniting in non-profit organizations; they unite to solve their common problems. Such cooperation between the non-profit sector and state or local administration is beneficial for both sides because the non-profit organizations are often much closer to the reality and therefore they can help the decision-making body to define the problems to be solved. Another significant role of the non-profit sector is the **service role**. Non-profit organizations provide services especially for such groups of people that cannot meet their needs elsewhere. Non-profit organizations in fact fill in the gap in the service offers provided by the state or municipality. The services offered by the non-profit sector are usually very effective and cheaper because non-profit organizations are not forced to achieve profit by their activities. Such profit would be later reallocated – the acquired funds therefore cover the costs and any surplus is invested in further improvement of provided services. These services are usually more targeted because they mostly come from the clients' real needs. Various marginalized social groups can also express their interests and needs by associating in non-profit organizations. By their diversity the non-profit organizations help to create opinion plurality and offer alternative solutions to various problems. This way the non-profit organizations aggregate, select and satisfy the citizens' interests in a lot of social interest areas. This process of interests mediation often includes also meeting individual and group needs and interests which are currently primarily defined as state functions. According to Weisbrod (1975) this way the non-profit organizations saturate the state functions and offer an alternative to the private sector.

A non-governmental non-profit organization financing and the financial management's tasks

Fulfilling the non-profit organization's mission requires finance sources. It is the essential issue and therefore the non-profit organizations create a strategy leading to long-term (ideally permanent) financial sources providing. Creating a strategy means that a non-profit organization addresses the subjects which want to share its mission in a smaller or a larger scale even though they are not the recipients of the non-profit organization's services. It is important for the non-profit organization so as the supporting subject understand the organization's mission and targets correctly. The importance of this understanding increases because of rising „competitive“ environment which the non-profit organizations operate in. A multiplesource character of financing is essential, the significance of coalitions, which the non-profit organizations create to stabilize their sources (Boukal & Vávrová, 2007), grows. A task of a financial management is also to provide a suitable accounting programme for NNO in the context of size, the scope of organization's activities with the knowledge of the specific needs (Bourgeois, 2003).

Sources and kinds of non-governmental non-profit organization's financing

The multiple character of NNO financing is based on optimal combination of public financing with financing from non-public sources. Public financing is provided by institutions of state administration (ministries) and local administration. It means financing from public budgets within the state subsidy policy. The character of the state subsidy policy is the basic information for non-profit organizations in the terms of the optimalization of their achievable financial resources. A non-profit organization does not focus just on subsidies. The possibilities of public sources are wider and include: sources linked with public procurements, sources coming from service providing contracts, sources provided under the law (this range concerns church organizations, public and private schools and political parties), others (usually exceptional) resources (e.g. Endowment investment fund). **Finance from non-public sources** are provided by individual donors (local and foreign), corporate donors, local and foreign foundations. Further resources of a non-profit organization financing are membership fees, income from lotteries and games, tax and fee benefits, income from own activities. As Moore (2000) states also modern information technologies help the organizations to achieve resources for their activities and for their financial sustainability.

Self-financing in a non-governmental non-profit organization

Self-financing is one of the financial funds resources for NNO, it expects own activity of NNO, i.e. own business of NNO (Boukal & Vávrová, 2007; Svidronova &Vacekova, 2012). NNO which uses self-financing does not focus just on its mission realization but through other often business activities it provides funds for itself to realize this mission. Self-financing is closely linked to business which comes from the NNO’s mission. For example they can be following business activities of NNO: property renting out, specific products sale, sale of property.

Fundraising

Fundraising is an active activity of NNO with the purpose to achieve external resources. Donors are addressed and relations with them are built – ideally long-term. The resources do not have to be only financial funds, they can also be material gifts, know-how, information, passing experience etc. They can be material and non-material resources, as Pelikánová (2016) emphasizes. The concept „fundraising“ was created by linkink two words: Fund = reserve, capital and raise = get, obtaine, arrange. This word is usually not translated in Czech language and one of the basic characteristics is that fundraising is responsible for providing finances and other means necessary for organization operation. It is very often associated with the non-profit sector. Fundraising is not only achieving financial funds needed for NNO operation but it is mainly about acquiring trust and therewith connected stability and sustainability of NNO. The ability to address and bring new members, supporters and friends to the NNO plays an important role. Together with public relations, marketing and lobbing it takes part at the quality of internal and external relations. Fundraising directly influences the brand, good name and image of an organization. As Moore (2000) states, a reasonable use of external and donors relations is often an important part of NNO strategy. To increase the income and extend services NNOs still more often use the internet which is an importart tool also for fundraising web campaigns (Spigelman & Evans, 2004; Galvez-Rodriguez et al., 2014; Uzunoglu & Kip, 2014).

Financial management and budget in a non-governmental non-profit organization

After setting the targets in the main mission and secondary activity NNO comes to formulate ways (methods and tools) to reach the targets. It sets the policy (strategic plan) which determines the organization leading, what to do and what not to do to pursue the targets, as Pelikánová (2016) states. Strategic plan strengthens the awareness of the value system which NNO believes in, i.e. its mission. Financial plan is an integrating part of the overall NNO strategic plan. It interconnects all activities with quantified financial target, it expresses the activity plan in monetary units and it shows how activities and individual operations leading to achieving the targets will be assured. It follows on accomplished results and on the real financial situation. It is made for NNO as a whole and also for all the individual projects. A detailed financial plan then shows the organization‘s budget which is again made for individual projects as well as for the NNO altogether. Short-term planning in NNO is focused just on creating the budget, work with the budget during the year and on analysis and evaluating of the budget implementation. By a high level of transparency the NNO creates the investors‘ trust. There are several key aspects which a NNO must take into account: size and effectiveness of projects, effectiveness in investments use, e.g. low percentage of capital and administrative expenses and a long-term horizon mission completion (Granados & Marturet, 2010). **In a NNO the financial results are only means to achieve a goal. The final strategic target is to complete its mission and to create public value** (Moore, 2000; Bryson, 1995).

Controlling in a non-governmental non-profit organization

Financial management cannot exist without controlling. While in the private sphere controlling has become a permanent quantity, in the non-profit sphere the operating economic tools of management were not considered a long time after their appearance (Horváth & Partners, 2004). The fact that these organizations get fewer financial funds from the society leads to the growing necessity to justify their existence for society and it results in opening the non-profit sector to the ideas of controlling. In a research study Weber and Hamprecht (1995) dealt with the state and a possible direction of development of controlling in the non-profit sector. Regarding the current knowledge about tasks and possibilities of controlling it shows that the state is comparable to industry. It was discovered within the study what results are expected of controlling introduction in the non-profit sector. The most often presented idea was increasing the inwards transparency, then having a professional economic leadership, further on reducing expenses reached by efficient control and assuring survival even during financial contributions decline. According to researched results the biggest opportunity for controlling can be seen in embedding the operating economic wealth of ideas in the non-profit sector and leading these organizations from the current crisis in income and expenses, or in critical evaluation of some services and their withdrawal from the offer. The biggest obstacle for controlling is the lack of personal and knowledge resources. Also Kleinebeckel (1993) states the significance of controlling use in the financial planning and liquidity and cashflow management areas.

3.2 Quantitative research results

The empiric data of the quantitative research were obtained by a questionnaire survey which was performed at sixty-five legally independent branches of a selected international non-governmental non-profit organization. The independent branches have the headquarters in 19 countries (Australia, Belgium, Czech Republic, France, India – Tamil Nadu and Madhya Pradesh, Ireland, Italy, Israel, South Africa, Hungary, Mexico, Germany, Poland, Slovakia, Spain, USA, Great Britain, Zimbabwe) and their primary mission is pastoral activity. The questioning took place from November 2015 to February 2016. There were obtained forty-nine answers of respondents from the whole world where the selected NNO are located and where they operate. The questionnaire was sent electronically to selected branches and its returnability was 75.38%. The centre of the databasis source was Italy. All forty-nine legally independent branches of a non-governmental non-profit organization show a unified model of organization and financial management because the parent organization was founded in 1978 in North Italy and then new brances were successively founded, still in the same model of oasis.

The main targets of the questionnaire survey were:

1. To identify and analyze the income sources and the expenses structure in a selected segment of a non-governmental non-profit organization.
2. To identify, analyze and evaluate the connection between the financial income of a NNO and the number of members of a NNO in years 1979 – 2015.

Sources of income in a selected segment of surveyed non-governmental non-profit organizations should have the following structure: membership fees, members' collective gifts, contributions from evangelistic activities, subsidies, other purpose gifts, others (e.g. rents). Out of these incomes **the most significant incomes are from the membership fees and members' collective gifts** which form more than a half of all NNO incomes. The height and significance of these income sources is related to the individual solidarity of NNO members and identification with the main NNO mission. In the expenses structure the vital role is played by pastoral activities expenses which are related to the main NNO mission and they represent one third of total NNO expenses. The following Table 1 illustrates the structure of NNO financial incomes. Their percentage share on the total income, further on the NNO expenses structure and their percentage share on total expenses.

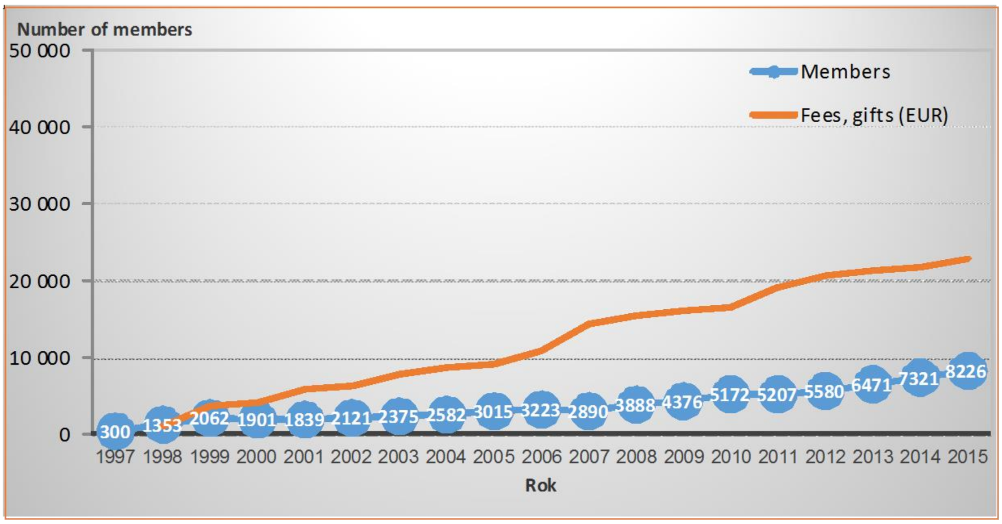
Table 1: Structure of NNO financial incomes and expenses

Item	Strukture of incomes and expenses
Financial incomes	Membership fees and collective gifts of members. Participant fees for offered events. Renting out, advertisement, sales of education material etc.
Incomes percentage share	52,5 % membership fees and collective gifts of members, 46,2 % contributions from evangelization actions, 1,3 % others (rent, other revenues).
Financial expenses	Pastoral activities, community life expenses. Technical expenses, contributions to other organizations. Biblical tithe and others.
Expenses percentage share	30,8 % pastoral activities, 15,8 % life community, 3,6 % technical expenses, 19,6 % contributions to other organizations, 10 % biblical tithe, 20,2 % others.

Source: own processing, 2016

The results of pastoral and economic data demonstrated the existence of a non-linear relation between the number of collected membership fees and members' collective gifts and the number of members in a long nineteen-year period. In Figure 1 is demonstrated the development of NNO members number and the development of membership fees and NNO members' collective gifts in years 1979-2015.

Figure 1: Development of number of members and membership fees and members' collective gifts (in EUR) of an international NNO in years 1979-2015



Source: own processing, 2016, because of the sensitivity of data the exact values of membership incomes and members' collective gifts in EUR are not presented.

In the period since 1999 we can see a huge growth of members number, then a slight decrease and again growth since 2002. A repeated decrease of members is noted in 2007 and in the following years it is always a continuous growth. Both the decrease and the growth are related to a lot of factors – especially to customer care, opening new missions and weakening already existing oasis, maturity of members and their active involvement in opening new branches and missions. The connection of financial contributions (membership fees and members' collective gifts) and the number of NNO members is non-linear and is tightly related to the members number development. In the researched period 1997 – 2015 the members number development as well as the development of financial incomes from membership fees and members' collective gifts show a growing tendency. At the researched NNOs there is a close relation between finances and NNO care of its members. NNO activity is based on care of people (clients), especially care of volunteers and members who form the organization basis and who are the active bearers of the organization's primary mission. Further on it is also care of the new people who use the offered services. Good care of people results in a financial effect. Altogether there must be balance between mission – enthusiasm – relations and finance.

4. Conclusion

Analysis and evaluation of non-governmental non-profit organization economic management specifics proved the necessity of strategic planning and financial management integration into the economic management process in the context of specific functions of a non-governmental non-profit organization. Multiple-source public and non-public financing of a NNO currently requests the use of controlling tools and methods to effectively assure the mission and development of a non-governmental non-profit organization in a long-term horizon. The results of quantitative research in the non-governmental non-profit organization segment proved that the income from membership fees and members' collective gifts form more than a half of the total income. The analysis of processed pastoral and economic data from the period 1997 – 2015 demonstrates the non-linear relation between the non-governmental non-profit organizations membership base growth and the growth of accepted financial means. In non-governmental non-profit organizations there is a close relation between finances and the non-governmental non-profit organization's care of its members and volunteers who form the basis of the organization. Altogether it is about finding the balance between the mission – enthusiasm – relations and finances of a NNO. The authors of this paper will focus on the area of controlling methods and tools use development in a non-governmental non-profit organization in the following period. They proceed from the assumption that controlling approaches introduction into the NNO economic management will contribute to strengthening the stability, transparency, economy and efficiency of used resources including the NNO strategic management development.

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THE IMPACT OF ECONOMIC GLOBALIZATION ON EMPLOYMENT STRUCTURE IN THE CZECH AND SLOVAK REPUBLIC, 1993 - 2015

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Abstract. The experiences with globalization in different part of the world are different. There is a large heterogeneity in the degree of globalization over time and across countries and economic and geographic regions of the World, as well as regions within countries. The employment structure of a country shows how the labour force is divided between the primary, secondary and tertiary sectors. The employment structure of a given country can tell you quite a lot about its economy.The article analyses impact of economic globalization on changes in the employment structure in the Czech and Slovak Republic according to main sectors of economy and in selected sections after 1993. In the 1990s, the structural changes in Czechoslovakia were induced not only by the decline in industrial production in low-performing state owned enterprise, but also by the decline in production in cooperatives and state owned farms. The decline in production was accompanied by the dismissal of employees from both productive sectors of economy. The most significant changes are experienced in so called "structurally affected regions", whose production prior to 1989 concentrated on coal mining, metallurgy and heavy machinery. The acquired data show evidence that spatial units are continuously diverging from specialisation to diversification. This diversification process leads to more stable structure of employment, which is currently being affected only to a very limited degree.

Keywords: employment, structure, transformation

JEL Classification: J64, P21, R11

1. Globalizícia a jej vplyv na zamestnanosť

Globalizácia a globalizačné procesy so sebou priniesli jednak rozšírenie náboženstiev, kultúr a tradícií jednotlivých národov vplyvom migrácie, ako aj obrovský technologický pokrok, medzinárodnú deľbu práce a zároveň ekonomický vývoj v celosvetovom merítku. To umocňuje tlak na liberalizáciu svetového obchodu a takom prostredí, ktoré je z rôznych strán formované globalizačnými procesmi, nie je pre jednotlivé štáty jednoduché udržať si vysokú úroveň konkurencieschopnosti. Rastúca ekonomická prepojenosť zemí, vznik nadnárodných spoločností a rozvoj technológií, to všetko je súčasťou globalizácie (Chang & Lee, 2010); (Nelson, 2008).

Globalizačné procesy môžeme zaznamenávať už od etapy medzinárodného obchodu. Ďalším predpokladom bolo naštartovanie rýchleho vedecko-technického rozvoja, ktorého priekopníkom bola nesporne Európa (Cusmano et al., 2009). Tieto dve oblasti vedy a techniky prepojila v rozvoji priemyselnej výroby a postupne exportovala tento nový trend do celého sveta. V 20. storočí prvýkrát umožnil rozvoj technológií komunikáciu všetkých častí sveta v reálnom čase. V dnešnom zmysle slova pôsobili globalizačné procesy plne na ekonomiky a kultúry mnohých štátov až v sedemdesiatych rokoch minulého storočia. Vtedy zohralo podstatnú úlohu uvoľnenie väzby národných mien na dolár, v dôsledku čoho vznikol systém voľne plávajúcich kurzov. To spolu s ropnou krízou v roku 1973 prinútilo firmy k hľadaniu nových ciest a stratégií na zníženie nákladov. S cieľom zvýšiť či aspoň zachovať úroveň ziskov expandovali národné a najmä medzinárodné firmy na nové trhy. Nadnárodné spoločnosti (NCI) začali využívať komparatívnych výhod plynúcich z iných krajín a s postupným uvoľňovaním kontroly nad presunmi kapitálu začal ich počet rásť.

Proces globalizácie nesporne urýchlili niektoré faktory, ako napríklad fakt , že štáty podieľajúce sa na liberalizovanom obchode s tovarom a službami dosahovali lepšie hospodárske úrovne než krajiny bez liberalizačných tendencií (Bergh & Nilsson, 2010). Boli to ale vlády jednotlivých štátov, ktoré prijali rozhodnutie o liberalizácii obchodu, o otvorení národných finančných trhov, alebo o deregulácii trhov. Ďalej je to zistenie, že jednotlivé štáty nie sú schopné samostatne vyriešiť globálne problémy a je potreba spolupráce v tejto oblasti (Berdiev et al., 2012). K významným katalyzátorom procesu globalizácie je rozvoj technológií a možností komunikácie s využitím počítačovej techniky. K týmto faktorom môžeme priradiť aj proces internacionalizácie angličtiny, ktorá sa stala hlavným jazykom v oblasti vedy , techniky, obchodu a vzdelávania.

U autora Potrafke, (2014) sa stretávame s poznaním, že proces globalizácie síce ovplyvňuje a dotýka sa všetkých oblastí ľudského života, ale jadro globalizácie môže nájsť prevažne v finančnej sfére (Aggarwal & Goodell, 2009). Má určité charakteristické rysy a vyznačuje sa medzinárodným pohybom kapitálu a zahraničného obchodu a zvyšujúcim sa počtom fúzií a akvizícií čo znamená zlučovanie spoločností.

1.1 Pozitívne a negatívne stránky globalizácie

Autori Dreher et al. (2011), Meschi, (2007) k pozitívnym stránkam globalizácie zaraďujú rozvoj technológií, kde vďaka nových technologickým inováciám , odpadá časť transakčných a administratívnych nákladov. K ďalšiemu pozitívu radia vznik nadnárodných spoločnosti, ktoré vďaka zahraničnému kapitálu a know-how vedú k širokému rozsahu služieb a k vyššej schopnosti uspokojenia potrieb zákazníkov. Vyššia koncentrácia zahraničných subjektov prináša konkurencieschopnosť a tým v rámci boja o zákazníka znižovanie cien a zvyšovanie kvality služieb (Morrison & Cusmano, 2015).

Naopak Machida (2012) varuje pred negatívnymi stránkami globalizácie, kde vďaka vzájomnému prepojenie národných trhov sa i kríza jedného štátu môže stať krízou celosvetovou. Nadnárodné spoločnosti sa nemusia podriaďovať žiadnej autorite, často presúvajú svoje výroby, tam kde sú pravidlá benevolentnejšie. Vďaka mohutnému presúvaniu kapitálu, pracovných príležitostí vznikajú v niektorých regiónoch krajín problémy s nezamestnanosťou, čo vedie k prehlbovaniu sociálnych rozdielov v spoločnosti (Pohoryles, 2015).

Globalizácia a jej procesy prinášajú zmeny v spoločnosti a vytvárajú nielen nové príležitosti, ale sú s nimi spojené i určité riziká (Castells, 1996). Jej dopady, či už pozitívne, alebo negatívne, zasahujú všetky krajiny sveta, každého jedinca. Je zrejmé, že zatiaľ čo jedni sa budú z globalizácie tešiť, iným môže spôsobiť komplikácie.

1.2 Vplyv globalizácie na zamestnanosť v Čechách a na Slovensku

Obdobie od roku 1989 bolo charakteristické rozsiahlou transformáciou ekonomiky, ktorá prechádzala zo socialistického pojatia štátneho centrálneho plánovania na liberálno tržnú ekonomiku. V dôsledku zmien fungovania ekonomiky sa výrazne zmenila i situácia na trhu práce, kde po 40 rokoch sa znovu začala oficiálne vyskytovať nezamestnanosť (Galgoczi, 2009). Z toho dôvodu za v priebehu roku 1990 začali znovu vznikať úrady práce. V tomto období sa pripravoval i právny rámec podpory nezamestnanosti. V roku 1991 došlo k výraznému nárastu nezamestnanosti, kedy oproti roku 1990 stúpla päťnásobne, a to hlavne kvôli vtedy slovenskej časti, kde bola nezamestnanosť výrazne vyššia. Podľa analýz z úradu práce bolo dokázane, že 35% z nezamestnaných ani nemalo vážny záujem hľadať nové zamestnanie. Bolo to spôsobené predovšetkým štedrým systémom podpory v nezamestnanosti. V roku 1992 miera nezamestnanosti klesla a to v oboch krajinách. V českej časti dokonca o 1,6%. Rozdiel medzi slovenskou a českou nezamestnanosťou stále zostal výrazný. Tieto rozdiely boli spôsobené výraznejšou ekonomickou transformáciou, ktorú sprevádzali ďalšie sociálnej, demografické i kultúrne prvky. Pokles nezemestnanosti v roku 1992 bol spojený so změnami v inštitucionálnom usporiadaní, rastúcej efektivite úradu práce, rastúcom podielu súkromného sektoru na celkovej zamestnanosti a pozitívnymi výsledkami aktívnej politiky zamestnanosti. Do konca roka 1992 bolo vytvorených 94 tisíc pracovných miest v Čechách a 50 tisíc na Slovensku (Kuchař, 2007).

Po roku 1993 bola ekonomika a trh práce ovplyvňovaný pokračujúcim procesom transformácie a tiež rozpadom Československa. Od roku 1999 sa oblasť politiky zamestnanosti prisposobila ako v Čechách, tak i na Slovensku Národným akčným plánom zamestnanosti, ktoré mali za cieľ pripraviť hospodárstvo na vstup do EU. Obdobie 1993 až 1996 sa v Českej republike vyznačovalo relatívne nízkou mierou nezamestnanosti okolo 3%. Slovenská republika trend neudržala a nezamestnanosť sa v tomto období výrazne zvyšuje na 4,5%. Roky 1997 – 1999 boli obdobím s výrazným nárastom nezamestnanosti ročne o 2,5%, kedy došlo k úpadku českej i slovenskej ekonomiky v dosledku poklesu HDP. Obdobie 2000 – 2003 bolo obdobím stálejším v Českej republike, nezamestnanosť síce bola pomerne vysoko približne 9%, ale už sa výraznejšie nemenila. Slovenskú štatistiku značne ovplivňovali sezónne práce, ktoré v tom období neboli presne evidované.

Vstup do Európskej únie 1. mája 2004 znamenal pre Českú republiku i Slovensko výrazné zmeny v ekonomike i politike zamestnanosti . Členstvo v Európskej únii dávalo ekonomikám oboch krajín príležitosti na zlepšenie , pretože väčšie prepojenie medzi členskými štátmi znamenalo zlepšenú spoluprácu a tiež príliv zahraničných investícií . Navyše obe krajiny mohli začať žiadať o príspevky z európskych fondov na rozvoj rôznych oblastí hospodárstva.
Politika zamestnanosti sa riadila do roku 2005 v ČR i SR Národnými akčnými plánmi zamestnanosti , ktoré boli pripravované na základe situácie na trhu práce z predchádzajúceho roka. Od roku 2005 je vedená v súlade s európskymi stratégiami, ako Lisabonská stratégia Európskej únie a Európa 2020 a preto je v oboch krajinách na porovnateľnej úrovni.

2. Metodika

Cielom výskumu bola realizácia komparatívnej analýzy Českej a Slovenskej republiky z hľadiska zmeny situácie jednotlivých sektorov na trhu práce, a do akej miery na daný stav mala vplív globalizácia. Dielčím cieľom bolo porovnať český a slovenský pracovný trh z hľadiska vplyvu inflácie, sociálnych dávok, minimálnej a reálnej mzdy a ekonomickej úrovne na zamestnanosť. Pre spracovanie a vyhodnotenie údajov bola použitá štatistika prvého a druhého stupňa, prostredníctvom ktorej bola prevedená analýza zmeny zamestnanosti v primárnom, sekundárnom a terciálním sektore a jej komparácia v oboch krajinách. Analyzovaným obdobím boli roky 1993 – 2015.

Klasifikácia jednotlivých ekonomických odvetví použitá vo výskume je založená na princípe medzinárodného systému NACE (Nomenclature générale des Activités économiques dans les Communautés Européennes) pre štatistickú klasifikáciu ekonomických činností, ktorú používa Evropská unie (resp. Evropské společenstvo) od roku 1970. Jednotlivé produkčné odvetvia boli členené podla metodiky NACE do troch sektorov zamestnanosti, a to primárneho, sekundárneho a terciálneho (primárny A,B; sekundárny C, D, E,F; terciálny G-Q).

Základným zdrojom podkladov pre komparatívnu analýzu zamestnanosti bol Český a Slovenský štatistický úrad, Štatistický úrad Európskeho společenstva, ako aj Ministerstvá práce a sociálnych vecí.

3. Výsledky

Porevolučný vývoj po roku 1989 priniesol veľké zmeny v odvetvovej skladbe zamestnaných v národnom hospodárstve. V Českej repulike v období 1993 až 2004 z primárneho sektora odišlo 43% zamestnaných. V sekundárnom sektore zahrňujúcom napr. ťažobný priemysel, energetický, spracovateľský priemyseľ dochádza k zníženiu zamestnaných o necelých 11%. Uvedená situácia prebiehajúca na trhu práce sa tak pomerne veľkým podielom podpísala na vzraste nezamestnanosti v uvedenom období. Štrukturálne zmeny v zamestnanosti mali za následok rozdieľnosť požiadavok zamestnávateľov a kvalifikáciu uchádzačov. Tieto rozdiely boli ešte markantnejšie nárastom práve terciálneho sektoru, kde sú väčšie požadavky pre prijatie do zamestnania.

Table 1: zamestnanosti podla odvetví 1994 2004 v Českej republike (v tis. Osob)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Primárny sektor	351,1	340,3	313,8	303,2	282,8	251,3	234,4	221,4	212,3	212,9	204,6	192,4
Sekundárny sektor		2063,6	2078,3	2066,3	2044,2	2014,9	1935,3	1936,8	1942,5	1895,4	1867,7	1851,9
Terciálny sektor		2480,9	2619,5	2674,9	2619,6	2616,3	2590,5	2663,5	2696,7	2742,8	2758,1	2735,4

Source: (Český štatistický úrad, vlastné spracovanie)

Vývoj štruktúry zamestnanosti podľa sektorov v rokoch 2004 – 2014 pokračoval v Českej republike v započatom trende z predchádzajúceho skúmaného obdobia. Podiel terciálneho sektora na zamestnanosti stále rástol, ale už nie tak enormne. V roku 2015 v ňom pracovalo necelých 60% všetkých zamestnaných. Zamestnanosť v primárnom sektore mierne vzrástla až v roku 2012, čo umožnili hlavne dotačné prostriedky v rámci Spoločnej poľnohospodárskej politiky. Pre vývoj celkovej zamestnanosti mal rozhodujúci význam nárast zamestnanosti v priemysle, kde vzrástol počet zamestnaných osôb o 42,8 tis . na 1 521,0 tis., podiel priemyslu na celkovej zamestnanosti sa zvýšil na 30,2 % . K nárastu prispel najmä spracovateľský priemysel a zamestnanosť sa naopak znížila v sekcii výroba a rozvod elektriny, plynu, tepla.

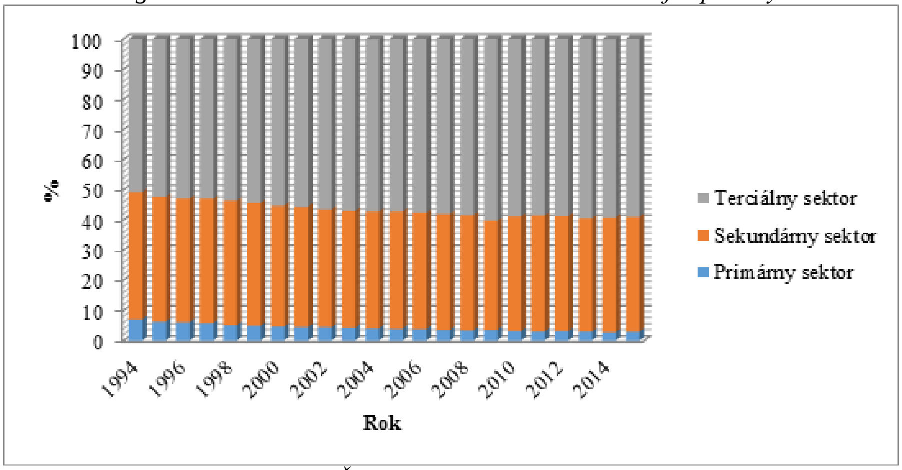
Table 2: Vývoj zamestnanosti podla odvetví 1995 2014 v Českej republike (v tis. Osob)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Primárny sektor	185,5	182,3	175,0	171,2	153,8	151,2	145,8	149,2	149,6	136,7	147,5
Sekundárny sektor	1865,5	1871,3	1898,1	1906,0	1903,1	1855,7	1882,8	1864,2	1851,9	1892,1	1917,0
Terciálny sektor	2761,4	2802,2	2871,6	2915,5	2877,4	2878,3	2875,5	2876,6	2935,6	2945,4	2977,4

Source: (Český štatistický úrad, vlastné spracovanie)

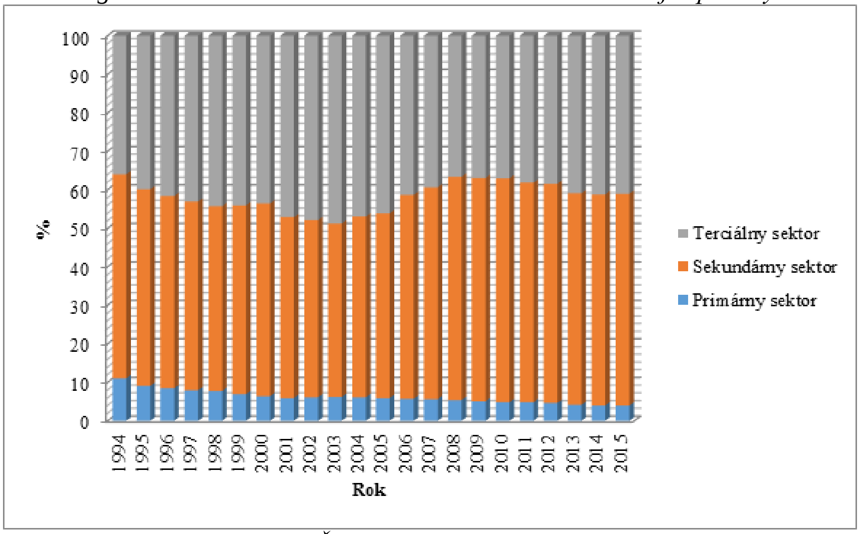
Podiel jednotlivých sektorov na zamestnanosti možeme vidieť na grafe 1, kde Česká republika v sledovanom období 1944 – 2015 postupne navyšuje význam terciálneho sektoru, ale v porovnaní s priemerom EU ešte zaostáva. Podiel sekundárneho sektora v Českej repulike je vysoký a od roku 1990 dosahuje najvyššie hodnoty zo všetkých štátov EÚ.

Figure 1: Sektorová štruktúra zamestnanosti Českej republiky v %



Source: (vlastné výpočty na základe údajov z Českého štatistického úradu)

Figure 2: Sektorová štruktúra zamestnanosti Slovenskej republiky v %



Source: (vlastné výpočty na základe údajov z Českého štatistického úradu)

Pred vstupom SR do EÚ sa podiel poľnohospodárstva zvyšoval, aj keď len mierne najmä vplyvom dotácií do odvetvia. Dôležitým faktom však je, že v absolútnych číslach, konkrétne v miliónoch eur sa vývoj odvetvia poľnohospodárstva na tvorbe HDP takmer nemení. Teda znižujúci podiel je dôsledkom rastu ostatných odvetví, a to najmä stavebníctva a služieb

Najväčšie zmeny v podiely na tvorbe HDP zaznamenáva stavebníctvo. V roku 2009 bol jeho podiel až 40 percent. Stavebníctvo v Slovenskej republike, patrí k rozhodujúcim národohospodárskym odvetviam. Medzi najhlavnejšie pozitíva a impulzy radíme zahraničné investície a vstup na medzinárodné európske trhy. S tým je však spojené aj negatívum – silné konkurenčné prostredie. Druhý aspekt bol zameraný na dopravnú infraštruktúru. Pre priblíženie sa európskym štandardom bolo nutné začať výstavbu diaľnic a opravu existujúcich cestných úsekov (modernizácia, tunely) ako aj železničnej trate. Avšak dôsledkom vysokého rastu stavebníctva v sledovaných rokoch sa rast služieb enormne nenavýšil.

Komparáciou českého a slovenského pracovného trhu z hľadiska vplyvu inflácie, sociálnych dávok, minimálnej a reálnej mzdy a ekonomickej úrovne na zamestnanosť sa dospelo k nasledovným výsledkom. Premenné, ktoré vykazujú vplyv (teda sú štatisticky významné) na zamestnanosť v Čechách aj na Slovensku sú inflácia a reálna mzda viz. tabulka 2. Inflácia v oboch prípadoch vykazovala nepriamy vplyv, ktorý môžeme interpretovať, že rastúcou mierou inflácie dochádza k zvýšeniu zamestnanosti. Takýto nepriamy vzťah popisuje aj Phillipsova krivka. U reálnej mzdy sa prekvapujúco pri testovaní slovenskej miery zamestnanosti preukázala táto premenná ako faktor, ktorý priamoúmerne znižuje mieru zamestnanosti. V modeli pre ČR sa rovnako, ako u inflácií preukázal nepriamo úmerný vzťah. Výsledok (reálna mzda jako faktor, ktorý priamoúmerne znižuje mieru zamestnanosti) pre Slovensko by sa mohol zdôvodniť napríklad kvalifikáciou nezamestnanej pracovnej sily.

Table 2: Vývoj zamestnanosti podla odvetví 1995 2014 v Českej republike (v tis. Osob)

Veličiny	**Inflácia**	**Sociálne dávky**	**Minimálna mzda**	**Reálna mzda**	**Ekonomická úroveň**
Česká republika	Ano	----	Ano	Ano	Nie
Slovenská republika	Ano	Ano	Ano	Ano	Ano

Source: (vlastné spracovanie pomocou Statistica 12)

Rovnako u oboch krajín vykazuje štatistickú významnosť aj minimálna mzda. Jedná sa o veličinu, ktorá pôsobí nepriamoúmerne na vývoj miery- zvyšovanie minimálnej mzdy pôsobí priaznivo na vysvetľovanú premennú.

Premenná sociálne dávky, sa javila štatisticky významná pre slovenský pracovný trh a pre ČR sme danú premennú nemohli použiť z dôvodu nestacionarity. Táto premenná, vykazuje opäť nepriamy vplyv na mieru zamestnanosti. Ekonomická úroveň sa stáva štatisticky významnou len pri testovaní slovenských dát a vykazuje nepriamy vplyv na mieru zamestnanosti. Zvyšovaním ekonomickej úrovne očakávame pokles miery nezamestnanosti.

4. Conclusion

Prechod k trhovému hospodárstvu je sprevádzaný zmenou štruktúry hospodárstva. Pretransformovanie pracovnej sily do sektoru služieb nie je jednoduché a ešte viac problematickejšie pre Slovensko v komparácii s Českom, nakoľko sa väčšina pracovných príležitostí kumulovala v primárnom sektore. Na základe pomerne vysokej miery nezamestnanosti, bolo v oboch krajinách prijatých mnoho opatrení. Zároveň sa vytvárali rôzne nové opatrenia a to všetko s cieľom zmeniť štruktúru nezamestnanosti. Deväťdesiate roky sa vyznačovali hlavne štrukturálnymi problémami spôsobenými regionálnymi rozdielmi, nízko platenou prácou, vysokým daňovým a odvodovým zaťažením a s ním súvisiace rozširovanie šedej ekonomiky a nelegálne zamestnávanie. Hlavným štrukturálnym nedostatkom bol nízky podiel samozamestnaných osôb, ktoré by mohli vytvárať nové pracovné príležitosti pre ostatných a tým pádom znížiť mieru nezamestnanosti.

Ďalšie viditeľné zmeny nastali v oblasti služieb, priemyslu a poľnohospodárstva. Aj keď dochádzalo k postupne čoraz väčšiemu nárastu zamestnanosti v oblasti služieb, tento nárast však nepokryl výrazný pokles zamestnanosti v poľnohospodárstve a v stavebníctve. Preto pri komparácií oboch krajín môžeme vidieť väčší vplyv globalizácie na zamestnanosť na Slovensku. Tento vplyv sa premietal a stále premieta do nezamestnanosti, ktorá je po celé sledované obdobie vyššia ako v Českej republike. Aj keď miera nezamestnanoti v Čechách vykazuje oveľa menšiu hodnotu, v porovnaní s EÚ, dokonca podpriemernú, jej dlhodobý charakter je hlavným problémom českého a slovenského trhu práce.

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USE OF QUALITY MANAGEMENT TOOLS FOR EVALUATION OF THE PRODUCTS' QUALITY IN GLOBAL ECONOMY

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Abstract. Products' quality determines whether these products find buyers in the market. However, is should be remembered that the quality should be defined by buyers, consumers, and not by the enterprise itself. They are the customers that decide whether the product will be successful. To evaluate the products' quality it is good to use different methods and tools of quality management. The quality management tools allow to collect and process data about events, situation and processes in the organization and its environment, connected to various aspects of quality management. The quality management tools are divided into two groups: Seven Basic Tools of Quality and Seven Management and Planning Tools. Basic Tools are based on a simple mathematical apparatus and mathematical statistics, are helpful in troubleshooting issues related to quality. They are called basic because they are suitable for people with little formal training in statistics. In contrast, Management and Planning Tools were created with the development of quality management. They have to support the basic tools and improve the information flows in the enterprise. The advantage of the use of quality management tools is that they are unified, known and used all over the world. So they have very versatile use and can be used by organizations of various types, including manufacturing enterprises. This means that globalization can also relate to the sphere of business management, especially production and quality management. The aim of the paper is the use of chosen quality management tools to evaluate the quality of chosen food product. The research was conducted in the food company located in Czestochowa, city in south of Poland.

Keywords: quality, quality management tools, food industry

JEL Classification: L15, L69, M11

1. Introduction

Nowadays, quality of products offered by enterprises is essential to win with competitors. It is customer who decides whether the product can be regarded as high quality. Therefore, an increase has been observed in the importance of the quality and quality management for achievement of the goals and performance of tasks in organizations, including the improvement in their competitiveness in meeting customers' expectations (Cico et al., 2012), (Czajkowska, 2015).

The process of quality management implemented in the enterprise is aimed at continuous and consistent improvement of products and services according to the expectations of future customers and at creation of the conditions for regular and uninterrupted process of quality management.

These activities are aimed at improving the quality of the products offered, which contributes to customer satisfaction, and, consequently, maintaining the competitive position in the market and enterprise's profitability. Therefore, it is necessary to use tools and methods to allow for a more efficient implementation of the quality management system (Nowakowska-Grunt & Mazur, 2015), (Kardas, 2015).

Quality management tools are used for collecting, transformation of information, supervision over processes, detection of errors, defects and nonconformities in processes, products and services. One benefit of using quality tools is that they are unified. They are known and used all over the world. Therefore, they can be used universally in various organizations, including in production and service-providing enterprises. This means that globalization may also concern the area of enterprise management (Sygut, 2016), (Klimecka-Tatar, 2016).

Diets have a direct effect of health status of a person. Fashion for keeping fit and the recommendation for intake of 5 portions of vegetables and fruit a day caused that people are becoming more and more interested in fresh fruit juice. Drinking fruit juice and vegetable juice is recommended by the Polish Council of Diet, Physical Activity and Health by the Minister of Health.

The aim of this paper is to utilize selected tools of quality management to evaluate quality of selected product. The examinations were performed in an enterprise from the food sector.

2. Quality management tools

The effectiveness of the quality system needs a lot of information concerning the processes and products and their results, and collecting and development of this information is ensured by the tools of quality management.

Quality management tools are instruments for supervision, monitoring and diagnosis of the processes of design, manufacturing, assembly and control as well as other tools connected with the product life cycle. They are used for storing information and data connected with different aspects of quality (Jazdon, 2001). The quality management tools are very important to the quality control since they ensure reliable and complete information about the process (Hamrol, 2005) (Hamrol and Mantura, 2002).

According to the literature, there are two groups of quality management tools. These include Seven Basic Tools of Quality oraz Seven Management and Planning Tools.

The Seven Basic Tools of Qualityis are based on a simple mathematical apparatus and mathematical statistics, are helpful in troubleshooting issues related to quality. They are called basic because they are suitable for people with little formal training in statistics and because they can be used to solve the vast majority of quality-related issues. The seven tools are:

- cause-and-effect diagram (also known as the "fishbone" or Ishikawa diagram),
- Pareto chart,
- check sheet,
- control chart,
- histogram,
- scatter diagram,

- stratification (alternately, flow chart or run chart).

Seven Management and Planning Tools have their roots in Operations Research work done after World War II and the Japanese total quality control (TQC) research. They have to support the basic tools and improve the information flows in the enterprise. The advantage of the use of quality management tools is that they are unified, known and used all over the world. The seven tools are:

- affinity diagram,
- interrelationship diagram,
- tree diagram,
- prioritization matrix (matrix data analysis),
- matrix diagram,
- process decision program chart (PDPC),
- activity network diagram (arrow diagram).

For the purposes of the paper, two most frequently used tools were chosen i.e. Ishikawa diagram and Pareto chart. Both diagrams are used by various enterprises to analyse the nonconformities or quality problems that occur during manufacturing of products of various type regardless of the sector. It should be emphasized that due to universality of the use, they can be approached as an element of globalization (Selejdak et al., 2014).

Ishikawa diagram: its name stems from the Japanese researcher who specialized in quality and developed the diagram. It has been used to demonstrate and facilitate perception of the specific problem, present the causes which mainly generate the problems and to show the relationships between each other. . The diagram substantially helps identify the effect of the components on the future results of the process. It is often recommended to create this diagram in bigger groups so that the brainstorming is possible, which, according to many researchers, improves the results. The frequently used principle in this method is 5M, consisting in the group of the most important causes such as Man, Method, Machine, Material, Management. Another principle used is 5M+E, which also contains environment, or 6M, when contains Mother nature (Vetter et al., 2016), (Satyadi, 2014).

Pareto chart: this diagram is based on a chart that contains both bar chart (percentage values) and line graph (accumulated values). The main problem discussed and analysed in this chart is the rule that says that around 20 to 30% of causes in all life areas such as technology, production or natural environment determines around 70 to 80% of effects. The diagram is used to find the most frequent causes of nonconformities. Consequently, elimination of these causes allow for a substantial improvement in the quality level and reduction in the number of nonconforming products (Hajizadeh et al., 2015), (Skotnicka-Zasadzien & Bialy, 2011).

3. Results

3.1 Characteristics of the research product

The examination was conducted in a small enterprise from the food sector in the area of Częstochowa. One of the products in this enterprise is fresh fruit juice. The enterprise implemented the certified food safety management system (HACCP). The main customers for the products manufactured in this enterprise are food shops supermarkets and pubs.

The examination concerned the carrot and celery juice. This means the carrot juice with a flavour of celery with volume of 250 ml. The juice ingredients include carrot juice and celery juice, and it is naturally opaque, with natural colour, unpasteurized and unsweetened. It is not subjected to thermal processing. Therefore, it maintains all the health benefits of carrot and celery. According to the manufacturer, the bottle of this juice meets the level of a recommended daily intake of vitamin A and 13% of recommended daily intake of potassium. The juice is packaged in glass bottles with twist-off caps. This juice is the most frequently bought by the customers. Consequently, this was the reason for choosing this product for the analysis. The examinations were conducted in the period from January to June 2016.

3.2 Ishikawa diagram

The first tool used was the Ishikawa diagram. The aim was to identify the causes of the unsatisfactory quality of carrot and celery juice. All the causes were divided into 6 groups according to the 6M principle, but Measurement was used instead of Management. The diagram was presented in Figure 1.

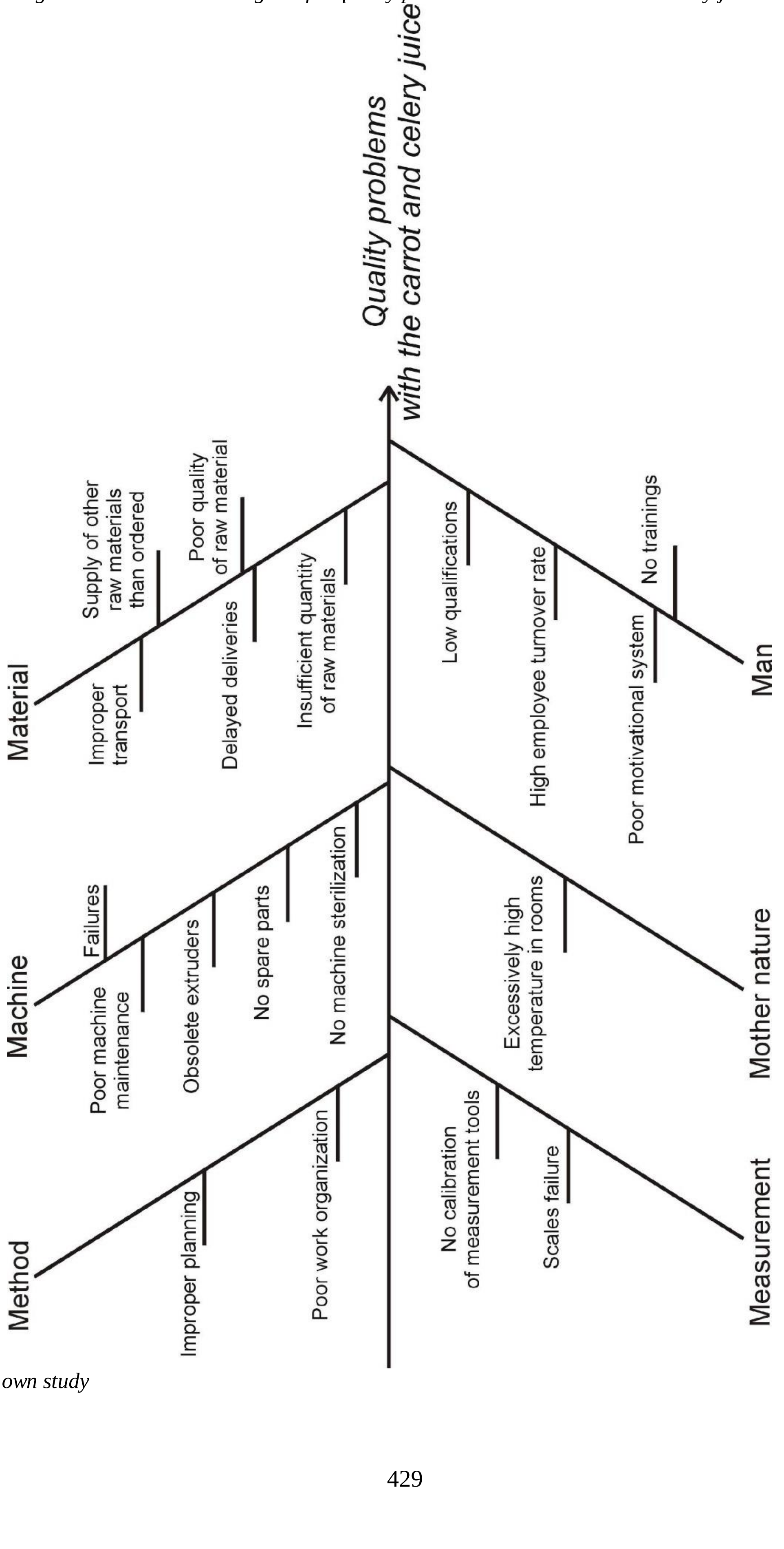
The Ishikawa diagram and detailed analysis of the process of manufacturing of fresh carrot and celery juice was used to identify all possible causes of the problems. 19 various causes were identified in total. It was found that the greatest effect on quality problems for the product studied is from: 1. Machines. 2. Material. 3. Man.

Machines are the most important factor that causes quality problems with the juice. This was affected not only by the machine status but also by their failure frequency. The lack of machine sterilization was also found, although this occurred only once and was instantly corrected. However, it should be noted that such events may have an effect on sterility of the juice and, consequently, on customer health. Therefore, a specific procedure should be created in order to avoid such situations. It should also be approached as a critical point of control according to the principles of the HACCP system.

In the case of the material, the most of the causes do not depend on the enterprise but on the supplier. The causes concern not only the raw materials and their quality, but also improper transport and delayed deliveries.

As far as "man" factor is concerned, it depends on the enterprise. A high employee turnover rate is observed in the enterprise, which may be due to the poor motivational system. The employees have low qualifications, and the situation is even worse with the lack of training programs.

Figure 1: The Ishikawa diagram for quality problems with the carrot and celery juice



Source: own study

3.3 Pareto chart

The Pareto chart was also used for a quantitative analysis of the causes of nonconformities. This analysis helped identify the causes which were the most important in quantitative terms and should be eliminated first. Table 1 presents numerical data which helped construe the diagram. Frequency was not given in the numerical form at the request of the enterprise studied. The diagram was presented in Figure 2. Bars in the chart express percentage of individual causes, whereas the curve represents the accumulated contribution.

The analysis revealed that over 30% of all the causes is responsible for almost 70% of all the quality problems with carrot and celery juice recorded in the enterprise. This means that if the enterprise focuses on these causes and attempts to eliminate them, they can reduce the quantity of problems by 70%. The causes include:

N1. poor quality of raw material (17.17%),

N2. improper quantity of raw materials (14,.79%),

N3. delivery of other raw materials than ordered (13.02%),

N4. delayed delivery (10.65%),

N5. improper transport (8.88%),

N6. machine failure (4,73%).

However, it should be emphasized that the N6 cause has the same percentage contribution as no spare parts (N7).

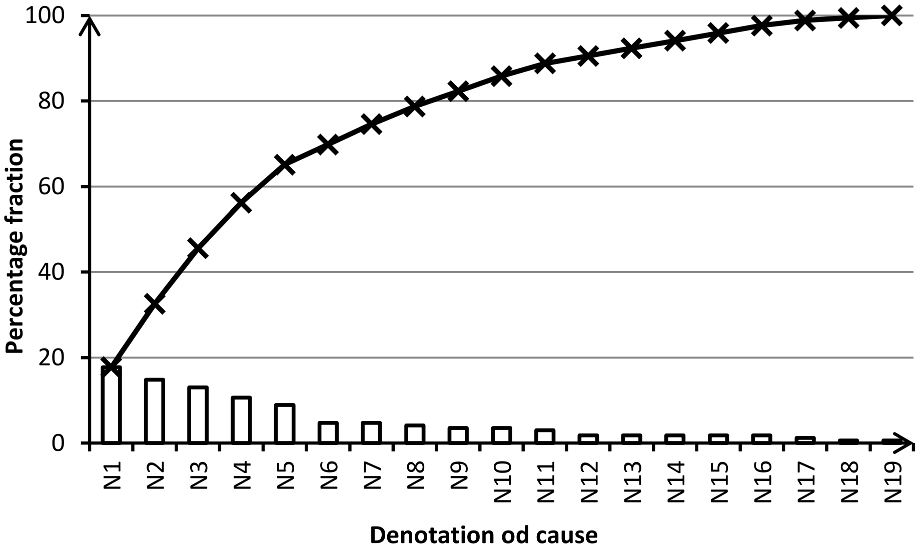
Unfortunately, 5 first causes are due to the suppliers. Therefore, the enterprise should renegotiate the terms with their suppliers. In the case of failure, the enterprise should search for new suppliers who would be more reliable and meet all the terms of agreements.

Table 1: The occurance of specific causes

No.	Cause	Percentage fraction	Cummulated fraction
N1	poor quality of raw material	17.75	17.75
N2	improper quantity of raw materials	14.79	32.54
N3	delivery of other raw materials than ordered	13.02	45.56
N4	delayed delivery	10.65	56.21
N5	improper transport	8.88	65.09
N6	machine failure	4.73	69.82
N7	lack of spare parts	4.73	74.56
N8	obsolete extruders	4.14	78.70
N9	poor machine maintenance	3.55	82.25
N10	no machine sterilization	3.55	85.80
N11	poor planning	2.96	88.76
N12	wrong work organization	1.78	90.53
N13	low employee qualifications	1.78	92.31
N14	no training	1.78	94.08
N15	high employee turnover rate	1.78	95.86
N16	improper motivational system	1.78	97.63
N17	excessively high temperature in rooms	1.18	98.82
N18	scales failures	0.59	99.41
N19	lack of calibration of measurement tools	0.59	100.00

Source: own study

Figure 2: The Pareto chart for quality problems with the carrot and celery juice



Source: own study

With regards to machine failures, the enterprise should conduct the machine overhauls or, if adequate cash resources are available, purchase the new machines that are most prone to failures.

4. Conclusion

The paper presented practical application of the tools of quality management in manufacturing of the carrot and celery juice. These tools are universal and simple in use. They can be successfully used in the enterprises of each type for analyses of the quality of various products, including foods. Their universality represents the effect of globalization of the process of quality management in enterprises.

The Ishikawa diagram was used to identify quality problems of the carrot and celery juice. It was demonstrated that the most important groups of causes are machines, material and men. However, the most important cause from the standpoint of safety of the process of juice manufacturing was the lack of machine sterilization. This situation occurred once, but such events have a substantial effect on health of potential customers.

Furthermore, the Pareto chart helped identify the causes which were the most important in quantitative terms and should be eliminated first. Six causes of nonconformities were found. Furthermore, 5 of them do not depend directly on the manufacturer but on the suppliers. Therefore, the negotiations or changing the suppliers were recommended.

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SYNERGETIC APPROACH TO THE DEVELOPMENT OF INTERNATIONAL INSTITUTIONS REGULATING IN THE CONDITIONS OF GLOBALIZATION

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Abstract. The economic globalization as a new degree of sustainability and the planetary unity of world economy which is accompanied by an increase in the proportion of cross-border capital flows and an increase in the share of accumulated foreign direct investment in the world's GDP. Its material basis is formed by the global movement of finance capital. According to the authors, this is due to the fact that the current global financial system is a typical complex nonlinear system in a non-equilibrium unstable state in which the global nature of modern capital has come into irreconcilable conflict with the local one in nature and with the national one in the extent of the system of its international regulation. And this contradiction is at the heart of an international crisis of 2007-2009 and the subsequent financial and economic upheavals of 2010-2011, 2014 and 2015. According to the authors synergy should be used as the methodological basis of the study of these processes and the development of a new institutional system of global capital market regulation. It is a fairly new trend in science that has its main task – understanding the general laws of macroscopically ordered space and temporal structures in complex nonlinear systems which are far from equilibrium conditions, and near singular critical points - the bifurcation points in the vicinity of which the behavior of the system becomes unstable. International aspects of improving global financial market regulation must be based on the recommendations of synergy on a qualitatively new integration of global, regional and national institutions that contribute to the exit of global capital market from the bifurcation point.

Keywords: economic globalization, global capital markets, financial turbulence, global imbalances, Synergetics.

JEL Classification: D53, E44, E69

1. Introduction

Economic globalization is a qualitatively new state of planetary unity and integrity of the global economy (Kacovicz, 1999), which is accompanied by an increase in the proportion of cross-border capital flows and the increase in the share of accumulated foreign direct investment in the world GDP. This process in modern conditions is fully quantified by the index of globalization, which is calculated on the 12 parameters of the magazine Foreign Policy, together with A.T.Kearney for 62 countries, producing 96% of world GDP. The current dynamics of globalization can be characterized by the data in Table 1.

According to Ya. M. Mirkin, globalization in relation to the capital market, is the process of erasing the boundaries between national markets, the integration of financial instruments, market participants, regulators, trade mechanisms, standardization of the rules. As a consequence - the creation of a "common market", "common passport" in the admission of the financial institutions and financial instruments to trading; the formation of cross-border financial conglomerates trading systems and infrastructure institutions; the growth of international markets, securities, capital flows and the growth of cross-border financial products; strong interdependence of national financial markets in the movement of foreign exchange rates, interest rates, stock indexes, the development of global investors (Mirkin,2011).

Table 1.The dynamics of the process of globalization of the financial sphere

Index	1980	1990	2000	2007	2008	2020
Cross-border capital flows / World GDP at current prices %	4,7	5,2	15,3	20,7	3,1	23-28
Accumulated foreign direct investment (of the world) / World GDP at current prices ценах %	6,0	8,5	18,0	28,3	24,5	42-47

Source: (Mirkin, 2011)

As a result of the world processes, a single global market where capital moves freely across national borders and between different types of markets has formed out of the previously delinked national financial markets. (Marshall, 1998).

Significant simplification of the access to organized markets, along with the invention of many derivative exchange instruments led to a sharp increase of the operators and the returns of the most important components of the financial market. This required globalization of the infrastructure, whereby there were international financial centers based on global trading, settlement, clearing and depository structures. Integration processes in the global financial market actually form a single interest rate system and contribute to the narrowing of the range of the currency in it. (Suetin, 2008). Ya.M. Mirkin proves that today the financial markets act as global financial markets, the fifancial market of a particular country acts as a single financial asset with other markets, and particulars reveal themselves only when the fundamental internal changes in the political and economic systems occur. In the future, there is a prediction of the preservation of the functional dependence of the dynamics of the Russian financial market movements on the value of foreign markets and the behavior of global investors.(Миркин, 2010).

In the context of globalization there is an explicit tendency of capital movement towards transnationalization. The financial globalization leads to:

- the growing of mobility, capital mobility;
- liberalization of capital movements across national borders;
- wide introduction of modern means of telecommunication and information.

Report of the World Economic Forum Global Risks 2011 highlights the paradox of the XXI century - the dialectic of globalization and fragmentation: the world is united as a result of globalization, but it becomes dissociated: the results of globalization are used by minority, there is fragmentation, the rise of populism, protectionism and nationalism, it is more difficult for countries to achieve global agreement. (Алексеев, 2011). The main economic risks of our time are fiscal imbalances. Government has allocated large sums of money to rescue financial systems and received the growth of public debt and budget deficits. Another imbalance - between the "deficit countries" (they invest a lot and save up a little) and "surplus countries" (they have large reserves and invest little). As a result, the government increases either level of debt or gold and foreign exchange reserves. Both of these ways are dangerous. The first is fraught with a sovereign default, the second - the inflation of financial bubbles. Global economic growth in the world in the last decade was unnatural, it has created serious structural imbalances (in one part of the world - excess consumption, and the other - excess savings) has exacerbated all existing types of natural constraints (resource, infrastructure, environmental).

Globalization, along with the advantages, has the disadvantage "insufficient staffing": there isn't competition authority, the lender of last resort, the regulator guarantees. There are no institutions that can make globalization more effective, equitable and sustainable, there is the necessity for compensation mechanisms, "the rules of globalization." The program of deeper liberalization and economic integration has replaced the Bretton Woods system. This model is very unstable, it needs global regulation.

The international financial system doesn't keep pace with the rapid development of economic and financial globalization and are unable to withstand the risks caused by the huge turnover of financial activity. To achieve long-term sustainable growth of the world economy it is necessary not only to solve specific problems, such as building the right relationships between the financial sector and the real economy, between financial innovation and financial supervision and regulation, but also more important to address these fundamental problems in the world economy at the macro level.

International markets need international regulation, but its current version is based on the principles of national sovereignty. Some international rules exist, there is a good cooperation between market regulators. But the sources of legitimacy are still sovereign states.

The success of globalization in the initial stage was explained by the fact that the states had to abandon the regulation of cross-border capital flows. Today, this refusal should be implemented in a new capacity - as the establishment of a national, international regulation.

2. Results and Literature review

Scientists over the years have developed the approaches measuring the scale of this process (Christiansen&Pigot, 1997).The movement of global finance capital creates the material basis of the financial globalization. This movement is accompanied by an increase in the instability of the global financial system, which is determined by A. Greenspan as "financial turbulence" (Гринспен,2009), by G. Soros – as «era of superbubble»(Сорос, 2008), by Ya. Mirkin – as the era of "excessive volatility" (Mirkin, 2011). By A. Buzgalin and A. Kolganov– как the emergence of a "global virtual fictitious capital" (Buzgalin&Kolganov, 2015).

The structure of the global financial system is the institutions, instruments and institutions functioning rules and the use of tools. In the modern conditions the place and role of the institutions and instruments of the international financial relations should change. It can be hypothetically assumed that the international aspects of the improvement of its regulation must include a kind of synthesis of global, regional and national institutions that contribute to the effective functioning of this species in the international capital market as a whole, and out of the bifurcation point and move towards sustainability and reining in the financial turbulence.

As the methodological basis of the study of these processes and the building of a new institutional system of the global capital market regulation, according to the authors, synergy should be used. It is a fairly new trend in science, its main task is the knowledge of the general principals of the occurrence of a macroscopically ordered spatio-temporal structures in complex nonlinear systems under far from equilibrium conditions, near singular critical points - the bifurcation points in the vicinity of which the behavior of the system becomes unstable.

In most modern encyclopedic dictionaries synergy is characterized as an interdisciplinary field of research that emerged in the early 70s. XX century and its main task is the knowledge of the general laws and principles that underlie the processes of self-organization in complex systems. Self-organization in synergy refers to the processes of occurrence of macroscopically ordered spatio-temporal structures in complex nonlinear systems under the conditions far from equilibrium, near singular critical points - the bifurcation points in the vicinity of which the behavior of the system becomes unstable.

The imbalance is immanently in a market economy and plays both a positive role in its functioning and development and negative, destructive, forcing economic agents to act contrary to their fundamental interests.

A.Marshall (Marshall,1993) laid the foundations of the theory of dynamic equilibrium, defining it as not a frozen, static state, but as a point of continuous movement and development. According to him, the equilibrium state is both the final stage of market adaptation to the changed conditions and the starting condition for the beginning of a new process, there is a balance - not a static, but a dynamic category.

For Marshall (Marshall,1993) equilibrium is not only normal and stable state, where the market automatically tends to, but rather an exception to the rule.

Traditional economic theory with its main features has developed since the end of the XIX century in in the Cartesian world conditions (axiomatic approach and extremely strict formal mathematical statement, almost without the use of verbal judgments.) Physics with its great success in these conditions has demonstrated the value of this outlook. Therefore, it is logical to form a number of key concepts of a new economic theory based on physical analogies, primarily classical mechanics and classical dynamics of the equilibrium processes. The goal was to turn economics into an exact science. Utility in economics is the analogue of power (a substance unifying the whole world into a single whole and with the ability to transform from one form to another), the analogue of force is marginal utility, the analogue of particles is the individual. Mathematical models, methods, and the equations of mechanics and equilibrium thermodynamics, such categories - like balance, flexibility, stability, flow, power and others were used as prototypes.

As a result, a new economic theory was formed with its methodological foundations partly based on the classical economic theory and partly - on the physical concepts. But it is not a replica, a kind or a simple notion of a physical theory. From the very beginning it has its own subject. And there is one more important point - the neoclassical theory does not examine the actual economic system, but specially built its equilibrium model. In this respect, the model appoints the economy how it needs to be.

All these features of the methodology of neoclassical school act in the same direction, either eliminating or limiting the ability of the study of non-equilibrium states and processes, though many economic processes are spontaneous, open and irreversible, i.e. essentially non-equilibrium. It is believed that they are generated and developed as a result of the continuous interaction of economic agents with the environment that is why they are inseparable from the development of social institutions. To describe the evolution of non-equilibrium processes, today the following techniques are used:

- nonlinear dynamics,
- chaos theory,
- behavioral economic theory (real behavior is ambiguous, variable, non-linear),
- neo-institutional theory (complex non-equilibrium world, bounded rationality, incomplete specification of property rights, risk, uncertainty),
- the theory of self-organization and synergy based on the ideas of nonlinear dynamics.

This theory of self-organization of open non-equilibrium systems which explicitly do not involve the formulation of any objectives of development.

Bifurcation is a branch or bifurcation of the path dependency, the point of phase transition. The points of bifurcation are special moments in the development of the economic system in which its state changes immediately, abruptly, as if moving a jump to a new quality, a different development path.

According to the socio-economic approach, bifurcation points are the points where there are "challenges of history." The changes in the sequence of events come from ordered to chaotic, causing instability, where previously consolidate the "necessity" come into conflict with the other, so that the "accident" gets the chance to change the course of history. And these changes are rare and sudden. There is a social demand for personalities that can immediately change the course of events.

There are inherent internal mechanisms of self-organization and self-regulation within any non-equilibrium system. There are periods of stable equilibrium (continuous bifurcation and border states with it). But later on the formed type of stable disequilibrium is broken, going into a state of unstable, unsustainable imbalances. The theory of nonlinear dynamics describes these conditions.

All physical and all the more social systems are nonlinear. In addition to a deterministic and stochastic objects (follow-up state of the last has nothing to do with the previous), in 1970-1980 the objects of the third type were discovered: technically speaking deterministic systems but the predictability of their behavior is limited and available only in the certain time intervals due to the high "sensitivity" to the initial date. Any arbitrarily small error in the determination of the initial state, any initial deviation grow rapidly, leading to unpredictable consequences, and from the time the system starts to behave chaotically. This phenomenon is called dynamic chaos and the mathematical images of determined non-periodic processes, for which a long-term prognosis in principle cannot be - called strange attractors. However, there is a certain order in the determined chaos that allows to manage it. Many specialists searched for such order. It turned out that there are several universal scenarios of the transition from order to chaos in nature.

Nonlinear processes in contrast to the linear are irreversible because of the so-called dissipative phenomena associated with energy dissipation (the phenomenon of friction, viscosity and diffusion) - for example, by friction of the energy is converted into heat and gratuitously lost, so the process becomes irreversible. However, the same dissipative phenomena that disrupt the order in simple linear systems, are becoming the factors of a new order in non-linear processes, so there are dissipative processes - dissipation of energy, matter and information. This order was called dissipative structures. There are relatively not so many such structures and forms of the order in nonlinear economic processes. They can be represented in the form of phase portraits, among which are unstable, semi-stable and unstable limit cycles, stable and unstable focuses, saddle, center (weblike patterns of damped or increase price variation).

All dissipative structures are divided into stationary and non-stationary (changing over time). All kinds of such structures do not depend on the type of tested non-linear process - physical, chemical, biological or socio-economic. In all non-linear chaotic systems order is established under the influence of self-organizing processes, which are based on dessipative phenomena that occur on the basis of positive and negative feedbacks. Positive are strengthen and accelerate the process development, and the negative - weaken and stabilize. Somehow, the negative feedback are mainly studied and the positive are not.

The global economic crisis of 2008-2009 has led to the revaluation of the general theoretical approaches to economic regulation. B. May (May, 2011) proves that the the failure of the illusions about the possibilities and prospects of state regulation of the economy was the result of the recovery from the crisis. The shock of the first phase of the crisis has led to a vulgar understanding of neoliberalism (supply-side economics) as the culprit of the crisis and return to the ideology and practice of "big government", i.e. active state intervention in the management of national economies. The vulgar understanding of Keynesian (demand of the economy) was opposed to this vulgar understanding of liberalism as the causes of the crisis. However, soon came the understanding that the crisis to the same extent can be explained by both the lack of state regulation and the state's inability to provide adequate economic regulation. We should speak about the optimal combination of regulation and self-regulation, the possible optimal sufficient state regulation. There is the understanding that the response to the crisis should not be the increase of the intervention into the economy, but the development of new tools of government regulation. It is very important to take into account the two principal features:

- firstly, regulation of financial markets;
- secondly, globally coordinated regulation.

B. May(May, 2011) believes that today it is necessary to develop an adequate model of global financial regulation, as it became apparent that because of the financial sector is the main source of the threat to stability. In the context of globalization, the regulation of financial flows cannot be limited by national jurisdictions.

Financial market regulation will change in the direction of tightening, globalization and risk sharing. Each financial institution will deal with only one type of business, and will not put all the risks into one basket. One supranational regulator will regulate a large number of markets and monitor all risk groups – according to geography and product. The attempts to create a supra-national legal and regulatory systems, the harmonization of legal frameworks and institutions have become the common to many national financial markets today. There is a convergence of the principles of financial market regulation in the countries of continental law and Anglo-American legal system. (Bhimjee, et. al., 2016; Juneja, 2016)

According to the authors of this article, the increase of instability of the global financial system is caused by the fact that it is a typical complex nonlinear system in a non-equilibrium unstable state in which the global nature of the modern capital has come into irreconcilable conflict with the local in its nature and national level distribution system of its international regulation. (Bouet & Vaubourg, 2016; Li, et. al., 2016) It is this contradiction that lies at the heart of an international crisis of 2007-2009 and the subsequent financial and economic upheavals 2010-2011, 2014 and 2015. (Banerjee, et. al., 2016; Adams-Kane, et. al., 2016; Pyun & An, 2016).

The authors hypothetically assume that the international aspects of improving global financial market regulation must be based on the recommendations of synergy on a qualitatively new integration of global, regional and national institutions that contribute to the effective functioning of the global capital market, its exit from the bifurcation point and movement towards sustainability and curbing financial turbulence. (Bel, et. al., 2016; Alhenawi & Krishnaswami, 2016; Dutordoir, et. al. 2014; Fandel, et. al., 2012; Arya & Mittendorf, 2016; Leufkens, et. al.,2010).

3. Conclusion

In order to ensure the global financial stability, there is the need for an effective interaction between national monetary and financial regulators, coordination, harmonization of national financial legislation, coordination of regulatory bodies both in cross-country, and on cross-cutting lines. The components of the international capital market regulation are:

- standardization of financial reporting;
- strengthening of the oversight of cross-border;
- increase the flexibility of the financial system through a change of the approaches to the regulation of hedge funds, clearing and settlement;
- transparency of the markets and raising of the standards of a disclosure of the operations with derivatives;
- strengthening of the protection of the interests of investors, owners and especially of minority shareholders;
- preventing a leakage and illegal use of the insider information;
- preventing price manipulation;
- limiting the complexity of the financial innovation;
- volatility limits mechanisms;
- increasing of the information transparency of the share capital;
- qualitative improvement of information disclosure on issuers;
- qualitative improvement of risk management;
- the development of the capital market infrastructure and enforcement of the mechanism of its operation in accordance with the standards of developed financial markets and the interests of global investors;
- the formation of a stable domestic investor and attracting global long-term strategic investors, direct investment;
- improving of the oversight of the financial condition and risk of professional participants of the capital market, the transition to a global regulation;
- the formation of an efficient capital market, as the market rapidly and completely discounting the financial information in the quotation of title capital.

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INTERNATIONAL PUBLIC MANAGEMENT OF SOCIAL AND ECONOMIC SYSTEMS

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Abstract. The relevance of the study is confirmed by the fact that there is a need to transform the existing management system in a qualitatively new model of public management, based on the interests and needs of civil society in general and business in particular. The aim of this research is to study the theoretical basis of public management and analysis of social and economic indicators in Russian regions. The following problems were solved to achieve this aim: comparative analysis of the main economic indicators in the regions of Russia by Federal Districts; study of the structure of the gross regional product by Federal Districts; analysis of the turnover of small enterprises in the Russian Federation that characterize the degree of corporate business development. Methodological basis of the study is found on the methods of system analysis, comparisons and analogies, economic and mathematical modeling. Public administration and public policy are implemented through a broad range of toolkits, content and form of which are integrally meet the goals and objectives of government in general and in specific areas. The works of domestic and foreign scientists on issues of public administration, including public regulation of social and economic systems, strategic planning, statistics are used as a theoretical basis in the article. Sources of information are the economic and other special literature, articles from periodicals, the results of the research, the experience of leading foreign companies. Different types of tools of public administration are rightly highlighted as a result of this the study.

Keywords: public administration, public policy

JEL Classification: O18

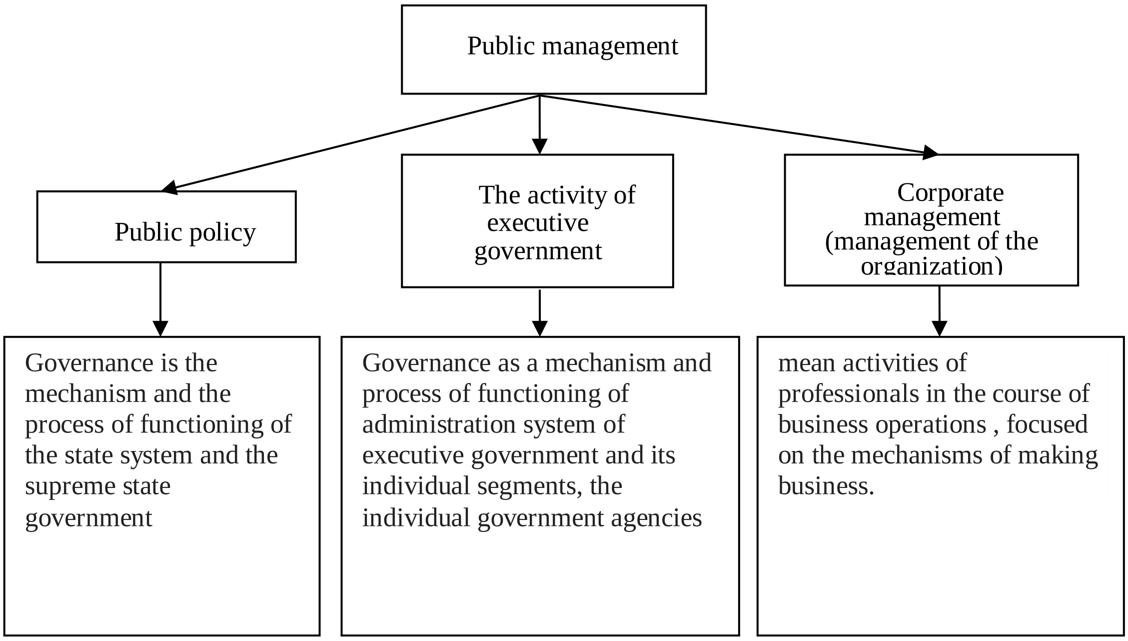
1. Introduction

At present, problems such as global and domestic politics and public life have a significant impact on public management. Public management is carried out in the context of the events taking place in society and in the real social and economic, political and cultural conditions, as the public management cannot be isolated from society.

Usually "public management" is understood as a meaningful and embracing concept of state and municipal government. And in the specific context of the concept of "public administration" can mean either the government or municipal government or their combination (Bykova & Prasolov, 2007).

According to the definition by Astaficheva E., public administration is the unity and the interrelation of state and municipal government and the managed objects in respect of which they exercise their control actions. In practice, in such a system a complex interaction occurs between the governments of state and municipal management and managed objects, in which each side makes a "contribution" (Campbell & Im, 2015).

Figure 1 – System of public management



Public administration can be seen in the values presented in Figure 1. This division corresponds to the accepted in the modern economic theory of allocation of macro, meso (sectoral markets in theory) and microlevel in the study of economic phenomena and processes. The objectives of the public administration are the effective functioning of the public power system, its reproduction, the implementation of its functions and the provision of public services. These objectives of public administration are closely interfaced with the specified features and are aimed at guaranteeing, security, satisfaction, realization, conservation and protection of the public interest.

It is important to note that the public management achieves its goal of social welfare only if it reflects the values, needs and social needs of the population and responds effectively. Otherwise, the legitimacy of such a public authority is greatly reduced (down to zero) in the perception of the population.

2. Results and discussion

In order to study public administration trends of economic development of modern Russia we have analyzed the statistics. The most important indicators characterizing the level of economic development include: per capita income, the total volume of gross regional product and its volume per capita. Based on these indicators we presented the economic development of Russia (for example, the nine federal districts) in Table 1.

The table below shows the general characteristics of the structure of regional economic development, as it does not take into account, firstly, the specificity of the individual indicators of the Federation; secondly, the complex of other important factors related to the process of regional economic development.

The gross regional product has a certain internal structure, which is characterized by the following components: agriculture, hunting and forestry; fishing and fish farming; mining; manufacturing; production and distribution of electricity, gas and water; construction; wholesale and retail trade; repair of transportation, household goods and personal consumption; hotels and restaurants; transport and communications; financial activities; operations with real estate, renting and business activities; public administration and defense; social insurance; education; health and social services; other community, social and personal services. Based on this structure gross regional product by Federal Districts can be represented as follows (Table 2).

Table 1 – The main economic indicators of the regions of Russia by Federal Districts in 2015

No	Federal District Name	Per capita income of the population (in rubles per month)	The gross regional product in 2013 (mln. rub.)	The gross regional product per capita (rub.)
1.	Central	34970,2	18975900,1	489708,3
2.	Northwestern	28571,7	5586593,5	406026,2
3.	Southern	24327,5	3528190,1	253152,3
4.	North Caucasian	20691,6	1359273,0	142102,8
5.	Volga	24019,7	8571225,4	288054,8
6.	Uralian	30493,9	7648599,8	626119,2
7.	Siberian	21490,4	5535449,5	287026,9
8.	Far Eastern	31974,1	2808367,8	450126,2
9.	Crimean	-	-	-

Source: http://www.gks.ru

Table 2 - Structure of gross regional product by Federal Districts in 2015 (%)

The main components in the structure of gross regional product	CFD	SFD (south)	NFD	FEFD	SFD (Siberian)	UFD	VFD	NCFD
1. Agriculture	2,9	10,4	2,1	3,4	5,2	2,0	6,1	13,1
2. Fishery	0,0	0,1	0,6	2,4	0,0	0,0	0,0	0,1
3. Minerals	0,8	2,9	7,0	27,1	13,2	36,2	12,5	0,8
4.Manufacturing	16,0	15,2	21,4	5,3	19,9	14,1	25,0	9,1
5. Electricity, gas, water	4,0	3,0	4,0	3,9	4,1	3,1	3,8	3,4
6. Construction	5,1	13,2	9,1	9,8	6,6	6,3	7,2	12,2
7. Trade and repair	27,0	17,0	14,3	10,7	12,3	11,1	13,5	21,1
8. Hotels and restaurants	0,9	1,8	1,1	0,8	0,9	0,7	1,0	3,5
9. Transport and communications	10,5	11,9	11,5	12,9	11,3	9,0	9,1	8,0
10. Financial activities	1,0	0,4	0,5	0,3	0,4	0,3	0,4	0,3
11. Property	17,6	8,5	13,0	6,1	9,3	8,0	8,5	4,5
12. Public administration	5,6	6,3	5,7	8,2	6,9	3,3	4,9	11,6
13. Education	2,8	3,4	3,3	3,5	4,0	2,2	3,2	5,4
14. Health service	3,7	4,7	4,9	4,4	4,8	3,0	3,8	5,7
15. Public and social services	2,1	1,2	1,5	1,2	1,1	0,7	1,0	1,2

Source: http://www.gks.ru

Comparative analysis of the data shown in Tables 4 and 5 allows us to formulate a number of interim conclusions which are relevant to further explore the issue of economic development in the Russian regions. Based on an analysis of the absolute values of the gross regional product the rating of the Federal Districts will be presented in the following sequence in descending order of its size: Central, Northwestern, Southern, North Caucasian, Volga, Uralian, Siberian, Far Eastern and Crimean Federal Districts. Due to the differences in density of population ranking in terms of gross regional product per capita will develop a slightly different way: Uralian, Central, Far Eastern, North-Western, Volga, Siberian and Southern Federal Districts.

However, the structure of the gross regional product differs markedly for a number of indicators. For example, Southern, Siberian and Volga Federal Districts have a clear predominance in the section "Agriculture, hunting and forestry". The position of "Fishery" is characteristic only for the three Federal Districts (Southern, Northwestern and Far Eastern Federal Districts) due to natural geographical reasons.Mining occupies an important share in the gross regional product of Uralian (35.1 %) and Far Eastern (20.6 %) Federal Districts. Manufacturing activities are relatively uniform share in the gross regional product of almost all regions of Russia, but are very poorly characterized in the Far Eastern Federal District (6.1%). It does not show any significant deviations in the structure of the gross regional product in relation to sections such as the "Electricity, gas and water"; "Hotels and restaurants"; "Transport and communication"; "Public administration"; "Education"; "Health service"; "Public and social services". However, in the sector of construction Southern and Far Eastern Federal Districts are characterized by a particularly high share in the gross regional product ; in the section of trade and finance - Central Federal District.

In order to analyze the completeness of the Federal Statistics Service data we analyzed public contact management turnover of small businesses. The indicators most clearly characterize the degree of development of the corporate business, but in inverse proportion (less small and medium business is developed the greater role is played by large corporations). These data are presented in Table 3.

Table 3 - The turnover of small businesses in Russia in 2013-2015, billion rubles

No	Federal District Name	2013	2014	2015
1.	Central	6817,7	8731,8	9658,7
2.	Southern	1400,1	1819,6	2136,0
3.	Northwestern	1744,4	2531,0	2751,9
4.	Far Eastern	669,8	906,1	1099,6
5.	Siberian	1437,0	2505,5	2832,9
6.	Uralian	1763,5	2154,1	2269,5
7.	Volga	3836,0	4228,8	4835,2
8.	North Caucasian	406,9	586,8	767,4
9.	Crimean	-	-	41,0

Source: http://www.gks.ru

3. Conclusion

Comparative analysis of statistical data presented in Table 3 with the values of indicators of economic development of the regions (Table 1, 2) allows us to formulate the following generalizations and conclusions.

1. In static quantitative measurement the turnover of small enterprises prevails in the Central Federal District that in comparison with the data of Tables 4, 5 allows to suggest business is represented by both large and relatively small corporations that in the field of finance and trade. The greatest development of big business in the Far Eastern and, in part, Uralian Federal Districts, where the industries related to mining dominate. As for the Southern, the Northwestern and Siberian Federal Districts - in these regions large and medium corporate business are in balance with the required small business.

2. Leading positions in the Central Federal District on the size of the gross regional product are largely explained by the high level of commercial and financial business; Uralian and Far Eastern Federal Districts by the presence of mineral resources and relatively low population density. In the Volga Federal District the agricultural industry and manufacturing dominate, and they positively affect the highest absolute value of the gross regional product and its relatively low rate of per capita due to scattered demography. A similar picture is in the Siberian Federal District, where, however, the size of the gross regional product is somewhat lower. Weak indicators of the gross regional product for the Southern Federal District are explained by the predominance of agriculture and the relatively low share of manufacturing activity and increased growth rate of the construction characteristics balance it to a certain extent. The main components of the structure of the gross regional product in Northwestern Federal District are combined the most harmonious way.
3. Analysis of the dynamics of the corporate form of business development in the studied Federal Districts is also notable. In none of these regions there is no steady tendency to growth or reduction of the share of large businesses in the gross regional product. Indicators show a variable rise or fall of activity that depend on certain circumstances (conjuncture in world market prices of raw materials, the institutional features of the regions, the effects of the financial crisis, etc.). In the end, you can assume that small and corporate business areas are constantly competing with each other: both state and municipal governments as well as private business entities are looking for the most effective forms of business organization that would meet the conditions of the domestic and external economic environment. In such circumstances, the value of the functions of government economy is steadily growing on the condition of limited government intervention in these processes, due to the significant social and economic objectives and the need to support private economic initiative [40, c. 49].

The above statistics are based on one important fact: despite differences in geographical location of regions of Russia, their resource, infrastructure and entrepreneurial potentials, all Federal Districts provide a single mechanism of public administration characterized by a high degree of centralization. There are no regional parliaments, senior officials and higher executive governments, executive governments of special competence in the Federal Districts. Plenipotentiary representatives of the President in the federal districts provide the implementation of the federal policy coordinating the activities of the economic subjects of the RF power within its competence.

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GLOBAL DEVELOPMENT OF INFORMATION SUPPORT OF BUSINESS ORGANIZATIONS IN THE REGION

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Abstract. The relevance of the study is confirmed by the fact that the processes of formation of global information infrastructure, socio-economic activities in the current and future economic development put forward new requirements for the forms and methods of strategic management of business organizations in the region. The aim of this study is optimization of public administration by improving the global information support of control systems. The following problems were solved to achieve this goal: 1. analysis of indicators of the use of global information and communication technologies in organizations; 2. calculation of the correlation coefficient between the rate of change of GDP in the Russian Federation and the main indicators of business informatization; 3. the conceptual a multi-level model of information system of public administration is worked out; 4. recommendations on optimization of public administration are offered. The works of domestic and foreign scientists on issues of global public administration, including information support of business structures, the position of strategic management theory, planning, statistics, decision theory as a theoretical basis in the article. Sources of information are the economic and other special literature, articles from periodicals, the results of the research, the experience of leading foreign companies. The result of this research is a conceptual multi-level model of information system of public administration

Keywords: business organizations, information support

JEL Classification: M16

1. INTRODUCTION

Progress of real economic life and business development are inseparably linked with the development of information systems both internal (for companies) as well as external, collective use the totality of which forms a new business environment typical for the information society. In our opinion, the development of the world's information infrastructure takes place in the following areas:

1) a quantitative increase in the number of technical devices for information processing and transmission - the PC, the subscriber units of telecommunication systems etc., improving their physical and economic availability, increase of their productivity;
2) structuring and unification of the internal information field of companies and its harmonization with regional, national and global information infrastructure for data formats, structural construction, communication protocols etc.;

3) forming a non-profit (like the Internet) subsystems of information infrastructure of general access at the expense of public resources (government, intergovernmental, non-profit partners and similar organizations);
4) accelerated development of information sub-systems of public administration and state regulation of social and economic activities, the formation of "electronic government";
5) socialization of information infrastructure, promotion of the migration of information and communication technologies of the business environment into the environment of social interaction.

2. Results and discussion

Let's consider the main trends in this area, based on the data of the official Russian statistics, presented in Table 1.

Table 1: The main indicators of the use of information and communication technologies in Russian companies in 2005-2015. (%)

Indicator	Years										
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Use PC	81,3	84,6	87,6	91,1	99,3	93,3	93,7	93,7	93,8	94,1	94,0
Use local area networks	43,5	45,8	49,7	52,4	57,0	56,4	59,3	60,5	68,4	71,3	71,7
Use email	41,2	48,6	53,2	56,0	63,6	69,1	74,4	78,5	81,9	83,1	85,2
Use the	38,9	43,4	48,8	53,3	61,3	67,8	73,7	78,3	82,4	84,8	86,9
Have Internet web site	12,2	13,5	14,4	14,8	21,1	19,8	22,8	24,1	28,5	33,0	37,8

Source: http://www.gks.ru

According to the graph shown in the figure, the Russian economy informatization processes a develope quite dynamically. Growth close to the line with the medium-term trend towards saturation is observed in all considered indicators. Award in 2005 a surge of indicators characterizing the percentage of organizations use of personal computers and having their own site on the Internet, in our opinion, is not determined by fundamental factors, but by compilation of statistical sampling.

The dynamic development of information infrastructure in the Russian Federation is marked by international organizations. Thus, according to the International Telecommunications Union, Russia's rating in the world by the IDI (the index of the development of the Information Society) from 2010 to 2011 increased by 2 points (among 155 countries for which this indicator is calculated). If in 2010 Russia ranked 40th place in the world on this indicator, in a year it was already 38th.

Growth retardation of the indicators characterizing the development of information infrastructure (saturation) in Russia is estimated by us as a positive fact. It shows not the deterioration of the dynamics of these processes but their qualitative changes.

In terms of development of information technologies Russia has confidently been approaching the level typical for developed countries. If we estimate the dynamics of the IDI on average for all countries and separately for developed and developing countries, it is that the pace of growth vary. From 2010 to 2011, this figure rose in the whole world by 5.3% (from 3.94 to 4.15), by developed countries by 4.0% (from 6.27 to 6.52), for developing countries by 6.2% (from 3.05 to 3.24). In Russia, growth amounted to 7.0% (from 5.61 to 6.00). That is, in terms of growth Russia is closer to the developing countries, and the absolute value of the index it is closer to developed countries.

It is interesting to note that the global economic crisis has not had any significant impact on the development of informatization of the Russian economy.

In 2009, the Russian economy experienced a very substantial decline in production caused by the impact of the global economic crisis. Although the output of 2010 to positive growth, the dynamics of GDP growth slowed down in 2011 . In December 2014, the World Bank has lowered the forecast of economic growth in Russia in 2014 from 1.8% to 1.3%. At the same time, the Ministry of Economic Development of Russia lowered the forecast for GDP growth in 2014 to 1.4 % against the previous 1.8 %, which coincided with the forecast of the World Bank experts.

Indicators of the development of information infrastructure development show an independent dynamics on this macroeconomic background. This is confirmed by the data in tables 17 and 18.

Table 2 built on the original data of table 1 presents the growth rate of indicators of informatization of Russian business calculated in % on the previous year for the period from 2007 to 2015.

*Table 2: Dynamics of indicators of information and communication technologies in the Russian organizations, %**

Indicator	**Years**								
	2007	2008	2009	2010	2011	2012	2013	2014	2015
Use PC	3,5	4,0	9,0	-6,0	0,4	0,0	0,1	0,3	-0,1
Use local area networks	8,5	5,4	8,8	-1,1	5,1	2,0	13,1	4,2	0,6
Use email	9,5	5,3	13,6	8,6	7,7	5,5	4,3	1,5	2,5
Use the Internet	12,4	9,2	15,0	10,6	8,7	6,2	5,2	2,9	2,5
Have Internet web site	6,7	2,8	42,6	-6,2	15,2	5,7	18,3	15,8	14,5

Source: Compiled by the author

Table 3 presents our calculated correlation coefficients between the rate of change in Russian GDP in volume terms (expressed in %) and the rate of change of the basic business informatization indicators (expressed in %). The values of indicators show that the interrelation between these data sets in the 2007- 2015 is extremely weak.

Table 3: Correlation of the indicators of informatization and dynamics of Russian GDP

Indicator	Correlation coefficient
Use PC	0,16611
Use local area networks	0,23703
Use email	0,39456
Use the Internet	0,4744
Have Internet web site	0,1564

Source: Compiled by the author

Considering the analysis of the data presented in Table 16, we have identified the following trends in the use of information and communication technologies by Russian organizations for the last 10 years:

1. Beginning from the middle of the first decade of the XXI century, the use of personal computers by Russian business organizations grew steadily having reached the level of

94 % and then the growth stopped. It can be concluded that this indicator has reached its saturation. Its further significant increase is unlikely.

Among the 6 % of organizations that do not use personal computers, in our opinion, there are those which provided false or erroneous data having few and poorly trained technical management personnel, that does not see the benefits in the use of computer technology for the business management in specific conditions, as well as those who, due to lack of available resources, consider the use of computers uneconomical.

From the considered trends we can draw an important conclusion for the IT industry: the rapid growth of the market of personal computers in the country should not be expected. The market entered a phase of saturation and maturity. Its main processes can be associated either with the technological modernization of existing equipment and its replacement as a result of moral and physical wear and tear, or the appearance of filament products addressed to specific users, which will likely be part of integrated information technology solutions.

2. Upside Ethernet enterprise level is maintained. Despite the deep penetration of computer technology, only about 70 % of their fleet are technically interconnected within the local networks in enterprises. Since 2003, the level of integration of the internal space of infocommunication companies rose by more than half. This figure is expected to grow further that is a second trend in this sphere.

   And this growth, as the author suggests, will take place in two directions. The first is the expansion of the level of integration within existing networks, improving their performance, connection to them newer computers and peripheral devices (network printers, fax machines, multifunction devices and so forth). Second is raising the general level of integration with the achievement, in the long term, 100 % coverage of companies with computers, local area networks.

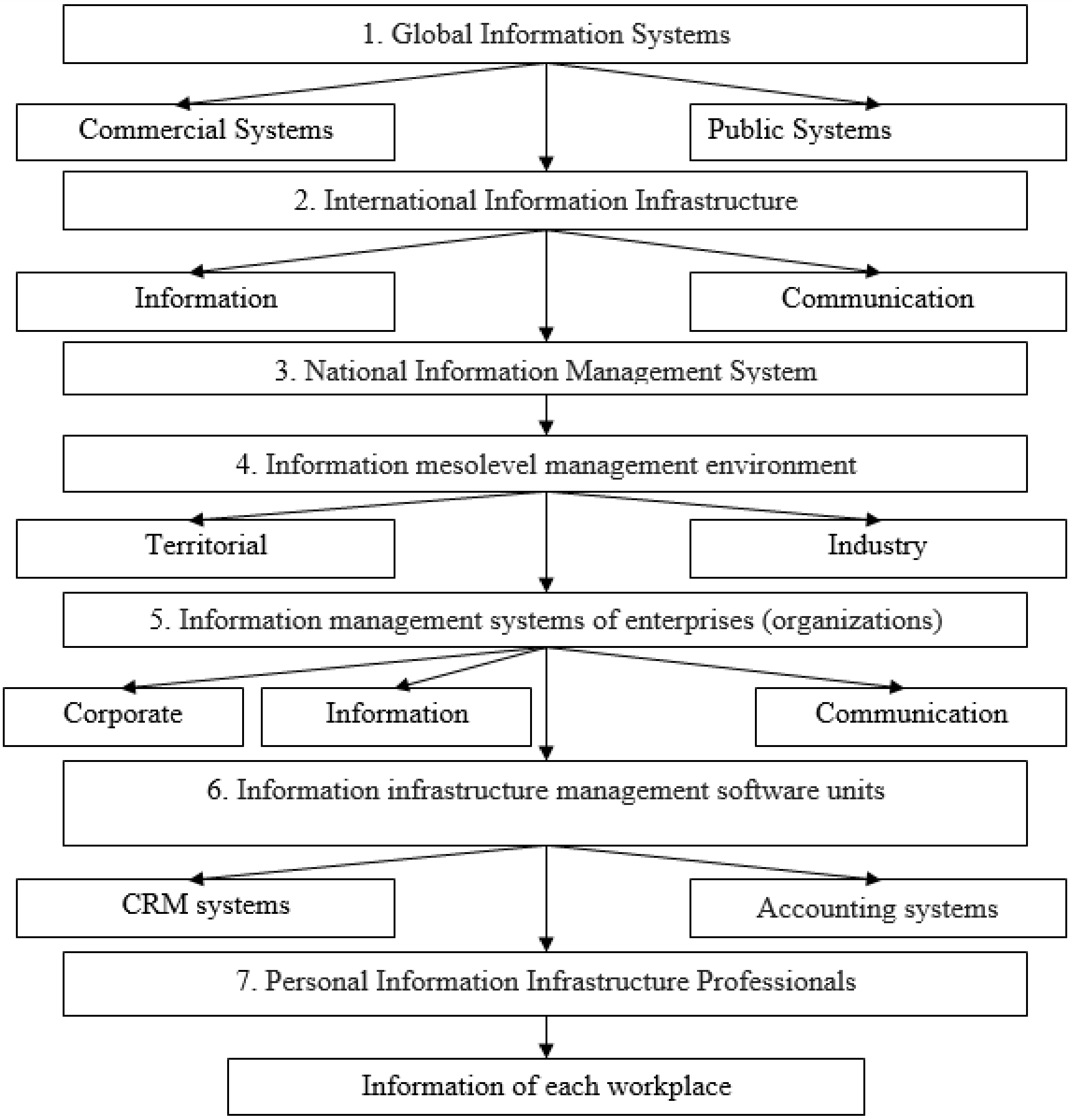
   Both private reviewed trends show a significant growth potential in the market of network services and sales of related equipment. IT company integrators, that have caught these trends and have temporarily transformed businesses can greatly benefit from it.

3. The use of Internet technologies in Russian companies is still mostly passive. But this use (Internet access, the availability of active e-mail details) is also close to saturation.

   If 51-57 % of the companies having personal computers in 2003 used Internet resources and e-mail, then in 2010 the number of such companies increased to 91-92 %. This indicates a trend of more active use of Russian business resources of the Internet and e-mail. The further increase is expected in this direction to a level of 100 % but it is close to saturation, including the wide spread of personal computers.

4. Despite some growth (from 2005 to 2015 the number of companies that had in its use personal computers and also had its own site on the Internet grew more than double - from 13.5 % to 37.8 %) the level of the active use of the Internet –technologies by business structures (for image advertising, the sale of their goods and services, organization advice for consumers, publications and strategic plans etc.) is still relatively low. We expect significant growth in this area in the medium term that will occur with increasing competition and also the appearance of new offers for the creation and maintenance of web sites by specialized companies that will be accompanied by a decrease of the cost of such services.

Figure 1: Scheme of multi-level conceptual model of the information environment of public administration



Source: Compiled by the author

That provision of services linked with ensuring the active presence of companies in the virtual space, is one of the most promising directions of development of management information systems (MIS). Pay attention to this trend should be how the management of specialized IT firms, the latitude and differentiated offerings that will depend on their medium-term market position, and all other business organizations for which an active presence in the virtual space is a significant improvement of competitive advantage. This trend is worth paying attention by the management of specialized IT firms (their medium-term market position will depend of the latitude and differentiated offerings) and also by all other business organizations (for which an active presence in the virtual space is a significant improvement of competitive advantage).

The increasing complexity of information organizational as well as technical development requires a more complete description of its internal structural unit (Figure 1).

3. Conclusion

Thus, in our opinion, the following levels can be marked in the public information management environment:

1. Global MIS. This level includes commercial and public data exchange system on a global scale. Its technical basis is the network of the Internet and satellite system and transcontinental links. Before our eyes in the last 20 years these information systems have gone through a period of very rapid development, its public segment is transformed into one of the public good, in the understanding of the economic foundations of production and consumption is still a lot of "white spots".
2. International Information Infrastructure. It includes information and communication systems covering the entire globe, but only one or another of his band (a group of countries, companies, industries). An example of this type of system is the information support of the EU Framework Programme Management Competitiveness and Innovation Programme (CIP) to encourage the growth of small and medium-sized in Europe and create new jobs through the improvement of competitiveness and innovation. This program was implemented in the 2007- 2013. One of its sub-programs was Information Communication Technologies Policy support Programme, aimed at supporting the development of ICT. Infrastructure integrates this support through electronic communications around 250 regional consortia (transfer centers, business innovation centers, development agencies etc.).
3. National MIS. This is a macro-level of information management system for management and public administration, the level of the national state.
   Considerable space is devoted to the development of MIS at the national level in the above road map "Development of information technology industry" the second section of this action plan is devoted to it. Unfortunately, these measures are not fully articulated and directed not so much on the development of the business environment but on the solution of particular issues of organizational and technical support and legal support of information and communication development. In particular, the "road map" provides: a comprehensive program "Creation of technoparks in the Russian Federation in the sphere of high technologies"; support for exports of information and communication products etc. These measures are rather fragmentary and insufficient systematic.
4. Information system infrastructure of mesolevel include two weakly linked element united with their place in the hierarchy: territorial (in relation to Russia - Federal District level, subject of the Federation, municipalities) and industry.
   An example of the elements of a regional nature are Web sites of Chambers of Commerce of the Russian Federation. As an example of the creation of the elements of MIS of sectoral focus can be efforts to create a network of branch prediction centers in the framework of the federal target program "Research and development on priority directions of scientific and technological complex of Russia for 2007-2013". In particular, the Saint-Petersburg State University of Information Technologies, Mechanics and Optics solves the problems in the field of information and telecommunication systems , National Research Nuclear University "MEPhI" solves the problems in the field of energy efficiency and conservation, Russian State Technological University named after KE Tsiolkovsky solves the problems in the field of transport and space systems etc..
5. Information management companies include corporate information and communication systems and their software support, organizational and methodological support, etc..

6. Information units management systems. Modern organizations often have rather complex internal structuring formed using the formal bureaucratic and adaptive approaches. In addition, the technology of geographically distributed work organization becomes more widespread. In this context, the stability of operation of the business during the growth of the automation divisions is largely determined by the starting efficiency of their information and communication subsystems.
   Analysis shows that these subsystems typically have considerable functional specificity because their use is aimed at solving specific problems of units. For example, in the case of sales units it may be CRM-systems, accounting - accounting hardware and software systems etc.
7. Personal information infrastructure professionals. Information of each workplace has become an increasingly prominent place in the conditions of the development of new technologies of professional activity, including so-called "telework". At the same time, due to the increasing uncertainty of its localization (for example, through the development of "cloud" services), information and communication devices and information exchange networks become crucial in ensuring employees.

All seven considered levels have the unconditional inner interrelation at the level of methodology, information and technical compatibility, but at each level you can select the specific.

Summing up the results which are set up in this article, we note that the research of level and dynamics of the development of the information infrastructure of Russian business for the period 2005-2015allowed us to identify the main trends in this area, and to identify key interrelations. It was found that the information infrastructure of Russia in terms of development is close to the developed countries. In this context qualitative changes in it are projected. Further quantitative growth is unlikely.

The growth potential is revealed only in one direction. This is the development and promotion of web sites of Russian companies. Analysis of the data revealed that the trend of the information infrastructure of the Russian business met global dynamics in this area. An important fact was established at the same time. The dynamics of information has no connection with the macro-economic cycles; it is formed under the influence of their own development mechanisms.

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POSITION OF EU-15 IN WORLD EXPORT IN COMPARISON TO SELECTED COUNTRIES IN A VIEW OF MEASURING TRADE IN VALUE ADDED

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Abstract. The modern world economy is characterised with the specific social division of labour where enterprises based in different countries specialize not only in the production of particular goods and services, but also in particular stages of such production. Literature recognises the fragmentation of production processes on a global scale and the emergence of global value chains (GVCs). As the result of these processes, the final value of the goods and services produced by particular countries contains both domestic and foreign value added content. In this situation, it becomes necessary to revise the approach to determining the position of countries in world export. The article aims to analyse the position of the EU-15 countries in global export in comparison with other countries based on the concept of measuring foreign trade by value added. The calculations use the OECD-WTO data from the *TiVA* database. Due to the availability of data, the analysis comprised the years 1995-2011. The study showed that the real position of the EU-15 countries was lower than the one given in official statistics. Their share in global export measured based on the new concept was smaller than according to the conventional approach, only to further decrease significantly in the years 1995-2011. This is also confirmed by changes in the position of the EU-15 countries on the list of top global exporters. At the start of the researched period, nine old EU member states featured in the top twenty, while in 2011 – only six and most of them ranked lower than in 1995.

Keywords: international trade, trade in value added, European Union, world exporters

JEL Classification: F100, F140, F400

1. Introduction

Globalisation and the opening of national economies lead to building closer and stronger economic bonds. This is manifested, for example, by the fragmentation of production processes and the production of goods and services that contain value added by different countries. The determination of the share of particular countries and groups of countries in world export based on the global value of goods and services is, undoubtedly, a convenient method (as all official statistics use this value), but it also distorts the perception of the real situation. The article is an attempt to present the position of the old European Union member states in world export while accounting for their actual contribution to this export, i.e. based on value added.

The study uses the data from the *TiVA* database, created jointly by OECD and WTO. It contains data on 61 countries. They are broken down by the criteria used by IMF into two groups:

1) developed countries, including:
   a) EU-15: Austria, Belgium, Denmark, Germany, France, Finland, Italy, the UK, the Netherlands, Spain, Sweden, Ireland, Portugal, Greece, Luxemburg,
   b) EFTA: Iceland, Switzerland, Norway,
   c) other developed European countries: Cyprus, Czech Republic, Estonia, Latvia, Lithuenia, Malta, Slovakia, Slovenia,
   d) Australia, New Zealand, Canada, USA, Hong Kong, Israel, Japan, South Korea, Singapore, Chinese Taipei,
2) emerging market and developing countries – other countries included in the *TiVA* database.

Due to the availability of data the analysis comprises the years 1995-2011.

2. World export in the years 1995-2011

According to the data included in the *TiVA* database, the value of world exports[33] in the years 1995-2011 rose from USD 5.7 trillion to nearly USD 19.2 trillion, which constituted almost a fourfold increase (Table 1).

Table 1. Value of world export by groups of countries in years 1995-2011 (in bn USD).

Groups of countries	1995	2000	2005	2008	2009	2010	2011
Developed countries:	4 538.1	5 256.3	7 671.5	10 954.4	8 836.9	10 105.5	11 594.0
EU-15	2 318.4	2 462.7	3 940.9	5 703.8	4 508.3	4 858.7	5 604.9
EFTA	170.7	191.9	313.8	487.0	405.1	445.2	531.8
Other European countries	60.9	79.0	173.9	302.5	238.3	266.2	312.6
Australia	73.2	89.6	148.3	235.6	194.4	270.1	323.1
New Zealand	18.0	18.5	31.2	41.0	33.4	42.8	47.6
Canada	204.2	308.8	403.8	491.8	370.3	449.3	523.4
USA	770.7	1 024.6	1 200.9	1 708.2	1 459.7	1 683.3	1 908.5
Hong Kong	51.9	54.0	73.0	101.3	91.8	112.7	125.9
Israel	26.9	45.1	53.8	80.0	67.7	79.1	89.1
Japan	482.8	514.6	654.3	858.8	639.2	833.6	893.3
Korea	150.7	205.1	330.9	491.9	413.4	528.7	622.3
Singapore	86.4	100.4	130.2	173.8	189.8	233.6	275.6
Chinese Taipei	123.2	162.0	216.6	278.8	225.7	302.3	335.8
Emerging markets and developing countries, of which:	1 208.0	1 937.6	3 655.7	6 343.6	4 999.3	6 253.6	7 574.1
China	143.4	271.6	795.5	1 502.2	1 280.3	1 647.7	1 969.2
Russia	91.5	114.2	265.3	519.2	341.0	445.0	575.8
World	5 746.1	7 193.9	11 327.2	17 298.0	13 836.2	16 359.1	19 168.1

Source: (TiVA Database), author's calculations.

In 1995, the value of exports from developed countries totalled USD 4.5 trillion, the half of which came from the old EU countries (USD 2.3 trillion). In 2011, the value of goods and services exported from developed countries was almost three times as high as in 1995 and reached nearly USD 12 trillion, 5.6 trillion of which was the exports from the UE-15.

It is worthwhile to look more closely at the growth in export from the countries that belong to emerging and developing economies. In the period between 1995 and 2011 the value of goods

[33]Including goods and services.

and services exported by them increased almost sevenfold: from USD 1.2 trillion to USD 7.6 trillion. China, which leads this group, had the exports of USD 143 billion in 1995 (approx. 12% of the value of exports of developing countries) and almost USD 2 trillion in 2011 (26% of exports in these countries). This synthetic review of the developments in world export and the value of exports in particular countries and groups of countries does not, however, give a full picture.

3. The concept of measuring trade in value added

As mentioned in the introduction, the modern world economy is characterized with the fragmentation of production processes. Many authors present the considerations on this topic, for example E. Ng (Ng, 2010), N. Yamashita (Yamashita, 2008), H. Kierzkowski (Arndt & Kierzkowski, 2001), R. Jones (Jones, 2008), B. Los, M. P. Timer, G. J. de Vries (Los et al., 2015), A. Deardorff (Deardorff, 2001), S. W. Arndt (Arndt, 1997) (Arndt, 1998), G. M. Grossman, E. Helpman (Grossman & Helpman, 2005), and R. Feenstra (Feenstra, 1998).

When the organisation of production processes involves the division of their subsequent stages between different countries, global values chains (GVCs) are developed. As a result, products and services produced and exported by particular countries contain foreign value added. (Globerman, 2011; Coe, 2013; Elms, 2013; Hummels, et al., 1998; Hummels, et al., 2001; Bems et al., 2011) It is commonly agreed that the pioneer of research aiming to determine domestic value in exported products was W. Leontief, who created the input-output model to analyse the interdependencies between different branches of an economy as early as in the 1930s (Leontief, 1936), while in the 1960s he authored further publications that are considered the foundation of the new concept of measuring world trade based on value added content (Leontief & Strout, 1963). At the turn of the 21st century, his concept was used to produce estimates of the actual domestic content in the value of exported goods and services. The analyses conducted by a number of different authors indicate that foreign value added content in export is gradually growing (Johnson & Noguera, 2012), (Banga, 2014) (Stehrer et al., 2012), (Trade, 2012), (Foster-McGregor, 2013), (Koopman et al., 2014). Therefore, the evaluation of the position of particular countries in world export needs to be revised.

4. The share of groups of countries in world export in view of the concept of measuring trade in value added

Based on the concept of measuring trade in value added, the share of particular countries in gross world export was estimated using the following formula:

$$VA_{exi} = DVA_{exi} + \sum_{j=1}^{n} VA_{exij} \quad (1)$$

where:
VA_{exi} - value added in world export by country *i*,
DVA_{exi} - domestic value added in export of country *i*,
VA_{exij} - value added of country *i* included in export of partner country *j*.

Table 2 presents the results of the calculations showing the share of particular groups of countries in world trade in conventional terms (based on the final value of exported goods and services) and their share in export estimated based on value added.

Table 2. Structure of world export by groups of countries by value of gross export and by value added in trade in years 1995-2011 (in %).

Groups of countries	1995		2000		2005		2008		2009		2010		2011	
	Ex	VA_{ex}	Ex	VA_{ex}	Ex	VA_{ex}	Ex	VA_{ex}	Ex	VA_{ex}	Ex	VA_{ex}	Ex	VA_{ex}
Developed countries:	79.0	80.4	73.1	74.7	67.7	69.2	63.3	63.2	63.9	65.0	61.8	62.6	60.5	60.5
EU-15	40.4	39.3	34.2	32.8	34.8	33.8	33.0	31.3	32.6	31.5	29.7	28.5	29.2	27.8
EFTA	3.0	3.0	2.7	2.8	2.8	2.9	2.8	3.1	2.9	3.1	2.7	2.9	2.8	3.1
Other European countries	1.1	0.9	1.1	0.9	1.5	1.2	1.8	1.4	1.7	1.4	1.6	1.3	1.6	1.3
Australia	1.3	1.4	1.3	1.3	1.3	1.5	1.4	1.6	1.4	1.6	1.7	1.9	1.7	2.0
New Zealand	0.3	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
Canada	3.6	3.1	4.3	3.6	3.6	3.1	2.8	2.7	2.7	2.5	2.8	2.6	2.7	2.6
USA	13.4	14.4	14.2	15.8	10.6	11.8	9.9	10.8	10.6	11.9	10.3	11.5	10.0	10.9
Hong Kong	0.9	0.9	0.8	0.8	0.6	0.7	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7
Israel	0.5	0.4	0.6	0.6	0.5	0.4	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.4
Japan	8.4	10.0	7.2	8.8	5.8	7.0	5.0	5.8	4.6	5.6	5.1	6.2	4.7	5.5
Korea	2.6	2.5	2.9	2.6	2.9	2.7	2.8	2.3	3.0	2.5	3.2	2.7	3.3	2.6
Singapore	1.5	1.0	1.4	1.0	1.2	0.9	1.0	0.8	1.4	1.1	1.4	1.1	1.4	1.1
Chinese Taipei	2.1	3.3	2.3	3.5	1.9	2.9	1.6	2.2	1.6	2.4	1.9	2.6	1.8	2.4
Emerging markets and developing countries. of which:	21.0	19.6	26.9	25.3	32.3	30.8	36.7	36.8	36.1	35.0	38.2	37.4	39.5	39.5
China	2.5	1.9	3.8	2.8	7.0	5.3	8.7	7.4	9.3	7.8	10.1	8.4	10.3	8.6
Russia	1.6	1.8	1.6	1.8	2.3	2.9	3.0	3.7	2.5	3.0	2.7	3.3	3.0	3.7
World	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Ex – by value of gross export
VA_{ex} – by value added
Source:(TiVA Database), author's calculations.

The calculations revealed that the share of developed countries in world export diminished (irrespective of the estimation method adopted). The conventional approach indicated the decrease from 79% in 1995 to 60.5% in 2011, whereas the calculations based on value added showed the decrease from 80.4% to 60.5%. The latter method showed a slightly higher share than the one in the conventional approach, but in the researched period the difference gradually got smaller and in 2011 both methods yielded the same result (60.5%).

In the researched period, the share of the EU-15 in world export decreased, but it should be stressed that the share calculated with the conventional method was higher throughout the whole period than the share estimated based on value added (40.4% and 39.3% in 1995, 29.2% and 27.8% in 2011). This means that the actual share of the old EU members in world export was lower than it might be assumed based on the conventional approach. In the group of developed countries, the similar situation also concerned Canada and Singapore. In the case of the USA, the calculations revealed that its share in global export also fell. Based on value added, it decreased from 14.4% in 1995 to 10.9% in 2011, but was higher than the one determined according to the conventional estimate, which amounted to 13.4% in 1995 and 10% in 2011. The same can be said about Japan and Chinese Taipei. The share of such countries as New Zealand, Hong Kong, Israel and the EFTA countries remained relatively unchanged in the researched period (irrespective of the method adopted) – 1% in the case of the first three countries and 3% for the entire EFTA group.

The group of developed countries also contains the countries that increased their share in world export, both based on the conventional approach and according to the new concept of measuring trade in value added. These countries are Australia, South Korea and the developed European countries (EU-15 and EFTA non-members). Nevertheless, their situation was not identical. Australia's share in gross export calculated based on value added was slightly higher than the one calculated with the conventional method, which means that its share was, in reality, higher than in official statistics. On the other hand, the share of the developed European economies (apart from the EFTA and EU-15) and South Korea in global export based on value added was lower than the share calculated conventionally, which means that in fact their position was lower.

Interesting results were obtained for emerging markets and developing countries. The share of this group in the world export of goods and services grew from 21% in 1995 to 39.5% in 2011 (in the conventional approach) and from 19.6% to 39.5% (in the new approach). It should be stressed, however, that although in 1995 the share estimated with value added was lower that with the use of the conventional method, the difference ceased to exist in 2011. A significant growth in China's share in world export calculated with the conventional method (from 2.5% to 10.3%) was accompanied by an increase in the share determined based on value added (from 1.9% to 8.6%), but it should be noted that the latter was distinctly lower than the former. Contrary to China's situation, Russia experienced a growth in the researched years (irrespective of the method adopted), but its real contribution to world export was higher than according to official statistics (1.8% against 1.6% in 1995 and 3.7% against 3% in 2011).

Table 3 shows the results of additional calculations demonstrating the distance between the real share of particular countries/groups of countries in world export and their share in the conventional approach in the years 1995-2011. It was established as a difference between the adjusted and conventional share of countries/groups of countries in world export, which leads to the conclusions about the real change in the position of these countries in world export.

A more in-depth analysis suggests that, in fact, in the researched years the position of developed countries deteriorated. This, for example, concerns the EU-15, since not only was their share in world export estimated based in value added lower than the share calculated in the conventional approach, but also this unfavourable difference increased. A similar change was experienced by European developed countries (EU-15 and EFTA non-members), the USA, Japan, South Korea, and Chinese Taipei. The improvement was reported for such developed countries as the EFTA group, Australia, Canada, and Singapore, while the positions of New Zealand, Hong Kong, and Israel remained relatively unchanged.

Table 3. Distance between share in world export by value added and by value of gross export in years 1995-2011 (in percentage points).

Groups of countries	1995	2000	2005	2008	2009	2010	2011
Developed countries:	1.4	1.6	1.5	-0.1	1.1	0.8	0.0
EU-15	-1.1	-1.4	-1.0	-1.7	-1.1	-1.2	-1.4
EFTA	0.0	0.1	0.1	0.3	0.2	0.2	0.3
Other European countries	-0.2	-0.2	-0.3	-0.4	-0.3	-0.3	-0.3
Australia	0.1	0.0	0.2	0.2	0.2	0.2	0.3
New Zealand	0.0	-0.1	0.0	0.0	0.0	0.0	0.0
Canada	-0.5	-0.7	-0.5	-0.1	-0.2	-0.2	-0.1
USA	1.0	1.6	1.2	0.9	1.3	1.2	0.9
Hong Kong	0.0	0.0	0.1	0.0	0.0	0.0	0.0

Groups of countries	1995	2000	2005	2008	2009	2010	2011
Israel	-0.1	0.0	-0.1	-0.1	0.0	0.0	-0.1
Japan	1.6	1.6	1.2	0.8	1.0	1.1	0.8
Korea	-0.1	-0.3	-0.2	-0.5	-0.5	-0.5	-0.7
Singapore	-0.5	-0.4	-0.3	-0.2	-0.3	-0.3	-0.3
Chinese Taipei	1.2	1.2	1.0	0.6	0.8	0.7	0.6
Emerging markets and developing countries, of which:	-1.4	-1.6	-1.5	0.1	-1.1	-0.8	0.0
China	-0.6	-1.0	-1.7	-1.3	-1.5	-1.7	-1.7
Russia	0.2	0.2	0.6	0.7	0.5	0.6	0.7

Source: Author's calculations based on data from table 2.

Emerging markets and developing countries as a whole improved their position in world export, but the situation of the two most important countries in this group, namely Russia and China, was distinctly different. China's position improved, but not to a degree indicated by official statistics, because the difference between its share by value added and in the conventional approach grew (unfavourably). On the other hand, Russia's position improved, because its real share in world export (measured by value added) was, as mentioned before, higher than the one measured conventionally and the difference increased (favourably).

5. The position of the EU-15 countries in the ranking of world exporters

To complement the earlier considerations, the ranking of the largest world exporters in 1995 and 2011 was compiled. The compilation ranks the countries by the share in world export by gross export and by value added and is presented in Table 4.[34]

In 1995, the USA ranked as the world's largest exporter, Germany ranked second, and Japan – third. Data show that their real positions were slightly different. The USA ranked first, but it was Japan that ranked second and Germany – third. Officially, the top twenty countries contained nine EU-15 members, with Luxemburg ranking the lowest in the group (42). In reality (based on value added), three of these countries had a higher position than according to official statistics (Austria, Greece, Finland), four had the same position (France, the UK, Italy, Spain), and the remaining eight had lower positions (Germany, the Netherlands, Belgium, Sweden, Denmark, Ireland, Portugal, Luxemburg).

In 2011, official statistics ranked China first as the world's largest exporter, the USA – second, and Germany – third. For China, it meant the move up by nine positions, whereas for the USA and Germany – the move down by one position compared to 1995. The top twenty featured yet another five EU-15 members (six countries in total, i.e. three less than in 1995). These countries were: the UK, France, Italy, Spain, and the Netherlands (apart from the UK, the position of which did not change compared to 1995, the other countries reported a fall). Greece had the lowest position (44) and only two countries in the EU-15 improved their ranking: Ireland and Luxemburg.

[34]The results concerned 61 countries included in *TiVA* Database (as of October 2015).

Table 4. Position of the EU-15 members in world export by value of gross export and by value added in comparison to selected countries in 1995 and 2011.

1995				2011			
By value of gross export		By value added		By value of gross export		By value added	
No.	Country[a]	No.	Country[a]	No.[b]	Country[a]	No.[b]	Country[a]
1	USA (13.4)	1	USA (14.4)	1 (+9)	China (10.3)	1 (1)	USA (11.0)
2	***Germany (9.5)***	2	Japan (10.0)	2 (-1)	USA (10.0)	2 (+12)	China (8.6)
3	Japan (8.4)	***3***	***Germany (9.9)***	***3 (-1)***	***Germany (7.5)***	***3 (3)***	***Germany (7.4)***
4	***France (5.9)***	***4***	***France (5.9)***	4 (-1)	Japan (4.7)	4 (-2)	Japan (5.5)
5	***UK (5.5)***	***5***	***UK (5.5)***	***5 (5)***	***UK (3.9)***	***5 (5)***	***UK (3.9)***
6	***Italy (5.0)***	***6***	***Italy (4.9)***	***6 (-2)***	***France (3.7)***	6 (+9)	Russia (3.7)
7	Canada (3.6)	7	Chinese Taipei (3.3)	***7 (-1)***	***Italy (3.3)***	***7 (-3)***	***France (3.6)***
8	***Netherlands (2.9)***	8	Canada (3.1)	8 (+1)	Korea (3.3)	***8 (-2)***	***Italy (3.1)***
9	Korea (2.6)	***9***	***Netherlands (2.7)***	9 (+7)	Russia (3.0)	9 (+11)	Saudi Arabia (2.7)
10	China (2.5)	10	Korea (2.5)	10 (-3)	Canada (2.7)	10 (-2)	Canada (2.6)
11	***Spain (2.3)***	***11***	***Spain (2.2)***	11 (+20)	India (2.4)	11 (-1)	Korea (2.6)
12	***Belgium (2.3)***	12	Switzerland (2.0)	***12 (-1)***	***Spain (2.3)***	12 (-5)	Chinese Taipei (2.4)
13	Chinese Taipei (2.1)	***13***	***Belgium (2.0)***	13 (+14)	Saudi Arabia (1.9)	13 (+16)	India (2.3)
14	Switzerland (2.0)	14	China (1.9)	14 (+3)	Mexico (1.8)	***14 (-3)***	***Spain (2.2)***
15	***Sweden (1.7)***	15	Russia (1.8)	15 (-2)	Chinese Taipei (1.8)	15 (+2)	Australia (2.0)
16	Russia (1.6)	***16***	***Sweden (1.6)***	16 (-2)	Switzerland (1.7)	16 (-4)	Switzerland (1.8)
17	Mexico (1.5)	17	Australia (1.4)	17 (+3)	Australia (1.7)	17 (+6)	Brazil (1.7)
18	Singapore (1.5)	***18***	***Austria (1.3)***	18 (+7)	Brazil (1.5)	***18 (-9)***	***Netherlands (1.6)***
19	***Austria (1.4)***	19	Mexico (1.3)	***19 (-11)***	***Netherlands (1.5)***	19 (19)	Mexico (1.5)
20	Australia (1.3)	20	Saudi Arabia (1.1)	20 (-2)	Singapore (1.4)	20 (-1)	Indonesia (1.4)
…		…		…		…	
23	***Denmark (1.1)***	***26***	***Denmark (1.0)***	***23 (-11)***	***Belgium (1.3)***	***22 (-6)***	***Sweden (1.6)***
29	***Ireland (0.8)***	***28***	***Finland (0.8)***	***24 (-9)***	***Sweden (1.2)***	***24 (-11)***	***Belgium (1.1)***
30	***Finland (0.8)***	***32***	***Ireland (0.6)***	***25 (+4)***	***Ireland (1.2)***	***27 (-9)***	***Austria (0.9)***
34	***Portugal (0.5)***	***35***	***Portugal (0.5)***	***29 (-10)***	***Austria (1.0)***	***28 (+4)***	***Ireland (0.8)***
40	***Greece (0.4)***	***39***	***Greece (0.4)***	***32 (-9)***	***Denmark (0.7)***	***32 (-6)***	***Denmark (0.7)***
42	***Luxembourg (0.4)***	***43***	***Luxembourg (0.3)***	***36 (-6)***	***Finland (0.5)***	***36 (-8)***	***Finland (0.5)***
				37 (+5)	***Luxembourg (0.5)***	***42 (-7)***	***Portugal (0.4)***
				42 (-8)	***Portugal (0.4)***	***43 (-4)***	***Greece (0.3)***
				44 (-4)	***Greece (0.3)***	***46 (-3)***	***Luxembourg (0.3)***

[a] *Values in brackets show a share in world export in %.*
[b] *Values in brackets show the change of position between 1995 and 2011.*
Source: (TiVA Database), author's calculations.

On the other hand, the list based on value added by particular countries to world export reveals that the leader of official statistics – China – actually ranks second, with the USA reclaiming the first position. It should be noted, however, that in this ranking China moved up twelve positions with reference to 1995. The top twenty features six EU-15 countries (three less than in 1995), with Luxemburg in the lowest position (46). Compared to 1995, only Ireland moved up by four positions, Germany and the UK remained on the same positions, while all other countries reported a fall (by 2-11 positions). In comparison with the ranking based on the conventional approach, the real positions of particular EU-15 members were different. In five cases they were the same (Germany, the UK, Denmark, Finland, Portugal), in four – higher (the Netherlands, Sweden, Austria, Greece), and in five they were lower (France, Italy, Spain, Belgium, Ireland, Luxemburg).

6. Conclusion

In the years 1995-2011 the value of world export increased almost fourfold, reaching over USD 19 trillion. According to official statistics, the majority of export came from developed countries, although the data presented above show that their role diminished in the researched years, while the role of emerging markets and developing countries grew. Whichever method is adopted, it can be stated that in the years 1995-2011 that share of the EU-15 members in world export decreased, but their real position was lower than according to official statistics, because the share in world export by value added was lower than the share estimated in the conventional approach. In addition, the unfavourable difference between these two shares grew, suggesting the worsening of the real position of the EU-15 countries in the world market. This is also confirmed by the compilation of the world's largest exporters. In 1995, the top twenty contained 9 out of 15 old EU member states, while in 2011 – only 6. Moreover, in 2011 – apart from few exceptions – they ranked lower than in 1995. It is also important to stress that the list of world exporters based on value added ranked the most of the EU-15 countries lower than the ranking compiled by gross export.

Analysing the data for the years 1995-2011, one may conclude that, unfortunately, this is a lasting trend and developed countries (including the EU-15) are systematically driven from the world market by developing countries. Interestingly, the most serious contender – contrary to official statistics – does not appear to be China. Despite the fact that in the analysed period its share in world export increased significantly (irrespective of the method adopted), the share by value added was lower than by gross export and this unfavourable difference continued to grow, which means that China benefited from increased exports to a much lesser extent that it might be inferred from official statistics.

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THE CAUSAL RELATIONSHIP AMONG SUSTAINABLE DEVELOPMENT INDICATORS AND ECONOMIC GROWTH – THE CASE OF EU28 COUNTRIES

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Abstract. The concept of sustainable development can be compared to issues like democracy and globalization, because it has become a widespread contest and very important in this present time. It has compelled many authors and researchers to delve into its pillars such as social, economic and environmental likewise its indicators. The main aim of authors and researchers is characterized by finding the direction and strengths of impact among the pillars and indicators and probably come up with distinct ideas to support decision making of policy makers. Specifically, the relationship between economic growth and environmental pollution, as well as economic growth and energy consumption, has been extensively studied over the past two decades. Our study is focused on the causal relationship among the sustainable development indicators (GDP, transportation, energy consumption, and carbon emission) and their impact on economics growth in the 27 EU countries during 2005-2014. Carbon emission is regarded responsible for the majority of greenhouse gases. We use Grey models to find the relationship among the indicators. The analyses of causal relation point up the strengths and weaknesses of the sustainable development indicators (S. D. I.) on the GDP and economic growth. Based on the results the appropriate recommendation will be made.

Keywords: CO2 emissions, energy consumption, transportation, GDP

JEL Classification: Q01, Q43, C23

1. Introduction

Every single nation on the globe had the aim to attain lofty and higher economic growth from the beginning of industrial revolution with the mission of achieving this through the use of both renewable and non-renewable resources. Though this idea seemed very wise and laudable but not much concern was given to its impact on the environmental quality (Hajek & Olej, 2010). By the turn of some decades, the adverse impact of economic growth on environmental quality began to resurface as the the emission of carbon dioxide increased couple with global warming and climate change. This raise concern among world institutions (United Nations Framework Convention on Climate Change (UNFCCC); Global Environmental Facility (GEF); European Environmental Agency (EEA), etc.), as well as many scholars to find nexus between economic growth and macroeconomic variables such CO2 emission, energy consumption, income, population, FDI, etc. using different econometric methodologies. Kraft & Kraft (1978) pioneered the topic by determining the causal relation between energy and gross national product (GNP). Their conclusion portrayed a unidirectional relationship, which implied the relation runs from GNP to energy consumption but there was no relation between energy to GNP. Ozturk & Acaravcci (2010) also investigated the long-run and casual relationship between economic growth energy consumption, carbon emission, employment in Turkey using data from 1968-2005 by using autoregressive distribution lag bounds testing method of cointegration. The result showed that neither energy consumption per capita nor carbon emission causes real GDP growth. Yet employment ratio has a causal relation to real GDP per capita. Yuan et al. (2010) examined the relation between China's economic growth and energy consumption using grey incidence analyses and data from 1980-2007. The results in the different period were not the same, although there was some positive effect on GDP. Simply put, reducing carbon emission and share energy consumption do not necessary have an adverse effect on the output in Turkey. Arouri et al. (2012) used panel unit root test and cointegration technique to determine the relationship between energy consumption and real GDP for twelve North Africa and Middle East countries (MENA) from 1981-2005. The result indicated that there is a significant impact of energy consumption and carbon dioxide emission. Similarly, the result indicated that there is a quadratic relation between real GDP and carbon dioxide emission in the whole region. Put differently, reduction in carbon emission per capita might have the same effect on GDP per capita in future for the region as the region keeps on growing.

As a result, it can now be deduced from the few empirical studies that there have been contradictory views. This can be traced from the outcome on some the macroeconomic variable and economic growth. Hence the topic (assertion) is creating more curiosity for further research since many regions of the globe have not been explored to assess the current trend of the topic. For instance, EU has been one of world leading institutions who have shown much concern about economic growth and environmental quality by minimizing the adverse effect of carbon dioxid/greenhouse gases and energy consumption on economic growth. Explicit evidence can be traced from climatic initiative put in from 1991 to reduce emission and improve energy efficiency.

Similarly, greenhouse gas emission in Europe, according to Micquel Arias Conte (EU climate head), has also declined to the lowest level from 1990-2014 which is about 23% more than the estimated 1/5 projected for the year 2020. At the same time, the EU economy grew by 46% and she declared this before the Paris Conference in last year December. The institution still has set a goal to reduce their emission to minimize global warming by 2 degrees by mid of this century whiles ensuring economic growth. Consequently, other researchers challenge the possibility of achieving this goal. In a like manner, they have believed that EU can achieve this if its member countries can reduce their emission 3 times from now.

Hence this paper investigates the relationship between economic growth and environmental pollution, energy consumption, transportation in the 28 EU countries. Taking into consideration the recent year data, we will use regression analyses and Univariate Grey Prediction (GP) modelling to predict the future trend. This tool is used because it provides high accuracy forecasts compared with other technique and also offers a reliable forecast for variables like energy consumption, and CO_2/greenhouse gas emission. The remainder of this paper is organized as follows. Section 2 describes the data used and illustrates the model and econometric methodology and the GP approach. Section 3 discusses the empirical findings, and the last section summarizes findings and policy implications.

2. Research Methodology

2.1 Data

Annual time series data from Eurostat and it covers 1995 to 2014 for the purpose of this study. With the exception of countries like Estonia, and Latvia which had insufficient transportation data for some of the years, all the countries have full data. The variables used are the GDP (measured in millions of Euro), energy consumption (measured in million tons of oil equivalent), CO_2 emission (greenhouse gas emissions in CO_2 equivalent indexed to 1990), and Transportation (measured in passenger-kilometers travelled relative to GDP at 2000 change rate). The specific objective of this study is to find the direction of causal relationship between economic growth and environmental pollution, energy consumption along with transportation. The summary statistics (mean value) of GDP, Energy consumption, CO_2 emission and Transportation are presented in Table 1.

Table 1: Mean values of variables

Country	GDP	Energy consumption	CO_2	Transportation
BELGIUM	306797.2	50.51	96.48	39336
BULGARIA	69498.3	18.55	60.59	5330
CZECH REPUBLIC	108092.4	40.78	73.51	19305
DENMARK	205732.4	19.43	99.43	22651
GERMANY	2350019.0	313.90	81.63	152425
ESTONIA	11025.5	5.57	47.77	2044
IRELAND	141311.7	13.80	117.47	20895
GREECE	177885.7	27.54	116.77	37311
SPAIN	844024.2	118.49	132.64	110488
FRANCE	1721451.4	246.00	98.38	91423
CROATIA	33910.8	8.39	80.89	4383
ITALY	1398532.2	165.08	102.44	168268
CYPRUS	14156.4	2.40	148.73	2855
LATVIA	14059.5	4.37	44.70	2224
LITHUANIA	20750.5	7.38	44.66	1764
LUXEMBURG	30458.8	4.09	92.24	3406
HUNGARY	76616.0	23.89	75.94	17096
MALTA	320811.1	0.88	144.49	997
NETHERLAND	526896.0	67.48	99.23	15926
AUSTRIA	252059.9	30.01	107.82	27061
POLLAND	257554.4	91.06	85.88	49134
PORTUGAL	147484.7	22.27	127.57	13497
ROMANIA	83263.9	37.07	56.48	11403
SLOVENIA	28460.8	6.70	105.42	3630
SLOVAKIA	42932.9	16.78	66.42	9260
FINLAND	159756.0	33.45	102.63	17021
SWEDEN	315771.5	48.18	93.52	24318
UK	1788210.3	210.60	86.20	106708

Source: own processing

2.2 Econometric Model

Based on the previous literature and findings in energy economics, it is prudent to form a long-run relationship between energy consumption, CO_2, transportation and GDP in a linear quadratic form, with an aim of testing the validity between the dependent variables (GDP) and independent variables (energy consumption, CO_2 and transportation):

$$GDP = \alpha + \beta_1 EC_{it} + \beta_2 CO2_{it} + \beta_3 TRANS_{it} + u_{it}, \quad (1)$$

where i=1,2,…,N, N is the number of countries, t denotes time, α is intercept, β_1, β_2 and β_3 are regression parameters, and u_{it} is assumed to be serial uncorrelated error term.

Pooled, fixed and random effects were used to deduce three models correspondingly. The hypothesized signs of the regression parameters were as follows: transportation (+), energy consumption (+) as they stimulate economic growth and CO_2 (-). These assumptions were based on the results of previous studies (but for different regions of the world) (Yuan et al., 2010; Arouri et al., 2012).

3. Results

3.1 Pooled Effect Model

This model assumes that all 28 EU countries have the same values of variables. The result of pool effect model in Table 2 suggests that energy consumption and transportation were the variables that can explain GDP (P<0.01). On the other hand, CO_2 emissions were not significant. Also, GDP had positive significant effect on the independent variables. Therefore, 1% increase in GDP increases both energy consumption and transportation by 5846.17 and 3.54, respectively. Similarly, 1% increase in GDP decreases CO_2 emissions by 115.36.

Table 2: Results of pooled effect model

Input variables	Coef.	Std. Err	t	P>|t|	95% conf. interval	
Energy consumption	5846.17	165.61	35.30	0.000	5520.871	6171.458
CO_2	-115.36	226.92	-0.51	0.611	-561.083	330.355
Transportation	3.54	.28	12.57	0.000	2.982	4.088
Constant term	-58391.46	22055.53	-2.65	0.008	-101713.8	-15069.1

Source: own processing

3.2 Fixed Effect Model

The model allows for heterogeneity among individual variables. In addition, it assumes that all the countries have different intercept values but it does not vary over time (it is time invariant). This model shows that energy consumption and transportation are the variables that can explain GDP (Table 3). On the other hand, CO_2 emissions were again not significant to explain GDP. Besides, 1% increases in GDP increases transportation by 9.16. Conversely, 1% increase in GDP decreases energy consumption and CO_2 by 2711.95 and 628.36, respectively.

Table 3: Results of fixed effect model

Input variables	Coef.	Std. Err	t	P>|t|	95% conf. interval	
Energy consumption	-2711.95	762.32	-3.56	0.000	-4209.500	-1214.407
CO_2	-628.36	461.82	-1.36	0.174	-1535.578	278.860
Transportation	9.16	.31	29.77	0.000	8.552	9.760

Constant term	291924.40	43384.99	6.73	0.000	206696.3	377152.4

Source: own processing

3.3 Random Effect Model

The model works under assumption that there is a common mean for the intercept. The results in Table 4 illustrate that all the three independent variables can explain GDP. Moreover, 1% increase in GDP increases both energy consumption and transportation by 2639.02 and 8.48, respectively. Similarly, 1% increase in GDP decreases CO_2 by 2018.54.

Table 4: Results of random effect model

Input variables	Coef.	Std. Err	*t*	*P*>|*t*|	95% conf. interval	
Energy consumption	2639.02	317.87	8.30	0.000	2016.009	3262.026
CO_2	-2018.54	388.16	-5.20	0.000	-2779.314	-1257.762
Transportation	8.48	.31	27.11	0.000	7.868	9.095
Constant term	131731.50	43336.45	3.04	0.002	46793.6	216669.4

Source: own processing

4. Conclusion

The causes of the rise and fall in the two variables CO_2 emissions and energy consumption may be attributed to cold winter condition which gives rise to fuel consumption in both residence and commercial sector. The unstable rate of expansion in the industrial sectors in previous years is another cause since it turns out to increase or decrease the CO_2 emissions as well as energy consumption depending on magnitude of the development or expansion.

Our results show that energy consumption, CO_2 emission and transportation have positive impact on GDP. In like manner, the same results have been confirmed by Kasman & Duman (2015), Shahbaz et al. (2014), Pao & Tsai (2011), Belloumi (2009), Shalbaz & Lean (2012), Bowden & Payne (2009) Odhaimbo (2008), Halicioglu (2009), Say & Yucel (2006) and Sheinbaum-Pardo et al. (2012) although their studies were carried out in different countries and regions as well as different time periods. For example, as GDP increases, CO_2 emission decreases and other two variable increases can be evidenced by the pooled and random effect models. This result is explained by three supporting arguments. Firstly, most of the countries in EU have made a very strong effort to control environmental problems specifically air pollution etc. Also all the EU countries have special institutions established to curb the environmental challenges. Countries are abiding by the environmental policies and laws put in place by EU and their ministers of environment, especially in the areas of air, water and land pollution. Therefore, this leads to the reduction of CO_2 emissions and increase in GDP (because less much resource is used to offset the negative effect CO_2 emissions).

In addition, citizen's aware of dangers CO_2 emission on climate has also driven politicians to adopt more effective sustainable energy consumption. These have positive effect on the region. As people are using effective energy consumption products than more energy consuming products, less amount of resource will be sacrifice to combat its negative externality. In effect, consumers want to minimize cost likewise its negative environmental impact. Hence, increase in transportation with less pollution.

Several important policy implications can be proposed based on the results of this study. EU and member countries should continue to monitor baseline for emissions especially the use of technological growth development automobile machines and fluorinated GHG. There should be a clean energy development initiative where people will be willing to voluntary might help to promote green building standards. They should also be supported both materially and finally by greenhouse fund by EU. The EU as well as individual countries should keep on revising their policies to meet their emission reduction target to match the current trend of economic growth. EU should also institute transparency, accountability and compliance scheme which actually will be not used as a punitive measure but must be used as to figure out member countries which off-tract and put them back on track. There should cost effective regulations for all entities especially industries to minimize air pollution.

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NEW STRATEGIES OF RUSSIAN BUSINESS SCHOOLS IN THE CONTEXT OF GLOBAL EDUCATIONAL MARKETS

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Abstract. The period when the Russian market of business education developed in isolation from the world has long been over. In conditions of globalization the demand for high quality programs in the field of further professional business education, as well as competition between such programs, has increased significantly. Factors that contribute to the more intense competition in the Russian market for business education include internationalization of business practices and development of international management standards, which enhances the attractiveness of foreign business schools for the Russian consumers of educational services. The results of research carried out at the Faculty of Economics of Lomonosov Moscow State University illustrate the dynamic changes in the factors that determine the competitiveness of business schools in the Russian market for business education. Successful business schools introduce new business models and use an increasing variety of strategies. The authors show that there are new features of strategic behavior for the providers of further professional business education in Russia: the emphasis on network cooperation such as joint development of educational products with business organizations and foreign business schools, expansion of product range through increased diversity of educational programs and new emphases in their content structure, with greater attention to management for international companies and networks, cross-cultural communication in business, interdisciplinary aspects and global trends in the innovative development. The authors' conclusions are based on questionnaires and interviews conducted in 2016 with MBA students, experts of the Russian Association of Business Education and managers of business schools operating in Russia.

Keywords: global educational market, strategy, business school

JEL Classification: F60, F23, I25, M16

1. Introduction

The purpose of this article is to justify the strategic directions of business school development in Russia in the context of challenges of the global market and national business environment.

The current global economy trends clearly show the growing importance of international business, global market and enterprise collaboration processes. This is reflected in the content of business education, changing requirements for competencies of managers prepared by universities and business schools of different countries. In the context of business globalization the importance of generic competencies and cross-cultural communication of managers increases.

At the same time IT has provided explosive development of distant education. The new global education access environment has generated favorable conditions for educational program development on a global scale (Lancione & Clegg, 2015; Brown, 2008). As a result international competition intensifies, unified international requirements to the competitiveness of business schools, which are reflected in international rankings and accreditations, come upfront.

The competitive environment and conditions of business school activity in Russia raise a complex managerial challenge to them - how to preserve their identity in the context of globalization of the market of business education. Studies we have undertaken at Lomonosov Moscow State University - the leading Russian university - enabled pinpointing the parameters of consumer choice and business education utility criteria on the example of Russia's MBA programs today. This will enable understanding to what extent globalization impacts the strategy of business schools, the development of business education in Russia.

2. Research Setting

Internationalizing of Russian business school activity raises a complex strategic question - how to preserve a business school's identity in the condition of globalization of the education market. Identity aspiration in the complex institutional environment of the global education market makes "what a business school aims to be" the key question, rather than "what a business school is" (Kodeih & Greenwood, 2014). In the context of globalization, business schools often, perhaps even typically, are compelled to simultaneously abide by different “rules of the game”, each prescribing a different, and at times contradictory, set of normative orders (Reay & Hinings, 2009).

There is practically no empirical research on how business schools in the context of globalization manage to cope with increasing multiple logic, how a balance between commercial and development logic may be achieved. In our work we take into consideration advice from researchers who had investigated this issue in relation to organizations from other areas (Battilana & Dorado, 2010).

One of the consequences of education market globalization is strengthening institutional pressure on business schools, including coercive pressure - for instance, accreditation schemes, mimetic pressures - for instance, leading business schools, normative pressure - for instance, professional networks and religious denominations (Moratis, 2016). Normative pressure is one of the key reasons that encourage business schools in various countries to adapt successful overseas education models, e.g. the US MBA model (Blass & Hayward, 2015; Gerasimenko et al., 2015; Lamb & Currie, 2011; Rostasova et al., 2013). However, often the impact of market logic covers normative appeals to adaptation, as reflected in copying and adoption of the American US MBA model (Liang & Lin, 2008).

It should also be borne in mind that MBA programs have cultural specificity, typical for the North American model of management practices (Currie, 2007) which often contradicts social norms, for instance those of China (Currie & Knights, 2003) or Malaysia (Sturdy & Gabriel, 2000), which stresses the importance of adapting the US MBA model.

Our research was conducted from 2014 to 2016 on the basis of the MBA programs of Russia's leading University to show how global MBA program models relate to requirements of the Russian labour market and parameters of demand for business education. 358 Lomonosov Moscow State University MBA program graduates participated in our questionnaires, including 78 people in 2016.

3. Results

Our surveys have shown that in 2016 almost half of the respondents had compared MBA at Russian and foreign universities when selecting the place of study, despite the economic crisis and a two-fold increase in the dollar and euro rate against the ruble. Responding to the question: "Why wasn't education abroad considered?", the other half highlights 3 main reasons for rejecting education abroad - the presence of a language barrier, high costs and the lack of an opportunity to spare time for work. Cross-cultural barriers in communication and learning were not recognized as significant reasons. In response to the question: «Why did you prefer MSU MBA program education to education abroad?", the main reason for choosing in favour of MSU MBA program, noted by attendees, was the high quality of education which corresponds with international standards. It is worth noting that a more affordable cost of tution was listed as a reason only in half of the cases, therefore it is not the main cause of choice. However, many did point to such factors as education proximity to real business conditions (66%), i.e. the specifics of national market, regulatory conditions and forms of entrepreneurship knowledge.

Figure 1: Evaluation of the importance of MBA program learning results

The extent to which globalization penetrates program content and implementation becomes clear from the answer to the question: "Is it important to you that the education received at MSU was international?" The responses indicate a high significance of this factor for MBA students - about 80% noted that it is important to them that the education received at a Russian university was international. A third of respondents noted that it is important for future work. Over half

(54%) the respondents plan to use the Faculty of Economics of Lomonosov Moscow State University's MBA program possibilities in the next learning year and select additional learning modules offered at foreign universities. MBA students were focused on the offered learning specialty rather than the location of the foreign university. This brings upfront the issue of knowledge and competence necessary for them under modern conditions. It should be borne in mind that at the Faculty of Economics at Lomonosov Moscow State University only those who possess at least a bachelor's degree or practical work experience in management no less than three years are eligible of being MBA students. Practical knowledge gained during work gives them an idea about managerial competences necessary for a career. We asked MBA graduates among respondents to tell how useful the learning results were for them. In response to the question: "Which results gained after MBA program graduation are most important to you?", the following answers were given in the course of three years (Figure 1).

The structure of qualities stated by our graduates raises serious challenges to the content and standards of MBA programs in the global context, especially considering the cultural code of the nation, manifested in the practice of doing business. In recent years the competitive environment of Russian business schools has become significantly more complex, new competitive pressure forces have arisen, compelling even the leaders of the Russian business education market to accordingly revise their strategies.

4. Discussion

One of the key factors affecting the change in the competitive landscape of Russian business schools is the emergence of the providers of educational services who offer new learning formats and apply innovative business models. Similarly to how in the 1990-ies in the civil aviation market the competitive environment of the leading global airlines had undergone a significant change with the advent of budget airlines (low-budget companies offering a new type of services, at the basis of which was a new business model), the present stage of business education market development is characterized by the end of business school domination, the flagship of which were MBA programs. Business education requirements have become increasingly satisfied on the basis of very focused, highly specialized educational products aimed at forming a specific skill or mastery of a particular aspect of specific management technology etc.

Unlike a kind of package approach, when in designing the educational program the authors define the competence profile, on the formation of which tuition within the program is directed, new formats of business education are usually based on a very customized approach, where the customer himself creates a "mosaic" of the competence profile, folding it from the "tiniest of fragments" of knowledge and skills acquired through short enough modules/courses and other types of educational products. Among advantages of this customized approach a high potential for building individual educational trajectory and the ability of mainstreaming all of a person's previous educational and professional experience may be included. However, this approach poses significant risks associated with considerable information asymmetry (compared to experts, a student usually has insufficient information on which new knowledge and skills are key in a particular field, etc.). Therefore, independent formation of the competence field may lead to significant gaps in required knowledge, competence and skills. Of course, these two approaches are not mutually exclusive, rather complementary, which generally leads to development and expansion of the business education market. However, strategic positioning issues become more complex and multifaceted for this market's participants.

What are the distinctive features of new players on the business education market and learning formats offered by them? In Russia, as well as other countries, new business education providers, which are essentially educational platforms based on Internet technologies (so-called "edtech" platforms), similar to the known global platforms like Udemy, Pluralsight and others, have been actively developing in the recent years. Such Russian educational platforms include Courson (www.courson.ru), Business-youth (http://molodost.bz/), Business environment (www.dasreda.ru), Eduson (www.eduson.tv) and others.

A rapid spread, starting from the late 2000's, of Massive Open Online Courses (MOOCs) has greatly contributed to the edtech platform development in business education. MOOCs not only contributed to the improvement of the technological basis for further development of educational platform models, but in many ways formed a new culture of learning via "on demand" courses, i.e., at the order, request or wish of a consumer. Thus, with the development of edtech platforms, the "courses on demand" model, when a student gets a much greater selection of meaningful content, greater flexibility of access and format training schedule, replaces "courses by choice", which to some extent enable individualizing a person's educational trajectory within traditional educational programs. That is why some edtech platforms position themselves as on-demand educational platforms.

Another attractive characteristic of edtech platforms in business education which should be noted is that companies which use their services may usually be consumers of both their educational content and tools that enable producing online courses based on these companies' own materials. There is also a more varied range of relationships between major stakeholders of the educational process.

For instance, the Courson edtech platform involves a flexible various structure of relationships between:

1) providers of educational products and services based on Internet technology, which under the given educational model include:
   - holders of educational content (experts, qualified teachers);
   - methodists in the area of e-learning;
   - information technology and video material production specialists;
   - technology specialists accompanying the process of creating e-learning modules (make-up artists, lighting technicians, office designers, etc.);
2) consumers of educational services (different target audiences);
3) intermediaries (for example, educational products and services dealers).

The following main models of these parties interaction may be classified:

1. Courson acts as an intermediary, providing a platform for interaction between producers and consumers of various educational products and services. For example, the author of a course applies to Courson with a prepared video course and uses Courson solely as a platform for finding consumers and engaging with them.
2. Educational content holders apply to Courson for joint development and production of video courses, marketing and providing corresponding educational services. Commercial relationship between the parties may be constructed in different ways, for example:
   a) The author of the course (content holder) does not pay for the production of a training video and other kinds of work associated with the production of an educational product that reduces his share in future revenues from educational activities.

Development is funded by the Courson platform after approval by the council of experts of the course proposed by the author.

b) The course holder pays for expenses borne by Courson that are associated with the production of a video course based on the edtech platform, which increases his stake in future earnings.

Thus, Courson performs two main activities:

- production of short online courses (no more than 2 hours), composed mainly of video lectures and a small number of practical tasks;
- distribution/sales of short online courses (both directly through the site, and by using the so-called "partners"-dealers who are engaged in advertising and attracting clients/students).

Among innovative characteristics of strategic behaviour of business education providers, it is worth noting distribution of the subscription business model (SBM). As known, this model has long and actively been used, for instance, by companies issuing magazines and newspapers, symphony orchestras, opera theatres, fitness clubs, etc. However, in education, it was only recently spread, thanks to mostly new opportunities offered by Internet technologies. The logic of this model in education is similar to package licensing of intellectual property, but unlike the latter, a set of items of the "educational package" is not fixed when contracting, but usually remains at the user's decision within a specified period (a month, year, etc.). Unlike a traditional educational program, which in this context may be thought of as a sort of package of educational services, the structure and individual elements of such an educational package is defined by the consumer himself.

One of the main benefits of the "subscription" business model lies in the optimum balance between value for the service provider and for the consumer, which is typical not only for education but also for other application areas of this model. For the consumer the value is convenience, since subscription has "autopilot simplicity", which frees the user from the need to regularly make purchasing decisions; a subscription involves a flat price that helps the user manage his budget. For the service provider subscription value is the ability to predict revenues from recurring sales.

The "subscription" business model, to a certain extent, facilitates entry into the realm of the freemium business education model, which is widely used in various sectors of the Internet economy (for example, computer games, antivirus programs and other types of software). The freemium (free + premium) model implies that a basic level of services is free but a version improved on some characteristics (a premium) may be obtained for a fee, sometimes via paid subscription. For instance, a professor of the Faculty of Economics of Lomonosov Moscow State University develops a dictant module on management subject, which everyone is free to learn from, provided having registered on the site. If a person wishes to obtain a MSU certificate of upgrading, he will be required to perform additional tasks and participate in interactive collaboration with the professor. Such a package of educational services is already available on a fee basis.

Development of new forms of individual mentoring provided on the basis of new business models may be noted as a promising innovation feature of educational services (Molchanova, 2015). In Russian edtech platforms, initial steps are being taken to develop the approach practiced at Pluralsight considered as a kind of best practice (www.pluralsight.com). Often, when a practicing manager studies, he may have unique questions associated with specific context of his work. In Pluralsight any student can enhance his learning with individual (1:1) aid of an expert "on demand". Pluralsight's algorithm enables matching service consumers with a mentor who has professional experience in the technologies that are being considered or used by students. Since individual mentoring imposes specific requirements for professional compatibility, it is important that this algorithm assumes the first 5 minutes "risk-free" (i.e. you can abandon this mentor and continue the search for another mentor in this network). An individual mentor's services are paid for separately.

Thus, the edtech platform may serve as the basis for creating a network of cooperating experts, and it is possible that the same person can act both as mentor and student. This form of mentorship actually combines the features of three contemporary types of mentoring: situational, reverse and flash mentoring (Molchanova, 2015). Besides, individual mentoring within the educational process allows for training based on the latest knowledge, which, given their novelty, are not yet available in some explicit form (in the form of guidelines, manuals, instructions, etc.), i.e. knowledge that exists in implicit form (tacit knowledge), or learning skills that exist only in some contexts, nuances of activity that can be transferred only in direct activity interaction. But it is these "elusive" competences that enable teaching new, innovative technology, mastering management nuances, which are often referred to as "art" (Molchanova, 2015).

5. Conclusion

Active development in the global market of business education of new formats, i.e. providers of educational services that adhere to new strategies, new business models, confronts major well-known business schools with a serious strategic management task - how to respond to this managerial innovation? To maintain their traditional approach (which allowed the business school to build its competitive advantage) and focus on it, put effort into enhancing the effectiveness of its implementation. Or simultaneously improve the educational programs developed and implemented in the framework of the traditional management approach, and in doing so, actively develop new formats, which prove their relevance on the example of innovative service providers in the field of business education.

The second approach seems preferable, since it enables the combination of tradition and innovation, usage of current strengths and organization capabilities at the same time developing new ones with the purpose of simultaneously achieving efficiency improvement and innovative development. However, with such strategic orientation, business schools may face the tension between innovation and efficiency (often contradictory management tasks) (Papachroni et al., 2016; Cantarello et al., 2012). What may response of business school management be, which would enable coping with the tension arising from the need to simultaneously balance between effective current functioning and development of new types of activity? The forms of these directions' implementation and their effectiveness in the context of global business education market players’ competition should become subject of further study.

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IMPACT OF THE GLOBALIZATION ON THE YOUNG PEOPLE´S LEVEL OF EDUCATION

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Abstract. The paper deals with an unemployment rate and the factors that affect the long-term unemployment in the Žilina region. Despite the fact that the level of education increases, young people are pushed out of the labor market and are unemployed. Regional disparities in the means of unemployment are represented by substantial social differences in various regions and increased losses of registered unemployed in the informal economy. Unemployment arises from the imbalance between supply and demand in the labor market. There is not enough demand for increased labor supply in the labor market. This is evidenced by the lack of job vacancies. Unemployment is a macroeconomic problem, which expresses such a state in the economy when people of working age who want to work can't find jobs. In general, unemployed are those who are actively looking for a job. Enterprises in Žilina region search for qualified young people with master's degrees. On the labor market, there is a lack of graduates with the technical skills that are ready for practice. Because of the insufficient preparation by the high schools, which is based more on theory than practice, a survey in the paper is focused on the opinions of high school graduates. Also, this survey is focused on the motivation factors that affect the choice of the future employer when high school graduates apply for the desired job.

Keywords: unemployment, labor market, education, employer, survey

JEL Classification: E20, E23, J60

1. Unemployment

Unemployment arises as an imbalance between supply and demand for labor. The lack of vacancies is a result of not enough demand when labor supply in the labor market is increased (Hili et al., 2016). Unemployment is a macroeconomic problem, which expresses as a state in the economy when employable persons who want to work can not find jobs in the labor market (Flek and Mysikova, 2015). Unemployed are those who are actively looking for work.

Conditions of unemployment according to the International Labor Office:

1. A person is able to work – in terms of age, health, personal circumstances...
2. A person is interested to work – he/she is not ensured by other income, for example salary, rent...
3. A person is, in spite of efforts to find a job, unemployed at the moment – such effort is meant as regular visits to the labor office by applicable legislation.

When analyzing the labor market, there are five main types of unemployment (Hontyová et al., 2010):

a) Frictional unemployment – it is a result of labor migration (the constant movement of people between places or jobs). This type of unemployment is the normal state of the labor market because it is temporary (Ciccarone at al., 2013, Holzer, 1993, Marelli and Vakulenko, 2016).
b) Structural unemployment – it is caused by an imbalance between supply and demand in the labor market (occupational segmentation that labor supply is not in line with the structure of labor demand). The causes of this condition can be found at the different dynamics of development of individual sectors in which certain changes in industries bring with demands for new skills, professions and qualifications and different demands on employees. Such changes create a structural unemployment. The result of these changes is that at one time a large number of unemployed and vacancies exist but they are not mutually compatible (Hollweg et al., 2016, Vallas, 2016).
c) Seasonal unemployment – it is a natural variation in the demand for labor induced by seasons changing. Normally it occurs in construction, agriculture, tourism and other related industries.
d) Cyclical unemployment – it is associated with cyclical fluctuations in the economic performance. This kind of unemployment depends on the performance of the economy, therefore with the growth of the economic performance, unemployment rate decreases (Ciccarone et al., 2016, Krueger, et al., 2014, Ondos and Kacerova, 2015).
e) Hidden (latent) unemployment – i tis represented by shortening of the working week, forced leave for employees and so on. It is not a part of the official indicator of the unemployment rate.

If we consider the unemployment rate, it is important to divide the population into two groups (Paukovič, Holovčáková, 2008):

a) Economically active population – those who work or actively seek for a job.
b) Population economically inactive – those who have no interest in working (they have other sources of income).

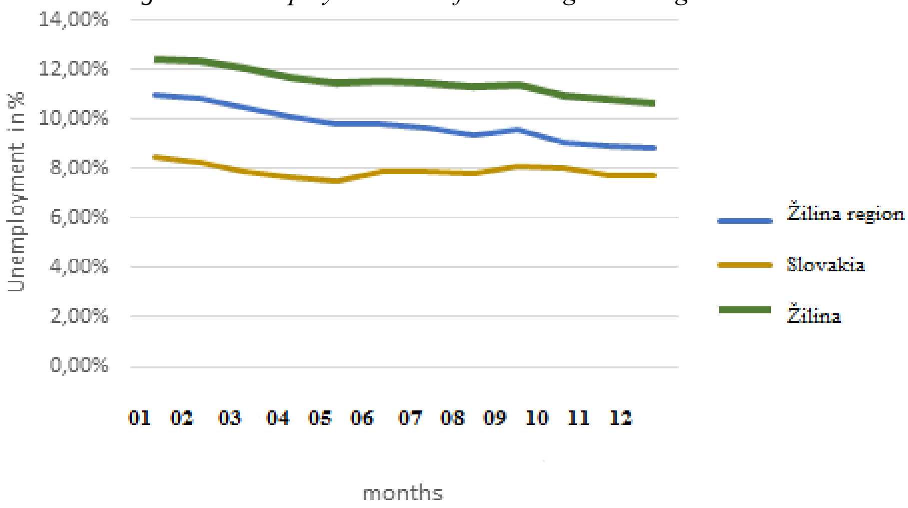
Economically active population (labor force) is divided into two groups:

a) Employed persons – people who have more than 15 years and carry on any paid work and people who are employed but not working temporarily, for example due to illness, strike or holidays.
b) Unemployed persons – every person aged 15-62 years (in the conditions of Slovak Republic), who has no paid work but is actively involved in seeking. The European Statistical Office (EUROSTAT, 2016) embodies the definition of the International Labor Organization (ILO, 2009), according to which an unemployed person is:
   - without job,
   - able to work in following 14 days,
   - actively seeks a job in more than 4 weeks.

1.1 Unemployment in Žilina region

Žilina region with its 690,420 residents is the third biggest region of Slovak Republic. Žilina region represents 12.70 % of whole Slovak population. At the end of 2015, an unemployment rate in Žilina region decreased in all districts of Žilina region, while the highest unemployment rate was evidenced in Bytča (11.44 %) and Dolný Kubín (11.41 %). The lowest unemployment rate was evidenced in Martin (6.97 %) and in Žilina (7.28 %). Figure 1 shows unemployment rate of Žilina region during 2015.

Figure 1: Unemployment rate of Žilina region during 2015



Source: Author according to ÚPSVR

Based on available data of the Slovak Statistical Office, in 2014, most of workers were employed in industry (51.90 thous.), followed by wholesale and retail trade (23.70 thous.), education (19.00 thous.), health (13.00 thous.), public administration (11.50 thous.). Thus, Žilina region is economic industrialized region (Table 1).

Table 1: Average registered number of employees by economic activities in Žilina region

Average number of employees (in thousands)	**2012**	**2013**	**2014**
A.) Agriculture, forestry and fishing	3.7	4.2	4.2
Industry total (B,C,D,E)	48.0	49.0	51.9
F.) Construction	8.3	7.6	8.1
G.) Wholesale and Retail	21.9	22.1	23.7
H.) Transport and Storage	9.1	9.5	10.1
I.) Accommodation and food services	2.0	2.3	2.4
J.) Information and Communication	2.7	2.6	2.9
K.) Financial and insurance activities	1.6	1.6	1.6
L.) Real estate activities	1.9	1.5	1.3
M.) Professional, scientific and technical activities	2.7	2.5	2.6
N.) Administrative and support services	2.7	2.5	3.2
O.) Public administration, defense, social	12.1	11.4	11.5
P.) Education	16.4	17.7	19.0
Q.) Health care, social assistance	11.2	12.6	13.0
R.) Arts, entertainment and recreation	1.9	2.1	2.5

Source: Author according to ŠÚSR

1.2 Impact of education on unemployment in Žilina region

The research of the differences in approach of entrepreneurs in terms of gender and education is relatively widespread in the expert literature, because this issue is addressed by a variety of authors. (Belas, et. al., 2015)

Since in recent years, level of education increases and number of people with primary and basic education gradually reduces, number of young people with a diploma and a university degree increases. It brings better conditions for businesses in Žilina region to find qualified people (Gregová, 2013 and Vlcková, 2010).

Economic activity rate among workers in Žilina region showed positive annual growth. Based on data of the Slovak Statistical Office, in 2013 it was 58.00 %. In 2014, the overall activity rate increased to 58.10 %, representing in absolute terms 292.30 thous. of persons. Conversely, there is a yearly reduction in unemployed economically active population, which represents a very positive development of Žilina region.

According to Table 2, the number of workers in the Žilina region with complete secondary education has been increasing from year to year, while the number of workers with lower secondary education has been decreasing. On the other hand, workers with a university degree are highly represented among the economy active population.

Table 2: The economically active population in Žilina region by education level

Indicators	**2012**	**2013**	**2014**
Economically active population aged 15 years and over – employed (in thousands)			
Elementary	7.3	8.3	8.6
Lover secondary	105.7	92.2	97.1
Secondary	124.4	133.6	133.6
University	50.4	55.5	53.0
TOTAL	287.8	289.6	292.3
Economically active population aged 15 years and over – unemployed (in thousands)			
Elementary	4.3	3.6	4.1
Lover secondary	23.1	22.6	20.6
Secondary	16.0	16.1	17.1
University	4.5	4.9	4.3
TOTAL	47.9	47.2	46.1

Source: Author according to ŠÚSR

Table 3 shows age structure of workers in Žilina region during 2014. As you can see, there was the highest proportion of working age limit from 35 to 44 years. At the same time, the lowest number of workers in the age limit from 15 to 24 years, which is on the one hand due to the fact that they are students of secondary schools and universities, most of whom work part-time but are not listed among the economically active population. Students and apprentices represent 28 % of the total number of economically inactive population. This also means that most students of senior high schools continue their studies at universities.

Table 3: The age structure of workers in Žilina region during 2014

AGE STRUCTIRE OF WORKERS IN ŽILINA REGION DURING 2014	
Age of workers	**Percentage**
15 – 24	7.10
25 – 34	24.90
35 – 44	30.20
45 – 54	25.00
55 and over	12.70

Source: Author according to ŠÚSR

Since modern universities contribute to interrelatedness with the general public in the fields of global development of science, technology, arts and culture, University of Žilina is very important element in reducing unemployment in Žilina region. University of Žilina contributes to the development of the whole society, which is also anchored in its long-term plan for the period of 2014-2020, by development of education and preparation of students to enter the labor market (Vartiak, 2014).

2. Evaluation of the survey results

Questionnaire survey, at selected secondary vocational school in Žilina, was implemented in January 2016. The aim of the survey was to determine students' views on the level of education and their readiness for a job. The respondents were students of the last years of secondary vocational school. The return rate was at 64.00 % (42 completed questionnaires) because of absent students due to illness and exclusion of some questionnaires because of their invalidity. Students were advised that completing the questionnaire is anonymous.

Questionnaire survey results:

- 64.00 % of students consider the level of education provided by the selected secondary technical school as sufficient quality.
- 38.00 % of students plan to get a job in their field of study in abroad.
- 31.00 % of students plan to get a job in their field of study in Slovakia.
- 22.00 % of students plan to get a job in other than their field of study in abroad.
- 7.00 % of students plan to study at university in the same field.
- 39.00 % of students think that their level of knowledge is very good.
- 55.00 % of students think that subject that they were teached are useful in practice.
- 59.00 % of students think that they are well-prepared for a job.
- 70.00 % of students think that their education is practice-related.
- 95.00 % of students are satisfied with the compulsory practice in selected company.
- 52.00 % of students are influenced by the salary when deciding about a job.
- Students comments about improving education and preparing for practice:
    - more practice and cooperation with selected companies that represent potential employers,
    - elimination of unnecessary subjects,
    - modernizing school equipment,
    - better quality professional books and tools,
    - involvement of school and students in competitions.

3. Conclusion

Based on the results of the survey, we can state that the situation is very negative because only 31.00 % of students plan to find a job in Slovakia, 38.00 % of students want to find a job in abroad. This may be based on the actual market situation where young people are leaving to work abroad mainly due to inadequate remuneration and insecurity. Every year, from 2009 to 2015, around 20,000 people in age under 30 left Slovakia to look for a job abroad.

On the other hand, we can state that 59.00 % of students said that after the completion of vocational schools, they are adequately prepared to work in the field as well as the majority of students (70.00 %) believe that the study is sufficiently geared to practical needs. Education at the school, while providing their students with emphasis on practice, in this case, is evaluated positively (95.00 % of students).

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THE PROCESS OF LOCATION OF THE ENTERPRISE IN THE GLOBALIZATION

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Abstract. The paper is focused on the process of selection of an appropriate location of the enterprise using selected methods of business diagnostics. The enterprises have to deal with the problem of location in the process of establishment or when they want to expand the business or relocate an existing operation. Appropriately selected location for the enterprise or its part might have a great impact on the enterprise. Also the bad location of the enterprise or its parts might have some negative consequences for the enterprise in the form of lower sales, profits and even bankruptcy. Therefore, it is necessary to pay attention to the selection an appropriate locations and consider all the factors that affect the company and try to estimate positive and negative consequences of the selection. The process of localization for the enterprise and the methods that are appropriate to be used are included in business diagnostics. In the process of globalization, the importance of an appropriate location for the enterprise has even more increased. There is rapidly increase of the possibilities that the enterprise has – new markets, competitors, customers, etc. Business diagnostics and its selected methods might be significantly helpful in this decision. The paper is aimed on the possibility that business diagnostics provides to the enterprises in establishing or expanding in the conditions of globalization.

Keywords: location, business diagnostics, globalization.

JEL Classification: F60, G30, G32, M20

1. Introduction

Globalization brings new opportunities for the enterprises, but also threats. Problem of the locality selection is problem, that all of the enterprises have to deal with at the beginning of their existence. Location is one of the most important decision for the future of the enterprise. Management have to consider a lot of factors that will affect the business (Najafi, 2016). In this paper we try to find the key to the best choice of the locality of the enterprise. We focus on the localization factors and their importance for different enterprises.

1.1 History

The first model of localization of industrial enterprise, localization triangle, was developed by W. Launhardt. In this model we operate with factor of transport costs and the optimal business location is in the centre of the triangle where two vertices of the places of extraction of the necessary raw materials and the third vertex of triangle is the market (Neumanova, 2012). It is a model created for industrial enterprises, thus cannot be applied for all types of businesses. The next one who dealt with factors that influence the location of the company was German economist A. Weber. He was the first, who started thinking about the factors that influence the choice of the location and named it the localization factor. He identified the primary factors as labour, agglomeration and transport costs. E. Behrens, contrary to Weber classified the localization factors according to the transformation process, i.e. factors of purchase, production and sales (Thurnan et al., 2013) He used the level of profitability as a criterion for an evaluation. That means, that the business location with higher profitability is preferable. This basic principle, that the most important criterion of location selection is profit is applicable also nowadays (Markusen &Rutherford, 1994).

2. The impact of globalization on the localization of the enterprise

The requirements for location of the enterprise are changing due to globalization. The globalization brings new opportunities, particularly in the form of expanding market. The formation of international markets is changing the purchasing opportunities, working conditions, sales and production. The process of globalization means, that:

- the global economy is built on strong regional clusters,
- there is created a global market,
- there is growing competition,
- global economy in real time allows to an enormous acceleration of decision-making processes, it means shortening production cycles. (Balaz & Vercek, 2002)

3. The business environment

The company is closely related to the various elements of its environment and it is situated in a certain temporal and spatial reality (Wyse, 20014). We see the company environment (surrounding) as the summary of particular elements with which the company is in mutual bonds. It may have the character of general, specific and global company environment (Hutera,2012).

We consider as the global surrounding factors those which affect the business activity on the international level, especially in the time of economic internationalization processes. Among the trends in global company environment we include:

- internationalization,
- intellectualization,
- acceleration,
- flexibility,
- humanization,
- intensification,
- greening,
- elasticization. (Scouller & Perman,2004)

4. The classification of the factors of localization

As we already mentioned, the concept of localization factor introduced into the theory A. Weber. He defines the localization as a place where it can be most advantageous to carry out the business activities (Watanabe et al.,2009) He considers the labor costs, the transport costs and agglomeration as the most important factors (Iomescu, 2009). Behrens classified localization factors according to the transformation process. Gutenberg dealt with the problem of the impact of globalization on the locality selection and he added to the factors the possibility of expansion into foreign markets. Currently is in the literature most often mentioned this basic classification of localization factors:

- factors of the possibility of purchase,
- factors of production,
- factors of sales including the factors of transport
- factors of state regulation (Maier &Todtling,1997)(Pribadi et al, 2015) (Neumannova, 2013).

5. The selection of localization factors

As we have mentioned, the selection of the locality for business is dependent on many factors. In practice, we can see that various companies have a different importance of the same factor. This difference is influenced by the nature of the business activities.

Here are the results of a survey aimed at the detection of business owner´s evaluation and their perception of the localization factors. The questionnaire survey was conducted on a sample of 276 enterprises. These were separated on the basis of the sector in which they operate. As we already mentioned, the choice of factors and their assessment depends precisely on the nature of the business activities (Gubanova &Hanackova, 2014).

Table 1: The structure of the enterprises by the sectors

Sector	Enterprises
Primary	26
Secondary	124
Tertiary	126

Source: (*Gubanova* & *Hanackova,2014)*

The most important localization factor for the enterprises in the primary sector detected in the survey are the climatic conditions. For the enterprises operating in the primary sector in the area of agriculture is the most important price, quality, size and availability of land, because agricultural enterprises need for their activities wide areas, fertile agricultural land that are in remote areas due to the lower price of the land, but at the same time they prefer the proximity to customers because of savings of transport and storage costs (Rijpkema et al., 2015) (Knapkova et al, 2014)

By the enterprises that operate in the secondary sector were in the survey as the most important factor identified labor costs, because the labor costs affect the economic results of the enterprise.

Other factors that were in the survey identified as an important are the supply of skilled labor and workforce flexibility.

The enterprises of the tertiary sector consistently reported as a secondary business sector, and the important factors of localization for them are the supply of skilled labor, labor flexibility and the intensity of competition. Other factors that were identified are purchasing power of population and knowledge of the local market.

The factor that was identify by enterprises in all three sectors as one of the most important was the transportation. It means the possibilities that the location offers:

- ship transport or short distance to the dock
- railway transport
- air transport or short distance to the airport
- developed network of highways.

6. The methods of localization

It must be emphasized that the problem of selecting a proper location for the enterprise has to deal with every business. We can say that the perfect location, in which all costs are minimal and sales maximal does not exist. Thus, the locality selection is always a compromise (Thompson,1990). As we mentioned in the survey- various companies have different criteria and priorities. Many business owners don´t use any of the localization methods. They just chose some factors that are important for them and evaluate them. On a similar principle are based the following methods of localization. Their implementation is more complex than just a subjective assessment and the results of these methods are much more precise and provide the owner with relevant information to select the best option (Brezaniova& Neumannova, 2014). Among the methods of localization of the enterprise belongs:

- utility value analysis,
- scoring method,
- Steiner-Weber model. (Deakova, 2012)

The most used method is the utility value analysis. All of these methods have a common basis in the selection of localization factors (Mudambi&Pucks, 2016).

The localization analysis is a separate category of the methods. We know 2 types of localization analysis:

- focused on mapping the current situation,
- focused on finding a suitable placement of the enterprise (Yuen, 2016).

6.1 The inclusion of methods of localization in business diagnostics

All of these mentioned methods are included in the methods of business diagnostics in the category of diagnostics of the business environment (Neumannova, 2012). The methods of business diagnostics can be also divided into 2 categories according to the reason of the performance of the diagnostics:

- prophylactic,
- operatively.

The methods of localization used before the establishment of the enterprise are included in the category *prophylactic* because the choice of the suitable location of the enterprise can avoid many problems in the future. Besides this using methods of localization, we recommended to use all of the methods of business diagnostics that can be very helpful not only in the beginning but also during the whole life cycle of the enterprise.

7. Conclusion

This paper deals with the problem of localization of the enterprise and with the localization factors that influenced the selection of the suitable locality for the enterprise. Due to the process of globalization there is necessary to update the localization factors. In the survey were identify the most important factors for the enterprises divided into three sectors. There were identify different factors in each sector, but one of the factors was identify as important in all of the sectors – the transport factor. And the transport is the factor, that's development is mostly influenced by globalization.

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INTERNATIONALIZATION OF RUSSIAN INNOVATIVE COMPANIES: STRATEGIES AND CHALLENGES

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Abstract. The paper represents a study of export-oriented strategies of the Russian “hidden champions”, i.e. innovative companies of non-primary sectors. Although the crucial importance of oil, gas and metallurgy industry for the trade balance, the foreign exchange stability and State budget, the government tried to diversify the national industrial production and export by the promotion of foreign presence of innovative companies. The analyzed smart companies represent mostly the fast moving consumer goods sector and machine-building and tool-building sectors. Based on qualitative analysis, the authors classified the foreign strategic actions of considered enterprises in regard with the existing international strategies taxonomy. The results of the analysis showed a tendency toward a usage of less risky strategies of foreign economic activity in the early stages of international expansion displaying in the initial entering the CIS and Eastern European markets and in the domination of home-replication, simplest, type of international strategies. As about the content of strategies, they are equally centered on the export of a narrow range unmodified core-products successful in the Russian market as well as of a wide range of improved or differentially branded overseas local goods. The revealed success of the enterprise in question on external markets may be explained by the possession of strong R&D resources or departments as well as by the introduction of radical or unique innovation furtherly supported by supplementary ones.

Keywords: strategy, competitive advantages, innovation, foreign market, internationalization

JEL Classification: L19, F23, O32

1. Introduction and literature review

With the ongoing globalization, the research attention is increasingly focused on studying the peculiarities of enterprises' international expansion (Grant, 2010; Dunning, 2001; Luo & Tung, 2007; Mathews, 2006; Zander, 2010; Madhok & Keyhani, 2012). Companies' motivation to doing cross-border business operations is normally explained by opportunities revealed by the geographical expansion overseas that may be connected with increasing countries' reputation on an international market as well as with the surplus provided by the supply of highly competitive goods. The innovative business internationalization, in its turn, determines the share of high-tech innovative products launching the world market.

Russia is a country with highly developed human capital, while the respective export of the mid-tech and high-tech products is poorly developed and studied. Therefore, the object of this research is represented by the Russian-based companies, so-called "hidden champions" (Simon, 2010). According to the definition, these companies are normally fast-growing medium-sized business, and their growth persists over time (Vin'kov & Polunin, 2011).

The research in Russian-based hidden champions is relevant due to their particular properties. Firstly, their annual revenue growing more than 30 percent a year means a reinforcement of business that allows the significant investment and R&D projects, to buy competitors, and to improve the international perception of country's competitiveness. Secondly, the stable net profit pursuing leads to a company's successful development as well as its increased worldwide competitiveness. Thirdly, the independent business development based on proper innovative ideas, successful managerial decisions as well as effective and efficient technologies make hidden champions an interesting case to study with the behavioral patterns that differ from the subsidiaries of a large corporate structure and state-owned entities.

Furthermore, the majority of Russian-based startups develop their activities in mature industries in order to serve local markets that blocks the possibility to introduce any changes important for the development of domestic industries. To maintain the growth trajectories, the considered companies should carry out significant business restructuring and apply innovative strategies in their activities, so they are not able to create the necessary impulse for the creative destruction in their activity to achieve the worldwide competitive advantage. According to the best practices of innovation, the success in economic development depends on the creation, diffusion and adoption of innovation. The ideology of Russian modernization that determines the government support for the innovation is focused only on the creation of innovation (Yudanov, 2011), and it is not enough for a successive innovation development. Nonetheless, in the last decades Russia has witnessed the significant number of success stories when a technological startup has been transformed into a serious global level actor due to the relevant size of domestic market that helps to generate first-class technological and marketing expertise as well as enough financial incomes for an effective internationalization (Vin'kov & Polunin, 2011).

Third, the compression of markets and the fall of sales volume which are observed now due to the ongoing stagnation affected the Russian economy together with the rigidity of banks on interest rates and credit policy decrease the effectiveness of hidden champions activity on the domestic market.

Fourth, the limitation of some local markets does not allow to the companies to achieve a necessary effect of scale and the level of competitiveness comparable to leaders. This problem is the most relevant for the top management decisions to go global or to enter new geographical markets.

2. The study of export strategies and challenges to the international expansion of Russian-based innovative hidden champions

There are several classifications of companies' strategic initiatives in a course of the internationalization which are reported in the Table 1.

Table 1: Classifications of internationalization strategies

Authors, classification criteria	Strategies' types
Ch. Barlett, S. Goshal (2000),	Home-replication / International strategy

on the basis of strategic approach to external markets and branches	Multidomestic / Local strategy Global strategy Transnational strategy
A. Ragman, A. Verbeke (2004), in terms of geography of foreign markets	Home-region strategy Bi-regional strategy Host-region strategy Global strategy
Ph. Kotler, R. Berger, N. Bickhoff, (2010), in terms of content of a marketing strategy	Focused portfolio strategy Vertical integration reduction strategy through outsourcing Market presence and consolidation strategy through mergers and acquisitions Network strategy / Virtualization strategy Imposing new rules to other participant strategy Innovation and branding strategy Globalization strategy
G.A. Knight, Peter W. Liesch (2016), in terms of internationalization path	Incremental expansion 'Born global' strategy

Source: (made by the authors)

Because of internationalization an enterprise finds itself in a new and often unfamiliar territory, therefore, the top managers may have to implement new ways of doing business, to be able to adapt fast and timely the business activities to changing conditions of environment overseas. The least risky variant of doing global business is displayed in a gradual business internationalization on the initial stages of expansion, when companies enter new markets doing export operations, developing home-region or home-replication strategies shifting to the global or transnational form of doing business abroad later.

There are some other important considerations concerning internationalization reported below. So, Luo and Tung (Luo & Tung, 2007) believe that companies expand their activities beyond national borders mainly through takeovers of strategic assets acquiring the leading positions as well as higher competitiveness on the targeted market.

Mathews (Mathews, 2006) presupposes that companies' expansion on external markets is realized through international cooperation with the similar business agents in order to acquire a necessary knowledge and organizational capabilities, to provide a maximal usage of necessary resources through an ongoing cooperation and common efforts on business processes development. Other experts (for instance, Zander, 2010; Madhok & Keyhani, 2012) assume that the international mergers and acquisitions are the most essential tools for modern companies nowadays for getting success on new markets.

It is also reasonable to point out that the companies producing innovative products prevail in developed countries; therefore, it generates threats for the Russian-based as well as for other emerging markets companies doing international business. While Suh and Kim (Suh & Kim, 2014) underlinies the innovative capabilities and R&D quality are the factors that may transform an internationlised company into an internationally-leading one. To support scuh hypotheses, the authors introduce a dummy parameter concerning the internationalization of R&D activity as suggested in (Alkemade et al., 2015).

The analysis of the national hidden champions carried out in the article is focused on the following research hypotheses on the international expansion of considered companies.

Hypothesis 1. The Russian-based hidden champions use the gradual business internationalization.

Hypothesis 2. The majority of considered hidden champions go global following the organic growth strategy based exclusively on their own resources.

Hypothesis 3. The international competitive advantages of companies are primarily connected with realization of innovative decisions.

Hypothesis 4. National companies go on to lose in competition with international participants on the world market.

Hypothesis 5. The Russian-based companies have a lower level of innovative potential development in comparison with their international competitors.

Results of the research based on the 21 Russian-based hidden champions realizing international expansion are presented in the Table 1.

The analysis of considered companies' experience indicates that the majority of them follow the home-replication or multidomestic strategies which reflects the gradual character of their international expansion. Concerning the strategy content, the innovation and branding strategies dominate due to the superior exploitation of technological advantages while a company does business overseas. The strategy of focused portfolio when companies concentrate mainly on the key business as a consequence on economies of scale and curve experience is also adopted frequently. Despite the problems connected to the international expansion, companies' competitive advantages are developed on both radical and incremental innovative decisions. It implies that during the internationalization or its preparatory stage the essential changes influencing a company's business model and production technology are implemented, and sometimes they are additionally accompanied by are necessary presupposing slight but constant products' updating.

The Table 2 shows that the analyzed companies are divided equally between “born global” and “incremental” internationalization strategy. Companies' development is realized mainly through organic growth, i.e. at the expense of a company's own resources like 90 percent of cases reveal. According to the analysis carried out, a larger degree of internationalization corresponds to companies with a greater potential to improve their internal resources and capabilities because of propensity to invest more in the R&D activities which are important for the contemporary stage of development. The phenomenon of R&D’s internationalization is observed in 90 percent of cases among the companies presented in the Table 2.

Thus, the first three hypotheses set above can be considered as confirmed, while the hypotheses 4 and 5 should be rejected while the most companies in consideration have considerable potential of innovative development and demonstrate the unique technological development superior to products manufactured by foreign participants.

Table 2: Characteristics of Russian hidden champions, doing international expansion

Company	The form of entering the external market	The internationalization path	Competitive advantages on the external market	Internationalization of R&D	The type of the company's growth	Companies' strategies on the external markets	The company's official website
Information sector							
SKB «Kontur»	Export	Incremental strategy	Incremental innovation	No	Organic	-Home - replication - Home - region - Focused portfolio strategy	http://www.kontur.ru
«Kaspersky laboratory»	Licensing Subsidiary	"Born global" strategy	Radical innovation Incremental innovation	Yes	Organic	-Home - replication -Global -Innovation and brending	http://www.kaspersky.ru
Machinery manufacturing							
«Interskol»	Joint ventures Contract manufacturing	"Born global" strategy	Radical innovation	Yes	Inorganic	-Home-replication - Global -Mergers and aquisitions	http://www.interskol.ru
«Medical technologies LDT»	Export	Incremental strategy	Radical innovation	Yes	Organic	-Home - replication -Home - region -Focused portfolio strategy	http://www.mtl.ru
«Interelectrokomplect»	Export	Incremental strategy	Incremental innovation Radical innovation	Yes	Organic	-Home - replication -Home - region -Innovation and branding	http://iek.ru
NT - MDT	Export Foreign affiliate	"Born global" strategy	Radical innovation	Yes	Organic	-Home - replication -Global -Innovation and branding	http://www.ntmdt.ru
NTO «IRE – Polus»	Export Joint ventures Foreign affiliate	"Born global" strategy	Radical innovation	Yes	Organic Inorganic	-Home - replication -Global -Innovation and branding	http://www.ntoire-polus.ru

Table 2. Characteristics of Russian hidden champions, doing international expansion (continuation)

Company	The form of entering the external market	The interna-tionalization path	Competitive advantages on the external market	Internationali-zation of R&D	The type of the company's growth	Companies' strategies on the external markets	The company's official website
CJSC «Sukhoi Civil Aircraft»	Export	Incremental strategy	Radical innovation	Yes	Organic	-Home - replication - Bi - regional -Focused portfolio strategy	http://www.sukhoy.org
«Tranzas»	Экспорт	Incremental strategy	Radical innovation	Yes	Organic	-Multidomestic -Bi-regional - Focused portfolio strategy	http://www.transas.ru
CJSC «Diakont»	Export Subsidiary	"Born global" strategy	Radical innovation	Yes	Organic	-Multidomestic -Global -Innovation and branding	http://www.diakont.ru
MGK «Light technologies»	Subsidiary	"Born global" strategy	Radical innovation	Yes	Organic	-Multidomestic -Global -Innovation and branding	http://www.ltcompany.com
«Argus - Spektr»	Export Subsidiary	Incremental strategy	Radical innovation Incremental innovation	Yes	Organic	-Multidomestic -Bi - regional -Innovation and branding	http://www.argus-spectr.ru
SPC «Intelligent decisions»	Export	"Born global" strategy	Radical innovation	Yes	Organic	-Multidomestic -Global -Innovation and branding	http://www.smartsolutions-123.ru
Consumer prodicts							
«Neva – metall kitchenware»	Export	Incremental strategy	Radical innovation	No	Organic	-Home - replication -Home - region -Focused portfolio strategy	http://www.nmp.ru
«Nature Simerica»	Export	"Born global" strategy	Semi-radical innovation	Yes	Organic	-Home - replication -Global -Focused portfolio strategy	http://www.naturasiberika.ru

Table 2. Characteristics of Russian hidden champions, doing international expansion (continuation)

Company	The form of entering the external market	The interna-tionalization path	Competitive advantages on the external market	Internationali-zation of R&D	The type of the company's growth	Companies' strategies on the external markets	The company's official website
«Splat – Cosmetics»	Export	"Born global" strategy	Radical innovation	Yes	Organic	-Home - replication -Global -Innovation and branding	http://www.splat.ru
Industrial group «Pridon's gardens»	Export	Incremental strategy	Semi-radical innovation Incremental innovation	Yes	Organic	-Multidomestic -Bi - regional -Innovation and branding	http://www.pridonie.ru
«Bukmeit»	Export	"Born global" strategy	Radical innovation	Yes	Organic	-Home - replication -Bi - regional -Network/ virtualization	http://www.bookmate.com
«GS Group»	Export Subsidiary	Incremental strategy	Radical innovation	Yes	Organic	-Home - replication -Home - region -Mergers and acquisitions	http://www.gs-group.com
Construction sector							
«Penetron - Russia»	Export Subsidiary	Incremental strategy	Radical innovation	Yes	Organic	-Multidomestic -Global -Innovation and branding	http://www.penetron.ru
«Technonikol»	Export Joint ventures	"Born global" strategy	Half radical innovation	Yes	Organic Inorganic	-Multidomestic - Be-regional -Focused portfolio strategy	http://www.tn.ru

Source: (authors based on [4;14; companies' websites])

3. Concluding remarks

However, the experts point out that the type of companies' growth differs in the period of favorable economic conditions and during a crisis. Therefore, before the current crisis most of companies were developing due to organic growth and beneficial market conditions, and after the crisis falls the integration strategies of mergers and acquisitions has become more relevant. In the context of the post-industrial economy, it is not typical for survived companies to do everything independently. They prefer not to be involved in the autonomous development of innovative products promoting technological and commercial partnerships or making acquisitions aimed at getting access to the critical technologies instead.

The majority of analyzed companies enter the global market offering a unique product. For instance, the production of the Argus-Spectrum is based on unparalleled manufacturing technologies, and it is widely in demand in the global market. Kaspersky lab is a world leader due to progressive innovative solutions including combination of radical innovation and the incremental business strategy. The products of Medical Technology Co., Ltd. and NT-MDT have no analogues on the world market. It demonstrates that there are good opportunities for Russian-based companies to triumph over the global markets.

Despite the identified positive aspects of the internationalization of Russian-based hidden champions, the contemporary world situation presents a number of difficulties for national business abroad. Thus, the most unfavorable trends are sanctions imposed by the international community in the financial sector which lead to the major international projects' freeze.

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