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Faculty of Business Economics with seat in Košice



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Katarína TEPLICKÁ

FINANCIAL KNOWLEDGE OF SECONDARY SCHOOL GRADUATES

Monika BAČOVÁ

Abstract

The National Standard of Financial literacy approved by the Ministry of Education of the Slovak Republic and the Ministry of Finance of the Slovak Republic defines financial literacy as the ability to utilize knowledge, skills and experience for effective management of one's own financial resources with the aim to ensure lifelong financial security of oneself and one's household. This document defines also the minimal knowledge that a school leaver of a secondary school or a high school should have. The submitted contribution presents the results of 3 research about the knowledge of the students studying in the first year of the university with economic focus, ie the knowledge of secondary school graduates, which should be in accordance with selected topics of financial education specified by the National Standard of Financial Literacy.

Keywords:

National standard of financial literacy, financial literacy, financial knowledge, secondary school graduates, financial education

Introduction

Financial literacy and financial education in the current period are two basic concepts in the field of consumer finance. As a consumer, everyday people come into contact with different financial products. From domestic, foreign and international surveys, consumers are poorly oriented in a broad range of financial products, and financial literacy is low.

In Slovakia, the National Standard of Financial Literacy has been developed and approved as an open document defining financial literacy and specific knowledge, skills and experience that pedagogues and pupils have to dispose of in order to expand their knowledge of personal finances as needed implemented at elementary and secondary schools. It defines the minimum knowledge that a graduate of a secondary school should have.

The aim of the contribution is to define the concept of financial literacy, to characterize the National Standard of Financial Literacy and to present the results of three surveys on the knowledge of graduates of secondary schools studying economics study department at university.

1 Financial literacy

Each individual makes financial decisions every day which will influence his financial situation in short as well as long run. Present economic conditions require people to orientate themselves sufficiently in the field of finance, personal finances management and to have an overview about products in the financial market.

In order to protect individuals the competent governmental and nongovernmental organisations in Slovakia as well as in Europe and in the world devote increased attention to consumer protection not only on the market of goods and services but also on the financial market. An inevitable part of consumer protection is a sufficient informing of consumers about their rights and duties, as well as about the products themselves. In the financial market an important role is played by knowledge from the field of finance and personal finances management, which are part of the financial literacy.

Financial literacy is explained by many institutions and state differently. Scientists and specialists agree that financial literacy is one of the parts of economic and general literacy. They have no clear definition of financial literacy so far.

Angela A. Hung, Andrew M. Parker, Joanne K. Yoong analysed the definitions of financial literacy published by different authors after the year 2000. On the basis of analysis results they processed the overview of conceptual definitions of financial literacy (Table 1). (Hung, 2009)

Table 1: The overview of conceptual definitions of financial literacy

Source	Conceptual Definitions
Hilgert, Hogarth, & Beverley (2003)	Financial <i>knowledge</i>
FINRA (2003)	"The <i>understanding</i> ordinary investors have of market principles, instruments, organizations and regulations" (p. 2).
Moore (2003)	"Individuals are considered financially literate if they are competent and can demonstrate they <i>have used knowledge</i> they have learned. Financial literacy cannot be measured directly so proxies must be used. Literacy is obtained through practical <i>experience</i> and active <i>integration of knowledge</i> . As people become more literate they become increasingly more financially sophisticated and it is conjectured that this may also mean that an individual may be more competent" (p. 29).
National Council on Economic Education (NCEE) (2005) b	" <i>Familiarity</i> with basic economic principles, knowledge about the U.S. economy, and <i>understanding</i> of some key economic terms" (p. 3).
Mandell (2007)	<i>understanding</i> of some key economic terms" (p. 3). Mandell (2007) "The <i>ability</i> to evaluate the new and complex financial instruments and <i>make informed judgments</i> in both choice of instruments and extent of use that would be in their own best long-run interests" (pp. 163-164).
Lusardi and Mitchell (2007c)	[<i>Familiarity</i>] with "the most basic economic concepts needed to make sensible saving and investment decisions" (p. 36).
Lusardi and Tufano (2008)	Focus on debt literacy, a component of financial literacy, defining it as "the <i>ability to make simple decisions</i> regarding debt contracts, in particular how one <i>applies basic knowledge</i> about interest compounding, measured in the context of everyday financial choices" (p. 1).
ANZ Bank (2008), drawn from Schagen (2007)	"The <i>ability to make informed judgements</i> and to take effective decisions regarding the use and management of money" (p. 1).
Lusardi (2008a, 2008b)	" <i>Knowledge</i> of basic financial concepts, such as the working of interest compounding, the difference between nominal and real values, and the basics of risk diversification" (p. 2).

Source: Hung, 2009

The European Commission defines financial literacy as “the capability of consumers and small business owners to understand retail financial products with a view to making informed financial decisions”. (Habschick, 2007)

In Slovakia The National Standard of Financial Literacy which is an open document in which financial literacy and specific knowledge, skills and experience are defined, which teachers and students must dispose of in order to be able, according to their needs, extend their knowledge about personal finance, defines financial literacy as the ability to use knowledge, skills and experience for efficient management of own financial resources with the aim to ensure life long financial security of oneself and one's household. It emphasises the fact that financial literacy is not an absolute state; it is a continuum of abilities which are conditioned by variables such as age, family, culture or place of residence. It states that financial literacy is indication for the state of continuous development which enables each individual to react effectively on new personal events and constantly changing economic environment. (Ministerstvo školstva SR, Ministerstvo financií SR, 2008)

2 National standard of financial literacy

Financial literacy is a global problem, both at the global level. The Organization for Economic Cooperation and Development (OECD) has responded to this problem. It set up a commission to develop the basic principles of financial education - a package of basic information that should be part of education in all OECD member countries. Within this education, primary and secondary school pupils should be informed about the basic principles of personal finance management.

In 2006, the Government of the Slovak Republic implemented the OECD recommendations in the Government's Program Statement.

The Government of the Slovak Republic, with the resolution No. 447 from 2nd July 2008, has approved The Proposal of educational strategy in the area of financial management and management of personal finances, introduced by the Deputy of Prime minister of the Slovak Republic and Minister of Education. The National standard of financial literacy version 1.0. was elaborated in 2008

National standard of financial literacy defines the area of knowledge, skills and experience in the field of financial education and management of personal finances, which means that graduate of secondary school (higher secondary education), should be capable:

- to find, to evaluate and to use the financial information,
- to know the basic rules for personal funds management,
- to identify the risks in personal funds management,
- to set financial goals and to set their achievement
- to develop the potential of own income and ability to save,
- to use financial services effectively,

- to keep financial obligations,
- to aggrandize and protect your wealth,
- to understand and ensure basic human and economic needs of individual and family,
- to evaluate the success of self-fulfillment, to inspire with examples of successful people,
- to understand basic definitions in the area of finances,
- to be aware of the area of financial institutions (NBS, commercial banks, insurance companies and other financial institutions),
- to be aware of problems in protection of consumer's rights and to be able to execute them
- to control the rights, duties, benefits and risks of a person acting as an entrepreneur,
- to compile and present your own business intention, think strategically, analyse and solve problems.

Up to now, 3 versions of the National Standard for Financial Literacy have been developed and approved

- Version 1.0, valid from September 1, 2009,
- Version 1.1, valid from 1.9.2014,
- Version 1.2, valid from 1.9.2017

The document (version 1.0 and 1.1) specified seven topics of financial education:

1. People and money
2. Financial responsibility and decision making
3. Securing money to fulfill life needs – income and expenses
4. Planning and financial management
5. Credit and debit
6. Savings and investments
7. Risk management and insurance

The document (version 1.2) specified six topics of financial education:

1. The financial responsibility of consumers
2. Planning, income and work
3. Decision-Making and Consumer Management
4. Loan and Debt
5. Savings and Investments
6. Risk Management and Insurance

3 Data

As part of the VEGA project no. 1/0474/12 Financial literacy of university students in Slovakia was 09.12.2013 conducted a questionnaire survey aimed at measuring the level of financial literacy of students of the first year studying at PHF EU based in Košice. The survey was attended by 159 first-year students.

The second time we conducted the survey in the period 14.02.2017 - 28.02.2017. The survey was attended by 106 first-year students.

We conducted the survey for the third time between 12.02.2018 - 21.02.2018. The survey was attended by 106 first-year students.

Students of the first year of college are considered graduates of secondary school.

The questionnaire was distributed electronically via the google questionnaire.

The questionnaire included self-assessment questions Self-assessment, questions taken from the OECD Survey, questions developed in accordance with the applicable National Financial Literacy Standard, Socio-demographic data.

The questions formulated in the National Standard of Financial Literacy have been grouped in accordance with the topics of the National Standard for Financial Literacy into 7 groups: Money Man, Financial Responsibility and Decision Making, Money Assurance for Satisfaction of Living Needs and Work, Planning and Money Management, Loan and debt, saving and investing, risk management and insurance. In this part of the questionnaire, all respondents also completed 5 knowledge questions that were marked as mandatory. An overview of these questions is given in Table 2.

Table 2: An overview of the questionnaire survey questions that are in line with the National Standard of Financial Literacy

Area	Question	Response codes (correct response in bold text)
Compound interest	Peter put € 1000 into a bank account. The bank guaranteed interest rate of 10 % per year, which is credited to the account once a year, always on the maturity date of the annual deposit. What will be the balance on this account after three years, if the bank does not charge any fees and does not charge the tax on interest?	<ul style="list-style-type: none"> ➤ 1 100 ➤ 1 210 ➤ 1 331 ➤ other, ...
Interest and account maintenance fee (Research on 2013)	Ema created an account at the bank on January 1, 2013, and on the same day she deposited 10 €. The interest rate is 2% p. m. The Bank pays interest on the last day of the month. The Bank charges an account fee of EUR 5 per month. No further operations (including deposits, withdrawals, or payments) were made during the year. What is the balance on this account on January 1, 2014?	<ul style="list-style-type: none"> ➤ 2 € ➤ will be in deficit ➤ 0 € ➤ 10 € ➤ other, ...
Interest and account maintenance fee (Research on 2017 and 2018)	Zuzana created an account at the bank on March 1, 2016, and on the same day she deposited 100 €. The interest rate is 1 % p. m. The Bank pays interest on the last day of the month. The Bank charges an account fee of EUR 5 per month. No further operations (including deposits, withdrawals, or payments) were made during the year. What is the balance on this account on June 1, 2016?	
APRC	What information is most important to you when deciding on a loan? Please mark up to 2 options.	<ul style="list-style-type: none"> ➤ interest / interest rate, ➤ APRC (annual percentage rate of charge),

		<ul style="list-style-type: none"> ➤ Fees, ➤ payment term, ➤ other, ...
Early repayment of the loan	If the consumer repays the consumer credit before its due date, the creditor has the right to get reimbursed for the costs incurred to them in relation to such early repayment of the consumer credit, namely:	<ul style="list-style-type: none"> ➤ the amount of costs compensation shall not exceed 1% of the repaid-early consumer credit, if the period between the date of the early repayment of the consumer credit and the agreed termination date of the consumer credit agreement is longer than one year, ➤ the amount of cost compensation depends on the commercial terms of the financial institution, the costs are set out in the credit agreement, which the consumer has approved his signature when signing the contract
Inflation	What does inflation mean in general?	<ul style="list-style-type: none"> ➤ depreciation of money - or, longer-term growth (rise) in price levels, ➤ money appreciation – respectively, long-term fall (decrease) in the price level, ➤ other

Source: own researchs

4 Results and discussions

In the matter of compound interest, we examined whether the respondents were able to correctly calculate the value of the principal after the interest had been assigned over several years. In 2013, correctly it answered 56.6% of respondents in 2017 it was 60.38% and in 2018 56.6%

The question about Interest and account maintenance fee was focused on whether the respondents know how the account management fees and the interest calculated at the given monthly interest rate affect the account balance. In 2013, respondents had the opportunity to choose from the options offered, and it was enough to guess correctly that Ema would be in credit. In the years 2017 and 2018 the assignment was more demanding. Respondents were asked to calculate the value of the account balance. In 2013, correctly it answered 73.58% of respondents. In 2017 correctly calculated the value of the account balance 6.6% of respondents, and in 2018 the correct answer indicated 5.66% of respondents. The reason for the difference is that in 2017 and 2018 we had a more challenging task.

The Act No 129/2010 Coll. on consumer credits and other credits and loans for consumers and amending certain laws (Act on consumer credits) in article 1 defines consumer credit as a temporary provision of financial means, on the basis of a consumer credit agreement, in the form of a loan, credit, deferred payment or other similar financial help provided to the consumer by the creditor.

In order to pay consumer credit, the consumer has to pay a sum of the total amount of the consumer credit and of total consumer costs related to the consumer credit. The total consumer costs related to consumer credit means all costs, including interest, commissions, taxes and all kinds of fees which the consumer

is obliged to pay in relation to the consumer credit agreement and which the creditor is familiar with, except for notarial fees; total costs shall also include insurance costs and costs related to the agreement guaranteeing the consumer's obligations under Act on consumer credits the conclusion of which is a precondition for obtaining a consumer credit or obtaining it on the terms and conditions marketed.

Annual percentage rate of charge (APRC) means total consumer costs related to the consumer credit expressed as annual percentage of the total amount of the consumer credit. The annual percentage rate of charge of the consumer credit is calculated in line:

$$\sum_{k=1}^m C_k(1+X)^{-t_k} = \sum_{l=1}^{m'} D_l(1+X)^{-s_l} \quad (1)$$

when:

- X – annual percentage rate of charge;
- m – number of the last drawdown;
- k – drawdown number, therefore $1 \leq k \leq m$;
- C_k – amount of the 'k' drawdown,
- t_k – interval expressed in years and year fractions between the date of the first drawdown and the date of each subsequent drawdown, therefore $t_1 = 0$;
- m' – number of the last instalment or fee payment;
- l – number of instalment or fee payment;
- D_l – amount of instalment or fee payment;
- s_l – interval expressed in years and year fractions between the date of the first drawdown and the date of each instalment or fee payment.

In relation to consumer loans, we asked the respondent: "What information is most important to you when deciding on a loan?" They should mark up to two options from the options listed in Table 1. We expected respondents to indicate the annual percentage rate of charge, which is the basic and most important indicator for the consumer. It represents the consumer's total cost of consumer credit, expressed as an annual percentage of the total amount of consumer credit. It is calculated from the basic equation (1) expressing the equivalence of the provided consumer credit on the one hand and the installments and charges on the other.

As the second answer, we expected the due date because the repayment period affects the annual percentage rate of charge. With an extension of the repayment period, the annual percentage rate of charge decreases.

The annual percentage rate of charge, respectively the combination of the annual percentage rate of charge with maturity in 2013 was marked by 8.81% of respondents, in 2017 by 12.26% of respondents, and in 2018 by 15.09% of respondents.

In the second consumer credit issue, we were asked whether the respondents are aware of how much the lender can charge them for early repayment of consumer credit.

In accordance with the article 16 of the Act on consumer credits at any point throughout the consumer credit agreement duration, the consumer has the right to fully or partially repay the consumer credit before its agreed due date. In such case the consumer shall pay only the interest and costs incurred during the time period

from the consumer credit provision to its repayment. If the consumer repays the consumer credit before its due date, the creditor has the right to get reimbursed for the costs incurred to them in relation to such early repayment of the consumer credit. The amount of costs compensation shall not exceed 1% of the repaid-early consumer credit, if the period between the date of the early repayment of the consumer credit and the agreed termination date of the consumer credit agreement is longer than one year. If this period is shorter than one year, the rate of such compensation shall not exceed 0.5% of the amount of the repaid-early consumer credit.

In 2013, 20.75% of the respondents correctly answered this question, in 2017 it was 15.09% of respondents and in 2018, 16.04% of respondents

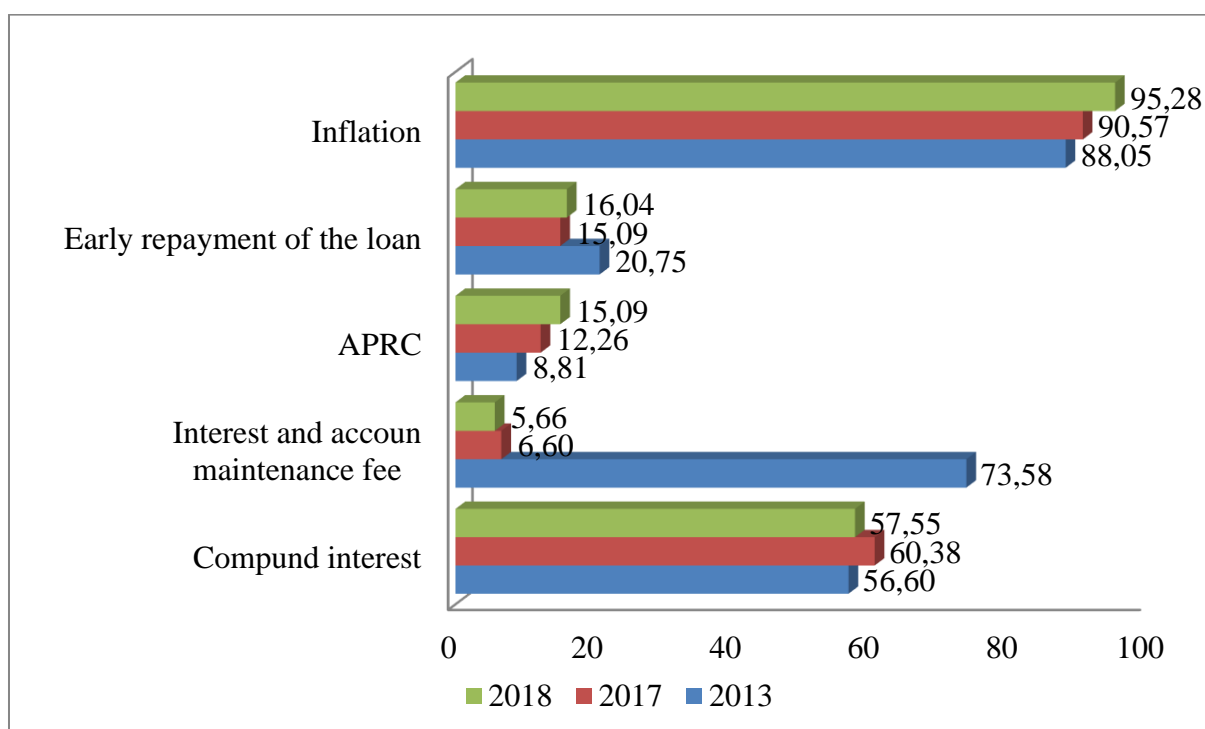


Figure 1: Percentage of the number of correct answers to knowledge questions formulated in accordance with the National Standard for Financial Literacy in the analyzed years

Source: own processing based on the results of its own questionnaire surveys

On the next question, we examined whether the respondents knew the basic meaning of the concept of inflation. In 2013, the correct answer was 88.05% of respondents, in 2017 it was 90.17% and in 2018 it was 95.28% of respondents. It is necessary to point out that in the winter semester the students underwent the subject Economical Theory - Macroeconomics, which also deals with inflation.

An overview of the percentage of correct answers of the above are characterized by the five questions asked in the analyzed period reflects Figure 1.

Figure 1 shows that the knowledge of respondents in the field of consumer credit is at a very low level. It is also a problem for respondents to correctly calculate the account balance after charging interest and paying an account maintenance charge over several accounting periods.

Based on the evaluation of the results of the questionnaire surveys, the histograms of the percentage distribution of the number of correct answers in the analyzed years were processed (Figure 2).

Figure 2 shows that in 2013 the most respondents achieved 3 correct answers out of five (42 % of respondents), in 2017 two answers were correct for 40.57 % of respondents, and in 2018 there were also two correct answers from five (44.34% of respondents). This means that the largest number of respondents in 2013 was answered by respondents who responded correctly to 3 (60 %) questions. In 2017 and in 2018 it was 2 (40 %).

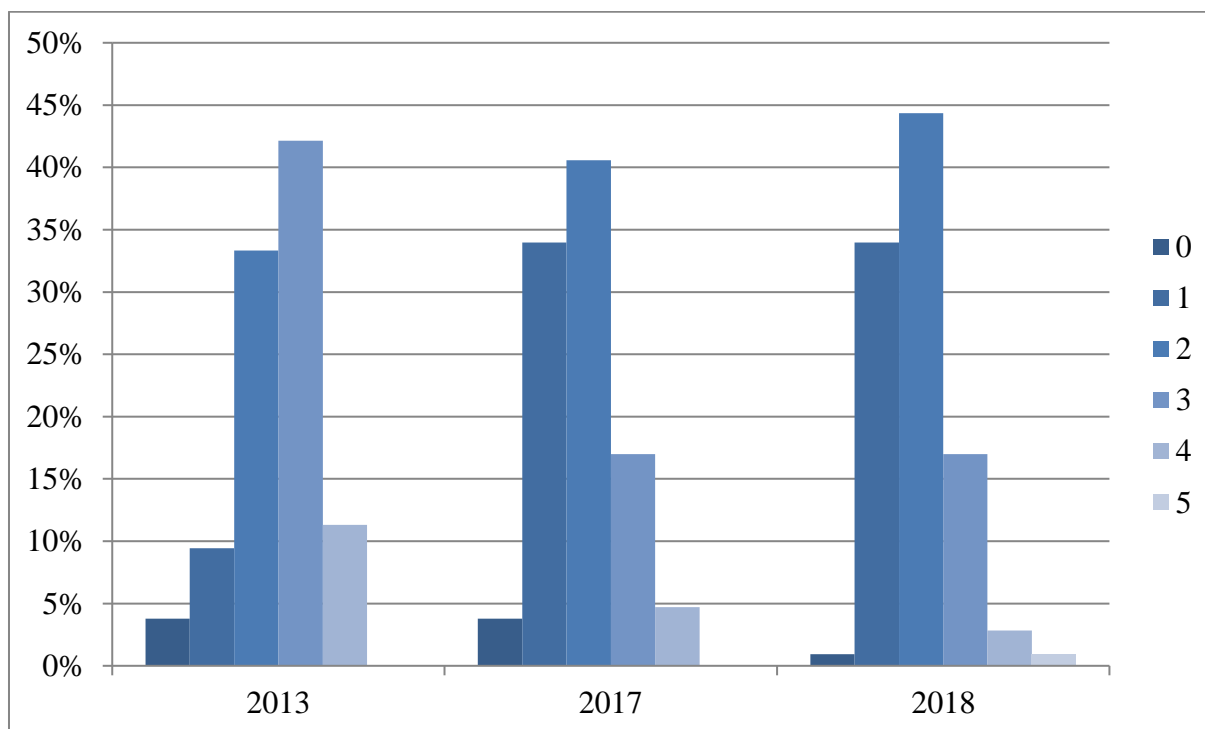


Figure 2: Dividing the percentage of correct answers in the analyzed years

Source: own processing based on the results of its own questionnaire surveys

Considering that the highest number of respondents was in the category of two correctly answered questions, Figure 3 shows the percentage of respondents in the analyzed years who achieved 2 or more correct answers.

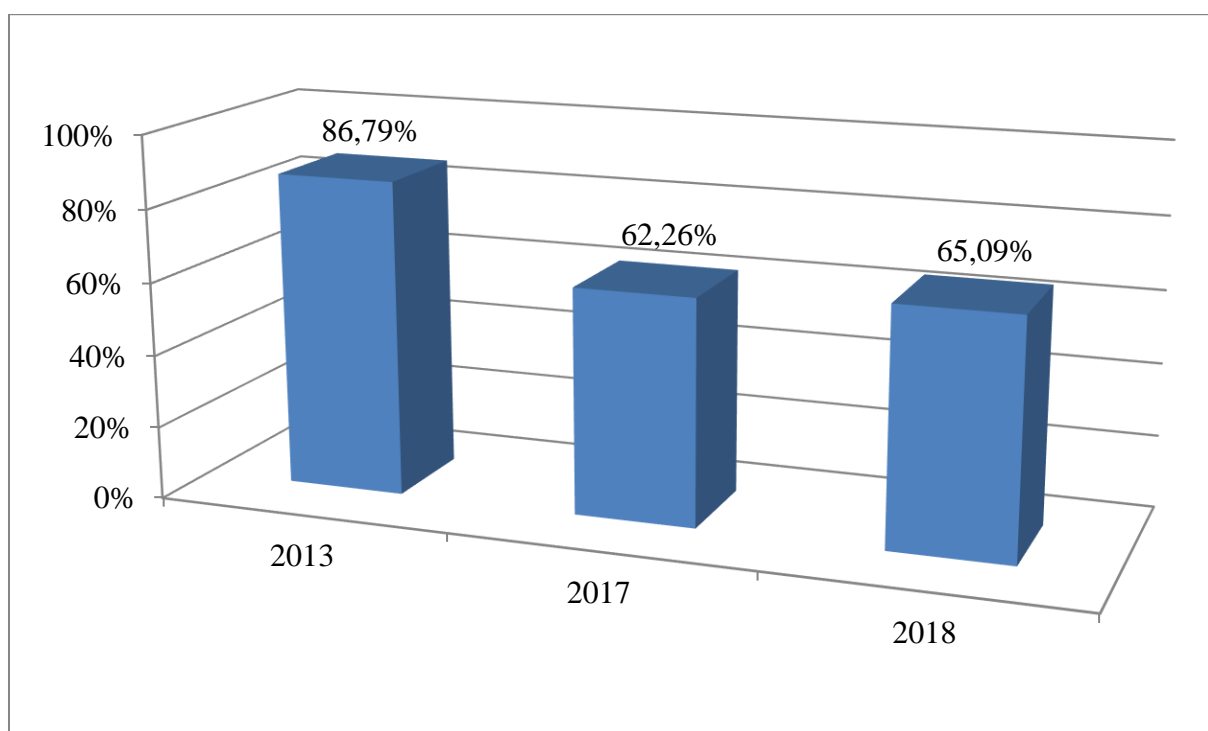


Figure 3: Percentage of respondents who achieved 2 or more correct answers

Source: own processing based on the results of its own questionnaire surveys

Conclusion

The results of financial literacy surveys point to the low level of financial literacy of the population.

The contribution defines financial literacy, characterizes the National Standard of Financial Literacy in Slovakia. In line with the national standard of financial literacy, it analyzes the knowledge of secondary school graduates with whom they should have.

Based on the results we can see that the knowledge of the graduates is able to calculate the compound interest on average, they can estimate the final balance in the account after the interest is credited and the account maintenance fee is paid. However, they have a problem with expressing the exact value of the balance.

The problem is knowledge about consumer credit. Respondents had the problem to correctly state which two indicators are the most important for the consumer when drawing on consumer credit. We found that the respondent did not have information about the amount of reimbursement to the lender for early repayment of the loan.

Respondents have gone through an investigation before the survey, where attention has also been paid to inflation. Therefore, we can not clearly assess their knowledge of the definition of inflation after graduating from secondary school.

Based on the above, we can state that even in the context of higher education it is necessary to pay attention to increasing financial literacy.

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MARKET STRUCTURE OF GLOBAL STEEL INDUSTRY

Tibor BOBENIČ – Matej HUDÁK

Abstract

The changes in market structure of particular industry are generally determined by changes in number and size distribution of companies operating within this industry. Companies can grow internally through developing own sources and capabilities or externally, primarily through mergers and acquisitions. The aim of the present paper is to evaluate changes in the market structure of steel industry on the global (worldwide) level and to identify its sources. The results of correlation and regression analysis conducted for the period of 1990-2017 showed that slight concentration within global steel industry is primarily influenced by mergers and acquisitions in comparison to greenfield projects. However, the global steel industry still remains highly fragmented.

Keywords:

market structure, concentration ratio, mergers and acquisitions, greenfield projects

Introduction

Market structure generally refers to number and size distribution of the firms operating within particular industry. Based on microeconomic theory, the most general division of possible market structures are perfect and imperfect market structures (Fendek and Fendeková, 2008). Features of contemporary market economies naturally does not correspond with perfect structures, thus in accordance with strategic management theory (e.g. Grant, 2013) we can distinguish two counterparts of imperfectly competitive market structures, fragmented and concentrated structures. In a fragmented market a large number of small, respectively medium-sized firms operate, none of which does have such economic power to achieve dominance. Fragmented industries are characterized by intense price competition and low profitability (Hill, Jones, 2013). On the other hand, concentrated market structures are connected with lower number of larger firms (or single firm in extreme cases) that depends on each other. The nature and intensity of competition in concentrated industries is difficult to predict.

The concentration of particular market is thus naturally influenced by growth of vital firms on one hand and termination of activities of the other firms on the other hand. Companies can grow through internal investment or through mergers and acquisitions (Margsiri, Mello, Ruckes, 2008), namely internally or externally, depending on the sources used. The present paper deals in more details with sources of corporate growth. Its aim is to evaluate changes in the market structure of steel industry on the global (worldwide) level and to identify its sources. The rest of the paper is organized as follows: section 1 presents the theoretical and empirical background on the topic connected with corporate growth and its sources, section 2 introduces the dataset and explains the methodology, section 3 brings own empirical results and their discussion followed by the concluding remarks.

1 Theoretical and Empirical Background

Corporate growth is considered as key driver of shareholder value creation and it creates twice as much value for high-performing companies as margin or improvements in cash flow (Vinogradova, 2018). At the same time, the larger a company becomes the more it relies on external growth, which makes this option more attractive compared to the strategy of internal growth (Margsiri, Mello, Ruckes, 2008).

In general, internal (organic) growth is based on building on and developing an organisation's own capabilities (Johnson, Scholes Whittington, 2009). It is usually used in case of development of highly technical product, accumulation of knowledge and capabilities, spreading investment over time and minimising disruption. On the other hand, external (non-organic) growth through mergers and acquisitions enable quick entering the market, obtaining new capabilities, cost efficiency, etc. These activities also can lead to consolidation within industry and force other players to merge (Dess, Lumpkin, Taylor, 2005).

This situation is obvious also within global steel industry, where one of the biggest acquisitions between Arcelor and Mittal Steel completed in 2006 was followed by series of further horizontal transactions, e.g. between Tata Steel and Corus Group, between U.S.Steel and Stelco or between Baosteel and Wuhan Iron and Steel. The most frequent acquirers in this industry seems to be Nippon Steel Corporation with more than 30 acquisitions since 1985 followed by Gerdau SA from Brazil and Baosteel.

However, subsequent success of these external (non-organic) transactions is rather doubtful. On one hand, a study by Prusty et al. (2011) concluded that Tata Steel is apparently in benefit of its buying Corus and still to benefit in the long run from capital and technology of Corus. On the other hand, plenty of studies focusing on evaluation of success of realised mergers and acquisitions pointed out the existence of so called merger paradox based on a fact that the profitability of a cost-reducing horizontal merger is diminished by the resulting expansion of non-merging competitors (Sawler, 2005). Similarly, the study by Dalton and Dalton (2006) discusses problems connected with non-organic growth and gives reasons why organic growth is a better alternative. They found that firms relying on organic growth derive most of their expansion internally, by enhancing current customer relationships and building new relationships. Most importantly, organic growth is received with great favour by the financial markets; non-organic is far less favoured, if at all.

The ambition of this paper is to investigate which transactions (internal or external) conducted within global steel industry have had greater impact on the changes in the market structure of steel industry.

2 Methodology and Data

For the purpose of evaluation of market structure the concentration ratio index (CR_m) as one of the oldest and most frequently used instrument, is used. This index serves as a measure of the concentration development of the largest firms in relevant market and reflects the percentage of the first m firms with the largest volume of production on the production of all operators in the market. The subject of the investigation may be different number of firms, e.g. 2, 3, 4, 8, 10, 25, 100 etc.; however, most often we can meet $m = 4$. Within our analysis we used CR_1 (market share of the largest firm in the industry), CR_4 , CR_8 and CR_{25} . For the purpose of calculation of concentration ratio of global steel industry, the input data on volume of production of largest firms within global steel industry as well as data on world steel crude production are derived from *World Steel in Figure* reports published annually by World Steel Association.

As main sources of changes in market structure were considered mergers and acquisitions (M&A) and greenfield projects within steel industry worldwide. As a source of the data, *World Investment Reports* published annually by UNCTAD are used. In case of mergers and acquisitions we analyse separately volume of cross-border M&A purchases (MA_{purch}) and cross-border M&A sales (MA_{sales}) that are calculated on a net basis. Volume of greenfield projects (*Greenfield*) refer to estimated amounts of capital investment.

Relationships among different types of different concentration measures and M&As and greenfield projects are analysed through correlation analysis, using Pearson and Spearman correlation coefficients. Further, the regression analysis is conducted, where as a dependent variable stands out concentration ratio and as independent variables volumes of M&As and greenfield projects realised within steel industry. The analyses are conducted for the period of 1990 – 2017.

3 Results and Discussion

Figure 1 presents overview of development of the market structure within global steel industry. It is obvious that there is a tendency toward slight concentration of the industry. While at the beginning of the observed period the four biggest companies had joint market share around 13.32% at the end of the period it was 15.11%. Since a **peak in the years 2006 to 2008** the consolidation efforts had then slowed down. The highest market power of the industry leader was achieved in 2006 and reached almost 10% of market share. The development of concentration within 25 biggest players in the global steel industry has been very similar that is confirmed also by high and statistically significant correlations between all pairs of concentration ratios that is obvious from the table 2 bellow. Despite obvious concentration tendency, the global steel industry still remains highly fragmented. The first top four steel companies have market share of only around fifteen percent and the rest of 85% steel market is being occupied by the small and largely fragmented local steel firms. Hence, there still is a place for further consolidation of the steel market.

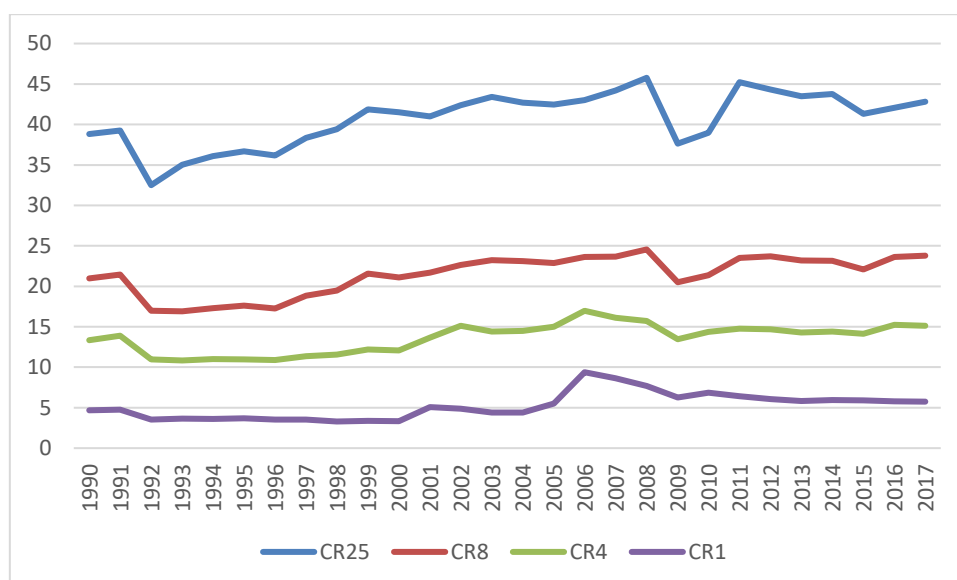


Figure 1 Concentration ratios within global steel industry

Source: own calculation based on data from World Steel in Figure reports

Figure 2 presents numbers and volumes of realised cross-border mergers and acquisitions within global steel industry, distinguishing separately purchases realised by steel companies and sales of steel companies. While till 2004 there occurred numerous transactions with relatively low value, within 2006 and 2008 the rise of large steel megamergers occurred that was a typical feature of the fifth wave of mergers and acquisitions (Bobenič Hintošová, 2009). In the following period rather stable acquisition activity from the number of transactions point of view was accompanied by fluctuation in the volume of transactions.

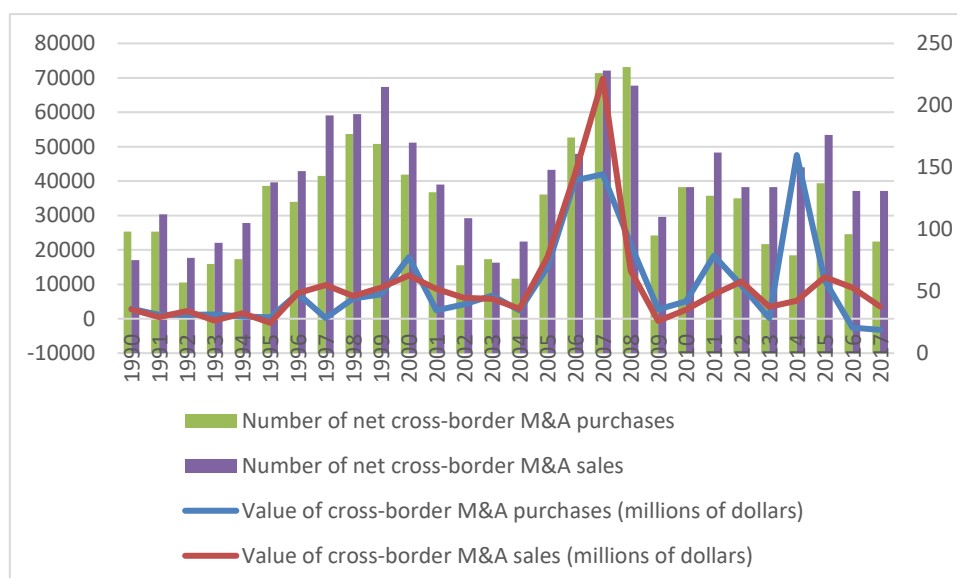


Figure 2 Mergers & Acquisitions within steel industry

Source: World Investment Reports

Figure 3 presents amount of capital investments in global steel industry in form of greenfield projects as well as number of these projects. Value of announced greenfield projects culminated in 2008. In the following period the decrease in the number as well as in the volume of greenfield projects within steel industry is obvious.

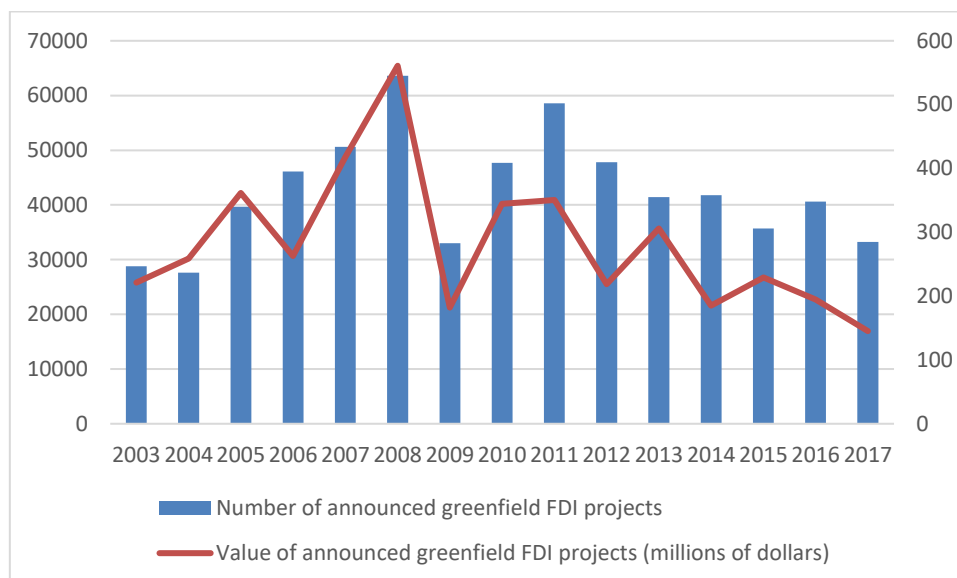


Figure 3 Greenfield projects within steel industry

Source: World Investment Reports

For the purpose of further analysis variables summarised in the table 1 were used. Following table 2 presents results of correlation analysis using Pearson and Spearman correlation coefficients.

Table 1 Summary statistics of the variables

Variable	Mean	Median	Minimum	Maximum	St. dev.
CR1	5.20411	4.96594	3.29472	9.38351	1.63086
CR4	13.60772	14.21609	10.83791	16.97358	1.79480
CR8	21.42163	21.90374	16.90934	24.55630	2.41145
CR25	40.71808	41.68494	32.50000	45.76436	3.34842
MA_purch	9623.93	4647.45	-3236.06	47566.63	13462.66
MA_sales	9680.39	6338.56	-1170.35	69732.51	14378.85
Greenfield	32971.22	30175.22	16943.37	65441.66	12818.33

Source: own processing of data

Table 2 Pearson and Spearman correlation coefficients

	CR1	CR4	CR8	CR25	MA_purch	MA_sales	Greenfield
CR1	1	0.85900***	0.69012***	0.59248***	0.61627***	0.63336***	0.46191*
CR4	0.76464***	1	0.92740***	0.81445***	0.47901***	0.50133***	0.39893
CR8	0.69239***	0.92063***	1	0.94356***	0.41729**	0.37726**	0.31449
CR25	0.60044***	0.83361***	0.93377***	1	0.49223***	0.40436**	0.41236
MA_purch	0.37548**	0.37165*	0.33279*	0.50848***	1	0.70053***	0.30345
MA_sales	0.24631	0.51505***	0.53202***	0.56431***	0.61467***	1	0.39008
Greenfield	0.40357	0.34643	0.09643	0.37857	0.47143*	0.48929*	1

Note: The asterisks denote the statistical significance of coefficients on a level of 10% (), 5% (**), and 1% (***), based on p-values. The Spearman's rank correlation coefficients are below the diagonal, while the Pearson's correlation coefficients are above the diagonal.*

Source: own processing

The correlation matrix shows strong statistically significant relationships between all pairs of concentration ratios. At the same time, it seems that the concentration of industry is more influenced by merger and acquisition activities within industry due to detected statistically significant correlations. To examine the relationship between concentration ratio and sources of changes in market structure in more details, following regression model is used:

$$Y = 14.13700 + 0.00000293 * MA_purch + 0.00003180 * MA_sales + 0.00000806 * Greenfield$$

Table 3 Results of linear regression analysis

Model	Sum of Squares	F Value	Pr > F	
	6.30204	5.29	0.0168**	
Variable	Estimate	Standard Error	t Value	Pr > t
Intercept	14.13700	0.46922	30.13	<.0001***
MA_purch	0.00000293	0.00001358	0.22	0.8334
MA_sales	0.00003180	0.00001256	2.53	0.0279**
Greenfield	0.00000806	0.00001431	0.56	0.5845

Note: The asterisks denote the statistical significance of coefficients on a level of 10% (), 5% (**), and 1% (***), based on p-values.*

Source: own processing

The results of regression analysis confirm that concentration within global steel industry is statistically significantly determined by merger and acquisition sales, i.e. sales of steel companies. It seems that changes in market structure of global steel industry are primarily determined by external (non-organic) sources of growth. Thus, we can agree with Margsiri, Mello and Ruckes (2008) that the external growth is a more attractive option for steel companies to grow compared to the internal growth realised through greenfield projects.

Conclusion

The present paper analysed development of changes in the market structure of steel industry on the global level and its sources. The analysis was conducted for the period of 1990 – 2017 using correlation and regression analysis. It can be concluded that despite obvious concentration tendency, the global steel industry still remains highly fragmented. The concentration of the industry is primarily determined by merger and acquisition activities. After the boom between 2006 and 2008 there still remains place for further growth strategies, especially in the Europe as well as in the United States. The main reason behind this is to decrease the cost of production of steel and to increase especially price competitiveness of the steel products on global steel market.

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APPLICATION OF BANKRUPTCY AND RESTRUCTURING IN PRACTICE

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Abstract

The article describes practical application of bankruptcy law concepts in the Slovak Republic. It highlights the differences between the bankruptcy and the restructuring proceedings with an emphasis on the possibilities to choose crisis management at the time of crisis. It shows the benefits and drawbacks of individual procedures and describes the current trend in their application based on an analysis of the statistical data conducted for the period under review.

Keywords:

business management, insolvency, debtor, satisfying creditors, bankruptcy, restructuring.

Introduction

The bankruptcy law currently applicable in the Slovak Republic, i.e., Act No. 7/2005 Coll. on bankruptcy and restructuring, as amended, provides two approaches to resolving a debtor's insolvency: debtor's assets are either realised and creditors are satisfied collectively, i.e., through the bankruptcy proceedings; or the debtor's creditors are satisfied gradually in a manner agreed in a restructuring plan, that is, in the form of restructuring. It is impossible to declare a bankruptcy on the debtor's assets and, concurrently, permit the same debtor to undergo restructuring. The course and content of these two types of proceedings considerably differ and are mutually exclusive even though their common characteristic is that their purpose is to satisfy creditors' claims.

Declarations of bankruptcy and restructuring permits are relatively frequent judicial decisions. On average, ten times more bankruptcy proceedings than restructuring proceedings are initiated in Slovakia annually. However, it cannot be said that bankruptcy or restructuring are strictly restricted to a number of specific economic sectors only. In order to find out how the bankruptcy and restructuring procedures are applied in practice, we have conducted an analysis of the statistical data (www.justice.gov.sk/Stranky/Informacie/Statistiky.aspx) for the period of 2010-2016. The Act on Bankruptcy and Restructuring contains both the legal and content framework governing the process of bankruptcy and restructuring. In order to enter into this process, the following requirements prescribed by the law must be met: the company is over-indebted, or insolvent. An insolvent company is one that is unable to repay at least two financial obligations 30 days after their due date to more than one creditor. Over-indebtedness means that the value of the company's liabilities exceeds the value of its real assets.

1 Bankruptcy

Bankruptcy is a specific type of civil law proceedings the purpose of which is to satisfy the claims of creditors. Claims are satisfied by the realisations of the debtor's assets in the shortest time and the largest amount possible. In addition to having effects under substantive law, the declaration of bankruptcy is also accompanied by substantial effects under procedural law. One of such procedural effects of the declaration of bankruptcy is that where the judicial proceedings concerns the assets that are subject to bankruptcy, such proceedings are suspended. All judicial proceedings are suspended irrespective of the status of the debtor, i.e., regardless of whether the debtor has the status of an applicant or a defendant in the given proceedings. The proceedings are suspended by operation of law (*ex offio*), therefore no decision needs to be issued on the suspension of the proceedings. The term debtor's assets should generally be understood as also including debtor's claims (receivables) that existed at the time when the bankruptcy was declared in respect of its assets. Another important consequence of the declaration of bankruptcy is also the fact that the suspended proceedings can only be resumed upon a trustee's proposal while the trustee, once having filed such a proposal, becomes a party to the proceedings in lieu of the debtor. (Macek, 2015)

The overall number of insolvent companies in respect of which bankruptcy was declared was mostly affected by economic conditions. The number of bankruptcies considerably increased compared to the previous periods after the onset of the global economic crisis whose effects started to be felt in the Slovak Republic in 2009. In 2010, the courts registered 1,248 petitions for bankruptcy; their number increased to 1,408 in 2011. The number of petitions for bankruptcy dropped to 1,251 in 2012 despite the fact the an opposite development had been expected against the backdrop of simplifying how creditors must demonstrate a debtor's insolvency. Subsequently, since 2013, the number of petitions for bankruptcy filed against business entities in the Slovak Republic has been on the rise again; 1,326 petitions were filed in 2013, 1,388 in 2014, 1,470 in 2015, and 1,462 in 2016. The number of petitions for bankruptcy is clearly increasing. Efforts currently focus on rehabilitating companies and keeping them in the business rather than on terminating their business activities through bankruptcy, therefore, an emphasis is given to changing the legislation to support and facilitate restructuring proceedings. The analysis of the statistical information showed that the number of petitions for bankruptcy had slightly decreased in 2016. The analysis involved the total number of petitions for bankruptcy that were filed with bankruptcy courts in the Slovak Republic. The number of debtors in respect of which the petitions for bankruptcy were submitted is lower than the actual number of the petitions because a petition for bankruptcy in respect of a single debtor can be filed by several creditors.

In the past, the possibility to file a petition for bankruptcy was used by debtors. Later, a possibility was introduced for several entities to file a petition for

bankruptcy, yet the debtors continued to make up the largest share of applicants for bankruptcy proceedings up until 2016. In 2016, 199 petitions for bankruptcy were filed by debtors – business entities compared to 250 petitions filed by creditors – legal persons. Between 2010 and 2012, a majority of petitions for bankruptcy were filed by debtors – legal persons; the number of petitions for bankruptcy filed by debtors – natural persons has sizeably increased since 2013. In 2016, debtors - natural persons filed 859 petitions for bankruptcy, 199 petitions were filed by debtors - legal persons, 74 were filed by a liquidator on behalf of the debtor, 52 by creditors - natural persons, 250 by creditors - legal persons, 13 petitions were filed by a group of creditors, and 15 petitions were filed by other entities. In practice, creditors also use the possibility to file a petition for bankruptcy as a means of intimidation, forcing the debtor to repay its debt under the threat of filing the petition for bankruptcy. However, the applicable legal framework permits to start bankruptcy proceedings even without a petition being filed, specifically, during the restructuring proceedings, or as the consequence of a judicial decision in criminal proceedings.

A petition for bankruptcy is delivered to a court. If the court ascertains that the petition for bankruptcy meets all formalities required by the law, it will decide on the commencement of the bankruptcy proceedings not later than within 15 days of the delivery of the petition. Otherwise, it will advise, within the same time limit, the applicant on the shortcomings of the petition and ask it to remove such shortcomings within 10 days. If the applicant fails to do so, the court will dismiss the petition not later than 15 days after the time limit to remove the shortcomings has expired. Of the total number of petitions for bankruptcy filed in 2010, 404 petitions were dismissed, while bankruptcy proceedings commenced in 814 cases. This indicates that a large number of petitions did not meet all necessary formal requirements. The figures had adjusted over years: in 2012, the number of dismissed petitions was 211, 966 bankruptcy proceedings were commenced, and 43 petitions were settled in another manner. In 2013, 220 petitions were dismissed, 1,057 bankruptcy proceedings were initiated, and 83 petitions were settled in another manner; 231 petitions were dismissed in 2014, 1,099 bankruptcy proceedings were commenced, and 61 petitions were settled in another manner; in 2015, the number of dismissed petitions was 195, 1,165 bankruptcy proceedings started, and 86 were settled in another manner; and, finally, 204 petitions were dismissed in 2016, while 1,228 bankruptcy proceedings were initiated, and 66 petitions were settled in another manner. This development shows the rising awareness of the formal requirements the petitions for bankruptcy must meet.

If, during the bankruptcy proceedings, the court commences restructuring proceedings in respect of the same debtor, the bankruptcy proceedings are suspended until the restructuring proceedings is discontinued or until the restructuring is permitted; if, during the restructuring proceedings, the court permits the debtor to undergo restructuring, the suspended bankruptcy

proceedings are immediately discontinued by a court's resolution. (Act. No 7/2005 Coll. On Bankruptcy and Restructuring as amended). The court discontinues the bankruptcy proceedings by a resolution delivered to the parties to the proceedings and published in the Commercial Journal. The court may discontinue the proceedings on several grounds, the most frequent being the lack of debtor's assets. If the court ascertains in the bankruptcy proceedings, after it has appointed an interim trustee for the debtor, that the debtor's assets will not even be sufficient to cover the costs of the bankruptcy proceedings, the court will discontinue the proceedings due to the lack of assets. (Act. No 7/2005 Coll. On Bankruptcy and Restructuring as amended) Other, less frequent reasons for the discontinuation of bankruptcy proceedings, include petition withdrawals and permitted restructuring. In the very rare cases, the bankruptcy proceedings are discontinued due to the repayment of debts, confirmation of debtor's insolvency, and/or for other reasons; compared to the discontinuation of the bankruptcy proceedings for the lack of assets, the aforementioned reasons only accounted for 10% of all cases on average during the period under review.

Based on the conducted analysis, it can be concluded that a yearly increase in the number of bankruptcies in the Slovak Republic follows a stable and/or moderately growing trend. Bankruptcy proceedings is a complicated and often lengthy process, which results in a growing number of bankruptcy proceedings still in progress. There were 1,044 bankruptcy proceedings in progress in 2010, with the figure rising up to as much as 4,123 by 2016. The number of bankruptcies declared annually considerably exceeds the number of discontinued bankruptcy proceedings. In 2016, 828 bankruptcies were declared, whereas only 435 bankruptcy proceedings were discontinued. One of the positive findings is the fact that, since 2012, the share of bankruptcy proceedings discontinued after the realisation of the final proceeds has been increasing.

2 Restructuring

The debtor is required to prevent insolvency. However, in the case of imminent insolvency, the debtor is also required to adopt measures aimed at avoiding such insolvency without undue delay. Businesses are obliged to continuously keep track of their financial situation, as well as of their assets and liabilities, in order to be able to determine a potential threat of insolvency early enough. In the event that insolvency cannot be avoided, the debtor may resort to restructuring proceedings to address imminent or existing insolvency. Restructuring is a recovery process that is expected to lead to the recovery of an enterprise. The most recent bankruptcy laws in Europe and elsewhere take an active approach to handling a crisis economic situation of the debtor by attempting to create mechanisms through which the debtor may avoid the company's liquidation while preserving production, employment and the possibility to generate further profits after the repayment of debts. (Mihok, Vidová, 2006) One of the basic prerequisites for granting the restructuring permit is that restructuring

should yield better proceeds to satisfy the creditors than bankruptcy. In the restructuring proceedings, the presumption is that economic activity will continue, while bankruptcy presumes that such activities would in fact be discontinued and the debtor's assets will be sold. (Ďurica, 2015) Judicial restructuring is beneficial both for the debtor and the creditors because it is supposed to better satisfy receivables than the bankruptcy proceedings. Equally important is the fact that the debtor and all of its assets are protected during the entire restructuring proceedings and that the creditors are required to follow a procedure that is strictly defined by law. Such protection from creditors is crucial for a successful completion of the proceedings and sufficient satisfaction of receivables. (Mihok, Kádárová, 2011) At the same time, it is necessary to emphasise the fact that restructuring might provide an opportunity to satisfy unsecured creditors whose recovery rate within bankruptcy proceedings will be almost none because nearly all of the debtor's assets are pledged to secured creditors. Last but not least, it is necessary to highlight the fact that the suppliers of the debtor's company will be able to further cooperate as part of pursuing their business activities and thus receive some kind of alternative satisfaction of their existing claims through the ability to generate further income from the debtor's company already during the restructuring proceedings as well as afterwards because, in the end, restructuring should result in continued operation of the debtor and, hence, preserving its current orientation towards gradual recovery and stabilisation.

The success of restructuring depends on whether this procedure is initiated early enough. In most cases, restructuring requires the debtor to continue to pursue its economic activity. The debtor should therefore keep those economic means that are necessary for continuing this activity. The Act on Bankruptcy and Restructuring, as amended, makes this possible for the debtor by enabling the commencement of restructuring proceedings already at the stage of imminent insolvency. (Ďurica, Husár, 2008)

Despite the legislative effort to prefer restructuring over bankruptcy, the current trend goes in the opposite direction because the number of petitions for restructuring permits is declining whereas the number of petitions for bankruptcy is slightly rising over time. The year 2012 saw a significant decline in the number of petitions for bankruptcy and the petitions for restructuring permits, down to 115, while already in 2013 there were as many as 148 petitions for restructuring. Since that period, the number of petitions for restructuring permits has been declining significantly. In 2014, the number of received petitions for restructuring permits stood at 142, with 116 petitions received in 2015, and only 99 petitions in 2016. The situation would be favourable for Slovakia if the numbers of bankruptcy proceedings were dropping as well but, unfortunately, this is not the case.

The petition for restructuring permit is most frequently filed by the debtor. The number of cases where this petition is filed by creditors or other entities is

negligible. By filing the petition, the debtor may avoid the bankruptcy proceedings, if the conditions for the restructuring permit are complied with and the petition is filed early enough.

In the Slovak Republic, restructuring is predominantly used as proceedings against debtors that are legal persons. During the period under review, these proceedings against the debtor accounted for at least 87% of cases between 2010 and 2016, except for 2015 when this ratio declined to 80%. This implies that restructuring is indeed used in the business sector, although to a much lesser extent in comparison with bankruptcy. This is definitely not the right direction and we need to find the causes of this problem. Restructuring allows the recovery of a company at an earlier stage of a crisis, ensuring that the company will carry on its business after the restructuring process is completed. It is very important for the companies or their crisis management to know when and how to respond to a crisis situation so that the restructuring process of the company is commenced at the right time. The problem with small- and medium-sized enterprises lies in particular in their insufficient focus on crisis management, because in many cases the companies cannot afford such personnel. However, only a timely response of the crisis management can ensure the company's successful recovery and its continued presence on the market. The sooner the petition for restructuring permit is filed, the bigger the chance is that the process will be completed successfully both for the debtor and for the creditors as regards the recovery rate of receivables. By filing the petition for restructuring, the debtor and the persons designated by law are not deprived of their right to file a petition for bankruptcy if the conditions prescribed by law have been met. For this reason we consider it necessary to raise awareness among the companies – in a manner they can easily understand – as regards the procedures to be followed in companies which are facing a crisis, so that they know what methodology needs to be applied.

As with the filing of a petition for bankruptcy, the filing of a petition for restructuring permit does not trigger the proceedings as such. The court will examine whether the petition contains the substantive and procedural requirements and, if this is not the case, the court will dismiss the petition within 15 days of its delivery. In 2010, the courts have dismissed 16 petitions while 27 petitions were dismissed in 2011, 21 in each year from 2012 to 2014, 17 petitions in 2015 and 12 in 2016. The declining number of dismissed petitions is directly related to a decline in the number of petitions for restructuring permits.

If a petition meets the prescribed requirements, the court will decide on the commencement of the restructuring proceedings by delivering a resolution within the same deadline. The restructuring proceedings commence upon the publication of the relevant resolution in the Commercial Journal. (Ďurica, Husár, 2008) In the period between 2010 and 2016, the courts decided to commence the restructuring proceedings in 84% cases on average.

After the commencement of the restructuring proceedings the court examines whether the requirements for the restructuring permit have been complied with

and decides whether restructuring will be permitted or the proceedings will be discontinued. The court must decide about the petition for restructuring permit within 30 days of the commencement of restructuring proceedings. (Đurica, 2010) In the event that the court does not decide on the restructuring permit, the proceedings will be discontinued. Declaration of bankruptcy is the most frequent reason for discontinuation of the proceedings and accounts for as many as 64% of cases reported during the period under review (Act. No 7/2005 Coll. On Bankruptcy and Restructuring as amended). Other, less frequent reasons for discontinued restructuring include withdrawn petition, a lack of assets, non-compliance with the conditions under §116 (2) of the Act, discontinuations pursuant to §131 of the Act, or other reasons for discontinuing the restructuring proceedings. In 2010, there were 19 restructuring proceedings discontinued, as compared to 28 proceedings discontinued in 2011, 33 proceedings discontinued in 2012, 16 proceedings discontinued in 2013, 37 proceedings discontinued in 2014, 38 proceedings discontinued in 2015 and only 10 proceedings discontinued in 2016.

During the observed period, 581 restructuring proceedings have been permitted, of which 477 were completed. Even though restructuring is the preferred option, there is a significant discrepancy between the number of pending bankruptcy proceedings and the number of pending restructuring proceedings. In 2010, there were 1,044 pending bankruptcy proceedings and 110 restructuring proceedings; 1,325 pending bankruptcies and 98 restructuring proceedings in 2011; 1,762 pending bankruptcy proceedings and 110 restructuring proceedings in 2012; 2,310 pending bankruptcies and 142 restructuring proceedings in 2013; 2,899 pending bankruptcy proceedings and 161 restructuring proceedings in 2014; 3,576 pending bankruptcy proceedings and 140 restructuring proceedings in 2015; and 4,123 pending bankruptcy proceedings and 159 restructuring proceedings in 2016.

3 Concurrent bankruptcy and restructuring proceedings

In practice, it is not uncommon that a petition for bankruptcy and a petition for restructuring permit are filed against the same debtor. Where restructuring proceedings are held concurrently with bankruptcy proceedings, the legislation prefers the restructuring option. However, both proceedings pursue the same objective. The purpose of both the bankruptcy proceedings and restructuring proceedings is to address the debtor's insolvency (including imminent insolvency within the restructuring proceedings) in order to collectively satisfy the creditors' receivables. At the same time, restructuring is expected to ensure the economic recovery of the debtor and, therefore, restructuring is the preferred option over bankruptcy proceedings when both proceedings run concurrently. (Đurica, 2015)

The commencement of restructuring proceedings prevents the commencement or continuation of already pending bankruptcy proceedings against the same debtor. If, during the restructuring proceedings, a petition for

bankruptcy is filed against the same debtor, the court is required to dismiss such petition. At the same time, where bankruptcy proceedings have already been instituted and the company has not been declared bankrupt yet while the court institutes the restructuring proceedings against the same debtor, the bankruptcy proceedings are suspended. In the event that restructuring is instituted concurrently with the bankruptcy proceedings against the same debtor, bankruptcy is suspended by operation of law due to the commencement of restructuring proceedings. If restructuring is discontinued and bankruptcy is declared, the court is required to discontinue the suspended bankruptcy proceedings.

Restructuring is given priority also in that the law allows the court to suspend the bankruptcy proceedings if the debtor has expressed, by relevant legal means, its interest in the restructuring proceedings. The debtor is entitled to file a petition to suspend the bankruptcy proceedings after having demonstrated that the trustee authorised by the debtor is in the process of preparing an opinion on the restructuring procedure. In this case, the court is required to decide on the suspension of proceedings. (Đurica, 2015)

Despite the effort to promote a wider use of restructuring, the number of bankruptcy petitions exceeds the number of petitions for restructuring permits by a large margin. Bankruptcy is being resorted to much more frequently, in particular in the business sector.

Conclusion

Due to the ongoing globalisation, conducting business is increasingly demanding in terms of technology, commercial and legislative requirements. Demands on the company management are increasingly growing, too. The importance of business revitalisation processes is also increasing in the context of this development. Taking into consideration long-term statistical data, every business will theoretically face a crisis, sooner or later. (Cehlárová, Khouri, 2009)

The purpose of the bankruptcy and restructuring proceedings is to ensure economic and legal settlement of property-related problems of a legal or natural person that is facing a threat of insolvency or is economically defunct. The current trend is to prefer the concept of restructuring, because it allows paying the obligations to creditors without the company's liquidation, while preserving production, employment and the possibility to generate further profits after the repayment of debts. A slightly growing number of declared bankruptcies and a declining number of permitted restructuring proceedings, as demonstrated by the analysis, are attributable to the fact that companies respond too late to a crisis situation. It is likely that the number of bankruptcy proceedings will be increasing further due to changing legislation, in particular as regards company law. Early identification of a crisis and its rectification by management interventions can prevent its further deepening. (Mihok, Vidová, 2006) It is necessary to raise the companies' awareness of the possibilities and conditions of bankruptcy law.

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PERSPECTIVES ON INFLUENTIAL DETERMINANTS OF SOCIAL GROWTH AND COHESION

Martin HUDEC

Abstract

Level of affluence embodies the sum of co-created conditions in which a person or a nation lives, resembled in the level of wealth, comfort, material goods and necessities available to a socioeconomic class or group of people in a certain geographic area, exemplifying the degree of satisfaction of material and non-material needs and desires of an individual or a group of people, while this concept has gradually evolved through different definitions, which are primarily determined by the discipline in which a given definition was created, from a socio-economic perspective, treated in material and non-material terms, mostly at state level. Moreover, not to mention the fact that in various parts of the world people have different problems and live in states, regions with different level of socio-economic development and therefore, their quality of life and overall standard of living is influenced by other factors which gross domestic/nation product does not incorporate, also acknowledgment the fact that throughout history human values and beliefs have gradually changed. The aim of this research paper is to analyze concept of level of affluence also known as standard of living, based on its influential determinants.

Keywords:

Cohesion, Development Confluence, Socio-Economic Growth

Introduction

Modern conceptions regarding the level of affluence are more or less full of contrasts, contradictions as a complex concept, difficult to universally grasp, since the modern definitions focus more on material consumption, others emphasize satisfaction, but there is no settled definition which would be accepted by all without reservations. Level of affluence can be defined as the amount of money resources and comfort that people have available in a given society (Szirmai, 2015). In contrast, other authors define it through two ways. The first one is the need or necessity, comfort and luxury, which are used by individuals or group of people or which they desire. Other authors approach it as the minimum level of necessary items, comfort and luxury which are necessary for living, seen as complex demographic characteristics, which include life expectancy, education, medical care, gender equality, political stability and purchasing power, expressed as statistical quantities or values (Leon-Guerrero, 2014). An important role therefore states the levels of income, consumption, unemployment and naturally other aspects; although for an international comparison is mostly used recalculated gross domestic product per capita. Gross domestic product as an indicator has gradually over time accumulated a large dose of criticism from the community of researchers based on the main idea that it does not represent faithfully the real situation of population, as it does not take into account many items which have a significant impact on people's lives, and vice versa includes

items that are irrelevant when measuring and evaluating real socio-economic convergence development towards international structures or between states.

Based on this problematic there have been formed various alternative indicators and quality of life indexes targeting the level of wealth, comfort, goods and items that are available for certain socio-economic class in a particular geographical area, which include income, the quality and level of employment, class differences, the size of poverty, quality and affordability of housing, further number of hours required to allow an individual to afford their basic needs, the gross domestic product the size of inflation, affordability and quality of health care quality and access, the average length of education, disease prevalence, costs of goods and services, infrastructure, national economic growth, economic and political stability, freedom of religion, quality of the environment, climate and security. Moreover, there are two fundamental idea differences regarding the level of affluence. The first is called competitive pluralism where different views stand opposite each other as alternatives. The second approach is called constitutive plurality, meaning that there is diversity in the internal perception, which can have different aspects that are not mutually replaceable, even if an association or correlation occurs between them. Overall, this view of the level of affluence includes a variety of attributes, with the possibility to assign a numeric value to the group, in the form of an index. Competitive pluralism, by contrast, concentrates on the choice between alternative groups of attributes (Feenstra, 2014). In conclusion, we can state that the level of affluence is a socio-economic category, mapping the historical performance of living conditions which are necessary for satisfying the needs of individuals.

1 Dynamic Structure of the Level of Affluence

The level of affluence as a socio-economic category consists of quantified measurable¹ quantities (items, values) which are in constant dynamic movement and changing over time and that are essentially transferred into indicators, that are closely related mainly to real incomes and express material and economic conditions of life as a socio-economic freedom with the possibility to allocate income where the consumer wants to (McMichael, 2016). Additionally, we can state that the level of affluence is hand in hand related to the idea of personal freedom, where each person has a wide portfolio of choice of individual choices, resembling the ideal amount of products and services consumed, which can be measured in the size of the goods and services of equivalent quality and quantity, transferred to the value of consumer goods and services, which are consumed for a certain period of time (depending on the amount allocated) by an average family. This idea is naturally associated with the cost of living, expanding with higher or increasing income and measured by the size of income, meaning that income is one of the most important factors that determines the level of affluence, since income situation also reflects the situation of the state on socio-economic level,

¹ Income, expenditures, consumption, purchasing power, wages, unemployment, price levels.

when increasing income also increases the level of affluence, since it provides the means for enhancing present consumption, as well as deferred consumption in the future, also known as savings.

Savings subsequently constitute assets or capital, while the owner of savings can decide how to use his/her saved money, choosing between liquidity, security and return. Normal deposit in the bank has high liquidity, high confidence and low risk, but also relatively low profitability. When it comes to term deposits, profitability is higher, but at the cost of reduced liquidity. When buying securities, mainly equities, owners elects little liquidity - securities must be first sold before the money can be used for other purposes, high risk and normally high return. From a macroeconomic perspective, the sum of savings equals to the volume of investments, where a higher savings rate is favorable, but only to a certain extent, meaning that too high savings rate may weaken demand and cause a recession in economy, called the paradox of savings.

Furthermore, income as such is the amount of money that an individual obtains over time. We should not forget about the element of periodicity² and the fact that individuals realize their activities and transfers in the labor markets, while their income may consist of four main components, namely wages for the work provided, the rent from leasing the land or capital, social transfers and ultimately cash arising from self-employment. Likewise, we may look upon income, when it comes to the level of affluence, and interpret it as a maximum available amount of resources, which a subject may spend while being well at the end of a certain period, for example a week, the same way as in the beginning of this period.

Additionally, disposable income is suitable for international comparison, but it should be adjusted to remove the effects of inflation to reflect the real cost and secondly, focusing on unemployment, since unemployed people are usually not so satisfied and happy than those living in households with regular income, so it is clear that unemployment reduces income, affecting living standards indirectly through income. In many countries income from employment is the only source of income, unemployment therefore affects the standard of living clearly in a negative sense. Income situation in the world has led to a gradual development of different methodologies, regarding different levels of affluence worldwide.

The European Union has developed tool called EU-SILC, which offers space for a detailed analysis of the income situation, collecting comparable multidimensional micro-data on income, poverty, social exclusion, housing, labour market, education and training, health, following international comparison. European Union Statistics on Income and Living Conditions, presents statistics on income, social inclusion and living conditions, in order to cover objective and subjective aspects of these themes in both monetary and non-monetary aspects of both households and individuals. It was created on the basis of the European Council in Lisbon in 2000, replacing previously used European Community

² A function whose output contains values that repeat periodically, at certain constant intervals. The opposite function is called aperiodic.

Household Panel (ECHP), which was used from 1994 to 2001. Nowadays, EU-SILC is used for monitoring the Europe 2020 strategy in particular through its poverty reduction headline target. For the purposes of the EU-SILC is used disposable income, as the sum of incomes of all household members after tax and after receiving social transfers. This income can be normalized by the number of members of the household (Eurostat, 2018).

2 Towards a Better Understanding of Income Inequality

Income inequality represents a global problem and phenomenon, occurring widely in developing countries, even though it is naturally takes place also in developed countries. We can argue that it is caused by essentially two factors, namely by the individual characteristics of each individual and by economic, political situation, social policy and legislative framework in the state. The two groups of factors are thus internal and external, while the effect of internal factors leads to the fact that people do not have the same income, and even if they had, they would not be able to use it effectively, meaning that the combination of internal and external factors directly influences income inequality. Moreover, we have to take into the account other factors of income inequality such as current distribution of wealth in society, social policy, fiscal policy and taxation, differentiation of income by professions, absolute and relative poverty, the size of the poverty line and its depth as the concept of asymmetry, leading to the next level of inequality arising from growing differences and deepening of material and social inequalities based on global capitalism, which among its positive aspects and opportunities also brings higher competitiveness on a global scale, regarding penetration of cheaper workforce from developing economies (Angola, 2016).

Asymmetry differs from the inequality, since inequality as a distribution of wealth or resources means that some people obtain more than others, while on asymmetry we have to look from the perspective of the more powerful, keeping control is the central challenge, for the less powerful, being encircled, varying according to dimension (material, ideas, moral authority) (Warner, 2008). Nowadays, we are seeing the impact of the increase in average earnings/income over the last two centuries, which is reflected in faster growth in wealthier and more developed countries compared to the poorer ones, concerning the impact of income inequality on economic efficiency. Reductions in inequality induce debt to fall proportionately, while examining the relationship between these two variables is of particular importance as the 2007 financial crisis that had largely attributed to over-borrowing by the US households, transforming to worldwide issue. There are three main channels through which inequality relates to household debt. First, higher inequality leads to a higher supply of credit, as the top income groups with higher propensities to save, reinvest in loanable funds markets. Second, poorer households tend to maintain their living standards by borrowing in response to stagnating real wages and third, as income inequality

increases, low- and middle-class households tend to borrow to keep their consumption at the levels of the upper social classes (Fasianos, 2016).

The most commonly used tool for measuring income inequality is the Gini coefficient³ as the distribution of income in a particular population, representing the average difference between each pair of residents' income in the state, which is reflected by the share of total income in the state (Fakier, 2014). The Gini coefficient is the ratio of the area between the line of perfect equality and the observed Lorenz curve to the area between the line of perfect equality and the line of perfect inequality. The higher the coefficient, the more unequal the distribution is, ranging from 0 (perfect equality) to 1 (perfect inequality), but is typically in the range of 0.3-0.5 for per capita expenditures. It is graphically derived from the Lorenz curve⁴, presented as a graphical representation of how incomes are divided among quintiles as a relationship of cumulative shares of income and cumulative shares of income accounted for by units that are arranged in descending order based on the amount of income. Lorenz curve is a cumulative percentage curve as an expression of the degree of deviation of the actual distribution from the line evenly distributed.

The extent of deviation of the actual distribution from equal distribution is called the Lorenz coefficient (Aaberge, 2008). Another way of measuring income inequality is Hoover index known as Robin Hood Index, which shows how much income needs to be redistributed from the upper half of the income into the lower half, in order for absolute equality, which actually reflects the biggest difference between the actual and the ideal distribution of income in society. The rate of income inequality can be further expressed by the Theil index, which is a weighted geometric average of the earnings. If the index is equal to zero, every individual in the society has the same income. Fair average income can be expressed through the Atkinson index, which calculates the so-called parameter of aversion to inequality, reflecting a preference for equality with values from zero to infinity or the decile dispersion ratio, defined as the expenditure (or income) of the richest decile divided by that of the poorest decile (Gregory, 2013).

In static decompositions, aspects such as household and personal characteristics (education, gender, occupation, urban and rural, and regional location), are the major determinants of household income, while measure must reflect the fact that people in society have different educational levels, occupations, etc., meaning that this inequality is the a between-group component. Furthermore, for any such partition of the population, whether by region, occupation, sector or any other attribute, some level of inequality will always exist

³ On the contrary, some authors argue that Gini coefficient is overstated, since it does not express the share of income in certain quintiles, and therefore it cannot be divided within small groups, thereby that actually does not offer thorough analysis of the causes and properties of income inequality, combined with the inconsistency of input data of different countries.

⁴ A graphical representation of the distribution of income in the society, developed by American economist Max Otto Lorenz in 1905, for representing inequality of the wealth distribution.

among those people within the same subgroup, known as a within-group component. What is important is that Theil index, can be decomposed across these partitions in an additive way, but the Gini index cannot. Income inequality is reflected in the polarization effect of classes in society, while the increase in income inequality adversely affects the poorest.

3 Consumption Reflected in Purchasing Power as Means of Satisfying Basic Needs

The level of affluence is clearly dependent on the purchasing power of money, where the increase in prices reflects into decrease in the value of income, which ultimately affects the level of affluence. If we want to compare the economic situation in two countries, for example, by GDP per capita, there is a problem when converting to a common currency. The most widely used conversion unit is the US dollar⁵; whose exchange rate is market-driven, but which greatly distorts the calculation. For a rather better informative value is used to estimate the exchange rate between two currencies is used purchasing power parity, which takes into account the amount of currency units that need are needed to purchase the same goods and services in compared countries, since in a shorter time period it does not have a tendency to major changes and is therefore much more stable compared to the exchange rates. Observed deviations of the exchange rate from purchasing power parity are measured by deviations of the real exchange rate from its purchasing power parity value of 1. The World Bank collects within its International Comparison Program (a worldwide statistical partnership to collect comparative price data and compile detailed expenditure values of countries' gross domestic products and to estimate purchasing power parities of the world's economies) more than a thousand products and services in 146 countries around the world, while on its basis are formed price levels for each country, thus, it is possible to calculate the differences and objective comparison, while using purchasing power parities instead of market exchange rates, to convert, currencies makes it possible to compare the output of economies and the welfare of their inhabitants in real terms (The World Bank, 2011).

If the inflation rate in the two countries differs, there is naturally a devaluation of one currency in order to maintain purchasing power. In the long term this affects the exchange rate mechanism in order to adjust the cost of a particular group of goods and services supplied in two different economies (Grinin, 2015). Furthermore, GfK institute⁶ implements studies of market behavior and purchasing power, as a complex view through digital maps for the whole Europe.

⁵ Way to determine whether two currencies are at the right level can be done by Big Mac index, which is an informal way for measuring the purchasing power parity between two currencies. It provides a test of the extent to which market exchange rates result in goods costing the same in different countries, converted to US dollars, to get an idea whether the currency against the US dollar is undervalued or vice versa overvalued.

⁶ Established in 1934 as Gesellschaft für Konsumforschung (Society for Consumer Research) is Germany's largest market research institute, and the fourth largest market research organisation in the world, founded by an association of university teachers and market research experts, using innovative technologies and data sciences, improving competitive edge and enrich consumers' experiences and choices (GfK, 2018).

These results are beneficial for international businesses that need to have detailed information of individual markets, referring to the purchasing power of money and focused on consumers' expenses related to food, housing and services, as well as purchases and the cost of living.

An important aspect related to the level of affluence, interconnected with purchasing power parity is consumption, since consumption on the basis of quantity and quality mirrors the level of affluence in different countries. Consumption represents the use of commodities by households, consisting of three phases. The first phase includes the acquisition of goods and services from all available sources, the next stage is their usage, which actually balances the welfare of households and final phase addresses the consumption disposal⁷, waste and environmental degradation that consumption brings. In addition, not all goods and services are received by market exchange, such as home care, public education, public services, etc. The linkage of consumption and the level of affluence lies in the use of goods and services by households, while the level of affluence even goes beyond this, including community service, work conditions, various forms of freedom, the quality of environment and many other intangible aspects that affect the well-being of households.

It is also important to distinguish between the levels of consumption and the standard of consumption, where the levels of consumption represent the actual consumption of goods and services, while the standard of consumption is reflected as an objective, which households are trying to reach. Therefore, consumption can be divided into three parts - the sum of the amount of products and services consumed; the form of consumption (activities and rituals associated with consumption); the perceived value of goods and services by households (Carroll, 2014). The overall concept of consumption therefore incorporates the needs and wants of households, where the stimuluses may be a basic human survival, prestige, fame or recognition, related to the physiological needs and social status, when during the measurement of standards, we have to take into the account the general and individual (subjective) value of objects, meaning that high level of affluence occurs when individuals are converging towards the standards of large groups of people or certain cultural norms, with respect to the socio-economic environment, when individuals are fulfilling their needs in a fashion not too distinctive from the standards of related groups or converging towards higher hierarchy in order to achieve higher level of affluence. People who are able to meet this criterion are characterized by lower frustration and higher level of satisfaction.

On the contrary, the issue of the levels of affluence is hand in hand interconnected poverty, therefore a condition where a person whose material, cultural and social resources are so limited that he/she is excluded from the

⁷ Consumption disposal is not just about questions of waste and rubbish but is implicated more broadly in the ways in which consumers manage absence within social relations, involving issues of managing social relations and their representation around themes of movement, transformation, incompleteness, and return.

minimum acceptable way of life in the country to which he/she belongs and at the same time, there is the inability to properly participate in society. Moreover, there is the concept of multidimensional poverty, when poverty, under this model has several dimensions, namely economic, human, political, socio-cultural and the last dimension is related to security/safety. Within the European Union poverty threshold policy has a broader multi-dimensional framework of deprivation, while changes were made when the European Council held a special meeting on 23-24 March 2000 in Lisbon to agree a new strategic goal for the European Union, in order to strengthen employment, economic reform and social cohesion as part of a knowledge-based economy. EU states have agreed to join the Open Method of Coordination, which includes the definition of common signs of poverty and social exclusion in the European Union as a whole, endorsing 18 indicators (also known as Laeken indicators) to serve for the welfare evaluation by various criteria (gender, age group, household type, etc.).

All these dimensions overlap each other, depending on the environment, while the measurement of poverty is based on a comparison of resources and needs. An important step in examining poverty is therefore leaving the concept of emphasizing poverty as one-dimensional dimension such as income, in favor of a failure within the dimensions of human welfare. Measuring poverty means specifying threshold⁸ by dividing the population on certain groups depending on the level of poverty, measured in monetary or non-monetary terms by direct and indirect instruments. Most approaches are based on the financial indirect approach, where resources are needed to achieve prosperity. Revenue indicators are based on defining absolute⁹ and relative¹⁰ poverty border of poverty, where the absolute threshold is determined by a normative assessment and the relative threshold arbitrary derives from standards in societies.

For monetary aspects regarding the levels of affluence we use the term financial poverty and for non-monetary aspects term material deprivation. When analyzing absolute threshold of poverty, fixed threshold is applied to all potential sources. In addition, when the absolute threshold of poverty is compared at the time, the levels of affluence do not change even with economic growth (D'Alisa, 2014). Likewise, during the comparison of fixed thresholds between countries it is necessary to use an appropriate exchange rate. In the multidimensional concept, each person has a vector of several attributes that represent different dimensions of well-being. For measuring multidimensional¹¹ poverty, it is therefore necessary

⁸ The poverty threshold, poverty limit or poverty line is the minimum level of income deemed adequate in a particular country.

⁹ Absolute poverty is the level of poverty as defined in terms of the minimal requirements necessary to afford minimal standards of food, clothing, health care and shelter.

¹⁰ Relative poverty is the most useful measure for ascertaining poverty rates in wealthy developed nations, better reflecting the cost of social inclusion and equality of opportunity in a specific time and space as effects of the contrast between the lives of the poor and the lives of those around them in developed countries.

¹¹ For distinguishing multidimensional indicators from income poverty, we use the term material deprivation, when referring to a state of economic strain and durables, defined as the enforced inability, which is the inability to afford some items considered by most people to be desirable or even necessary to lead an adequate life.

to check whether the measured group of individual has a minimum acceptable level of these attributes. For an alternative approach, we might choose measured aspects (items) by applying public opinion, which would reveal constituents perceived by society as necessary for a decent level of affluence by a collectivized opinion form of individual decisions to identify social needs in the form of social consensus, implicitly defining poverty with respect to the minimum standard of living perceived by all citizens and not only as a norm.

Subsequently, when we think of abstracting the level of affluence from a purely economic point of view, we can see that the level of affluence is often determined by relevant features of the non-material nature that cannot be bought with money, since many citizens with lower incomes have higher level of affluence than those with higher incomes. As we have mentioned before, the level of affluence from a sociological point of view represents the level of satisfaction of basic and complex living needs¹² of the population in the context of all the circumstances in which these needs are satisfied.

4 Conclusions

In conclusion, we have come to the understanding through our findings that comprehensive definition of level of affluence is based on the absolute level of consumption of material goods and services, and in addition presents a summary of other material and social conditions that have an impact on meeting the needs of the population. It should also be noted that in this day and age an individual's behaviour is largely customary. Moreover, it is a part of a culture that is passed on from generation to generation, serving as the basis on which individuals and groups are dependent on certain patterns of behaviour also apparent in future generations¹³. In developed societies, people have freedom in their individual choice, which is apparent based on their profession, socio-economic background, habits, engagement in various social groups combined with the choice to play individual social roles, basically meaning that every person within certain limits may freely decide for to have a role in society, which is the closest to his/her beliefs. With this understanding, it should be noted that the level of affluence is really primarily a social phenomenon, because individuals do not live in isolation from society. For some, it may not be a satisfactory way of life in accordance with the way of life in the society, it can even be described as inappropriate no matter how much satisfaction will individuals gain, principally meaning that the level of affluence depends not only on material things, but on the total satisfaction.

¹² In this context, the essential indicators of the level of affluence is the level of nutrition, housing, clothing, transportation, culture, recreation, free time, education and skills, health and social care, employment and work conditions, consumption and savings, respect for human rights.

¹³ As an example, we can use monogamy in marriage, democracy as a form of government, habits and traditions, etc. perceptible in patterns of behavior, thinking, dealing with known or new situations, transformed into development of societies, more or less having an impact on the speed of convergence towards new structures and forms of cooperation or disparities when it comes to progress of society as a whole.

The level of affluence is therefore certain types of behaviour that best reflects the core values associated with the way of life as a system element of way of life, which is the overall behaviour of individuals and groups, while these elements together can satisfy their desires and wishes, subjectively dealing with satisfaction. Behaviour and the way of life form the core values of individuals and groups in the form standard to a certain ideal or a wide range of expenditure based on the total accumulation of resources. Socio-economic status therefore expresses the position of individuals or groups who have in mind prevailing average standards in cultural property, actual revenue, material possessions and involvement in activities in the community. The level of affluence is therefore linked to the economic perception in similar rates of satisfaction of material and non-material needs and desires of an individual or group related to goods and services, showing a certain relationship between reality, wants, needs and what is perceived as desirable, closely related to a sociological category of quality of life (environmental quality, quality of nutrition, health prevention, health standards, etc.), where the measurement should be perceived through real income per capita and poverty, as well as access and quality of health care, economic inequality and level of education, access to certain goods and overall quality of life.

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EFFECTS OF PRODUCT DIVERSITY ON GROWTH STRATEGIES: THE CASE OF KARDEMIR INC.

Gamze KARA – Ahmet GURBUZ

Abstract

In today's world of rapid technological developments and changes, right strategies determine the future economic growth in business world. Businesses set their growth strategies for reaching target profit margins, gaining competitive advantage in the market, being able to have a say in the target market with quality product variety, and for providing employment for trained and qualified personnel. The success of the companies' growth strategies is of strategic importance due to their contributions both to the regional economy and the country's economy. This study investigates the growth and qualified personnel employment policies of Kardemir Incorporation (Inc.), which is operating in the province of Karabuk, Turkey, and the impact of its product variety on growth strategies and regional economic development.

Keywords:

relationship marketing, growth strategies, product diversity, marketing policies.

Introduction

Marketing can be defined as the planning and implementation process for the development, pricing, distribution and promotion of ideas, goods and services to implement the changes that will enable the achievement of personal and organizational goals (Christopher, 1991; Cravens, 2003; Ulaga, 2001; Samiee, 1992). Marketing is not an opportunistic approach of selling goods for profit, instead it's an understanding to address consumer interests and needs as well as meeting social interests and needs. In this sense, the marketing understanding can be defined as the attitude towards the consumers, which is supported by the integrated marketing, oriented towards the satisfaction of the consumers and the society in line with the organizational and fundamental goals. A healthy marketing understanding requires a well-defined marketing strategy (Buhalis, 2000; Gengler, 1995; Prothero, 1990).

As businesses continue to grow in the business world, they set a variety of growth and development strategies to have a greater share in the ever-growing business market. A company without a strategy cannot set goals for the future. Growth strategy and strategic operations are used to achieve harmonized goals in all units (Nutt, 1992).

Growth strategies include long-term business objectives and targets, as well as the allocation of resources, product variety and qualified staff to realize these goals (Fulford, 2009). Businesses must set the right strategies in the ever-changing business market and ensure an appropriate product variety demanded by the market. Successful business is one that adopts perfectly to the changing conditions with the right strategies.

Businesses apply different strategies to achieve their intended objectives. These strategies can be divided into four groups, namely growth strategies, ACTA OECONOMICA CASSOVIENSIA, Vol. XI., 2018, No. 1
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downsizing strategies, stable strategies and mixed strategies (Ball, 2003; Sheaffer, 2009).

Growth strategies aim to expand the operations, downsizing strategies aim to reduce company operations, stable strategies aim to maintain the current status, and mixed strategies combine all of them (Wheelen, 2010). Companies can achieve ultimate success with product diversity, recruitment of qualified personnel and well-defined growth strategies that are competitive in the target market area (Kerzner, 2002).

While performing their business objectives, companies consider a management process to achieve efficiency, efficiency and profitability. The management has strategic importance in the success of a business. Budget and financial control, long-term staff planning, business policy and the right strategy development is determined by the management of the business.

Growth is one of the main objectives of businesses. When addressed by the system approach, businesses are open systems that are constantly interacting with their environment, affected by the environment and having a structure that affects the environment. In this regard, businesses behave like living organisms. Businesses that are continuously under the influence of economic, social, political and technological changes are obliged to survive by using their resources in the best possible way within the competitive environment. The growth strategies of the companies can be divided into two groups. The first group is the strategies based on commodity-market vectors. The second group are those outside the commodity-market vector (Kotler, 2015).

Strategies based on the commodity-market vector can also be called "intensive growth" strategies. Intensive growth strategies are carried out in different ways based on the commodity-market vector (North, 2007).

- i. Being effective in the market, increasing the utilization of existing customers,
- ii. Attracting customers in the market,
- iii. Improving the market share, expanding to the national and international target fields,
- iv. Diversifying the products, services and fields of activity in order to take advantage of opportunities in different fields and to provide product diversity,
- v. Product improvements, improving the quality of products to improve functionality.

Both the fields of activity and product portfolio can be enriched thanks to intensive growth strategies. In addition to this, despite being an effective strategy, the diversification of products requires financial means and qualified resources.

Strategies other than the commodity-market vector are growth strategies that can be realized by means other than the commodity-market vector (Miranda, 1997).

These include:

- i. Merger Strategies,
- ii. Acquisition Strategies,
- iii. Entry Strategies,
- iv. Internal Development Strategies,
- v. Joint Development Strategy,
- vi. Differentiation Strategy.

The developmental role played by large businesses in developing countries is of strategic importance. Such businesses constitute the corner stone of this type of economies, including Turkey's economy. To grow, to develop new products and gain competitive advantage new and logical strategies should be developed using all available means at hand.

A successful business with a strong vision has a significant role in the country's economy and regional economy. This contributes to both regional development and the competition of the country with other countries. These contributions are influential in the rise of national income and welfare of the society, and in the growth and development of the country.

This study investigates the growth strategies of Kardemir Inc., operating in the province Karabuk, its contribution to the local and national economy as well as investigating its importance for Turkey. Then, study attempts to reveal the growth strategies adopted by the enterprise, particularly those patterns of diversification behavior that distinguishes it from the other large enterprises. The results of the study provide important clues about its role and effect in the country's economy and economic development, in terms of analyzing the dynamics of regional economic change.

The province of Karabuk is located in the Western Black Sea Region of Turkey, neighboring Bartın, Kastamonu, Çankırı, Bolu, and Zonguldak Provinces, 215 km away from the capital city Ankara. It is 278 m above the sea level and has no large plains due to its mountainous landscape. It is surrounded by high hills and has a basin character. The average altitude is 250-500 m. Safranbolu District, which is 8 km away from city center of Karabuk, which has 6 districts, has been listed in the "World Heritage List" by UNESCO (United Nations Educational, Scientific and Cultural Organization) on December 17, 1994. Safranbolu attracts local and foreign tourists with its destination image. Karabuk is the place where Turkey's first heavy industrial enterprise had been established.

Turkey's First Integrated Iron and Steel Plant



Figure 1. Images from the Kardemir Inc.

Source: <http://karabukmeydanhaber.com/wp-content/uploads/2017/04/vardiya-1.jpg> (

Governments of most of the developing countries have had to build and operate large production facilities in the infrastructure-related sectors such as transport services, energy production and transmission, and in the large-scale production industries for intermediate products such as iron, steel and petroleum refining, which aim to provide cheap raw materials.

Kardemir Inc. is Turkey's first integrated iron and steel plant, established on April 3, 1937. The first Turkish Iron was produced here on September 10, 1939. The projects, manufacturing and assembly of numerous large industrial plants all over the Turkey have been realized with the help of steel construction plant of the Kardemir Inc.

It's the only rail manufacturer of the Turkey and the region. In Ray Profile rolling mill with 400 thousand tons/year capacity equipped with modern technology, it also makes heavy profile production up to 550 mm width. It is Turkey's only manufacturer of profiles of 300 mm width or above. It produces ribbed bars in its 600000 tons/year capacity continuous rolling mill, and 5.5-25 mm coils, 20-55 mm thick coils, 20-100 mm round bars, 8-40 mm ribbed bars in its 700,000 tons/year capacity bar coils rolling mill. It also produces steel billets and blooms in its steel plant, and coke and by-products in coke factories. Other products include cast iron, mine metal pole, angle iron and platina.

It led Turkey's industrial breakthrough, and is referred as "the factory that establishes factories". Residual materials formed during and after iron-steel production are used as raw materials in other industrial areas. For this purpose, there are factories around Kardemir Inc. for using the waste materials as raw materials (for example, the slags generated during iron and steel production are used as raw materials in the closer cement plant).

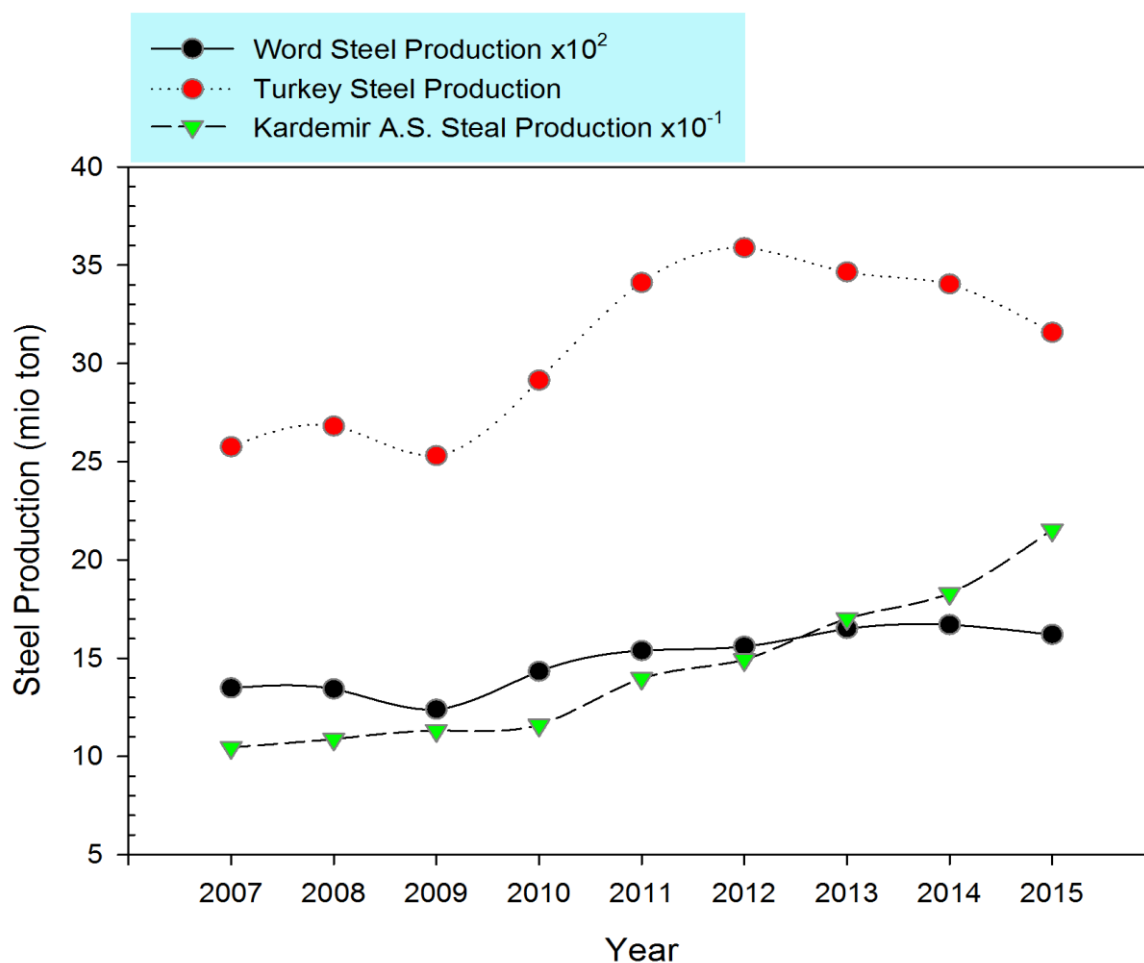


Figure 2. Steel production quantities (mio-tons) in the World, in Turkey and in Kardemir in 2007-2016

Source: https://www.kardemir.com/yatirimci/Dosyalar/Yatirimci/Faaliyet/20170601_2016-12.pdf (7.09. 2018)

Kardemir Inc. attaches great importance to university-industry cooperation. The company welcomes scientist to conduct theoretical and practical work together at the application areas provided in our company as well as welcoming commercialization of scientific work to be carried out at the universities with added value.

In line with its new investment projects realized every year since 1995, Kardemir Inc. continued to lead the Turkish industry with investments in new rail and profile rolling mills, new blast furnaces and innovative production technology.

Results and Analysis

Kardemir Inc. continues its quality production for domestic and international markets with a wide range of products. From 2015 onwards, "thick round" and "mine poles" products have been actively produced in accordance with the demands. As of 2007, investments were made in Rail and Profile Rolling Mill in order to expand the national and international market share and to increase the product variety, and Kardemir started production of rail and heavy profile. As of

2018, Kardemir continues to be the only rail manufacturer in Turkey. With the "Rail Hardening Unit", which has been put into operation in 2017, it started production of long-lasting Hardened Rails.

Within the scope of growth strategies of Kardemir Inc. and in line with the goal of producing high value added products, Bar and Coil Rolling Mill has started production by 2016 with 700,000 tons/year capacity. With the additional investments to be made, it is aimed to increase the production capacity to 1.400.000 tons/year. It has increased its product range in order to be able to respond the demands of the market at the highest level, and in this context, 4 separate final product groups are manufactured in the Coil and Rod Rolling Mill.

Diversification strategies aim to enter a market with a new product or to operate in different markets with the same products. These strategies include one-way and multi-faceted diversification in the market. Kardemir Inc. is expanding its market area with new products within the scope the growth strategies. To this end, new products (Rail Transportation Systems, Freight Wagon Trolley, Passenger Wagon Trolley, Light Rail Train Trolley and Locomotive Trolley) are produced especially to meet international demands (Iran, Romania, Slovenia, etc.)

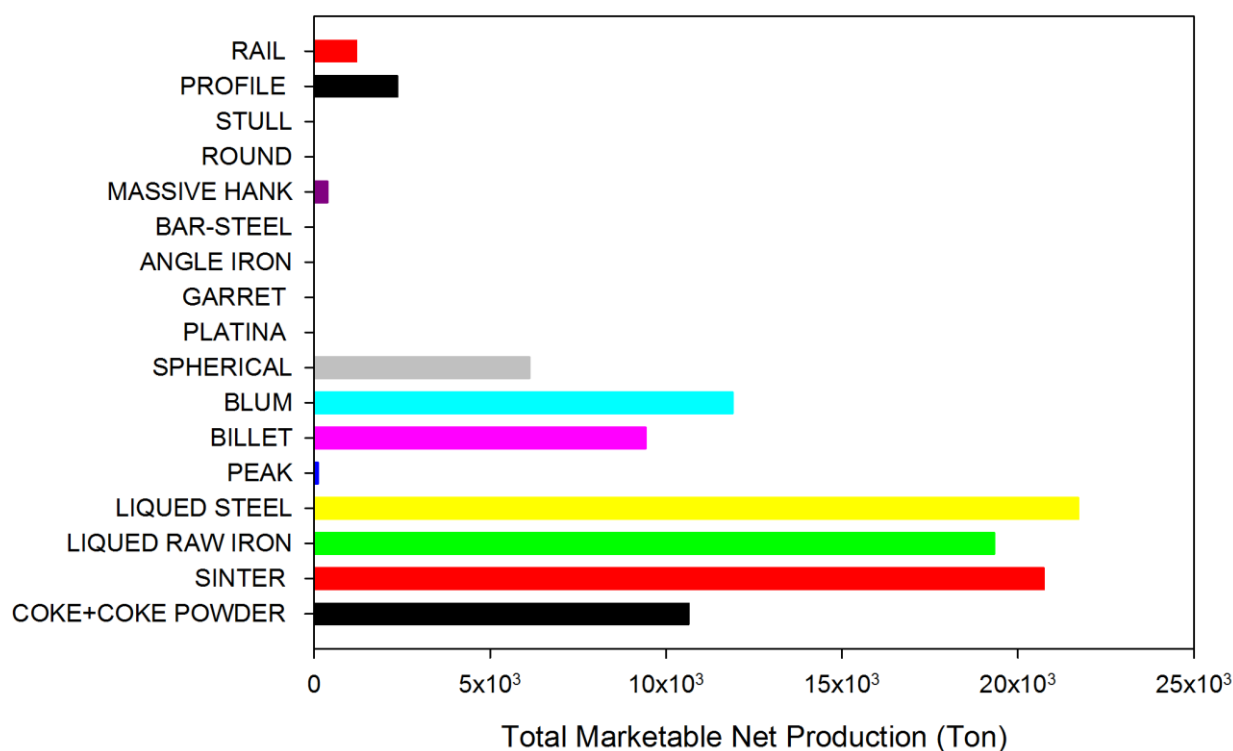


Figure 3. Kardemir Inc. production quantities (tons) and product variety in 2016

Source: https://www.kardemir.com/yatirimci/Dosyalar/Yatirimci/Faaliyet/20170601_2016-12.pdf (7.09.2018)

In 2016, Kardemir Inc. has produced a total of 2,076,736 tons of production with 17 basic products and by-products, both in domestic and overseas markets.

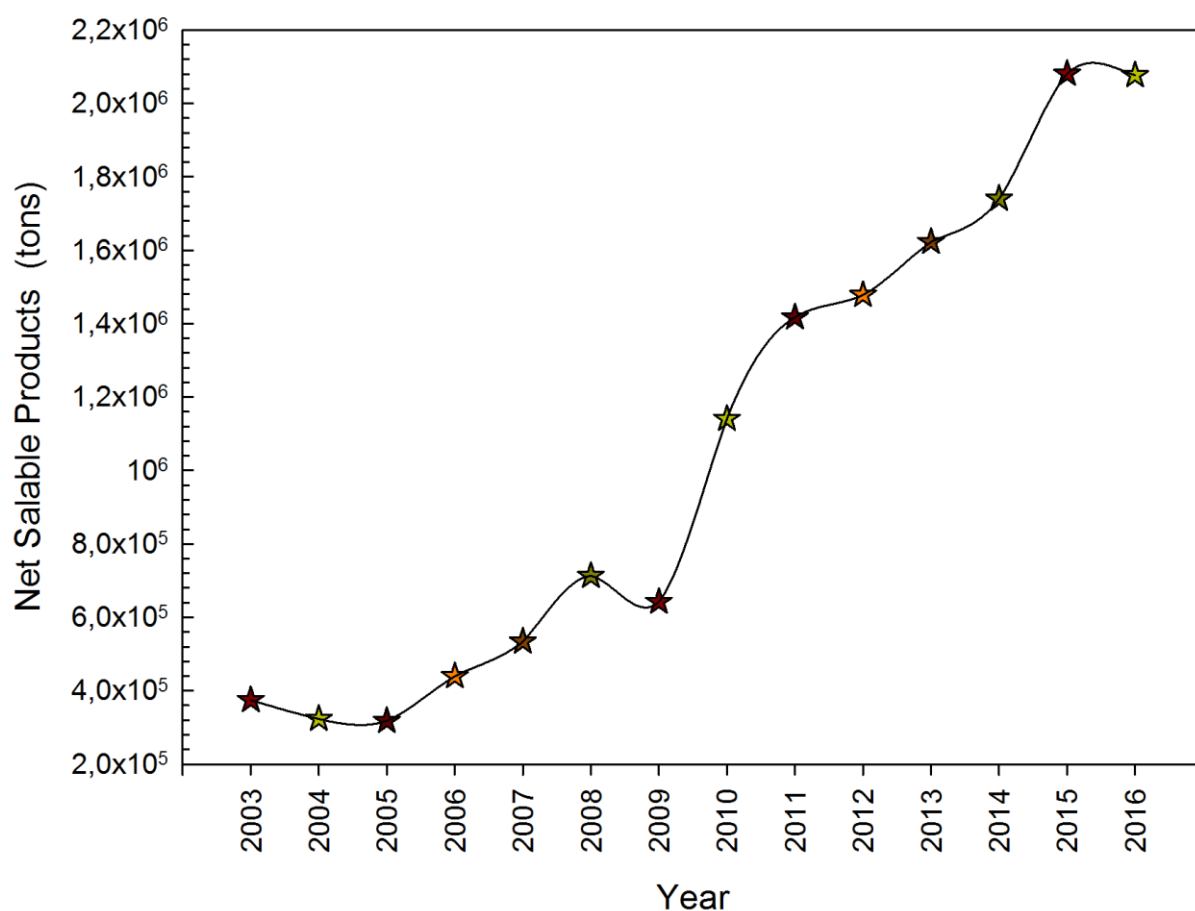


Figure 4. Kardemir Inc. change in net salable products (tons) in 2003-2016

Source: <https://www.kardemir.com/yatirimci/Dosyalar/Yatirimci/Faaliyet/2003.pdf> (7.09. 2018)

Figure 4 shows the change in net salable products (tons) of Kardemir Inc. between 2003 and 2016. There was a decrease in 2009, contrary to the overall trend. When these years are examined, it is seen that Kardemir Inc. had followed a downsizing strategy. The number of working personnel within has decreased the lowest level in the last 15 years within the scope of downsizing strategies. As a result, total net salable products has decreased.

Since businesses constantly interact with their environment, they are under the influence of the economic, social, political and technological changes like a living organism influenced by its environment. In the above mentioned years, political and economic problems encountered in Turkey had been highly effective on Kardemir Inc.

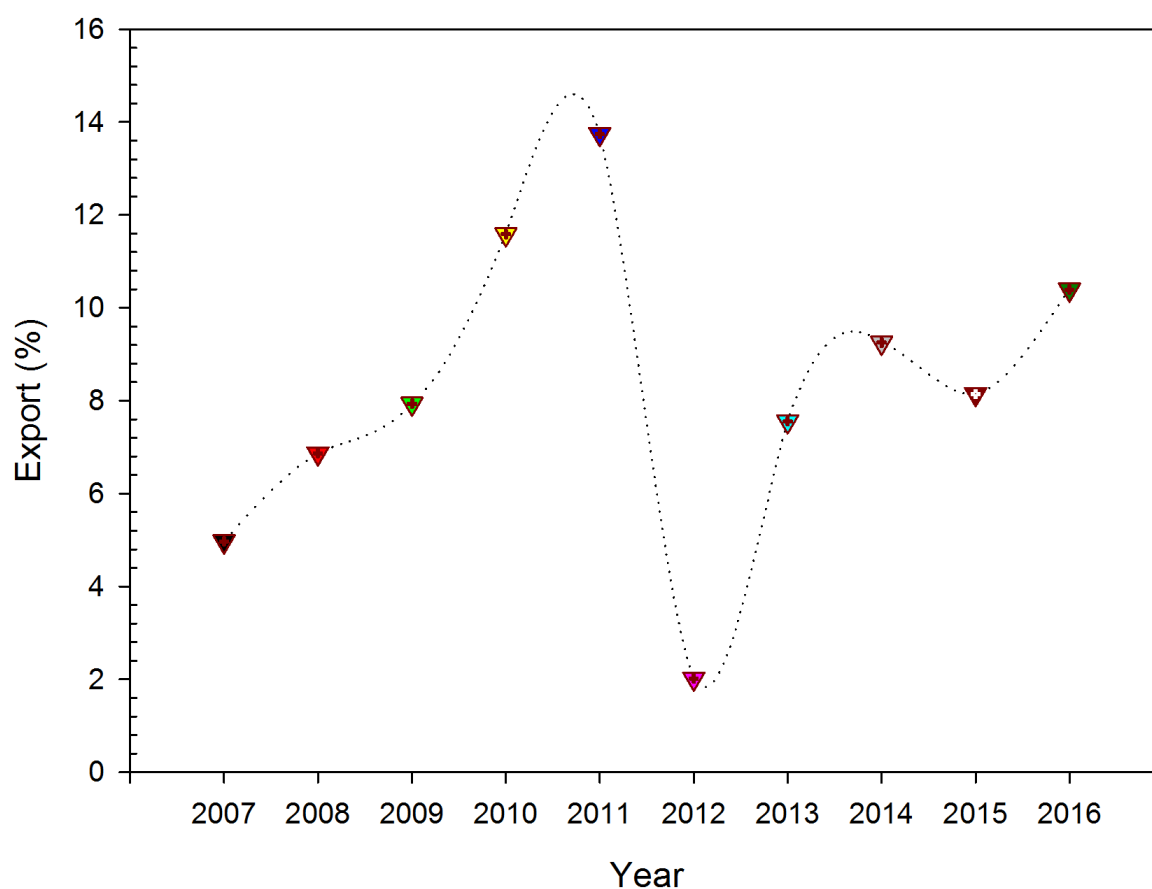


Figure 5. Change in foreign exports (%) of Kardemir Inc. between 2007 and 2016

Source: (<https://www.kardemir.com/yatirimci/Dosyalar/Yatirimci/Faaliyet/2007.pdf> (7.09.2018))

As shown in Fig. 5, the political and economic problems encountered in Turkey in 2009 have influenced the exports in the second half of 2010, and the exports has dropped dramatically down to the lowest levels of the last decade. Kardemir Inc. have increased its foreign exports with new product strategies (rail transportation systems) developed in 2012 in order to meet demand in countries such as Iran, Romania and Slovenia in particular.

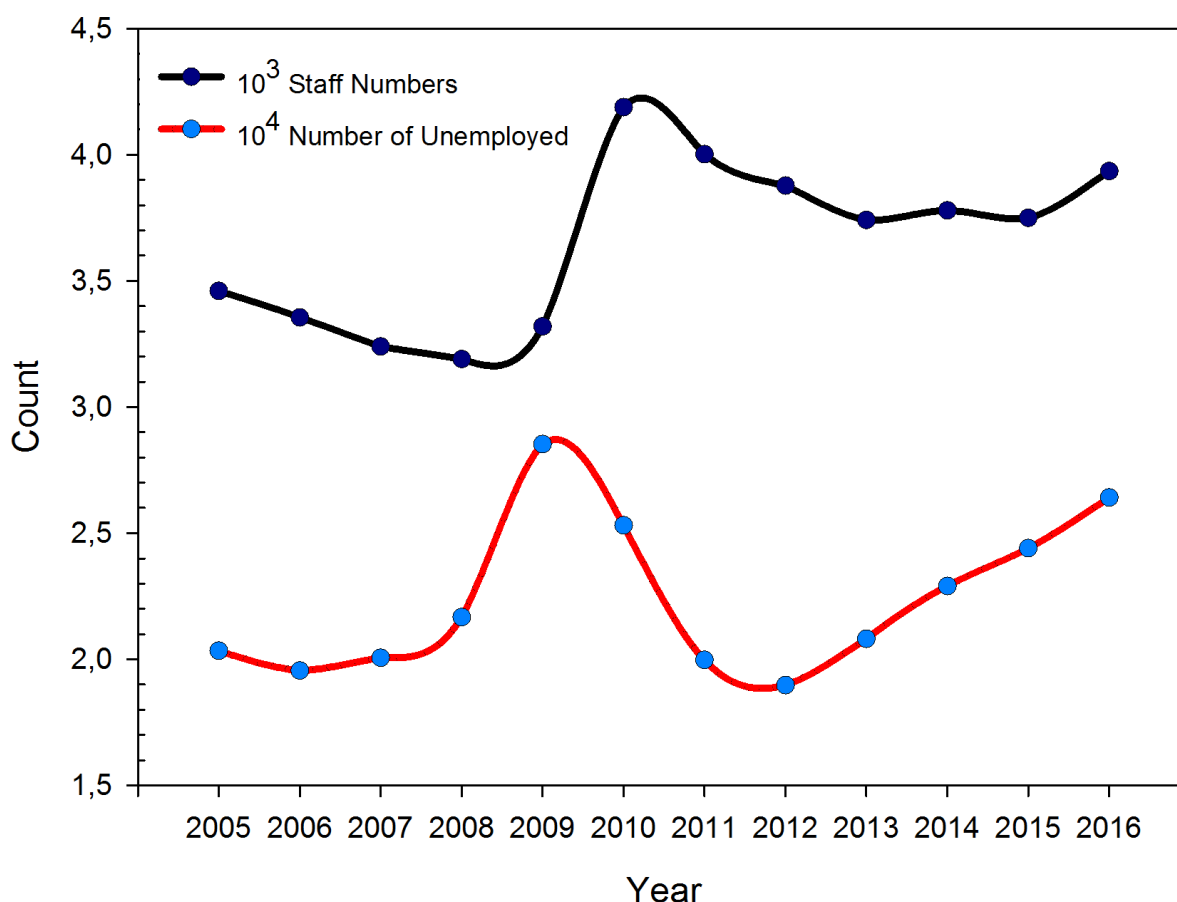


Figure 6. The number of employed personnel in Kardemir Inc. and the unemployment numbers in the province of Karabuk between 2005 and 2016

Source: <https://www.kardemir.com/yatirimci/Dosyalar/Yatirimci/Faaliyet/2005.pdf> (7.09.2018)

Figure 6 shows the yearly changes in the number of personnel employed in Kardemir Inc. and the unemployment figures in the province of Karabuk. A relative relationship between the number of personnel employed and unemployment is observed in Fig.6. The number of employed personnel decreases with the increasing rates of unemployment, indicating a downsizing policy in Kardemir Inc. This has been particularly experienced in 2009 due to the economic and political problems in Turkey, which has caused unemployment problem to increase to the highest level in studied years.

In terms of the number of unemployment in the region, the number of personnel employed in Kardemir Inc. constitutes 16% of the number of workers in the region. This result shows how effective the Kardemir Inc. is in the regional economy.

In determining the personnel policies employed in Kardemir Inc., personnel quality had also been emphasized as much as the number of personnel. Employed personnel has been evaluated in two categories. They are classified as "Blue Collar" and "White Collar". The blue collar is described as personnel who serves

with physical abilities, rather than cognitive abilities, on a manufacturing counter in an enterprise that produces goods and services. On the other hand, the white collar employees work at desks in administrative positions, utilizing their cognitive abilities, rather than physical abilities. The ratios of blue collar and white collar personnels in Kardemir Inc. in 2016 were 72.53% and 27.47%, respectively.

In line with its growth strategies and the goal of producing high value added products, Kardemir Inc. aims to start test productions for railway trolleys, which haven't been produced in Turkey, in the first quarter of 2018 with a capacity of 200,000 pieces/year.

As of 2018, Kardemir Inc. aims to reach 3.5 million tons of liquid steel production with capacity increase and new investments to be realized in Steelworks and Continuous Casting Facilities by 2023.

Conclusions

Growth is one of the main objectives of businesses. Businesses that are continuously under the influence of economic, social, political and technological changes are obliged to survive by using their resources in the best possible way within the competitive environment. The rapid development and changes in business world affects businesses profoundly and forces them to adapt and be prepared to these changes. Due to this obligation, businesses need to improve their management approach, strategies and policies. Qualified personnel policies need to be set in order to be able to meet the demand of target market areas with international standards and to achieve technological development and brand recognition.

It's clear that companies' growth strategies and success contribute to regional economics. Kardemir Inc. has made a great contribution to the development of the region with the policies followed since its foundation, has affected the people of the region and formed a micro industrial community in the region. Its sum of net sales that can be sold, product variety the tendency of gradually increasing product development, and a large share in its industry draw attention. Being the only rail manufacturer in Turkey and region, it's a world-class company with its corporate identity.

In this study, where the effects growth strategies and product diversity on regional economic development were investigated, the contribution of management policies of Kardemir Inc. on the country and regional economy was investigated in particular. As a result of the obtained data, it was observed that Kardemir Inc. has developed management strategies depending on economic, social, political and technological changes, thanks to its nature that interacts with its environment constantly.

According to its strategies in the last 15 years, the company has followed mixed strategies. In general, it adopts intense growth strategies, however the company has followed the downsizing strategies between late 2009 and early 2012.

As a result, the growth strategies were investigated on the case of Kardemir Inc. with the systems approach. In line with the study data, Kardemir Inc. is one of the most significant regional and international actors, thanks to its right management strategies determined based on economic, social, political and technological changes and its nature that interacts with its environment constantly. The results of this study will contribute to the literature and will lead to further studies that will be conducted with a similar mindset and point of view.

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EVALUATING THE IMPACT OF TEST PHASE OF FACEBOOK'S „EXPLORE FEED“ ON SELECTED FACEBOOK PAGE

Roman LACKO – Pavol ANDREJOVSKÝ

Abstract

Facebook is a powerful marketing tool and is often used by universities and their faculties to improve awareness of the institution, to get new potential students and to communicate with existing students. In our article, the goal was to measure the impact of the Explore feed on selected activity measures on a page that can significantly affect the tasks listed above. Based on Facebook data, we compared two reciprocal seasons. On the basis of the comparison, we found that there was a significant decrease - on average by up to about two-thirds. This fact could have influenced also the drop in received bachelor study applications. However, this fact will only be verifiable in the future and that is why it opens up opportunities for new research in this area.

Keywords:

Explore feed, Facebook, universities, online marketing

Introduction

Facebook as a marketing and communication tool is used by almost every college and university in the Slovak Republic and worldwide. One reason for this is the wide spread of this social media among the age group of students, as well as its availability and simplicity. Facebook also offers marketing tools in its portfolio to support site tracking and product awareness, which is in our case the provision of services in the field of university education. Facebook introduced in October 2017 in some countries, including Slovakia, the so-called Explorer or Explore Feed, which divided the main news feeds to posts from user friends and to posts from institutional site administrators. As a result, websites from institutions and private companies stopped appearing in the main Facebook's feed, and if the user wanted to access it, they had to use the Explore Feed tool. At the beginning of March 2018, the Explorer was shut down due to the failure of this project. In this article, we describe the influence of the introduction and testing operation on the views and the interest of users of Faculty of Business Economics with a seat in Košice, University of Economics in Bratislava Facebook's profile.

1 Using the Facebook as the innovative marketing tool in higher education

Facebook is in our country used mostly to communicate with active and potential students. Aydin (2012) proposed a systematic review of literature which has been connected with Facebook as a term for educational environment. There have been found several facts in this study. First, Facebook users are students, although the number of users over 25 years of age has dramatically increased in recent years. Second, gender plays an important role in who uses Facebook, but

age is not a considerable variable. Other significant reasons include adaptation to new school programs and cultures, discovering social activities, finding and maintaining relationships, seeking knowledge on a variety of subjects, recruitment, sharing knowledge, academic purposes and many other reasons. invasions of privacy within friendships. Facebook can be used as an educational environment, as it improves classroom practices and student involvement. Various teaching and learning contexts include social learning, e-learning, environmental learning, business, art, and chemistry education. Moreover, Facebook increases learners' self-efficacy, motivation, self-esteem, positively changes perceptions and attitudes, reduces anxiety, and improves foreign and second language learning skills in reading and writing.

In our study, we focus mainly on Facebook as a marketing and communication tool to improve faculty competition on the market of teaching. Assimakopoulos et al. (2017) investigates the usage of university Facebook groups and sites by undergraduate students seeking information about their departments and the ways these pages could be used to acquire students. Factors that can intensify the Facebook group activities of a University are examined as well as how Facebook can be used as a marketing tool to improve marketing campaigns to gain more students. Common behavioral patterns of the usage tension of the Facebook group are also identified. They determined five factors that can be used by university marketers to intensify engagement. Bélanger et al. (2014) explores social media marketing strategies used by Canadian universities as a tool for institutional branding, recruitment and engagement of home and international students. They obtained data from two major social networking sites, Facebook and Twitter over the course of six months. In addition, student record data was compiled to link the implementation of social media to student enrollment fluctuations. The results show that the Twitter platform is much more popular for interviews, but Facebook remains the preferred website for university-initiated posts and informations. Brech et al. (2016) reveal that universities with a strong reputation tend to have more Facebook fans, but having many Facebook fans has negative effects on individual fan engagement. Furthermore, the frequency of updates is a crucial factor, as too frequent and too infrequent updates lead to lower levels of engagement with students and fans. Peruta and Shields (2016) claims that there are significant differences in engagement across institution type. Moreover, type of media and posting frequency are factors that improve the engagement of users. Peruta and Shields (2018) found that there are content topics, e. g. athletics, that significantly increase engagement, while others have the tendency to make engagement lower. The format, like including usergenerated content, is factor that improves the engagement of fans. According to Kuznetsov et al. (2016) Facebook posts have stronger association with the number of applicants and students' intake than Twitter. Vrontis et al. (2018) contributed with research focused on recruiting international students, They proved that international students prefer the traditional sources, apart from social media during their search. Among traditional media sources, friends, families and

university website were the highest in ranking. Among social media sources, Facebook, Instagram, Google+ and YouTube were the best. Most students have contacted friends or university staff for university course information using social media sites, which can be proven also by Facebook page of Faculty of Business Economics with seat in Košice.

2 Methodology, methods and data

In this section we describe the data source, how the data are processed, and the methods, that were used in this article. The source of the daily data for our research was the data publicly provided by the Society for the Facebook page of the Faculty of Business Economics with a seat in Košice. Since the Explore feed was introduced around mid-October and shutdown started at the beginning of March, we chose the period under review from 14 October to 14 March 2016/2017 and 2017/2018 as we wanted to compare the same periods to there was no significant data distortion due to seasonal impacts.

Next, we adjusted the data by creating an index that captured a change in the number of "page likes" in a given period, so we divided the number of similarities per page in year "t" to "t-1" and then by that index they imply the values of each of the monitored indicators described below in year "t-1".

As between 7th and 10th December 2016, there was a paid page promotion, we reduced the total values of the variables by the values of daily paid variables, this data was also provided by Facebook in their generated data file.

We examined the following relevant indicators:

- *Total reach per day* - The number of people who had any content from the Page or about the Page enter their screen. This includes posts, check-ins, ads, social information from people who interact with Page and more (Unique Users)
- *Page Views from users logged* into Facebook on daily basis (Total Count)
- *Number of impressions* - The number of times any content from the page or about the page entered on a person's screen. This includes posts, check-ins, ads, social information from people who interact with Page and more (Total Count)

We mainly used methods of descriptive statistics and graphical methods for data processing.

3 Results

Based on the above mentioned data processing methodology, we performed the analysis and evaluation of measurement results. First, we provide a graph showing the number of likes per page. It is obvious that the introduction of the exploration feed has also had an impact on the growth rate of likes. Trend is shown in Figure 1.

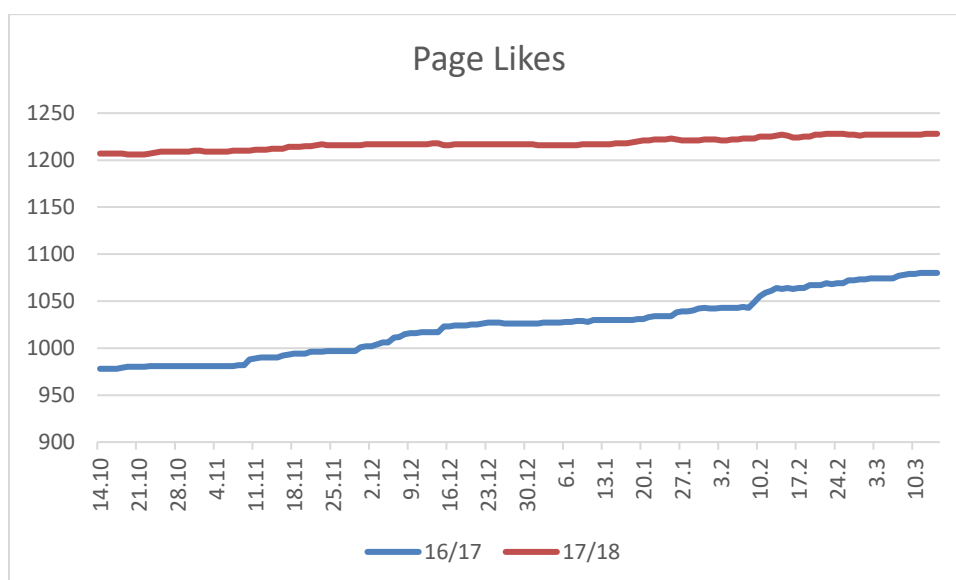


Figure 1: Number of likes of the faculty page

Source: own processing according to Facebook's data

In the previous section, we have selected three variables that we will examine within the reporting period. We have compiled a table of selected indicators of descriptive statistics and these values are presented in Table 1.

Table 2: Descriptive statistics of Page Likes and variables researched

Variable	Mean	Std Dev	Std Error	Variance	Minimum	Maximum
PgLks16/17	1023.95	31.7353165	2.5740741	1007.13	978.0000000	1080.00
PgLks17/18	1217.80	6.2635701	0.5080426	39.2323109	1206.00	1228.00
Reach16/17	533.0460526	777.5501290	63.0676435	604584.20	5.0000000	5397.00
Reach17/18	159.2960526	244.9914673	19.8714320	60020.82	2.0000000	1531.00
Views16/17	30.4605263	33.8950233	2.7492494	1148.87	0	332.0000000
Views17/18	10.7171053	7.8431797	0.6361659	61.5154671	0	44.0000000
Impress16/17	1084.39	1581.97	128.3146658	2502627.33	5.0000000	9690.00
Impress17/18	314.4276316	490.4817014	39.7833193	240572.30	3.0000000	2244.00

Range	N	N Miss	Lower 95% CL for Mean	Upper 95% CL for Mean
102.0000000	152	0	1018.87	1029.04
22.0000000	152	0	1216.80	1218.81
5392.00	152	0	408.4370705	657.6550347
1529.00	152	0	120.0340987	198.5580066
332.0000000	152	0	25.0285623	35.8924904
44.0000000	152	0	9.4601694	11.9740411
9685.00	152	0	830.8707582	1337.92
2241.00	152	0	235.8237921	393.0314711

Source: own processing according to data from Facebook

Figure 2 shows the data and development of the Total reach per day indicator for both observed periods.

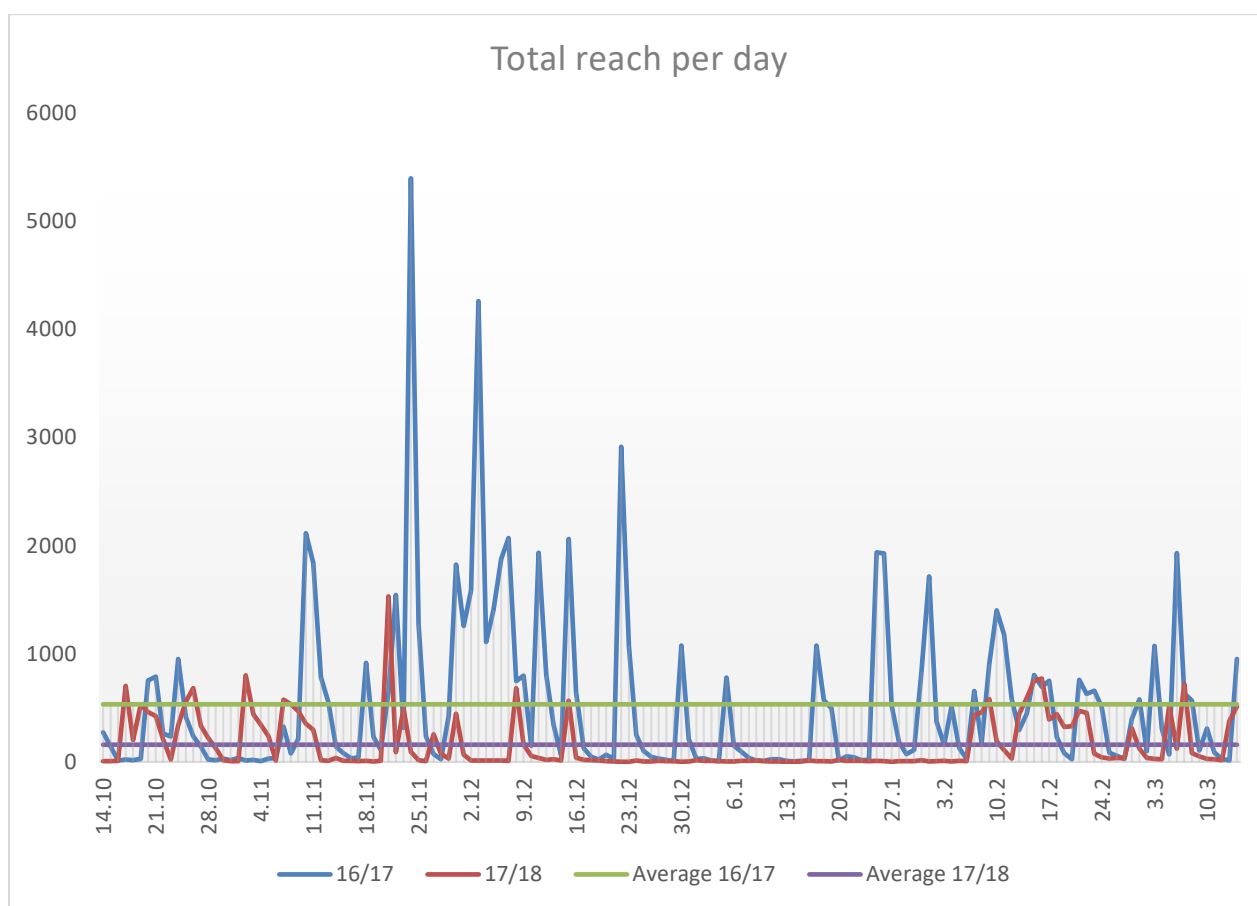


Figure 2: Comparison of Total reach per day

Source: own processing according to Facebook's data

This indicator captures the reach of all facebook users and is mainly affected by how many users see the page on that day and, if necessary, does not necessarily share it with its acquaintances. The average range was 533 users between 2016 and 2017. A year later, as a result of the introduction of the survey, this figure dropped to around 159 users. This is a significant drop that can significantly affect the success of the Facebook page.

Comparison and development of next variable is presented in figure 3.

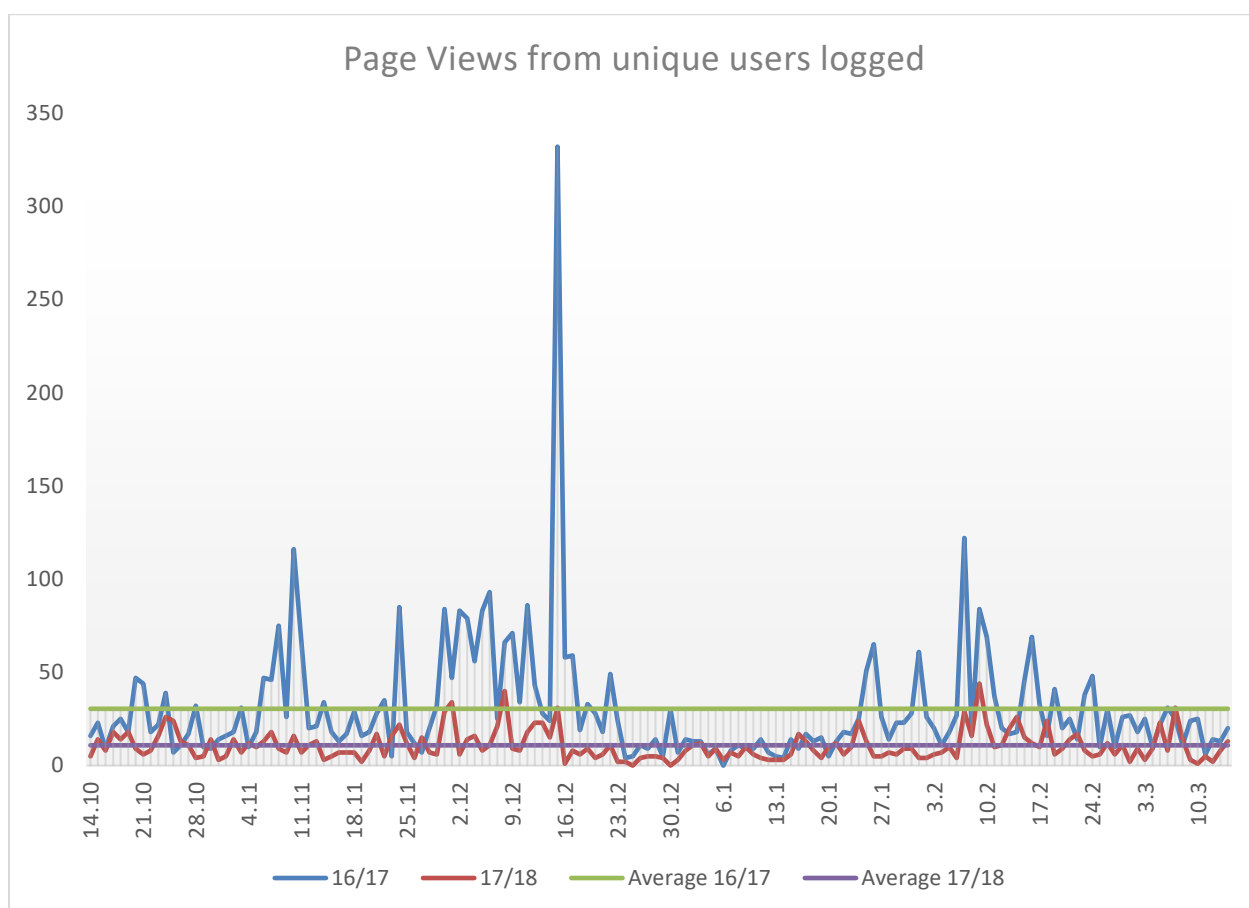


Figure 3: Comparison of Unique page views

Source: own processing according to Facebook's data

This indicator captures how many people opened a Facebook page on that day, but one person does not count more than once. The average number of openings between 2016 and 2017 was 30 users in the period under review. A year later, due to the introduction of the survey, this number has fallen to about 10 users. Even for this indicator, this is a rather significant drop, and this fact could have impacted very negatively on the selected results of the page success.

In the figure 4, we present comparison of number of impressions in the selected periods.

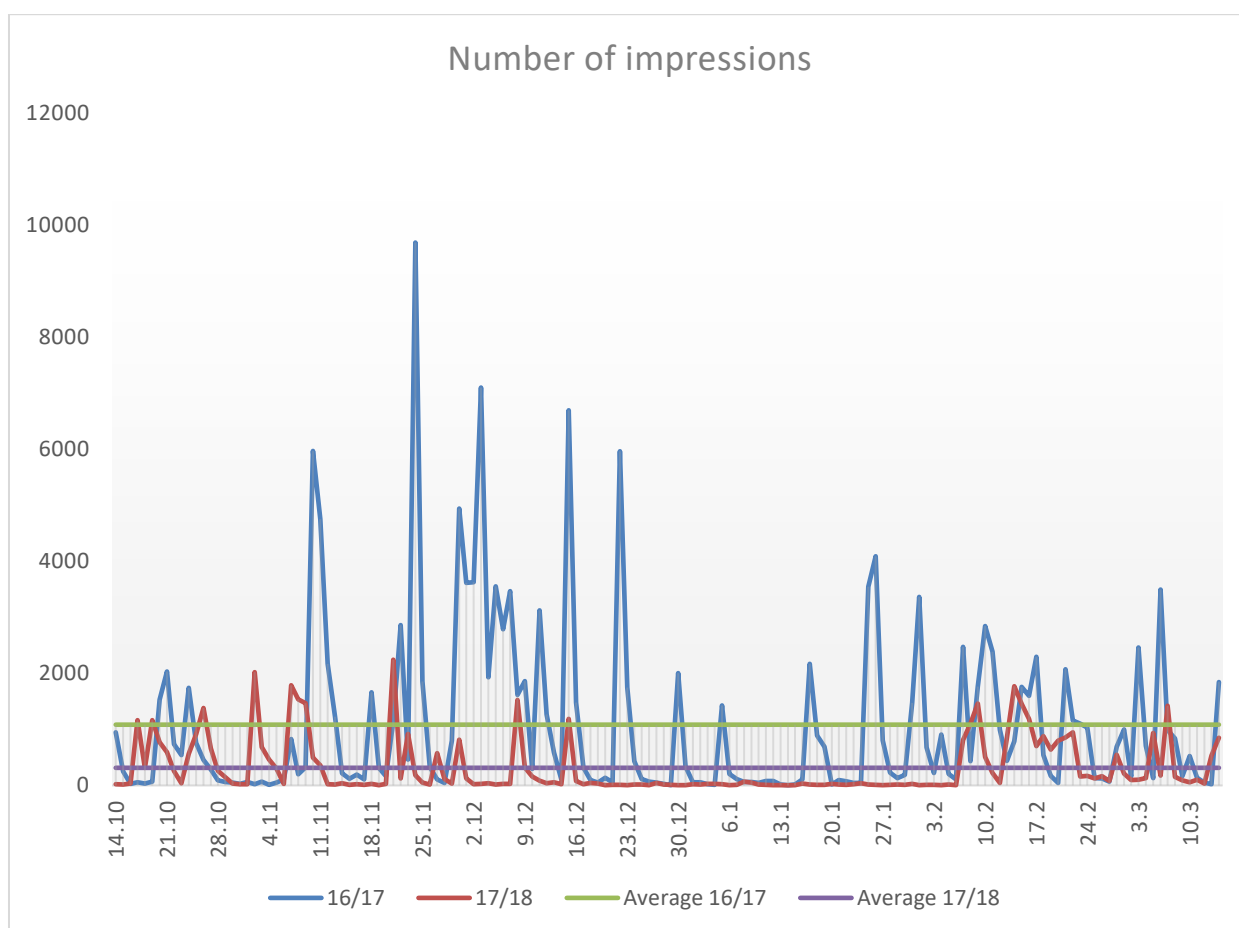


Figure 4: Comparison of Number of impressions

Source: own processing according to Facebook's data

With this variable, which captures the number of times any content from the page or about the page entered on a person's screen. This includes posts, check-ins, ads, social information from people who interact with Page. for this indicator, the ratio between the average values was even higher. At the time the Explore feed was introduced, the average number of impressions was 314, but a year earlier it was an average of 1403 impressions. Thus, in the period 2017/2018, the level reached was 22% compared to the previous period.

Conclusion

Facebook and social networks in general appear to be a powerful tool for marketing not only at the corporate level, but also in the case of public litigation, in our case the faculty Facebook page. Many authors have identified the critical success factors of such pages that can play a significant role in acquiring new students. In recent years, there has been a rather tough fight for new students in the field of economics. Modern times and modern means of communication, which social networks are undoubtedly, are the precursors of marketing and pushing different print, radio or TV advertisements because they can more effectively target the target audience and are therefore economically and financially more efficient. Facebook launched our so-called Facebook and social

networks in general appear to be a powerful tool for marketing not only at the corporate level, but also in the case of public litigation, in our case the faculty Facebook page. Many authors have identified the critical success factors of such pages that can play a significant role in acquiring new students. In recent years, there has been a rather tough fight for new students in the field of economics. Modern times and modern means of communication, which social networks are undoubtedly, are the precursors of marketing and pushing different print, radio or TV advertisements because they can more effectively target the target audience and are therefore economically and financially more efficient. Facebook launched our so-called " Explore feed to share the main feed on friends feed and fanpages feed. However, this step has occurred with both users and administrators of fanpages. Facebook has apparently been watching an improvement in its earnings for paid advertising. But in March 2018, Facebook unleashed this innovation. In the article, we pointed out that this step had a significant impact on the audience and selected indicators of the Faculty of Business Economics with seat Košice, the University of Economics in Bratislava. The options for further research on this step, as well as the various actions of admins on this page for user behavior, are obvious. It will also be worthwhile to evaluate the next period after the Explore feed if the values of the pointers returned to the original values. it is already known that the number of applications for the following year has fallen. It will be interesting to explore if the introduction of Explore Facebook feed could have an impact on the drop in new potential students. Explore feed to share the main feed on friends feed and fanpages feed. However, this step has occurred with both users and administrators of fanpages. Facebook has apparently been watching an improvement in its earnings for paid advertising. But in March 2018, Facebook unleashed this innovation. In the article, we pointed out that this step had a significant impact on the audience and selected indicators of the Faculty of Business Economics with seat Košice, the University of Economics in Bratislava. The options for further research on this step, as well as the various actions of admins on this page for user behavior, are obvious. It will also be worthwhile to evaluate the next period after the Explore feed if the values of the pointers returned to the original values. it is already known that the number of applications for the following year has fallen. It will be interesting to explore if the introduction of Explore Facebook feed could have an impact on the drop in new potential students.

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COMPARISON OF INDIRECT TAXES IN THE SLOVAK REPUBLIC AND THE CZECH REPUBLIC

Marek MEHEŠ – Slavomíra STAŠKOVÁ

Abstract

This paper deals with the issue of indirect taxes. In the introduction, we characterize the nature of indirect taxes and their significance as a government revenue. Then, we compare indirect taxes in the Slovak Republic and in the Czech Republic. We present the tax base of individual indirect taxes and we compare their rates in both countries. As the area of indirect taxes is harmonized across the EU, we compare the rates of these taxes in both countries with EU minimum rates. In addition, on specific examples in both countries, we state how indirect taxes affect the final retail price of selected products.

Keywords:

tax, tax base, value added tax, excise duties

Introduction

In general, the tax can be characterized as a mandatory, statutory, enforceable, non-purpose, non-equivalent and repeating payment of natural and legal persons, which is levied by state and local government authorities in favour of public budgets to cover public expenditures. In general, taxes can be classified as direct or indirect. Direct taxes impose on an income base include the familiar individual and corporate income tax and the payroll taxes. Indirect taxes (taxes on consumption) are a group of taxes whose impact is passed on to the final consumer, who pays them in the retail price of the goods. Shenk, Thutonyi and Cui (2015) state, that income and consumption can be viewed as different aspects of “consumption” in a broad sense. In this respect, income represents the potential power to consume and consumption represents the exercise of the power by consuming goods and services. Two individuals with the same consumption pattern will bear the same amount of indirect tax, notwithstanding the fact that their income may be completely different. Indirect tax is intended to tax personal consumption comprehensively, neutrally and efficiently. Equality is not based on ability to pay, but on paying the same tax for similar goods. In general, with a consumption tax the tax burden is divided between individuals according to the degree in which they make use of the output of society instead of their ability to contribute to the expenditures of the government. Author Kubátová (2015) states, that producers and sellers pay these taxes to the state budget, but it is likely, that these taxes will cause an increase in prices of goods and services. This characteristic is based on the fact, that the tax is payable by the final consumer. Indirect taxes fall into a group of taxes where the taxpayer is not known to the tax authority. Author Lenártová (2009) understands indirect tax as a tax, which is included in the price of goods or services. It allows a legal tax transfer to another tax entity. The taxpayer is the consumer and is not known to the tax authority. So, indirect taxes are taxes for which the taxpayer's definition is indirect, since it is

inappropriate and impossible to determine the taxpayer in the law. Author Kaplow (2008) states, that an indirect tax is one whose incidence is born by the consumers who ultimately consumes the product or service, while the immediate liability to pay may fall upon another person such as manufacturer of goods or seller of goods or provider of service. The burden of indirect tax can be shifted by the taxpayer to someone else. It is evident, that indirect taxes are impose on goods and services. Indirect taxes are regressive in nature, which implies that they are not based on the principle of ability to pay. It implies that all consumers, including the economically challenged, bear the burden of the indirect taxes equally. Indirect taxes can be in general divided into universal tax (VAT) and selective (consumption) taxes (excise duty on alcoholic beverages, excise duty on tobacco products, excise duty on mineral oil, excise duty on electricity, coal and natural gas). Indirect taxes are one of the most important tax groups within the state budget. In 2017, the tax revenue in the Slovak Republic amounted approximately 74,80 % of the total revenues of the state budget. VAT revenues accounted for 53,15 % of total tax revenues and excise duties amounted approximately 20,21% of tax revenue. In the Czech Republic, tax revenues accounted for approximately 90,59 % of the total state budget revenues. VAT revenues accounted for 23,05 % of total tax revenue. Revenue from excise duties in the Czech Republic accounted for 13,41 % of total tax revenues. Due to the importance of these taxes, we decided to deal with this issue, examine the amount of the tax burden in the Slovak Republic and the Czech Republic with the current comparison with the EU directives and on the concrete examples present the impact of these taxes on the final price of the selected products.

1 Comparison of Value Added Tax in the Slovak Republic and the Czech Republic

Through the accession of the Slovak Republic and the Czech Republic to the European Union, both states have adopted conditions for a common VAT system. Each country in its VAT Act respects Council Directive 2006/112 /EC on the Common System of VAT. Because of development of this system, new proposals were adopted by the Community on 18 January 2018 giving their members more flexibility to change rates applicable to different product groups. The Commission also seeks to simplify the rules for small and medium-sized enterprises, which should reflect in reduction of administrative costs. The rules and basic principles of the key VAT system reforms and administrative cooperation for all Member States are designed to simplify and facilitate trade in the common market. The value added tax in the Slovak Republic is regulated by Act No. 13/1998 Coll. 222/2004 Coll. on value added tax and in the Czech Republic by Act No. 235/2004 Coll. on value added tax. In their amendments, rules on taxation of goods and services is respected as governed by Council Directive 2006/112/EC on the common system of value added tax. The VAT Directive consider subject of the tax the payment as a consideration for the change of ownership.

Table 1: Standard and reduced VAT rates

	Product groups	CZ in %	SK in %
1.	Foodstuffs	10 / 15	10 / 20
2.	Water supplies	15	20
3.	Pharmaceutical products	10 / 15	10 / 20
4.	Medical equipment for disabled persons	15	10 / 20
	Children's car seats	15	20
5.	Transport of passengers	[ex] / 15	0 / 20
6.	Books	10 / 15 / 21	10
	Newspapers	10 / 21	20
	Periodicals	10 / 21	20
7.	Admission to cultural services (shows, cinema, theatre)	15	[ex] / 20
	Admission to amusement parks	15	20
8.	Pay TV/ cable TV	[ex] / 21	[ex] / 20
9.	Writers, composers, etc.	15	20
10.	Social housing	15	20
10a	Renovation and repairing of private dwellings	15	20
10b	Window cleaning and cleaning in private households	15	20
11.	Agricultural inputs	15 / 21	20
12.	Hotel accommodation	15	20
12a	Restaurant and catering services	15 / 21	20
13.	Admission to sporting events	15	20
14.	Use of sporting facilities	15	[ex] / 20
15.	Social services	[ex] / 15	[ex] / 20
16.	Supplies by undertakers and cremation services	15	20
17.	Medical and dental care	[ex] / 15	[ex] / 20
18.	Collection of domestic waste and street cleaning,	15 / 21	20
19.	Minor repairing (including mending and alteration) of		
	Bicycles	21	20
	Shoes and leather goods	21	20
	Clothing and household linen	21	20
20.	Domestic care services	15	20
21.	Hairdressing	21	20

[ex] - exception

Source: *ec.europa.eu*, own processing

Table 1 compares the goods, to which the reduced and basic tax rates is applied in both countries. Slovak Republic applies in its tax system a standard tax rate of 20 % and one reduced rate of 10 %. The Czech Republic applies a standard tax rate of 21 % and two reduced rates of 10 % and 15 % on selected types of goods and services (Table 1). The application of reduced VAT rates by Member States on selected categories of goods and services is set out in the Annex III of Directive 2006/112/EC on VAT. The table shows that both countries use reduced tax rates for food, pharmaceutical products, medical equipment for disabled persons, books, and others. In the Czech Republic, reduced tax rates are applied to a broader product group and even more services, which the Slovak law does not allow.

Table 2: Exemption on VAT without deduction of tax

Transactions	VAT exemptions	
	SK	CZ
Postal services	✓	✓
Health care	✓	✓
Social welfare services	✓	✓
Educational services	✓	✓
Services provided by members of the Church, political parties, civic associations, trade unions and others.	✓	✓
Services related to sport and physical education	✓	✓
Cultural services where the provider is established by law	✓	X
Public-service television and radio services except advertising	✓	X
Insurance services	✓	✓
Delivery of the building after 5 years from the first building approval	✓	✓
Delivery of building land with construction after 5 years. from the first building approval	✓	✓
Delivery of land except building land	✓	✓
Delivery of real estate after 5 years from the first use	✓	✓
Rental of real estate (with exceptions)	✓	✓
Financial services	✓	✓
Sales of postal stamps and pricelists	✓	✓
Operation of the lottery	✓	✓
Supply of goods, exclusively for activities exempt from tax	✓	✓

Source: Slovak Act no. 222/2004 Coll. on Value Added Tax and Czech Act No. 235/2004 Coll on Value Added Tax, own processing.

In the common European value added tax system, numerous VAT exemptions are applied in order not to increase the final price of goods and services for consumers while complying with international agreements and directives that regulate this issue. Council Directive 2006/112 /EC on the common system of value added tax defines all activities in which individual member states may apply exemption from value added tax. Transactions that are exempt from tax are subject to tax, but the tax is not applied when they are delivered. Slovak Act no. 222/2004 Coll. on Value Added Tax and Czech Act No. 235/2004 Coll on Value Added Tax define transactions, that are exempt from tax. Table 2 shows transactions in the Slovak Republic and the Czech Republic, which are exempt from value added tax without deduction of tax. In Slovak and Czech Republic, there are only two minor deviations in tax exemptions without deduction. The Czech Republic abolished in 2017 tax exemption for public service broadcasting with effect from 1. 1. 2018. These operators become taxable. The Slovak Republic has these services exempt from value added tax. Also, cultural services, in which the provider is established by law, are also exempt. The Czech Republic does not exempt these services from VAT.

2 Comparison of excise duties in the Slovak Republic and in the Czech Republic

Excise duties also belong to a group of indirect taxes and historically can be considered to the oldest taxes. In contrast to value added tax, which is a universal tax, excise duties on selected product types (selective taxes) represent additional taxation, through which the state charges the consumption. To the most common products taxed by excise duties can be considered wine, beer, alcohol, tobacco products, mineral oil, electricity, coal and natural gas (Burák, 2016). These taxes are collected by a single application on one level, e.g. by importation into the tax territory, by release for free circulation, by release from customs warehouse, etc. European Union harmonises individual excise duties, especially tax subjects, minimum tax rates and tax administration. Member States may apply their own tax rates according to their economic situation, which can not be lower than minimum EU rates. In addition, reduced rates of tax are allowed under certain conditions, for example, limit of annual alcoholic beverage production or lower alcohol content in alcoholic beverages, etc.

2.1 Excise duties on Alcohol

Alcohol and alcoholic beverages are typical subject to excise duty. Depending on the type of alcoholic beverage, the subject of the tax can be defined. At EU level, excise duty on alcohol and alcoholic beverages for Member States is governed by Council Directives No. 92/83 /EEC and 92/84 /EEC. According to this directive, subject of this tax is an alcoholic beverage produced in the tax territory, delivered to the tax territory from the territory of another Member State or imported into the tax territory from third countries. Unambiguous identification of the subject of excise duty is ensured by the Combined Nomenclature of the EU Customs Code, which consists of numerical characters and a description of the goods.

Typical alcoholic beverages, on which excise duty is applied are ethyl alcohol, beer, wine and fermented beverages and intermediate products. The tax on ethyl alcohol is based on the amount of alcohol expressed in hectolitres of 100 % alcohol at 20 °C. Tax base of the excise duty on beer is the quantity of beer expressed per hl/degree Plato of finished product or per hl/degree of alcohol of finished product (Schulzová, 2015). The base of excise duty on wine is the amount of wine expressed in hectolitres. The subject of the tax distinguishes still and sparkling wine and a still and sparkling fermented beverage. The actual alcoholic strength of these products must be greater than 1,2 % and not exceed 15 % of the volume. The minimum rate of excise duty on wine and fermented beverages from 8,5 % alcohol content in the product is 0 % according to EU legislation and the reduced rate up to 8,5 % of alcohol content is also 0 %. Taxes under EU legislation also include intermediates where the alcohol content of the finished product cannot exceed 22 %. These include, for example, Port, Sherry, Malaga and others.

The tax rate for these products may not be less than EUR 45/% volume of the alcohol in the finished product.

As presented in table 3, both countries comply with EU Directive 92/83/EEC on minimum excise duty rates for alcoholic beverages. Compared with the Czech Republic, the Slovak Republic has lower rates for alcohol and alcoholic beverages. In addition, it has a reduced rate of excise duty on alcohol produced in a small distillery up to 43 litres of pure alcohol (540 EUR). In the Czech Republic, this rate is reduced to only 30 litres of pure alcohol (550,11 EUR). Furthermore, the Slovak Republic has a reduced rate of 54,16 EUR for sparkling wine with an alcoholic strength of not more than 8,5 % and for sparkling fermented beverages not exceeding 15 % of alcoholic strength (54,16 EUR). In the case of beer, the Czech Republic expresses the excise duty on hl/°Plato (extract of the original worth) and Slovak Republic of hl/°alcohol. The Czech Republic also applies reduced tax rates for small independent breweries according to the amount of annual production.

Table 3: Excise duties – alcoholic beverages (SK, CZ, EU)

Product	Rate expressed per:	Minimum EU rate (EUR)	SK rates (EUR)	CZ rates (EUR)
Spirits	hl /°Alc.	550	1080	1096,36
Small distilleries Yearly production limited to 10 hl of pure alcohol. The reduced rates shall not be set more than 50 % below the standard national rate of excise duty.	hl /°Alc.		540,0 within 43 L.	550,11 within 30 L.
Beer	hl /°Plato	0,748		1,23
Beer	hl /°Alc.	1,87	3,59	
Independent small breweries (yearly production limited to 10 hl) Rate may not be set more than 50 % below the standard national rate.	hl /°Plato			0,62
	hl /°Alc.		2,65	
Wine (still)	hl /°Alc.	0	0	0
Wine (sparkling)	hl /°Alc.	0	79,65 / 54,16*	90,02
Fermented beverages (still)	hl /°Alc.	0	0	0
Fermented beverages (sparkling)	hl /°Alc.	0	79,65 / 54,16**	90,02
Intermediate Products (still)	hl /°Alc.	45	84,24	90,02
Intermediate Products (sparkling)	hl /°Alc.	45	84,24	90,02

* reduced rate on wine not exceeding 8.5% Alc.

** reduced rate on sparkling fermented beverages not exceeding 15°Alc./ max 40 % of standard rate

Source: www.ec.europa.eu, own processing

When calculating the excise duty on the same beer bottle (0,5l), a higher excise duty is levied in the Slovak Republic. As a model example, we can consider the same bottle of beer (0,5l) that has 11.8 ° Plato and an alcohol content of 4,4 %:

- In the Czech Republic, the excise duty for 0,5 litres of beer is calculated as follows: 1,2310 (hl rate): 100 (litres) x 11 (°Plato): 2 (per litre) = 0,067705 EUR / 0,5 l.
- In the Slovak Republic, we calculate the excise duty on 0,5 litres of beer as follows: 3,587 (tax rate): 100 (litres) x 4,4 (% volume of alcohol): 2 (per litre) = 0,078914 EUR / 0,5 l.

The value added tax, which is 21 % in the Czech Republic and 20 % in the Slovak Republic, also has an impact on the final sale price of the beer bottle. Table 4 gives another example of excise duties on alcoholic beverages. It contains calculations of excise duty of a fruit grower from the Slovak Republic and from the Czech Republic who let produce spirit in a small distillery.

Table 4: Calculation of excise duty on alcohol in small distilleries

Distillate 200 lit./ 52 % alcohol	Calculation (SK)	Rates (SK)	Calculation (CZ)	Rates (CZ)*
200x52/100 =104 l.	104 l. /100 % Alc.		104 l. /100 % Alc.	
Reduced rate	43 l. = 0,43 hl.	0,43 x 540	30 l. = 0,30 hl.	0,30 x 550,1058
Standard rate	61 l. = 0,61 hl	0,61 x 1080	74 l. = 0,74 hl.	0,74 x 1096,3647
Excise duty		232,20+558,80 = 791,00 EUR		165,03+811,31 = 976,34 EUR

* conversion at the ECB rate

Source: own processing

The fruit grower in the Slovak Republic would pay for the production of 200 litres of spirit in small distillery an excise duty of 791 EUR and in the Czech Republic of 976,34 EUR which is 185,34 EUR more. This is due lower excise duty rate in the Slovak Republic and also to a higher limit for the reduced rate of excise duty on small distilleries.

2.2 Excise duties on Tobacco

Subjects of this excise duty are tobacco products such as cigarettes, cigars, cigarillos and tobacco. For all EU members, excise duty on tobacco and tobacco products is regulated by Council Directive 2011/64/EU, which sets minimum rates of excise duty on cigarettes and tobacco products. The specific part is set between 7,5 % and 76,5 % of the total tax burden with the simultaneous determination of the fixed amount per 1000 cigarettes. Percentage – ad valorem, represents the percentage of the retail selling price. Excise duty must be at least 90 EUR per 1000 cigarettes and at least 60 % of the average retail selling price.

Table 5: Excise duty rates on tobacco

Manufactured Tobacco	Rate expressed per:	Rates (SK) in EUR	Rates (CZ) in EUR
Cigarettes			
specific excise	1000 cigarettes	61,80	56,16
ad valorem excise	%	23	27
Cigars and Cigarillos	kg / 1000 cigarettes	71,11/ kg	65,78 / 1000 pcs
Fine cut smoking tobacco	kg	73,90	86,02
Other smoking tobacco	kg	73,90	86,02

Source: www.ec.europa.eu, own processing.

Both, Slovak and Czech Republic apply Regulation No. 2011/64/ EU of the European Commission on the application of national rates of excise duty on tobacco and tobacco products. As presented in Table 5, both countries apply both, the specific and the percentage rate of excise duty. In the Slovak Republic, a higher specific part of the cigarette tax is applied and vice versa, in the Czech Republic there is a higher percentage tax rate. In following example, we compare the amount of excise duty on the same cigarettes (package of 20 pieces) in the Slovak Republic and in the Czech Republic.

Table 6: Calculation of excise duty on cigarettes

Cigarettes (same package of 20 pieces)	SK in EUR	CZ in CZK
Retail price (without taxes)	0,70	19,21
Excise duty – specific	1,24 (61,80/1000 pcs)	29,20 (1460 Kč/1000 pcs)
Excise duty – ad valorem	0,74 (23 %)	23,49 (27 %)
Excise duty total	1,97	52,69
Retail price without VAT	2,67	71,90
VAT	0,53 (20 %)	15,10 (21 %)
Retail price (including all taxes)	3,20	87,00 (3,35 EUR*)

* conversion at the ECB rate

Source: own processing

In the Slovak Republic, excise duty on cigarettes represents 61,63 % of retail price of 20 pieces' cigarettes package. Thus, Slovak Republic fulfil the EU regulation on excise duty on cigarettes of minimum 60 % of the average retail price. Another requirement is the minimum excise duty (specific + ad valorem) per 1000 cigarettes, which is set at 91 EUR. After the calculation: $((1,236 + 0,736) / 20) \times 1000 = 98,60$ EUR, we can conclude, that the second EU requirement is also met. In the Czech Republic, excise duty is 60,56 % of the retail price of package of 20 cigarettes and it is also in line with the EU Directive. The total excise duty (specific + ad valorem) is calculated as follows $((29,20 + 23,49) / 20) \times 1000 = 2634,50$ CZK (103,32 EUR after conversion). The Czech Republic has also met both requirements for minimum rates of excise duty on cigarettes. We can conclude, that in the Slovak Republic is lower excise duty on cigarettes

compared to the Czech Republic. The final price of cigarettes, however, also depends on the VAT rate, which is 1 % higher in the Czech Republic, which also slightly increase the difference between the sales prices in the countries compared.

2.3 Excise duties on energy

EU excise duty rules cover all energy products (also mineral oils) used for heating and transport, as well as electricity. Current EU rules for taxation of energy products and electricity are set in the Energy Tax Directive 2003/96/EC on the harmonization of excise duties on energy products and Directive 92/82/EEC on the approximation of the rates of excise duties on energy products. Under the Directive, the following are subject to tax:

- mineral oils produced and intended as propellant for petrol and diesel engines, LPG combustion engines and air jet engines,
- mineral oils as fuel for heat generation,
- mineral oils and mixtures thereof, which are used as propellants or fuels.

Tax base for this excise duty is the amount of mineral oil expressed in litres or kilograms, respectively, the amount of energy contained therein expressed in gigajoules. Table 7 presents the comparison of excise duty rates of selected energy products in the Slovak Republic, Czech Republic and minimum EU rates according to the directives.

Table 7: Comparison of excise duty rates of selected energy products

Product	Rate expressed per:	Minimum EU rate in EUR	Rates (SK) in EUR	Rates (CZ) in EUR
Leaded petrol	EUR/ 1000 litre	421	554,00	527,41
Unleaded petrol	EUR / 1000 litre	359	514,50	493,94
Gas Oil (diesel)	EUR / 1000 litre	330	368,00	421,23
Kerosene	EUR / 1000 litre	330	481,31	421,23
Heavy fuel oil	EUR/ 1000 kg	15	111,50	18,16
LPG	EUR/ 1000 kg	125	182,00	151,29
Electricity	EUR / MWh	1,00	1,32	1,09
Natural Gas (Heating fuel)	EUR / gigajoule	0,30	0,37	0,33
Coal and Coke	EUR / gigajoule	0,30	0,31	0,33

Source: www.ec.europa.eu, own processing

From the table 7 we can easily compare the rates of excise duty within energy products in the Slovak Republic and the Czech Republic. It is possible to state compliance with the EU Directive on minimum levels of excise duties in both countries. The most common subgroup of energy products includes fuels (petrol and diesel). It is clear, that excise duties on fuel are lower in the Czech Republic (except diesel fuel). However, this condition is slightly offset by the fact, that the final fuel price also include value added tax, which is 1 % higher in the Czech Republic. One reason for the excise duties limits is that the European Union is trying to prevent consumers from purchasing fuel in countries where the price is

significantly lower. Ultimately, this cannot be avoided altogether, as cross-border areas will still buy fuel where it is cheaper.

Conclusion

Value added tax in the European Union is a general, broadly based consumption tax assessed on the value added to goods and services. It applies to all goods and services that are bought and sold for use or consumption in the European Union. Excise duties are indirect taxes on the sale or use of specific products, such as alcohol, tobacco and energy. The revenue from these excise duties goes entirely to the country to which they are paid. EU countries agreed on common EU rules to make sure that excise duties are applied in the same way and to the same products everywhere in the Union. For example, by applying at least a minimum rate of excise duty. This helps prevent trade distortions in the Single Market, ensures fair competition between businesses, and reduces administrative burdens for companies. In the paper, we have compared indirect taxes in the Slovak and Czech Republic. We can conclude that both countries meet the minimum requirements for the excise duties rates. Even in most cases, both countries apply rates above the EU's minimum requirements to increase government revenue. The Czech Republic applies higher excise duties on alcoholic beverages and tobacco products. On the other hand, it has lower excise duties on petrol, electricity, LPG or heavy fuel oil. Differences between both countries can also be seen in the case of value added tax. Both countries apply different rates. In the case of Slovak Republic, it is 20 % and 10 % and in the case of Czech Republic 21 %, 15 % and 10 %. There are also differences in goods with reduced VAT rate. In the Czech Republic, this group is significantly larger. Trends in tax policy from the 1980s, that favour indirect taxation persists until today. Indirect taxation represents a significant shift from the preference of direct taxation in the 60's and 70's of the of the last century. Indirect taxes have become one of the primary sources of government revenue and their role is likely to grow in the future.

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COMPARISON OF BUSINESS ENVIRONMENT IN RUSSIA AND SLOVAKIA

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Abstract

The paper assesses the development of the business environment in Russia after 1990, to the present. It reflects significant economic and social reforms and their impact on development in Russia. As the Slovak Republic and Russia have undergone similar development, part of the paper is focused on their mutual comparison on the basis of an international comparison through the Global Competitiveness Index, which assesses the development of the business environment since 2004 the World Bank. For the period under review, the Russian Federation moved from 70th place in 2004 to 38th, while the Slovak Republic suffered from 43rd place in 2004 to 59th in 2017.

Keywords:

entrepreneurial environment, business entities, tax burden, enterprise, small and medium enterprises

1 Introduction

The Russian Federation operates from December 1991 as an independent subject of an international law and international relations. Since its inception until the end of 1990s went through complicated era. Construction of political system but also politic and economic reforms in an effort to transform totalitarian establishment to democracy and the centrally planned economy remake to marked-orientated system based on free market and private ownership, fundamentally affects overall progress of the state. There occurs disintegration and unbalance in relation between “weak” federal centrum and “strong” subjects, which more resembled elements of confederation than a unitary state in described period. (Liďák, 2010) There was approved new Constitution of Russian Federation, there was adopted reforms e.g. in areas of judicial power and privatization. The economy was affected mainly by badly managed privatization and financial crisis. The condition, in which the state was at the beginning of new millennium was alarming and this is the reason why changes which endeavor to effective functioning state in which there is an order was necessary.

From year 2000, there was outlined, by the president of the Russia Federation, Vladimir Putin bills, which purpose were to announce a beginning of the politic and legal reforms in state, where the main goal was to create a unitary economic and legal space in federation and tightening of the controls conducted by the federal government over the regions of the Russian Federation. Such changes are mainly marked by academics as a fixation of vertical power. (Ross, 2003), (Hahn, 2001) Following implementation of the proposed changes relates mainly to creation of federal districts and the State Council, reform of upper chamber of the parliament (the Federation Council), judicial and legal reform. In economic area,

the modifications were focused on reforms in tax and budgetary area and the reform of small and medium enterprises (“SME”).

We consider years 2000 to 2008 from politic, economic and social point of view as crucial. Internal stabilization of Russia Federation, which occurs in mentioned period was a substantial resource of formation of the overall stabilization in Russia Federation. In addition to this, the consolidating element, during provided time span was two continual and uninterrupted terms of Vladimir Putin as a president of the Russia Federation. The executive under his leadership initiated various substantial reforms, which leads to improvement in politics and economic environment. The result of such reforms was not only progress in internal state of the country but also improvement in status of the Russia Federation as a person involved in international politics.

From 1990s the Russia Federation have come thought extraordinary changes in political and economic area. The era of the development of the Russia Federation marks current president of the country, Vladimir Putin as a collapse „*крушением*“, (Kolomiytsev, 2011), when the state transformed itself from communist establishment to democracy and the centrally planned economy remake to marked-orientated system based on free market and private ownership. (Shleifer – Treisman, 2005).

2 Objective and methodology of work

The objective of our paper is to observe the development of business environment in Russia Federation influenced by adopted and performed reforms and its following comparison to development in Slovak Republic from the perspective of international position in ranking measured by Global Competitiveness Index. The partial goal is to observe development in total amount of entrepreneur subjects in monitored counties between years 2000 and 2017 within the development of business environment.

The object of our research is the Russian Federation, which became an independent subject of the international law and international relations from December 25, 1991. Current constitution of the Russian Federation was adopted on December 21, 1993 and declares the Russian Federation as democratic state with rule of law with republican form of government. The Russian Federation may be characterized as a federation, which is composed of 85 equitable units (Whereas the Slovak Republic does not recognize the Crimea and the Sevastopol as a part of the Russian Federation, we hold an opinion that the Russian Federation is composed of 83 units): 22 republics, 9 regions, 46 areas, 1 European autonomy area, 4 autonomy districts and 3 cities of federal importance (Moscow, Saint-Petersburg and Sevastopol). The Russian Federation is the largest country in the world by area covering 17 billion square kilometers and with total population 146,8 million peoples, while 74 % (109 million) of the population lives in cities and rest 26 % (37,8 million) population lives in the countryside.

The economy of Russian Federation ranks as 47th largest worldwide by GDP per capita by purchasing power parity in 2016 with total value USD 26,925, measured by the International Monetary Fund. As of 2016, the total GDP was composed by: 4,74% agriculture, 32,4% industry and the rest (i.e. 62,84%) services. The Central Bank's foreign reserves was as of December 31, 2017 USD 432,7 billion. (The Central Bank of the Russian Federation, 2018)

During the writing of the paper, we have worked with various quantitative data, which were drawn mostly from Goskomstat, World Bank, OECD, Ministry of Finance of Russian Federation, International Monetary Fund. Equally important source was a Global Competitiveness Index and the development of the total amount of entrepreneur units, with respect of the aim of our paper.

There were used mostly method of analysis in the paper, based on which we were able to refer to basic elements which determined the events in observed period. The individual elements of the first part of the paper we have generalized, for use of method of synthesis to indicators in areas selected by ourselves and subsequently compared with development in the Slovak Republic. The induction was used during the observation of political and economic reforms in the Russian Federation and complexly evaluates effectiveness of the transformation changes by chosen indicators.

The Global Competitiveness Index of the country is published by World Economic Forum from 2004 and creates a ranking of competitiveness of countries in the economic competition (Pleines — Walker — Sabine, 2007) by twelve pillars, which determine increasing of the productivity and competitiveness. Presented values are within the range from 1 to 7, where 7 the highest possible value.

3 The most important reforms approved in the Russian Federation

After turbulent 1990s, from the beginning of Vladimir Putin's government there was an effort to stabilization of the country, which was principally directed to two areas, to (i) politic stabilization and (ii) economic stabilization.

As the most important reforms in observed period between years 2000 and 2008 we are able to place to category of politic stabilization following reforms:

- creation of federal districts;
- reform of upper chamber of the parliament (the Federation Council);
- creation of the State Council;
- the judicial reform and
- the legal reform.

As the most important reforms in perspective of economic stabilization in observed period between years 2000 and 2008 we consider following reforms:

- the tax reform;
- the budgetary reform and
- the reform of SME's.

The tax system valid before the tax reform was ineffective and difficult. That was the reason was the reform of desirable and necessary. Radical reform established new system of taxation based on simplicity, predictability, stability, effectiveness and reliable principle of justice. The new tax regulation is located in the Tax Code of the Russian Federation, in its II. part named *„Налоговый кодекс Российской Федерации часть II.“*. Pursuant to Åslund (2015) it is possible to qualify as the most impressive, complex and radical. Among the main areas covered by the tax reform we are able to include:

- income tax for natural persons;
- uniform social tax;
- income tax for legal persons and other.

The reforms introduced by the new Tax Code leads to liberalization and stabilization of the Russian economy.

In the Russian Federation there were a progressive tax for natural persons until 2000, which peaked at the level of 30% on income at the total amount higher than RUB 150,000. Such progressive tax was replaced by uniform equal tax for natural persons, contained in the Tax Code, *„Налог на доходы физических лиц (НДФЛ)“* at total level of 13%, while there was exception from tax up to RUB 4,800. The main aim of decreasing of the tax rate was mainly the fight against tax evasion. After the 13% equal tax for natural persons was introduced, the Russian Federation became, despite the fact that it was not the first in that area, example for other states.

The new Budgetary Code, introduced as a part of the “Budgetary reform” defines the competencies of federal and regional governments, regulated their financial relation, introduces the Treasury bill and sets rules for public debt. The Code is based on principle of openness, which allow to publish of the bill on budget acts and reports connected with the state budget.

In 2003, there were a revision of the Budgetary Code, which was the basis for Stabilization fund of Russian Federation *„Стабилизационный Фонд Российской Федерации“* adopted in 2004 as a part of the federal budget aimed on stabilization of the federal budget against fluctuations of oil price.

Another major reform was concerned to deregulation, which was focused on stimulation of the SMEs. The reason for adoption of such reform was mostly the reaction to needs of SMEs, because the degree of bureaucracy during the process of establishment and following performance of entrepreneur activity was disproportionately high. As an example of bureaucracy, we refer to years 2000, where average SME was controlled 37 times in case of licenses control and 104 times in case of certificates. This is the reason why the reform, whose content was aimed to acceleration and simplification of the administrative procedures and reduction of the costs connected with inspections, registration, certification and required licenses, was necessary.

The reaction on such status was an adoption of the several laws under the auspices of the Ministry of the Economic Development of the Russian Federation „Министерство экономического развития Российской Федерации“, through which deregulation of SMEs, simplification of registration, system of granting of the licenses inspections and certificated was occurred. Such packages of laws were adopted gradually from 2001 to 2004.

4 Valuation of the development of the Russian Federation via the Global Competitiveness Index

The Global Competitiveness Index of the country is published by World Economic Forum from 2004 and creates a rating of competitiveness of the countries in economic competition by twelve pillars, which determine the increasement of productivity and competitiveness.

The Russian Federation got over changes which had significant demand to competitiveness of its economy from 2000. The Global Competitiveness Index points to the fact, that the Russian economy progressing and overall values of nine pillars making up this index, show increasing tendency (Table 1). The Russian Federation was able to improve its total ranking from 70th place in 2004 to 38th place worldwide in 2017. Overall value of Russian Federation improved from 3.7 to 4.6. E.g. in Slovak Republic, there can be seen descending trend, i.e. from 43rd place in 2007 dropped to 59th place in 2017. Such tendency is apparent even from comparison of overall values in case of the Slovak Republic. From the perspective of the aim of our paper, in context of the reform approved in the Russian Federation in period from 2000 to 2008, the Russian Federation.

Table 1: The Global Competitiveness Index – values and ranking of Russian Federation and Slovak Republic from 2004 to 2017

	2004 104 countries	2005 117 countries	2006 122 countries	2007 131 countries	2008 134 countries	2017 137 countries
Russian Federation	3,7 (70.)	4,4 (53.)	4,1 (59.)	4,2 (58.)	4,3 (51.)	4,6 (38.)
Slovak Republic	4,4 (43.)	4,5 (36.)	4,6 (37.)	4,1 (41.)	4,4 (46.)	4,3 (59.)

Source: Own processing by World Economic Forum.: *The Global Competitiveness Report 2006-2007*, 2006, p. 334 and 340.; *World Economic Forum. Global Competitiveness Report 2004-2005* [online]. p. 4. [cit. 2018-20-1]. Available online: <http://www.ieseinsight.com/casos/study_0035.pdf>.; *World Economic Forum.: Global Competitiveness Report 2008-2009*, 2008, p. 288 et seq.; *World Economic Forum.: Global Competitiveness Report 2017-2018*, 2017 p. 248 and 264.

In 2008, Russian Federation was at 51st place from 134 countries, with overall value of index 4.3. Figure 1 shows a state of twelve pillars of the Russian Federation in comparison to average of the countries, which are at the same phase of its development, i.e. directed from efficiency driven to innovation driven. In 2008, the Global Competitiveness Index indicated, that in Russia Federation was located above average of the countries in the same group pillars as

macroeconomics stability, efficiency of the labor market and size of market. The pillar “innovations” reached an average value and rest of the pillars was located under average of the countries in the same group.

Figure 1: The Global Competitiveness Index of the Russian Federation and country in the same level of development in 2008.



Source: Own processing by World Economic Forum.: *Global Competitiveness Report 2008-2009*, 2008, p. 288.

We can divide the indicators, which forms concrete pillars into those which provides a competitive advantage and disadvantage. It is possible to place following indicators among those, which provided the competitive advantage to Russian Federation in 2008:

- 1) Institutions - efficacy of corporate boards;
- 2) Infrastructure - quality of railroad infrastructure, available seat kilometers) and telephones lines;
- 3) Macroeconomics stability - government debt, national savings rate, government surplus/deficit;
- 4) Healthcare and elementary education - malaria incidence, impact of malaria, impact of tuberculosis, impact of HIV/AIDS and quality of primary education;
- 5) Higher education and professional preparation - tertiary enrollment, quality of the educational system and quality of math and science education;
- 6) Efficiency of products market - No. of procedures required to start a business;
- 7) Efficiency of labor market - hiring and firing practices, firing costs, brain drain and female participation in labor force;

- 8) Sophistication of financial market – does not provide any competitiveness advantage in comparison to countries at the same level of development;
- 9) Technological readiness - mobile telephone subscribers;
- 10) Market size - domestic market size, foreign market size;
- 11) Entrepreneur sophistication - does not provide any competitiveness advantage in comparison to countries at the same level of development;
- 12) Innovations - capacity for innovation, quality of scientific research institutions, company spending on R&D, university-industry research collaboration), availability of scientists and engineers and utility patents.

Based on available information, as Global Competitiveness Index, we are able to conclude that in the Russian Federation, during reviewed period, occurs not only to stabilization within the frame of the pillars, but also to improvement in overall ranking *vis-à-vis* to countries in the same level of development. The Russian Federation was able to improve, also through reforms realized from 2000, its competitiveness level and proceed within above-mentioned pillars in its effort to strengthen its competitiveness at international level.

5 Development in total number of entrepreneur entities

After various legislative changes, there was introduced in the Russian Federation the Supporting program for SMEs from 2005 to 2008, which was aimed to innovative corporations, start-ups and sustainable SMEs. This step leads to support of SMEs in economical weaker regions, incentives for cooperation among enterprises with one another, increase of the competitiveness and acceleration of the development of SMEs.

As a result of such legislative reforms and supporting program, in an effort to creating healthier and more attractive environment for SMEs, there occurs an improvement in segment of assistance for such enterprises. The total number of small enterprises increases constantly (Table 2). In 2007 the total number of entrepreneurs increased by ca. 294.4 thousand in comparison to 2001, when the first legislative change regulates SMEs was introduced. Nevertheless, however such changes there is, according to Åslund necessary in Russian Federation another “more radical deregulation”. (Åslund, 2015)

The total number of entrepreneur entities increased in following period as well and at the end of the 2017 there were overall 2.755 millions of such entities. In comparison to that, in Slovak Republic, there were 357.4 thousands entrepreneur entities in 2000 and at the end of the 2017 there were overall 567.8 thousands of them.

Table 2: Development of total number of the entrepreneur entities in the Russian Federation and in the Slovak Republic from 2000 to 2017 in thousands.

Year	Number of entrepreneur entities in the Russian Federation	Number of entrepreneur entities in the Slovak Republic
2000	879,3	357,4
2001	843,0	366,4
2002	882,3	356,9
2003	893,0	394,1
2004	953,1	434,6
2005	979,3	450,8
2006	1 032,8	482,0
2007	1 137,4	501,2
2008	1 347,6	538,2
2009	1 602,4	541,3
2010	1 644,2	553,3
2011	1 836,4	556,2
2012	2 003,0	552,2
2013	2 006,3	564,1
2014	2 103,7	565,9
2015	2 222,3	531,7
2016	2 770,5	557,8
2017	2 754,5	567,8

Source: Own processing by GOSKOMSTAT a SLOVSTAT

From the perspective of dynamic of the development of business environment, taking in account total number of entrepreneur entities, in the period from 2000 to 2017, the total number of such entities increased by more that 313% in the Russian Federation compared to 159% grow in the Slovak Republic. This fact points to significant grow of total number of the entrepreneur entities in the Russian Federation and dynamically developing business environment therein.

Conclusion

The development of the business environment influences economic growth and fruitfulness of the economies of the countries. In that way we are able to positive assess the changes introduced in the Russian Federation after 2000 and which brings positive ranking of this country by the Global Competitiveness Index, which is monitored by World Economic Forum as well. During observed period, the Russian Federation proceeded from 70th place in 2004 to 38th place from all of the monitored countries in 2017. Different tendency is apparent in case of the Slovak Republic, which decreased from 43rd place in 2004 to 59th place in 2017.

We are able to evaluate positively the development within total number of entrepreneur entities, which, in Russian Federation increased from 2000 to 2017 by 313%, from 879,3 thousands entities to 2,754 millions of such entities. In the Slovak Republic, the total number of the entrepreneur entities increased by 159% from 357,4 thousands to 567,8 thousands of such entities. This fact proves dynamically developing business environment in the Russian Federation.

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FACTORS AFFECTING THE PERFORMANCE OF ENTERPRISES AND THEIR IMPACT ON MACROECONOMIC INDICATORS OF THE BUSINESS ENVIRONMENT OF SLOVAKIA

Katarína TEPLICKÁ

Abstract

This paper deals with basic institutes of business having a significant impact on the business environment and competitiveness of Slovakia. The aim of this paper is to highlight the development trend of basic institutes of business compared with countries in the EU. In this paper, we selected analytical and graphical methods to evaluate the impact of basic institutions in business. The results of statistical instruments were: The regression line explains the variation in the minimum wage of about 24%. It is reason of high unemployment in Slovakia and it is problem for employers for high wage costs. This connection between GDP and minimum wage is low. When minimum wage increases, it growths unemployment, it decreases economic growth (GDP). The regression line explains the living minimum variation of approximately 83%. Connection exists between living minimum and GDP because living minimum is calculated of average net wage in national economy. The living minimum influences level of live in Slovakia and it increases share of poverty. The regression line explains the variation of tax revenue 66%. The high tax-insure burden influences unemployment and it close area for business and investors. Comprehensive conclusions point to the major impact of basic institutions to the business sector and basic institutes affect the competitiveness greatly.

Keywords:

minimum wage, living wage, taxes, effectivity

Introduction

Competitiveness in the actual market environment is one of the basic requirements and capabilities of businesses. Business environment in Slovakia is burdened by constant changes in legislation (Rajčáková, Švecová, 2012). Entrepreneurs within maintaining competitiveness must follow the basic institutes of business that have a significant impact on business. Basic institutes influence business and decisions of potential enterprises to make business. Slovakia's economy is dependent on small and medium-sized enterprises, which make up 72% of jobs and 67% of value added. According to SBA surveys in 2015, only 45.42% of Slovaks chose the business as a desirable career choice, with the EU average at 66.8%. The young people think about their future employment on the labor market and choose their future jobs according to many criteria and the most important is salary (Šimsová, Reissová, 2016) and this salary depends on minimum wage and living wage in the country. There are many factors, which may influence the salary for example level of education, the field studied, type of employer, place of work – position, stress in work, level of starting salary (Šimsová, Reissová, 2016). For the business environment is very important regional development. Regional development is generally understood as a problem of growing importance. Most authors do agree that the liberalization of

the economic environment, about integration, does at least develop the market, and increase pressure to achieve efficiency and higher living standards (Zdražil, Applová, 2016). The factors as minimum wage and living wage influence a labor economy in Slovakia. Labor economics, unemployment is a phenomenon when there is a market surplus of supplied amount of labor in the market. Unemployment occurs when a person who is actively searching for employment is unable to find a job. Unemployment is often used as a measure of economy's performance. The most often used measure of unemployment is the unemployment rate – usually the number of unemployed persons that are actively searching for employment divided by the number of people in the labor force. The problem of unemployment is very complex because there are numerous ways how to decompose unemployment (e.g. voluntary vs. involuntary; short-term vs. long-term or national vs. regional). The level of structural unemployment reflects many different aspects, i.e. the wage bargaining system, the unemployment benefit system including eligibility and availability rules, tax rates, a scale and character of active labor market policy's measures, hiring and firing rules, the educational composition of labor force, the intensity of product market competition, etc. (Tvrdoň, 2016). For the organization are very important key factors as education of member of staff, communication skillfulness, informatics knowledges and other. Human resources are the most essential factor that affects the performance of an organization, its organizational culture or its innovation processes. They are connected with everything that is going on within the organization, but they are also the key players in relation to the organization's communicating with customers, suppliers and other relevant partners (Sokolová, Mohelská, Zubr, 2016). All the basic business institutes influence competitiveness on the business market. An important institute affecting business include minimum wage, living wage, taxes, that we will discuss in this paper.

Literature review

Competitiveness and economic freedom are very important factors for business environment in all countries. The US company Heritage Foundation and the newspaper The Wall Street Journal developed an analytical study to examine the economic freedom of 178 countries. Ranking is made according to ten criteria: property rights, level of corruption, tax burden, government expenditure, business environment, labor market, monetary stability, international trade, conditions for investment, financial sector (Lisovenko, 2011). The arithmetic average of evaluation factors creates an index of economic freedom of the country. Economic freedom across countries is higher the smaller the difference is (Borovsky, 2011). A comparison of the index of economic freedom for individual years shows that the degree of economic freedom significantly influences the country's prosperity. The overall index of economic freedom from the economic crisis on the rise and in 2016 reached the highest value. Economic freedom is the best in country Hong Kong (Honova, Melecký, et al. 2014). On the first five places are Singapore, New Zealand, Australia and Switzerland. Slovakia is in 56th place.

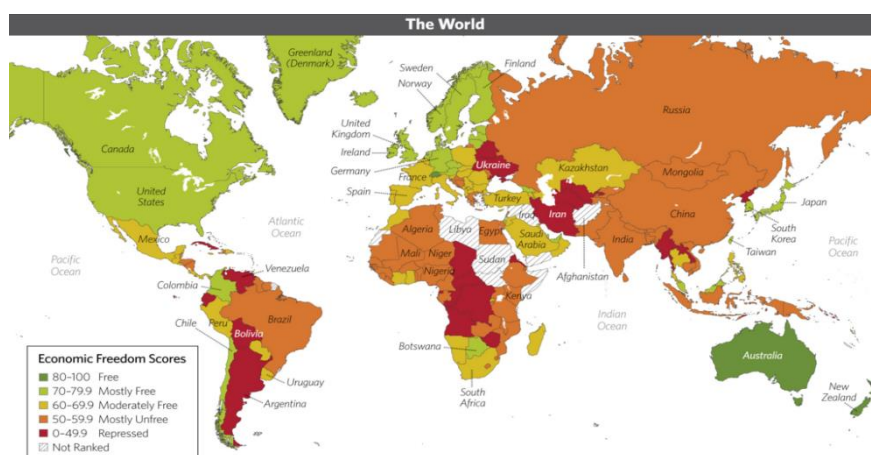


Figure 1: Economic freedom scores in 2016 year

Source: www.heritage.org

Slovakia has achieved a global evaluation 66.6% level of economic freedom in 2016. Compared to the world average (60.7%) reached the Index of Economic Freedom in Slovakia higher value. Improvements are among the criteria: the level of corruption and monetary stability (Wang, 2009). The overall situation is deteriorating. Deficiencies in Slovakia represent criteria: poor law enforcement, high rates of corruption, intimidation of judges, the accumulation of pending litigation, worsening business environment, labor market, government spending (Rajčáková, Švecová, 2012). Economic Freedom in Slovakia built place for business in small and middle business area but the high problem is unemployment, low enforcement, and business environment forcefully at minimum wage, living wage and taxes.



Figure 2: Evaluation of economic freedom in Slovakia

Source: www.heritage.org

EU legislation is essential for the business environment while creating a framework for the environment in the EU. The core of the legislation is made up of the freedom of capital, labor and services (Doucek, Nedomova, 2011). A favorable business environment is a key factor to achieve the level of advanced countries. WEF produces a yearly ranking of global competitiveness of the

country that receives development competitiveness. Position of Slovakia's position in the last ten years dropped significantly.

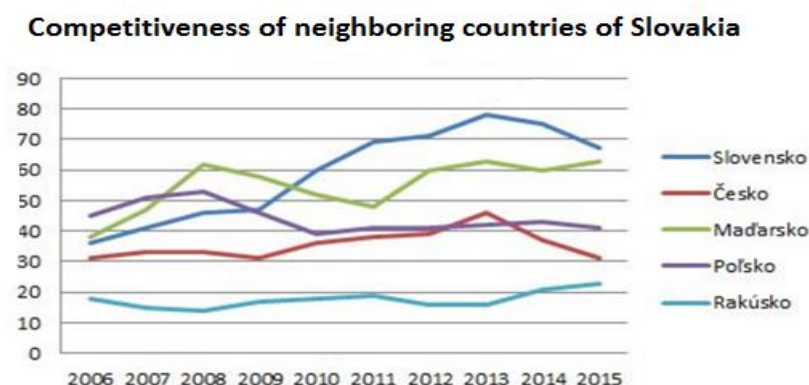


Figure 3: Competitiveness in Slovakia 2006-2015

Source: www.alianciapas.sk

V4 countries have the best position the Czech Republic. Slovakia's competitiveness has improved in 2015 ranked 67th place. The top five competitive countries of the world were included: Switzerland, Singapore, USA, Germany, and Netherlands (Bacher, Barkovic, Dernoscheg, 2013). Slovakia remains the third worst ranked country in the EU. Positive business environment is key factor to achieve a level of highly-developed countries. The position of Slovakia in the last 10 years is worse.

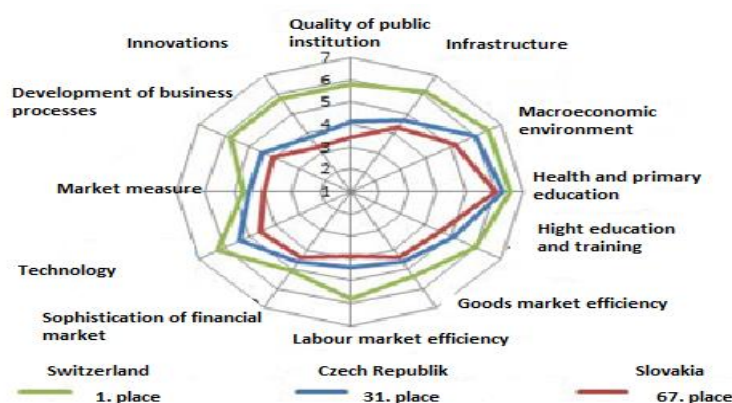


Figure 4: Criteria of competitiveness

Source: www.alianciapas.sk

World Bank ranking of Slovakia by Doing Business in 2015 in taxation confirmed weakening the position of Slovakia. Paying taxes indicator decreased. Opportunity to raise capital for Slovak companies is worsening. The changes that business perceive positively include: reducing the time to start a business, government support for the use of innovative technologies, digitization of public administration, improving the quality of production processes, innovation. Innovators perceive business obstacles differently from non-innovators. The

firms can surmount obstacles and efforts to understand how firms manage to innovate despite obstacles have been made. It has also been emphasized in the literature that we need to distinguish between obstacles that cause absence of innovation and those that make innovation difficult (Botrić, Božić, 2017). Criteria of competitiveness are obstacles in business at the same time. Rajnoha, Lesníková, Krajčík (2017) present the methodology for prediction and detection of the ways of solving demanding situations in managerial work, with obvious implications in performance of managers and in efficiency of business performance management. Different sectors of business and their economic and social significance is expressed both in numbers (share in GNP, employment) and in a range of as important uncountable characteristics like expansion of a region, more intense development and other (Maráková, Dyr, Tuzimek, 2016). This is a way how to remove obstacles in business and to improve criteria of competitiveness. These factors on figure 4 are factors that influence competitiveness of some countries. It is index for investors. Very important factors for business are quality business environment, technology, law, and taxes.

Methodology

Aim of this paper was to investigate the relationship between GDP and the basic institutions of business - income tax, minimum wage, living wage. We use data from statistical database SLOVSTAT. We used regression and correlation analysis to determine the dependence of GDP and basic institutions of business. To determine the dependence, we used the coefficient of determination. Individual results output from the JUMP program of system SAS.

Results and Discussion

Correlation between basic institutes and GDP we present by statistic indexes. Minimum wage is institute that presents the minimum level of salary for employee in the firm. It is wage cost for employer and this is a reason: why is salary in Slovakia so low? Minimum wage is changed every year and with this situation is connected unemployment. Now is minimum wage in Slovakia 405 €. For employing is very important labor market. The issue of equal opportunities in the labor market is a highly topical issue, requiring the public attention. The institutions of the European Union, using various instruments and taking complementary actions are trying to ensure equal opportunities in the labor market of the EU (Pawera, Pazderová, Šuplata, 2015). Progress made in the area of equal opportunities in the EU labor market and gradually leads to elimination of discriminatory conduct based on common characteristics such as age, sex or disability, Slovak Republic significantly lags behind the EU average the results of various studies clearly confirm that the phenomenon of discrimination on the labor market exists (Pawera, Pazderová, Šuplata, 2015). It is reason unemployment in Slovakia is so high? Regression function (figure 6) presents GDP increase of one unit of measurement (1 Euro) and the minimum wage increased by 55,886 Euros.

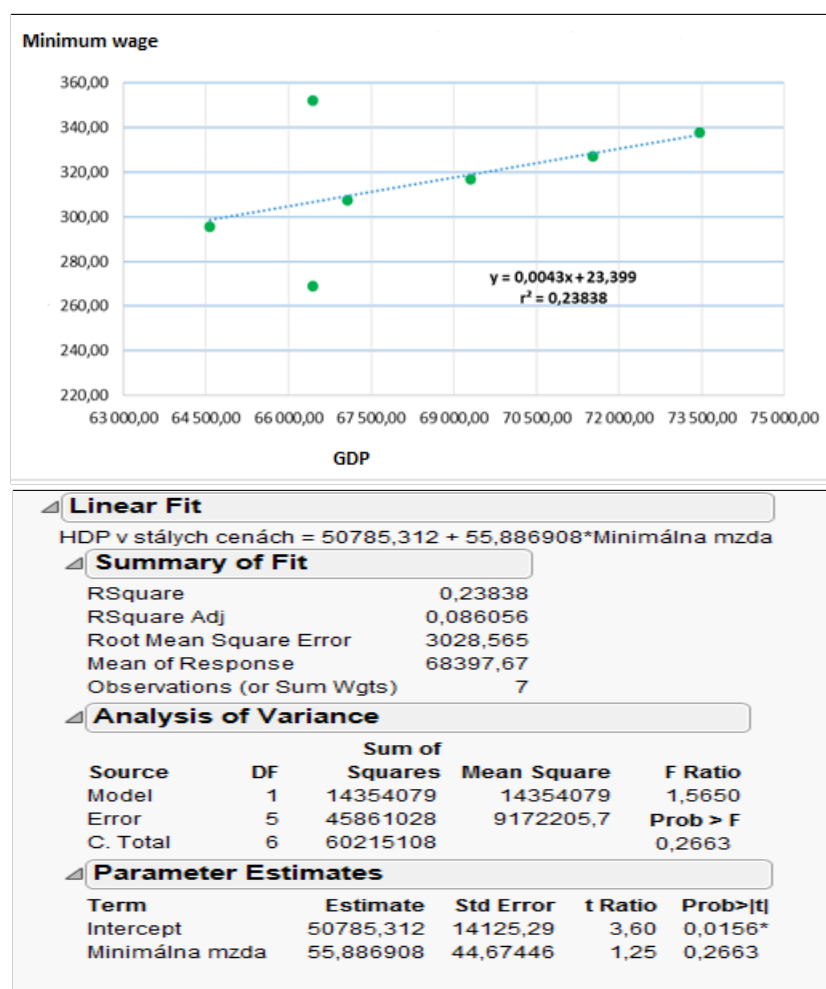


Figure 5: Relationship GDP, minimum wage

Source: author's calculation

The coefficient of determination (RSquare) is at $r^2 = 0.23838$. The regression line explains the variation in the minimum wage of about 24%. The relationship between variables is positive, GDP and rising minimum wage at the same time. The coefficient of determination was $r^2 =$ at the level of 24%. The degree of tightness depending on a coefficient of determination in this case is a slight tightness, as the ratio falls into the range of $10\% \leq r^2 < 25\%$. The minimum wage in Slovakia in 2016 was 7th lowest in the EU. The highest minimum wage is in Luxembourg 1 923 EUR. V4 Poland has a higher minimum wage 440 EUR, Hungary, Czech Republic have lower minimum wage than Slovakia. The lowest minimum wage in the EU is Bulgaria 215 EUR (Palaščáková, Vlčková, 2014). Raising the minimum wage is undertaking to increase wages and social contributions. Rising costs has a negative effect, deteriorating competitiveness. Living wage is basic institute for employee because this institute assures the level of basic living conditions. The amount of living wage influences income tax (nontaxable amount = 19,2 x living wage). Living wage is changed every year and it depends of coefficient of growth net cash inflow. We are observing the dependence of GDP and the living wage (figure 7). Regression function declares that if the GDP increases by one measurement unit (1 Euro) and

the living wage will increase by 502.146 Euros. The coefficient of determination (RSquare) is at $r^2 = 0.826121$. The regression line explains the living minimum variation of approximately 83%. The relationship between variables GDP and subsistence minimum is strong and positive, while the highest among surveyed other addictions. The coefficient of determination is the highest at the level of $r^2 = 82\%$, a very high tightness between variables. Living wage subsistence level provides basic needs of man. Living wage by law may not be reduced, caused by a decline in the contribution of the social system in Slovakia and increase the share of poverty.

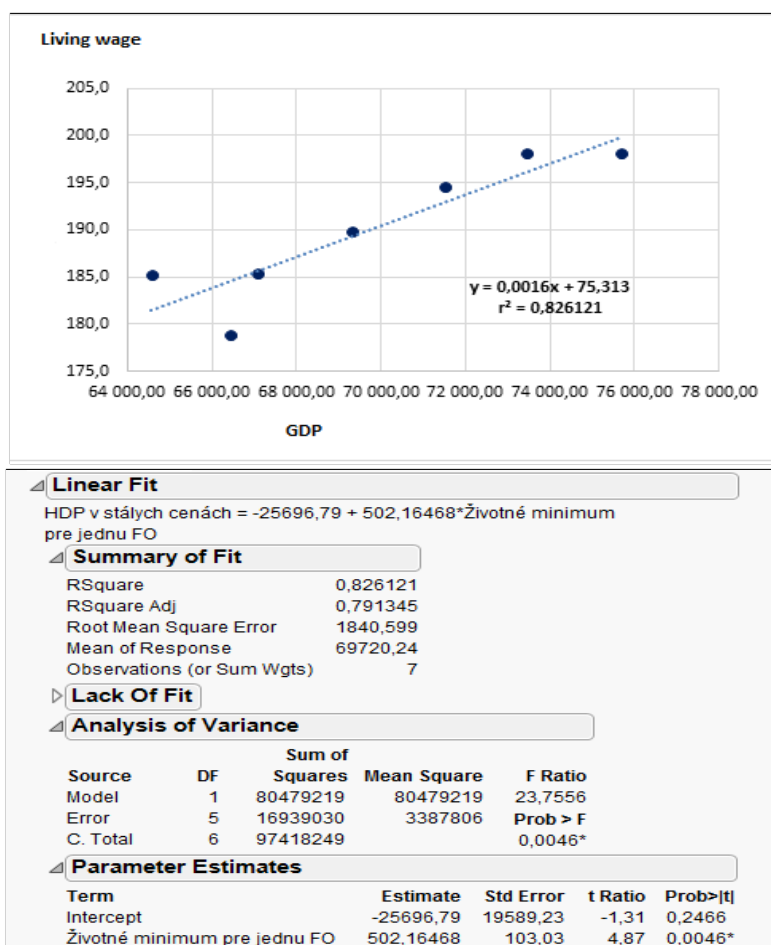


Figure 6: Relationship GDP, living wage

Source: author's calculation

The taxes create the basic responsibility for business subjects and taxes are the main resource of state budget in Slovakia. In Slovakia, we have 17 types of taxes. The new institute of taxes is tax license. This institute influences negative to business environment, because small corporate must pay 480 € taxes license. The high tax-insure burden is in Italy -65,8 %, the minimum tax-insure burden is in Croatia – 19,8 %, and Slovakia has tax-insure burden- 47,2 %. This index values economy in all countries according to simplicity, complexity of business. Slovakia is on the 10-th place of countries in EÚ. The average of tax-insure burden is 46,7 %. The high tax-insure burden influences unemployment. Regression line

explains the variation of tax revenue 66%. There is a positive linear relationship between the variables of GDP and tax revenues. The coefficient of determination falls within the range $50\% \leq r^2 < 80\%$, the variables can be extremely high tightness. Both variables are rising at the same time. The rate of tax for companies in Slovakia was the 12th highest in the EU. V4 countries had the lowest rate - 19% in Poland, Czech Republic, 20,6 % Hungary. The highest rate of tax for companies was 38% in France in 2015. Income tax is a factor that affects investors' decisions. Income tax is very important indicator for business because presents an outflow of company resources. The trend of income tax for business is proportional. The income tax is 19 % and 25 % for natural person and 22% for companies. This income tax is alternating. The Slovak law offer possibilities how to decrease tax base. Legal ways allow entrepreneurs to reduce the tax base and minimize the costs of the tax entity – business.

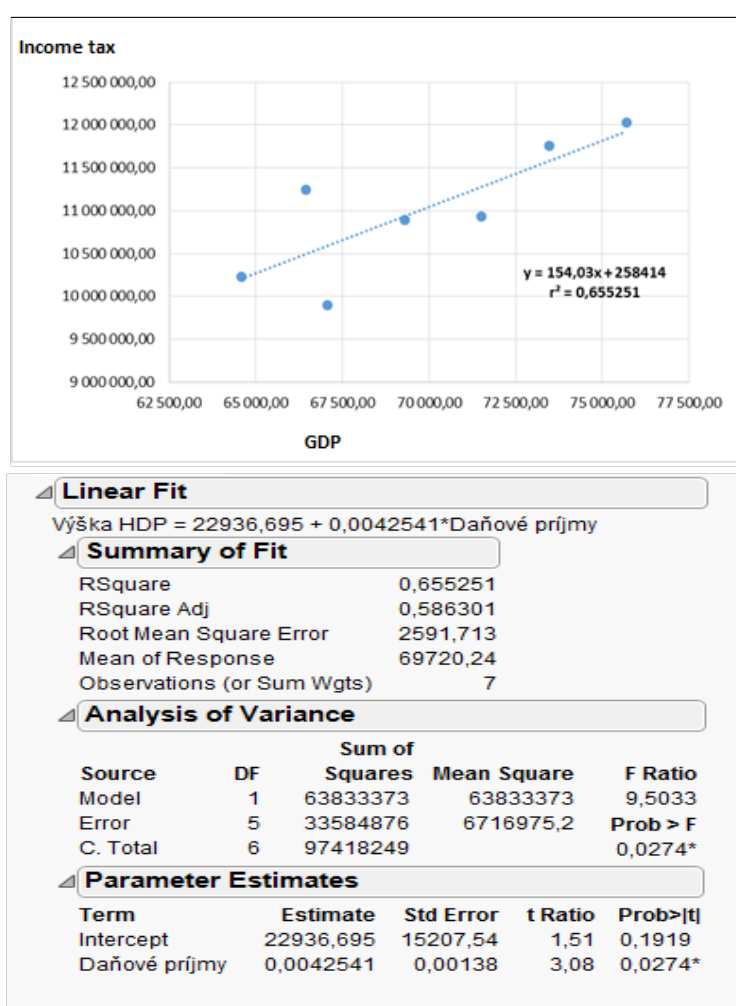


Figure 7: Relationship GDP, income tax

Source: author's calculation

Conclusion

Maintain a favourable market position and prosperity requires paying attention to basic institutions of business. The basic institutions have a significant impact on the level of firms' competitiveness. All institutes effect on the overall success of Slovak companies to promote the EU markets and the decisions of foreign investors in Slovakia. Changes in legislation about basic institutions concern disinterest of business. The regression line explains the variation in the minimum wage of about 24%. It is reason high unemployment in Slovakia and it is problem for employers for high wage costs. This connection between GDP and minimum wage is low. When minimum wage increases, it growths unemployment, it decreases economic growth (GDP). The regression line explains the living minimum variation of approximately 83%. Connection exists between living minimum and GDP because living minimum is calculated of average net wage in national economy. The living minimum influences level of live in Slovakia and it increases share of poverty. The regression line explains the variation of tax revenue 66%. The high tax-insure burden influences unemployment and it close area for business and investors. Entrepreneurs often are unable to adapt of changes, it can lead to liquidation of the existing business. Consequences of changes are also increased administrative burden of the tax burden, uncertainty, and the inability to predict the evolution of the legislative. Annual growth of changes is considered as a brake of business, employment. Thornton, Koža, Bureš (2016) present Toyota production system is one of possibilities how to improve criteria of competitiveness for business and how to bring positive results for business environment and influence on economic development. The other tools of competitiveness present Podaras, Antlová, Motejlek (2016) as Business Continuity Testing Points method, which can help manager's define an efficient business continuity strategy. In the Use Case Points theory IT analysts perform software requirement analysis by executing various business scenarios. The BCTP theory, on the other hand, is constructed to support the analysis of IT system recovery requirements, by executing multiple efficient recovery scenarios. The method is a new approach to the objective determination of the Recovery Time Effort of a business function in comparison to the Rational Time Objective and the Maximum Acceptable Outage, which are defined about the Impact Value Level of the function. The most critical functions of the enterprise should be included in the Minimum Business Continuity Objective (MBCO) concept. MBCO refers to vital business functions without which the enterprise is not able to perform its basic operations. The Slovak economy is one of the fastest growing economies in the EU and has good prospects for the future. It is therefore necessary to focus on areas where there is place for improvement in terms of creating favourable conditions for business in Slovakia.

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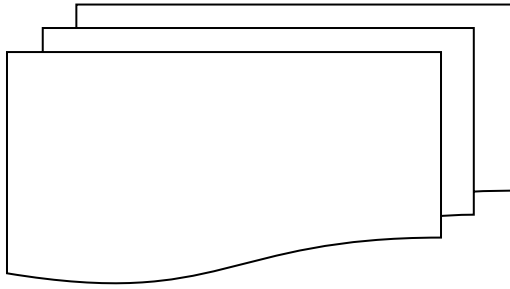


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