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EMPLOYEE SATISFACTION AND THE ACCEPTANCE OF CLIENTS NEEDS IN THE CZECH AND SLOVAK BANKING

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Abstract

Satisfaction of banking employees is the most important factor for creating satisfaction of banking clients through the higher level of the acceptance of their financial needs in business process. The acceptance of clients' needs determines the level of their satisfaction that could possibly have a significant impact on the financial performance of the bank. In this article, the relationship between bank employees and employers and their relationship with the banking clients in the Czech Republic and the Slovak Republic has been evaluated. The aim of this article is to quantify satisfaction of banking employees and the acceptance of clients' needs in Czech commercial banking and to compare the observed trends with the situation in Slovakia. Attitudes of bank employees have been investigated in a questionnaire survey and the obtained results have been verified by structured interviews.

Introduction

Commercial banks are financial intermediaries and play a key role in national and international economies. [18]

The issue of business ethics and corporate social responsibility is particularly topical [8], [18], [19], [25], [26] regarding specific features of commercial banking [11], [12], [23] The most important aspect of responsible and moral business of commercial banking is the protection of interests and finance of banking clients.

The financial crisis has focused the public attention on the financial industry [21], because the failure of commercial banks (mismanagement of credit risk, development and sale of toxic financial instruments etc.) has been transformed into the real economy through increase in unemployment.

In this context, the discussion about ethical aspects (including the attitudes of banking employees to the employers and the attitudes to banking clients) becomes more intense in banking business.

The aim of the article is to quantify the satisfaction of bank employees and the acceptance of clients needs in the Czech commercial banking, furthermore to compare obtained trends with the situation in Slovakia.

Attitudes of bank employees are investigated by a questionnaire survey and the obtained results are verified by structured interviews with bank managers at senior management level.

1 Bank employees satisfaction factors and bank customers satisfaction factors

1.1 Important attributes of satisfaction of bank employees and requirements for their approach to the customers

Employee satisfaction is made up of several factors and significantly determined staff loyalty which means a higher quality of services creates a higher customer satisfaction.

Saari and Judge [22] indicated that staff satisfaction depends on dispositional personality factors, cultural influences and nature of performed work. Satisfaction with the nature of performed work (job challenge, independence, diversity and work area) represents the most important factor of employee job satisfaction formation. According to the authors staff satisfaction is closely related with customer satisfaction through high quality services.

Bhutto, Laghari a Butt [3] defined three factors: organizational structure, identity and interpersonal relationships that have positive and significant effect on job satisfaction.

Babakus, Yavas, Karatepe and Avci [1] indicate that the area of job satisfaction is an important factor that significantly affects the ability of staff to provide quality services to clients. Similar conclusions are contained in other foreign studies [17], [24].

Lages a Piercy [14] explore key elements of the system to improve services in the company. Their results point to the fact that customers require a high level of acceptance of their own need and accurate services from a bank staff. In this context the key element to improve the quality of provided services is correct understanding of customers' needs as a result of job satisfaction of employees.

Maddern, Maull, and Smart [15] call this effect "the satisfaction mirror effect". According to Heskett, Jones, Loverman, Sasser and Schlesinger [10] profit and business growth are primarily stimulated by customer loyalty which is immediately formed by its satisfaction. Customer satisfaction is determined by the quality of services that is created by satisfied, loyal and productive employees (service-profit chain effect). Service-chain effect is analyzed also by other authors, such as [4], [9], [13], [15], [24].

According to Icke, Caliskan and Ayturk [12] the most important ethical principles of relation between clients and staff and basic principles of banking transactions are: fairness, impartiality, reliability, transparency, interest in social benefits and respect for the environment, combating money laundering and abusing confidential business information. Tea, Paulišič and Krstinič-Nižič [25] indicate that many regulatory rules and laws require fortifying needs of moral conduct of parties in the banking business. Essential features of banking culture are honesty, loyalty, frankness and decency.

Companies create their codes of conductorship which contain principles of business and principles applied in relation to their partners, which means their employees, customers,

shareholders and suppliers [11], [12]. In response to the global financial and economic crisis, morality in financial markets is a current issue [8], [11].

According to the Code of Ethics of Slovak banks, employees must ensure to offer prompt and quality service to clients. They must provide the most possible comprehensive information, including risks associated with certain operations [20]. The need for building proper relationships with bank customers creates an important element in building customers' satisfaction and a growth of performance of commercial banks. [18] The basic prerequisite for correct approach application of customer satisfaction is the bank staff.

1.2 Attributes of the banks' customers satisfaction

Bank customers have a dominant position in the process of bank business management because they are buying bank products. Without their ability to save money in the system and willingness to buy products (payments, loans and additional services) bank system would not exist. Appropriate system of customers' care in the commercial bank creates conditions for achieving business goals of the commercial bank in the competitive environment.

A satisfied customer is very important for current and planned financial performance of commercial banks. Such a customer remains loyal to the bank, re-purchases the bank's products, is prepared to pay higher price for offered products and services and taking care about a satisfied customers is much cheaper than getting a new one. A satisfied customer also represents a free form of advertising and on the other hand calls for employees' complacency and taking pride in their job and company.

According to Croxford, Abramson and Jablonowski [5], the dominant aspects of consumer behavior are considered to be: customer services (convenience, simplicity and speed), brand, quality (products, which meet customers' needs) and cost of bank's products and services.

Customers in business relationships require a high level of acceptance of their needs from staff and accurate provided services [14].

Baumann, Elliott and Burton [2] examined the loyalty of bank customers on the basis of the overall satisfaction, emotional attitudes towards the bank, service quality, perception of the market situation (costs and benefits of change) and customer characteristics. According to the authors, a combination of two factors which are emotional connection with the bank and economic benefits appears to be an unbreakable shield of the relationship with customers and should protect the banks from competition.

Mandahachitara and Poolthang [16] state that the loyalty of customers is very important because gaining new customers entails more costs and vice versa, with the duration of the customers relationship grows also a profitability of the relationship. This is therefore a key determinant of long-term profits. To define a loyal customer in the banking is not so easy, because the industry is characterized by a high level of false loyalty. This fact is caused by minor differences between bank products. The effective weapon in building a true loyalty can be a friendly access, availability and frequent communication activities in the field of corporate social responsibility.

Maddern, Maull and Smart [15] indicate that customers' satisfaction is a critical business requirement. According to the authors, there are several approaches to examining bank customer satisfaction. Service Profit Chain represents the line in which employee satisfaction brings increased quality of services which is transformed into customer satisfaction. Satisfaction mirror means that customer satisfaction is directly determined by employee satisfaction. According to the concept SERVQUAL, customer satisfaction arises from interactions between Functional Service Quality and Technical Service Quality. Business

process management (BPM) proposes a positive relationship between process management and customer satisfaction. Authors suggest that staff satisfaction and service quality are key drivers of customer satisfaction.

Several studies confirm that banks do not understand the financial needs of their clients. A survey by Ernst & Young [7] shows that according to clients' opinions, banks do not know their real needs and do not adjust their product to these needs, because only 44% of customers worldwide believe that banks adjust their products to customers' needs. The most significant impulse to change the bank is the amount of bank's charges, because 53% of European customers would have changed the main bank because of this issue. The second most important reason is bad experience within the communication in the branch.

A survey by Deloitte [6] has indicated strong dissatisfaction of Slovak consumer with the amount of bank's charges and inadequate services. The difference between Slovak customers and customers from the Czech Republic or Poland is especially in their loyalty to their own bank, which is significantly lower than in selected countries. While only 17% of customers from the Czech Republic and 12% of customers from Poland have changed their main banks, in Slovakia it has been up 52% of customers.

Clients consider the fact that high quality bank understands their needs and large proportion of clients think that banks should understand customers' needs better. The importance of applying this approach increases when we realize that this is a low-cost investment in a future business performance. In banking practice, the situation is different. Banks do not pay enough attention to the correct approach to their clients in achieving their goals. The attitude of a company towards employees determines the attitude of employees to customers of a given company. In relation to a business performance, it is important to create conditions for employee satisfaction because their dissatisfaction leads to a loss of interest in work (frequent absence) and a loss of interest in the company itself (high turnover rate).

The aim of the article is to quantify the satisfaction of banks' employees and the acceptance of customers' needs in the Czech commercial banking and to compare obtained trends with the situation in Slovakia.

2 Methodology and own research results

In our research the attitudes of banks' employees in the Czech Republic and Slovakia in selected areas of banking management have been investigated.

Attitudes of employees of commercial banks in the Czech Republic and Slovakia have been examined through a questionnaire and structured interviews.

The questionnaire has been developed and based on the results of foreign studies and the authors' own knowledge of this issue. The survey was firstly conducted in 2012 in the Czech Republic on a sample of 87 respondents who worked in banks such as: Česká spořitelna, Komerční banka, Unicredit Bank, Raiffeisen Bank, mBank, Hypoteční banka, GE Money Bank, Equa Bank a Air bank. In Slovakia, the questionnaire survey was conducted in 2012 on a sample of 116 respondents who worked in the most important Slovak banks such as: Slovenská sporiteľňa, Všeobecná úverová banka, Tatra banka, ČSOB, OTP banka. Questionnaires were anonymous; respondents could answer truthfully without any possible sanctions imposed.

Banks were reluctant to provide any information, which are the subject of this research, through official channels. For this reason, questionnaires were completed during training events for employees of the banking sector and on the basis of personal relationships with managers of commercial banks, which explains the fact of a limited number of respondents.

Results of the research were verified by structured interviews on a sample of 15 bank managers who worked in middle and senior management in Czech and Slovakia. Structured interviews were conducted thanks to authors' personal relationships with managers of selected banks.

Within empirical research, three scientific hypotheses have been set. The scientific hypotheses and different quantitative criteria have been determined by expert judgment.

H1: Higher level of staff satisfaction leads to better approach to the acceptance of customer's needs.

H2: The level of satisfaction of banks' employees in the Czech Republic is higher than in the Slovakia which is reflected in a higher level of employees' loyalty.

H3: Bank employees in the Czech Republic more significantly accept the financial needs of their customers.

Research results from Czech banking sector (CR) have been compared with results from Slovakia (SR) through the test of equivalence of two units. We have employed the Test of Equal Proportions with continuity correction. The null hypothesis states here is no difference in population's proportions. Significance level was set at $\alpha = 0.05$. If achieved values was less than α , then the null hypothesis H0 was rejected.

Relationships between staff satisfaction and the level of acceptance of customers' needs have been evaluated through the index of staff satisfaction and index of acceptance of customer needs.

Index of sales-clerks satisfaction contains the level of staff loyalty and acceptance of their need in management process. ($I_{sp} = (loyalty\ rate + acceptance\ rate) / 2$)

Relationships between staff satisfaction and the level of acceptance of customers' needs have been evaluated through the Index of acceptance of customer needs includes the level of appropriate products sales and offering a suitable product in the case of inappropriate choice of the customer.

$$I_a = \left(\begin{array}{l} (suitable\ product\ sales) + \\ + (offer\ a\ suitable\ product\ in\ the \\ case\ of\ inappropriate\ customer's\ choice) \end{array} \right) / 2 \quad (1)$$

Table 1 and Table 2 present results of loyalty rate of bank employees in Czech Republic and Slovakia.

Tab. 1: Results of loyalty rate of bank employees in Czech and Slovakia

Question1: How would you express your feelings towards the bank?	2012 in % CR	2012 in % SR	p-value
I am proud of the bank I work for	69	13	<0.01
if they pay me well, other factors do not matter	19	22	0.7472
bank is indifferent to me	1	9	-
I do not think about it	11	56	<0.01
$\chi^2 = 69.9376$		p-value < 0.01	

Source: Own research

Results of the loyalty rate of bank employees in the Czech Republic and Slovakia are different, which has been confirmed by the value of the test criteria.

The number of respondents who were proud of their employer in the Czech Republic has been statistically significantly higher than in Slovakia. In a casual conversation, bank employees in Slovakia have confirmed relatively high level of job dissatisfaction. They evaluated critically high intensity of their job, enormous pressure on product sales, poor salaries and poor managerial culture of their senior staff. Many of them have admitted that if offered a better salary elsewhere they would definitely leave their current employer.

The loyalty of bank staff in the Czech Republic and Slovakia has been examined through a check question in the context of possible change of an employer in relation to better salary offer. Our intention was primarily to examine the level of loyalty and that is the reason why we have deliberately set a higher salary offer by only 10% from a competitor. We have hypothesized that this offer is uninteresting for loyal employees. Results are shown in Table 2.

Results of our research have reconfirmed that there are statistically significant differences between a loyalty of banks' employees in the Czech Republic and Slovakia.

Answers to this question have once again demonstrated higher level of the loyalty of bank employees in the Czech Republic compared with the Slovakia, and it has also has been confirmed by the test values. An interesting finding is in the fact that in comparison with the previous question, in the Czech Republic the number of respondents loyal to the bank has been significantly decreased even if the salary offered a pay rise. Their response was: I would not leave because I am satisfied here. Number of respondents in the Czech Republic who declared the loyalty to the bank in the previous question has been decreased by 31%. While in Slovakia, this number has been decreased by only 4%.

These results can be interpreted as the fact that Czech respondents do not feel intense loyalty to their employers.

Tab. 2: Results of the loyalty rate of bank employees in the Czech Republic and the Slovakia

Question 2: If another bank or institution offered you a 10% higher salary, what would you do?	CR in %	SR in %	p-value
1. I would immediately leave the bank	7	4	0.6226
2. I would not leave, because it is just a small difference	39	70	<0.01
3. I would not leave, because I am satisfied here	38	9	<0.01
4. I have so much to do that I do not think about it	16	17	0.9784
$\chi^2 = 29.112$	p-value < 0.01		

Source: Own research

Table 3 presents points of view of banks' employees about the acceptance of their opinions by branch managers.

Tab. 3: The acceptance of opinions and comments of salesclerks by managers

Question 3: How do you evaluate the manager's approach?	CR in %	SR in %	p-value
1. They listen to my opinions, thoughts and comments and try to accept them	72	65	0.3075
2. They listen to my opinions, but they don't accept anything	23	30	0.327
3. They even do not listen to me	3	0	-
4. I do not even try it	2	5	-
$\chi^2 = 1.033$	p-value = 0.3099		

Source: Own research

The level of the acceptance of salesclerks' opinions is the same in both countries, which the value of the test criteria has confirmed. Our research has shown that lots of employees operating in banks are not comfortable in communication with their managers. The proportion of this kind of employees reaches 23% in the Czech Republic and 30% in the Slovakia. Reasons of this condition are probably in managerial skills, in improper employee recruitment respectively in personal characteristics of the appropriate employees.

Table 4 and Table 5 show result of morality measurements in bank product sales and services.

Tab. 4: Results of measurements of morality in selling bank products and services

Question 3: When doing business you focus primarily on?	CR in %	SR in %	p-value
1. To achieve a feeling in the client that his bank sells the highest quality possible	65	35	<0.01
2. I try to sell for the highest price	0	17	<0.01
3. I try to sell regardless of price	1	4	-
4. I only sell a product which is suitable for the client	34	44	0.2223
5. They did not respond to this question	0	0	-
$\chi^2 = 25.3467$	p-value < 0.01		

Source: Own research

Results shown in Table 4 confirm that there are statistically significant differences between approaches of bank employees to customers' needs. Answering this question, we recorded the most significant trend that bank employees in the Czech Republic tried to sell products to their clients to alert the client's impression that their bank sells the highest quality possible. The number of respondents who tried to sell a product only suitable for the client is lower in the Czech Republic than the Slovakia. According to the results, the acceptance of customers' needs is relatively low in the sales process, because only 34% in the Czech Republic and 44% of Slovak respondents have clearly expressed to purchase only appropriate products for clients.

Tab. 5: Results of measurements of morality in selling bank products and services

Question 4: If you have a feeling that the client has chosen a wrong product, what would you do?	CR in %	SR in %	p-value
1. If he was free to choose, I would sell him the product	1	30	<0.01
2. I will sell the product and gently draw his attention to possible risks	23	48	<0.01
3. I will explain to him disadvantages of the selected product and I will offer him another suitable product	76	22	<0.01
4. I do not solve this problem	0	0	-
$\chi^2 = 63.5169$	p-value < 0.01		

Source: Own research

The number of respondents who would offer another suitable product in case of the client's incorrect choice, is significantly higher in the Czech Republic than in the Slovakia. Answers to this question have confirmed a low acceptance of customers' needs because only 22% of respondents in Slovakia were willing to offer suitable product to the client in case of adverse choice.

Results in Table 4 and Table 5 indicate some inconsistency of attitudes of Czech bank employees because up to 65% of them said that they would like to achieve the highest level of customer satisfaction. At the same time, 76% of employees said that in case of incorrect choice of the banking products by the customer, they would explain the disadvantages of the

chosen banking product and offer customers a more suitable product. These attitudes could be more compatible if objectively there were more high quality banking products, which other researches do not confirm because there are a number of critical comments, especially about the price of the banking products, nonsensical charges and so on. [6], [7]

The relationship between employee satisfaction and the acceptance of customers' needs present corresponding index which is shown in Table 6. In case of salesclerks, the satisfaction mirror effect is applied. The value of both indexes is approximately the same in each year and salesclerks' satisfaction decrease leads to the acceptance of customers' needs reduction.

Tab. 6: *Index of staff satisfaction and index of the acceptance of customer's need*

Indicator (1)	CR (2)	SR (3)	Index of change (4) = (2) – (3) / (3)
Index of salesclerks satisfaction (Isp), (x)	0.71	0.39	0.821
Index of the acceptance of customer's need (Iap), (y)	0.55	0.33	0.667

Source: Own research

Results of our research in Table 6 show that there is a relationship between satisfaction of bank employees and the acceptance of customers' needs in the sales process. The higher level of the satisfaction of bank employees leads to higher level of the acceptance of customers' needs. The values of both indexes are significantly higher in the Czech Republic.

One unit of the satisfaction of bank employees produces 0,775 units of the acceptance of customers' needs in the Czech Republic and 0,846 in the Slovakia. The regression function of a correlation between the acceptance of customers' needs and the satisfaction of bank employees has a value of: $y = 0.6875 * x + 0.061875$ for both countries.

Conclusion

The financial crisis has caused a fundamental change in public opinions on commercial banking and significantly increased a pressure on applied ethical approach to banking. Moral management can represent a significant strategic advantage for the bank, for example banks with high moral level didn't buy any toxic assets and therefore didn't have any important financial difficulties during the crisis. The most significant aspect of the bank morality is protection of interests and money of bank's customers.

The acceptance of customer's needs by bank employees presents necessary precondition for building customer satisfaction which determines the expected financial performance of the bank. Staff satisfaction plays a key role in this process.

Results of our research confirmed the validity of hypothesis 1. Staff approach to the acceptance of customer's needs is determined by the level of their job satisfaction. Higher level of staff satisfaction leads to better approach to the acceptance of customer's needs.

Hypothesis 2 has been accepted. The level of satisfaction of bank employees in the Czech Republic is higher than in Slovakia, which is reflected by a higher level of their loyalty. The loyalty of Czech banking employees is statistically significantly higher than in Slovakia. The Index of the satisfaction of Czech banking employees is higher by 82% compared to Slovakia.

Hypothesis 3 has been accepted. Bank employees in the Czech Republic statistically significantly accept the financial needs of their customers. According to our results, the index of the acceptance of customers' needs is higher by 67% in the Czech commercial banking.

Results of this survey were subjected to qualitative analysis of structured interviews with managers of commercial banks in middle and top level management. Based on the results of

consultations, we assumed that the knowledge gained from this research necessary for the processing of this article was representative.

This research was aimed at an exclusive (heavily accessed) area of banking management from the position of an academic research. Results of this research cannot be generalized because they have been conducted on a limited sample of respondents. Reasons of limited sample were the reluctance of banks to provide this kind of information and minimal banks' interaction with academic sphere. Despite this fact our opinion is that this research has produced interesting impulses for human resource improvement in commercial banking sector which could lead to improvements in banks' financial performance.

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SPOKOJENOST ZAMĚSTNANCŮ A AKCEPTACE KLIENTSKÝCH POTŘEB V ČESKÉM A SLOVENSKÉM BANKOVNICTVÍ

Spokojenost bankovních zaměstnanců je důležitý faktor pro vytvoření spokojenosti bankovních klientů, prostřednictvím vyšší míry akceptace (porozumění) jejich finančních potřeb v prodejním procesu. Porozumění klientským potřebám determinuje úroveň jejich spokojenosti, což může mít významný dopad na finanční výkonnost bank. Článek analyzuje vztah mezi zaměstnanci banky a vedením banky a vztahu mezi bankami a jejich klienty v České republice a na Slovensku. Cílem článku bylo kvantifikovat spokojenost bankovních zaměstnanců a porozumění klientským potřebám v českém komerčním bankovníctví a porovnání zjištěných trendů se situací na Slovensku. Přístupy zaměstnanců bank byly zjištěny v dotazníkovém výzkumu a získané výsledky byly ověřeny strukturovanými rozhovory.

DIE ZUFRIEDENHEIT DER MITARBEITER UND DIE AKZEPTANZ DER BEDÜRFNISSE DER KUNDEN IM TSCHECHISCHEN UND SLOWAKISCHEN BANKWESEN

Die Zufriedenheit der Bankangestellten ist ein wichtiger Schaffungsfaktor der Zufriedenheit der Bankkunden durch ein höheres Akzeptanzmaß der finanziellen Bedürfnisse im Verkaufsprozess. Die Akzeptanz der Kundenbedürfnisse bestimmt den Grad der Zufriedenheit der Kunden, was bedeutende Auswirkung auf die Bankleistung haben kann. In diesem Artikel bewerten wir die Beziehung zwischen den Bankangestellten und dem Arbeitgeber und ihre Beziehung zu den Bankkunden in der Tschechischen Republik und in der Slowakei. Ziel dieses Artikels ist es, die Zufriedenheit der Bankangestellten, das Verständnis für die Kundenbedürfnisse im Tschechischen Wirtschaftsbereich zu quantifizieren und die festgestellten Trends mit dem Zustand in der Slowakei zu vergleichen. Die Einstellungen der Bankangestellten wurden in einer Umfrage untersucht und die erhaltenen Ergebnisse wurden durch strukturierte Gespräche überprüft.

ZADOWOLENIE PRACOWNIKÓW I AKCEPTACJA POTRZEB KLIENTA W CZESKIEJ I SŁOWACKIEJ BANKOWOŚCI

Zadowolenie pracowników bankowych jest ważnym czynnikiem tworzenia zadowolenia klientów banków poprzez wyższy poziom akceptacji (zrozumienia) ich potrzeb finansowych w procesie sprzedaży. Zrozumienie potrzeb klienta determinuje poziom ich zadowolenia, co może mieć znaczący wpływ na wyniki finansowe banków. W niniejszym artykule dokonano analizy relacji między pracownikami banku a jego kierownictwem oraz relacji między bankami a ich klientami w Czechach i na Słowacji. Celem artykułu jest kwantyfikacja zadowolenia pracowników banków i zrozumienia potrzeb klientów w czeskiej bankowości komercyjnej oraz porównanie zaobserwowanych trendów z sytuacją na Słowacji. Podejście pracowników banków stwierdzono na podstawie przeprowadzonych badań ankietowych, których wyniki zostały zweryfikowane w drodze wywiadów strukturyzowanych.

CONVERGENCE OF TAX REVENUES IN THE EUROPEAN UNION

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Abstract

Formation of a single market is one of the main priorities during the integration process of the European Union. For this purpose it was planned to unify tax rules throughout the entire Community. The main question of this paper is whether the European Union has been meeting the objective of single market. It focuses on a question whether the tax systems are converging in the context of fiscal pressure and tax mixes. Beta and Sigma convergences are used for meeting the goal of the paper. The results present the difficulty of tax harmonization and convergence at the field of tax quotas and tax mixes during the analysed period as well. Results also point out the fact of possible influence not by the EU integration but by world globalization.

Introduction

Currently, the European Union is a unique community that combines both economic and political partnerships. The first step in European integration consisted in strengthening economic cooperation between The Member States whose goal was to establish a single market. That means free movement of goods, persons, services, and capital [9] and a common currency, the euro.

If a country wants to join the European Union, first, it needs to go through accession negotiations. Basically, it is an agreement on how and when the candidate country adopts and implements rules and procedures of the contemporary members of the Community. However, the negotiations also include financial matters (e.g. contribution of the new member into the EU budget) or possible transitional measures and exceptions.

As a result, the original purely economic-oriented cooperation gave birth to a community that is now cooperating in a number of areas. Among others, these include the tax policy that – through harmonization – can contribute to the creation of a single market by eliminating distortions that arise by transitions between individual Member States.

The European Union has been trying to converge tax systems, which should result lead to removal of all obstacles to the creation of the single market. This objective should result in a single tax system that would be applied by the entire Community and that should provide equal benefits for all of its members.

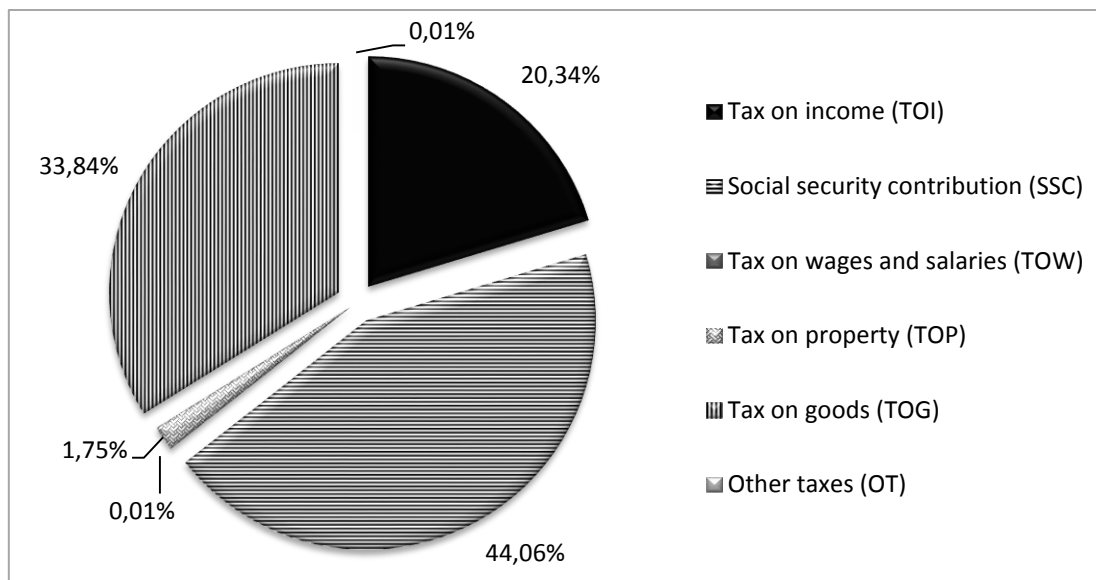
The issues of coordination, approximation, and harmonization of tax systems in the EU are addressed, for instance, in [2], [12], [13] and specially in [17]. The very methodology that is

used to verify the objective of this paper is dealt with in [3]. It is usually used for analysis of gross domestic products for example in [4] or [7]. Literature [5], [8], [15], [19], and especially [6] deal with the similar problem this paper solves, but in this case a different view is given.

This paper aims to verify whether there is convergence between the tax systems of the Member States within the meaning of convergence of tax mixes and tax quotas of the Member States.

1 Methodology

The aim of this paper is to analyse whether there is convergence in the area of tax quotas and tax mixes in the EU countries. A tax quota is understood as the overall tax burden, which is determined as a proportion of the total tax revenue to GDP. A tax mix shows representation of individual taxes in the total tax revenues.



Source: OECD, Tax Revenue Statistics 2012 edition and own processing

Fig. 1: Example of the tax mix of the Czech Republic in 2011 (%)

The paper uses abbreviations for the individual groups of taxes. FP means fiscal pressure, TOI is short for taxes on income and gains (number 1000 in the classification of OECD), SSC for social security contribution (2000), TOW for taxes on payroll and workforces (3000), TOP for taxes on property (4000), TOG for taxes on goods and services (5000), OT for other taxes (6000).

The term “European Union” includes all 27 Member States.

We analysed whether there was convergence of tax quotas and tax mixes between 1965 and 2011 in all current EU Member States and also for periods when individual states became EU members (e.g. for the Czech Republic, between 2004 and 2011, etc.).

The methods used were the causal analysis and synthesis of the information obtained, as well as induction and deduction, the application of which results from the need to create an objective and systematic quantitative description of the issue. Other methods for meeting the objective are specified below.

1.1 Arithmetic Mean

To obtain the average values, we used the arithmetic mean. The mean was used to determine average values for the whole EU. The calculations always include values of the countries since the year they official accessed the EU.

$$\bar{A} = \frac{1}{n} \sum_{i=1}^n a_i \quad (1)$$

where \bar{A} is arithmetic mean, a_i is tax rate of the year in the Member State, n is quantity of variables.

1.2 Beta Convergence

This method was used also in [3], [8], [10] or [16]. The Beta convergence considers growth of variables in dependence on the initial values (the so-called “Barro regression”). This concept of convergence focuses on the fact that countries with low initial values grow faster than countries with high initial values. In this case, it is convergence of tax mixes to the average value which is defined as the average of all EU Member States in a given year.

This approach allows estimation of the annual growth rate or rate of β -convergence.

$$\ln\left(\frac{y_t}{y_0}\right) = \alpha + \beta \ln(y_0) + \varepsilon \quad (2)$$

where T is the last year of the analysis (2011), 0 is the initial year of the analysis (1965 or the year of a country’s accession to the EU), y represents tax mixes in different time periods or tax quota. α is a level constant, β is the regression coefficient, and its significant negative value indicates the Beta convergence, ε is a random component.

The equation (2) expresses the growth rate of the tax mix / tax quota (left side of the equation), which depends on its initial level (y_0), or more precisely on its difference from the average level in the EU.

In other words, the regression coefficient β expresses how much of the difference – to the average of the EU – countries “on average” managed to eliminate during the given period. Thus, the greater the coefficient β in absolute value, the faster the convergence/divergence. The paper utilizes the classic method of least squares.

Twenty observations were used for both variants, and the missing values were abstracted.

Furthermore, it should be emphasized that the Beta convergence is a condition for the Sigma convergence, where the Sigma convergence uses absolute values. However, this relationship does not have to work conversely [16].

1.3 Sigma Convergence

The time evolution of convergence or divergence of tax mixes can be determined by measuring the distance. One such indicator was used in [1]. For n countries, the average distance from the average (Di) was measured by the index (D).

$$Dt = \frac{1}{n} \sum_{i=1}^n D_t^i = \frac{1}{n} \sum_{i=1}^n \sum_j S_{jt}^i - S_{jt}^{EU} \quad (3)$$

where i is short for country, j is short for tax, t is the year, S_{jt}^i is the proportion of the tax in the total tax revenues, and S_{jt}^{EU} is the average of the EU. The Sigma convergence is based on the development of variance in time. This variance can be analysed using various indicators; here, it is the standard deviation.

$$\left| \sigma = \sqrt{\frac{1}{n} \sum_{i=1}^n (a_n^i - E(a))^2} \right| \quad (4)$$

where σ is the standard deviation, a_i is the amount of the tax mix of i -year and n -state, E represents the arithmetic mean of the EU.

The Sigma convergence is constructed in order to obtain additional information about the development of the Beta convergence, which is not able to provide this information. In this case, the Sigma convergence includes countries at the moment of their accession to the EU. This means that before the accession, their existence was taken into account, even for determination of the average value for the whole EU. The smaller the standard deviation, the higher the convergence (and vice versa). Thus, if the standard deviation curve decreases, there is convergence during the given period.

2 Data

The source of the data is secondary information provided by the OECD [14] and the European Commission [18]. Tax mixes are divided in classes according to the OECD classification, and the missing data was left out for the purposes of the following analysis.

Tab. 1: The fiscal pressure data example

Period of 1965 - 2011		Period of memberships in the European Union	
Dependent variable	Explanatory variable	Dependent variable	Explanatory variable
0.215	3.522	0.014	3.722
0.338	3.438	0.338	3.438
-0.107	3.665	-0.041	3.599
0.468	3.401	0.173	3.696
-0.107	3.591	0.070	3.415
0.354	3.414	-0.048	3.817
0.255	3.532	0.255	3.532
0.155	3.453	0.155	3.453
0.554	2.888	0.356	3.086
-0.244	3.817	-0.054	3.627
0.102	3.216	-0.022	3.340
0.712	3.043	0.049	3.707
0.292	3.321	0.292	3.321
0.148	3.490	0.148	3.490
-0.072	3.526	0.002	3.453
0.675	2.765	0.190	3.251
-0.344	3.697	-0.100	3.453
-0.062	3.663	-0.038	3.639
0.760	2.688	0.082	3.366
0.286	3.505	-0.069	3.860
0.150	3.416	0.124	3.441

Source: OECD Tax Revenue Statistics 2012 edition, own processing

3 Results

3.1 Beta Convergence

The analysis of the tax mixes and tax quota demonstrated convergence of the given variables for both examined periods. The summary of the results is provided in the tables below.

Tab. 2: Beta convergence of tax mixes in the EU area in 1965 – 2011

	FP	TOI	SSC	TOW	TOP	TOG	OT
β	-0.879	-0.537	-0.262	-0.529	-0.394	-0.905	-0.619
t	-7.563	-3.622	-1.956	-1.911	-3.151	-4.675	-2.610
P-value	$< 10^{-4}$	0.002	0.065	0.098	0.005	0.00016	0.026
R²	0.751	0.422	0.168	0.342	0.343	0.535	0.405

Source: OECD Tax Revenue Statistics 2012 edition, own processing

The table above shows that all the analysed dependences are significant; the significance level is always less than 10%, in some cases even less than 1%. The Beta coefficient is negative in all the examined groups. This indicates convergence over the whole period between 1965 and 2011 both in tax quotas and groups of individual tax revenues.

The fastest is the convergence of indirect taxes (TOG), which are, in terms of harmonization, of the greatest interest in the EU. The coefficient of determination (R²), in this case, also shows a high value (0.535), indicating that the initial value of the tax mix is able to explain the 53.5% variance of the growth rate between the countries.

Another high values were revealed in the coefficient of determination of tax quotas (FP), which stands at 75.1%. The convergence rate, in this case, is also high, which indicates overall convergence of tax systems.

However, these harmonized indirect taxes were not in place throughout the entire analysed period, and other tax groups are not on such a high degree of harmonization. Therefore, the authors believe that the convergence of tax countries is rather influenced by globalization itself – as described in [11] – since most countries have not been members of the EU during the examined period, and this trend of convergence is also evident throughout all OECD countries [5].

At the lowest level of mutual convergence stand the tax mixes of social security contributions and income from property taxes. In these areas, convergence is poor, as well as the coefficient of determination.

In the EU, therefore, there was convergence of tax mixes, thus further meeting of the objective of convergence of tax systems, regardless of whether they were members of the European Union or not.

Tab. 3: Beta convergence of tax mixes in the EU for Member States

	FP	TOI	SSC	TOW	TOP	TOG	OT
β	-0.424	-0.232	-0.22100	-1.550	-0.220	-0.482	-0.026
t	-3.134	-1.841	-5.19100	-0.938	-1.778	-2.989	0.242
P-value	0.005	0.081	0.00005	0.417	0.091	0.008	0.813
R²	0.341	0.151	0.58600	0.227	0.143	0.32	0.005

Source: OECD Tax Revenue Statistics 2012 edition, own processing

Table 3 illustrates the convergence in situations where the initial value was the variable of the year in which the county officially joined the Community, and the last value was the value as at 2011.

Even here, there is apparent convergence of tax mixes, however, individual dependences are lower than in the previous case (about half). Also, the coefficients of determination decreased, indicating an increase of the examined variables in the given models. One reason for this change – leaving out the impact of globalization – may be the absence of the changes necessary for the accession to the Community; which were not included in the analysis simply because the initial value taken into account was as late as the year of the country joining the EU.

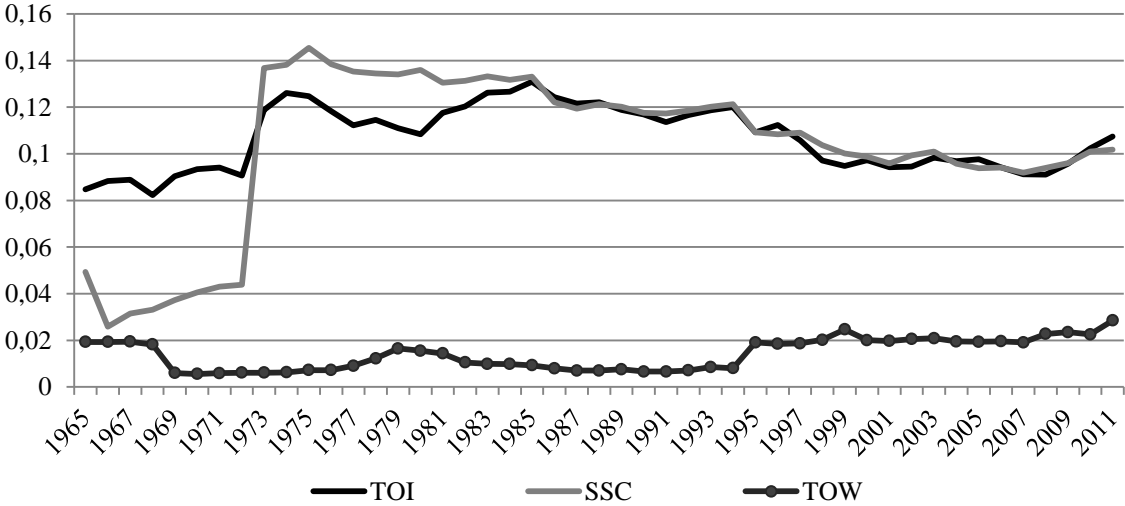
The coefficients of determination get again one of the highest values in tax quotas and indirect taxes, however, even in this case they are lower, only 34.1% and 32%.

Of note, however, are the results of social security contributions, where the convergence rate remained the same, but at the same time the coefficient of determination increased. The initial value of this part of the budget revenue can explain the 58.6% variance of the growth rate between the countries compared to the original 16.8%.

Another exception is the insignificant dependence in tax revenues from salaries and wages (TOW), as well as in tax revenues from other taxes (OT); therefore, it is not possible to confirm that there is any Beta convergence there. Even the coefficients of determination R², in this case, amount to smaller values than in the previous case.

3.2 Sigma Convergence

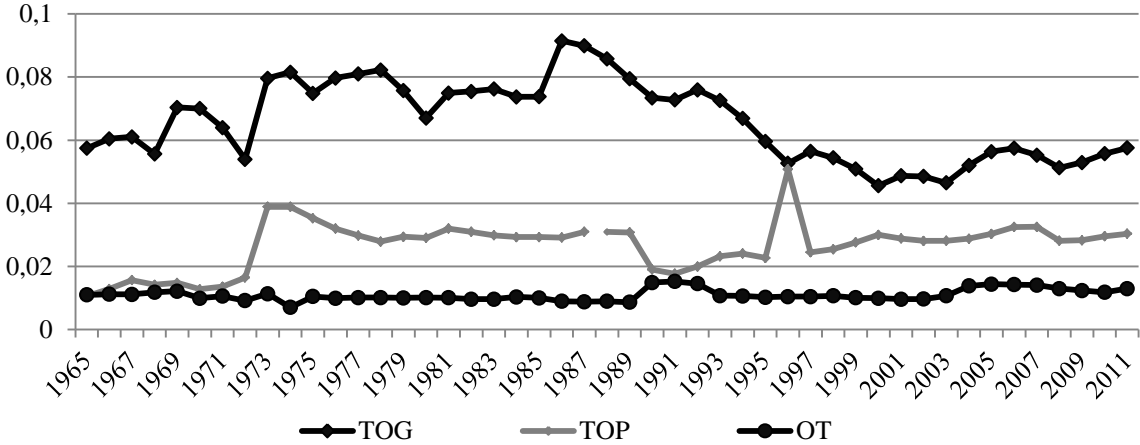
As mentioned above, the Sigma convergence completes the picture of the Beta convergence and illustrates its course. The graphs below provide information on the development of the Sigma convergence in the analysed periods.



Source: OECD Tax Revenue Statistics 2012 edition, own processing
Fig. 2: Sigma convergence of TOI, SSC and TOW in the EU during 1965 – 2011 (%)

The graph above shows the development of standard deviations between 1965 and 2011. Until 1975, there is noticeable divergence in the tax mixes of social security contributions, however after this year, convergence starts to occur until the end of the analysed period. This is shown also by the result of the Beta convergence.

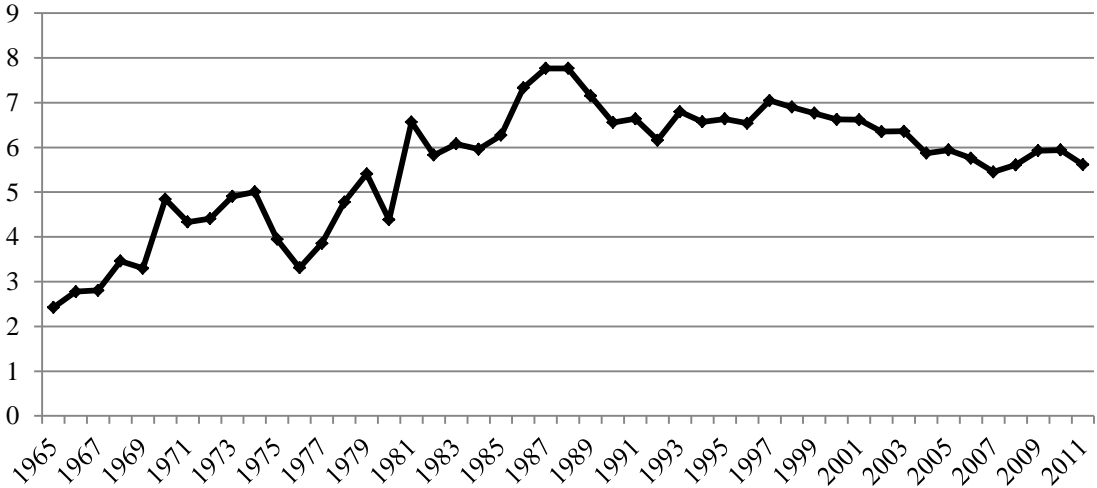
The tax mix of income taxes indicates the same course, but as late as from 1985. An interesting development can be seen in the standard deviation of the tax mix of salaries and wages, which shows an entirely opposite course. The reason for this development will be the subject of further research.



Source: OECD Tax Revenue Statistics 2012 edition, own processing
Fig. 3: Sigma convergence of TOG, TOP and OT in the EU during 1965 – 2011 (%)

As for the tax mixes of indirect taxes, there is the same development of convergence / divergence as in the case of income taxes. Until 1985, there was divergence, which then turns into steep convergence. The reason for this turnover may be the mandatory introduction of value added tax in the EU Member States, which took place in the 1980s.

According to the Sigma convergence, the tax mixes of property taxes and other taxes do not meet the convergence objective, however, in this case, it is not possible to claim that there is divergence as the Sigma convergence is not a condition for confirmation of the Beta convergence, which was not refuted in these taxes in the period 1965 – 2011 [16].



Source: OECD Tax Revenue Statistics 2012 edition, own processing
Fig. 4: Sigma convergence of fiscal pressure in the EU during 1965 – 2011 (%)

The development of the Sigma convergence in the tax quota nearly exactly follows the development of the tax mix of indirect taxes, income taxes, and social security. Graph 4 presents the change in the growing trend of the standard deviation in 1985, from which point there is convergence of the overall tax burden in the EU.

Similarly interesting is always the end of the analysed period, when Europe was struck by the global economic crisis; between 2007 and 2009, the development of the Sigma convergence shows divergence of tax mixes, thus of the tax quota.

Conclusion

The results presented use the traditional neo-classical methods for finding out convergence of tax systems of European countries. The paper deals with the question of whether the European Union fulfils the objective of a single market also in the field of tax policy. In that area based on all assumptions, there should be convergence of tax systems of the Member States, with aim to eliminate distortions arising from the transition between individual Member States.

To meet the objective, we used the methods of the Beta and Sigma convergence. Convergence was investigated separately first, for the group of all the contemporary EU Member States, regardless of whether they had been EU members or not. This confirmed the fact that there is convergence even if a country is only located in the given area and is not an official member of the EU. The second methodology took into account only the states when they were official members of the Community.

The Beta convergence between 1965 and 2011 of the group of all the current Member States confirmed the existence of convergence of tax mixes (graded according to the OECD classification) and tax quotas. Their convergence occurred even at a time when the contemporary Member States had still not been official members of the Community. The reasons may be, in particular, globalization and the on-going trend of convergence, as described in [11] or Becker [5], but also the convergence effort by the countries seeking to join the EU.

The second methodology of the Beta convergence took into account only the Member States since the moment they became official members of the Community (thus, it considered only the EU). In this case, the convergence of tax mixes was confirmed, but at a lower rate than with the previous methodology. It was confirmed for income taxes, indirect taxes, and property taxes. It is interesting that the revenues from social security contributions did not show that significant decrease in the second methodology; in fact, the coefficient of determination increased nearly to 60%. The tax mixes of salaries and wages, as well as other taxes, showed no significant dependence, and the Beta convergence, in this case, cannot be confirmed.

The Beta convergence itself, however, does not give a complete picture of the course of convergence of tax mixes and quotas. Therefore, we also used the Sigma convergence, which completes the overall picture of convergence of the tax mix and tax quotas. In the tax quota, in this case (using the Sigma convergence), convergence was confirmed since 1985, as well as in the tax mix of income taxes and indirect taxes.

Using the Sigma convergence, tax revenues from social security contributions converged since 1975. However, according to the Sigma convergence, tax revenues from wages, other taxes, and property taxes in this period diverge. This, however, does not mean that there was no convergence, as the Sigma convergence is not a condition to confirm the Beta convergence [16]. Therefore, the convergence demonstrated throughout the analysed period using the Beta convergence could not be completely disproved.

The result of the analysis is the statement that the tax mixes in the European Union converge throughout the entire analysed period of 1965 – 2011. Considering the EU Member States only since their official accession to the EU, convergence also occurs, however, it is slower and the number of explained variables is increased as the coefficients of determination

decreased. In the tax revenues from other taxes, wages and salaries, convergence was neither confirmed nor refuted.

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KONVERGUJÍ DAŇOVÉ MIXY V ZEMÍCH EVROPSKÉ UNIE?

Vznik jednotného trhu je jednou z hlavních priorit v procesu integrace Evropské unie, a proto mezi hlavními cíli EU nalezneme také harmonizaci daňových pravidel. Tato práce se zabývá otázkou, zda Evropská unie tento cíl naplňuje a dochází k naplňování plánu vzniku jednotného trhu. Zaměřuje se na otázku, zda daňové systémy konvergují ve smyslu sblížení daňových kvót a daňových mixů. K ověření této hypotézy byly použity metody Beta a Sigma konvergence. Výsledek prezentuje složitost přímé daňové harmonizace a stejně tak konvergenci, ke které jak v oblasti daňových kvót, tak v oblasti daňových mixů během analyzovaných období dochází. Poukazuje ovšem také na skutečnost možného ovlivnění konvergence daňových mixů a daňových kvót nikoliv ze strany integrace Evropské unie ale celosvětové globalizace.

GIBT ES EINE KONVERGENZ IM STEUERN MIX IN DER EUROPÄISCHEN UNION?

Bildung eines Binnenmarktes ist eine der wichtigsten Prioritäten während des Integrationsprozesses der Europäischen Union. Zu diesem Zweck war es geplant, steuerlichen Regelungen in der gesamten Gemeinschaft zu vereinheitlichen. Die zentrale Frage dieser Arbeit ist, ob die Europäische Union wurde um das Ziel der Binnenmarkt. Es konzentriert sich auf die Frage, ob die Steuersystemen sind im Rahmen der Steuer-und Abgabenbelastung und Steuern Mixe konvergieren. Beta und Sigma Konvergenzen sind für die Erfüllung des Ziels des verwendeten Papiers. Die Ergebnisse präsentieren die Schwierigkeiten bei der steuerlichen Harmonisierung und Konvergenz auf dem Gebiet der Steuern Quoten und Steuern Mixe während der analysierten Periode als gut. Die Ergebnisse auch darauf hin, die Tatsache der mögliche Einfluss nicht von der EU-Integration, sondern von Welt Globalisierung.

TAX ZBIEGA MIXES W UNII EUROPEJSKIEJ?

Powstanie jednolitego rynku jest jednym z głównych priorytetów w procesie integracji z Unią Europejską, a więc jednym z głównych celów Unii Europejskiej, istnieje również harmonizację przepisów podatkowych. Dokument ten odnosi się do kwestii, czy Unia Europejska i Dążenie do tego celu jest realizacja planu jednolitego rynku. Skupia się na pytaniu, czy systemy podatkowe zbieżne w sensie zbieżności kwoty podatku oraz mieszanki podatkowych. Aby sprawdzić tę hipotezę, metody stosowano beta i Sigma konwergencji. Wynik przedstawia złożoność bezpośredniej harmonizacji podatkowej, jak również spójność, do której kwota podatku, więc w podatku miesza w analizowanym okresie. Ale wskazuje również na fakt ewentualnego wpływu nie przez integrację Unii Europejskiej, ale globalizacja.

MEASUREMENT OF SKEWNESS OF THE ECONOMIC DATA FREQUENCY DISTRIBUTION

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Abstract

This paper is focused on the presentation and evaluation of various measures of skewness which are commonly included in statistical and economic-statistical books. It was found that they quite often provide antagonistic information and do not lead to explicit conclusions about skewness of a frequency distribution. The application of selected measures of skewness on real data was done and at the same time the simulations based on fictive data were carried out. We found that in the case when there is a classic relationship among three principal measures of central tendency $\hat{x} < \tilde{x} < \bar{x}$ (*the mode < the median < the arithmetic mean*) or $\hat{x} > \tilde{x} > \bar{x}$, all the selected measures of skewness provide the same information about skewness of the frequency distribution. In other situations it is necessary to change the standard approach to a calculation of these measures.

Introduction

The impulse for writing this paper was the preparation of study materials and examples for the new course entitled Statistical Analysis of Data from Questionnaire Surveys which was created in the frame of the FRVŠ project Nr. 1340/2010. While creating the file of type examples the real data obtained from the questionnaire survey in the frame of the project Nr. 1/2010 with the name “Sociodemographic Survey of the Reasons of the Population Decrease in Šluknov in 2009” was used. We found that in some cases there was a problem to identify if the surveyed frequency distribution was positively or negatively skewed because selected measures of skewness took the positive as well as negative values for the same data file.

Hence, in this paper we will focus on the measures of skewness research and their practical application in empirical data analysis. The aim of our work is to evaluate the selected measures of skewness effectivity in various situations and, furthermore, to compare their information competence. The fact is that the measures of skewness fail in some conditions and data configuration and it is a serious problem while analysing data.

1 Theoretical Base of Skewness Measurement

The shape of frequency distribution research from the view of the variable values concentration plays an important role in statistical data analysis. In principle, the concentration is a cumulation of a considerable amount of values into some variant of a

variable. The form of concentration can be described in two ways: in terms of a frequency curve departure from symmetry, which is called skewness, and in terms of its degree of peakedness, which is called kurtosis. In case of absence of any concentration a frequency distribution is symmetrical and at the same time rectangular, i.e. it has zero skewness and zero kurtosis.

The reason why the concentration measurement and comparison is important is the fact that we can find many situations in which the measures of central tendency as well as the measures of variation give the same information for two frequency distributions, nevertheless they are evidently different. In principle, the term skewness can be interpreted as a different concentration of small values of a variable in comparison with a concentration of large values. In positively skewed distribution (it is also called skewed to the right) there is greater concentration of small values in comparison of concentration of large values. When a distribution is negatively skewed (skewed to the left), there is greater concentration of large values in comparison with a concentration of small values there. In the case of zero skewness the frequency distribution is symmetrical. In a symmetrical distribution the mode, median and mean are equal ($\hat{x} = \tilde{x} = \bar{x}$). In a positively skewed distribution the mean is usually (but not always) the largest of the three measures of central tendency ($\hat{x} < \tilde{x} < \bar{x}$) and in a negatively skewed distribution the mode is usually the largest of the three measures of central tendency ($\hat{x} > \tilde{x} > \bar{x}$).

General requirements for measures of skewness are defined e.g. in [1, p. 306]: The measure has to assume a value of zero when the distribution is symmetrical, a positive value when the distribution is positively skewed, and a negative value in the case of negatively skewed distribution. Another important requirement is that the measure should not have any units. There is a lot of various measures of skewness which are constructed on various principles, and it is possible to find they contradict each other considerably.

A well-known measure of skewness is the measure based on extreme values – see e.g. [2, p. 44]. It compares the distance of extreme values from the median. It is a standardized statistics without any unit which can assume values between -1 and 1. Its main disadvantage is big dependence on extreme values which can occur randomly and produce a bias in results.

This disadvantage is removed by percentile measures of skewness (see [4, p. 76]) which are based on the percentile range. So, the extreme values are replaced by certain border percentiles. We would like to mention quartile measure of skewness τ_{25} first of all – see e.g. [11, p. 151].

$$\tau_{25} = \frac{\tilde{x}_{75} + \tilde{x}_{25} - 2\tilde{x}}{\tilde{x}_{75} - \tilde{x}_{25}} \quad (1)$$

The often used measure of skewness is the moment measure α (see e.g. [1, p. 308]) which is the third moment of the standardized variable and it is possible to define it as

$$\alpha = \frac{\sum_{i=1}^k (x_i - \bar{x})^3 n_i}{ns_x^3} \quad (2)$$

The measure α has no units and its advantage is that it is based on all observations and it is possible to be calculated from particular subsets.

In 1895 Karl Pearson introduced the measure of skewness based on the mean, mode and standard deviation – see [8, p. 343-414]. This measure and other measures derived from Pearson's measure of skewness are often published under the different symbols, e.g. [1, p. 311]:

$$\tau' = \frac{\bar{x} - \hat{x}}{s_x} \quad (3)$$

It is possible to find its modification based on the mean, median and standard deviation – see e.g. [1, p. 312]:

$$\tau'' \approx \frac{3(\bar{x} - \tilde{x})}{s_x} \quad (4)$$

This measure, after a correction, is usually defined as

$$\xi = \frac{\bar{x} - \tilde{x}}{s_x}, \quad (5)$$

see e.g. [6, p. 55]. Furthermore, V. Čermák writes that “...the measure ξ can provide disinformative values while comparing files which are a little different (from the view of skewness), so, we cannot recommend its application though it is used to being mentioned in many textbooks.” – see [6, p. 55].

In 1967 L. Cyhelský created a simple measure of skewness τ'' . He based it on the assertion that “in symmetrical distribution there is as same number of values which are greater than the mean as values which are less than the mean whereas in positively skewed distribution the number of values less than the mean predominate over the number of values greater than the mean, and in the end in negatively skewed distribution the number of values greater than the mean predominate over the number of values less than the mean” – see [3, p. 216]. This measure fills the general requirements on the measure of skewness and we can write it as

$$\tau'' = \frac{n' - n''}{n}. \quad (6)$$

V. Čermák transformed this measure as

$$\omega = \frac{n'}{n} - \frac{n''}{n}, \quad (7)$$

see [6, p. 56 – 59], and he called it Cyhelský’s nonparametric measure. He pointed out that this measure assumes the values between -1 and 1 for $n \rightarrow \infty$. So, it fills both the general requirements on measures of skewness and it is possible to consider it to be a standardized measure.

V. Čermák writes about this measure of skewness: “1. The measure ω is a nonparametric measure with the intent that it ignores the distance $x_i - \bar{x}$ and takes into account just their signs. 2. It is possible to apply the measure ω not only to empirical data (statistical variables) but also to random variables, especially continuous. 3. The measure ω is very sensitive to little changes of skewness in the sphere of extreme shapes of distributions.” – see [6, p. 59].

The theoretical base of knowledge about skewness and its measurement is wide but it is often confined to classic situations when the distribution does not declare significant abnormality. Some of the theoretical sources mention strictly just the usual relationship of three principle measures of central tendency $\hat{x} < \tilde{x} < \bar{x}$ for positively skewed distribution and $\hat{x} > \tilde{x} > \bar{x}$ for negatively skewed distribution (see e.g. [9, pp. 54-55]). Other similar works are concerned in the relationship of the mean and median research only – see e.g. [5, p. 76]. However, this approach often fails in practice because, as Triola writes in [10, p. 92] “The mean and median cannot always be used to identify the shape of the distribution.” But it is possible to say the mean and median are usually on the left side from the mode in positively skewed distribution and in negatively skewed distribution they are on the right from the mode. Though the position of the mean and median is not explicitly predictable in general, we can find situations when the position of the mode is different from the assertion mentioned above.

Graphic presentation of a distribution can sometimes be misleading, we are not often able to identify the shape of the distribution according to the graph or it is possible to make

antagonistic conclusions from the graphic presentation and from the values of measures of skewness. If the distribution is positively skewed, the median is usually greater than the mode and vice versa for the negatively skewed distribution. However, sometimes the mode is equal to the median even if the distribution is not symmetrical (see [7, p. 483]).

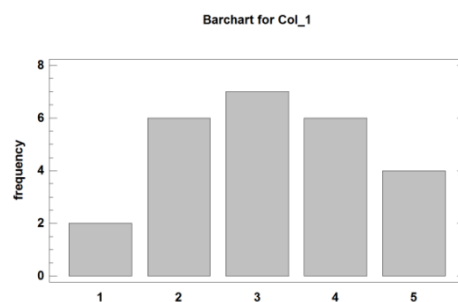
This problem is discussed in many works on a high theoretical level; procedures are based on the probability models and are mathematically elaborated. Though, problems arise while analyzing data sets, e.g. economic data from questionnaire surveys in which we are interested in detail. We often find out that various measures of skewness give us antagonistic information and even the graphs do not help us.

2 Testing of Selected Measures of Skewness in Practice

The problem mentioned above is very serious for the practical usage of the measures of skewness because it is necessary to interpret the outcomes of our calculations and have the explicit opinion about the shape of a distribution. Therefore, we decided to apply selected measures of skewness on various frequency distributions and search how much their values are in harmony and when and why they contradict each other. We carried out the calculation of following measures of skewness on certain data sets: quartile measure τ_{25} , moment measure α , Pearson's coefficient τ' , its modified version ξ and Cyhelský's measure τ'' . Some distributions are also presented by graphs to be able to follow how much the graph is in harmony with conclusions resulting from the values of the measures.

If the relationship $\hat{x} < \tilde{x} < \bar{x}$ is valid in a positively skewed distribution and the relationship $\hat{x} > \tilde{x} > \bar{x}$ in a negatively skewed distribution, all selected measures of skewness give us the same information. It means they identify the shape of the distribution uniformly. The graph is in harmony with the results and has a typically presented shape.

We can detect a problem in such a situation when the mode and median are equal. The results of the selected measures are often conflicting. We will present a calculation of selected measures of skewness on real data. Let's have $\hat{x} = 3, \tilde{x} = 3, \bar{x} = 3.16$, i.e. $\hat{x} = \tilde{x} < \bar{x}$. Values of the selected measures are: $\tau_{25} = 0, \alpha = -0.027, \tau' = 0.148, \xi = 0.148, \tau'' = 0.2$. However, the graphic presentation supports the idea of a negatively skewed distribution rather than positively – see Fig. 1.



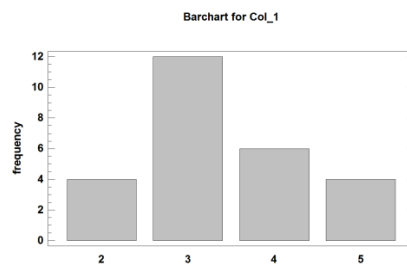
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Fig. 1: The Example of the Frequency Distribution with the Relationship $\hat{x} = \tilde{x} < \bar{x}$

So, the moment measure α points to negative skewness in correspondence with the graph while the other measures (τ', ξ, τ'') indicate positive skewness. Quartile measure τ_{25} which is equal to zero indicates a symmetry which is evidently not true. The reason why this measure fails in this example is the fact that the median lies exactly in the middle of the distance between the lower and upper quartile so, the numerator of this measure assumes the value of

zero. The situation described above is not rare in practice. We can say the quartile measure of skewness totally and systematically fails in such a constellation of data.

We carried out other repeated simulations of the frequency distribution in which the relationship $\hat{x} = \tilde{x} < \bar{x}$ is valid and very interesting results were discovered. Firstly, it was proven that the quartile measure of skewness corresponds with the measures τ', ξ, τ'' and points to positive skewness of the distribution in the case when the median does not lie in the middle of distance between lower and upper quartile. Furthermore, we were able to simulate the situation when the relationship $\hat{x} = \tilde{x} < \bar{x}$ is valid (concretely $\hat{x} = 3, \tilde{x} = 3, \bar{x} = 3.385$) and values of the selected measures are $\tau_{25} = 1, \alpha = 0.361, \tau' = 0.417, \xi = 0.417, \tau'' = 0.231$. All values of these measures are positive and indicate that the distribution is positively skewed. This fact is also supported by a graphic presentation – see Fig. 2.

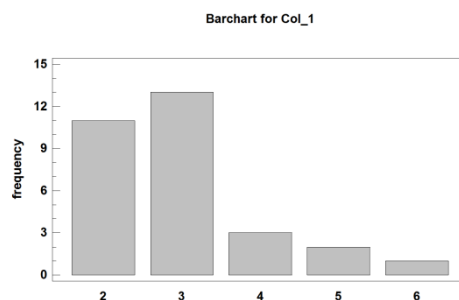


Source: Own

Fig. 2: The Example of the Frequency Distribution with the Relationship $\hat{x} = \tilde{x} < \bar{x}$

We can say that the moment measure α usually gives different results in comparison with the other measures which we can see also in a graph.

The following example brings the same relationship between the mode and median but relation to the mean is different: $\hat{x} = \tilde{x} > \bar{x}$. We suppose that $\hat{x} = 3, \tilde{x} = 3, \bar{x} = 2.97$ and the values of the selected measures are: $\tau_{25} = -1, \alpha = 2.852, \tau' = -0.0295, \xi = -0.0295, \tau'' = -0.267$. This example is portrayed in Fig. 3.



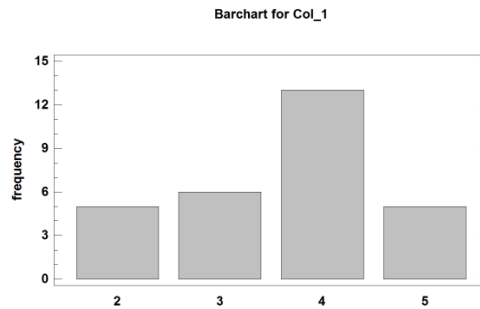
Source: Own

Fig. 3: The Example of the Frequency Distribution with the Relationship $\hat{x} = \tilde{x} > \bar{x}$

It is apparent the value of the moment measure α points to the positive skewness and it is in harmony with the graph in Fig. 3, while the measures τ', ξ, τ_{25} and τ'' indicate negative skewness.

We also simulated the situation when the relationship mentioned above is valid and values of all the selected measures are negative. We suppose that $\hat{x} = 4, \tilde{x} = 4, \bar{x} = 3.621$ and our calculations give following results: $\tau_{25} = -1, \alpha = -0.364, \tau' = -0.394, \xi = -0.394, \tau'' =$

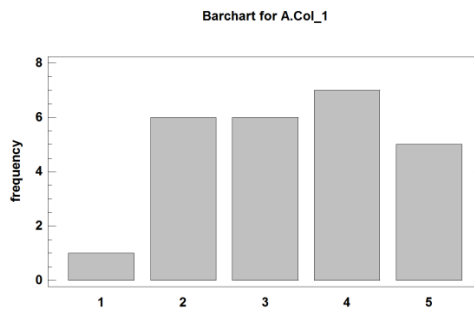
-0.241. These outcomes are portrayed in Fig. 4. It is possible to say the measures τ_{25}, τ', ξ and τ'' always indicates negative skewness while the measure α often gives opposed results which are also shown in a graphical visualization.



Source: Own

Fig. 4: The Example of the Frequency Distribution with the Relationship $\hat{x} = \tilde{x} > \bar{x}$

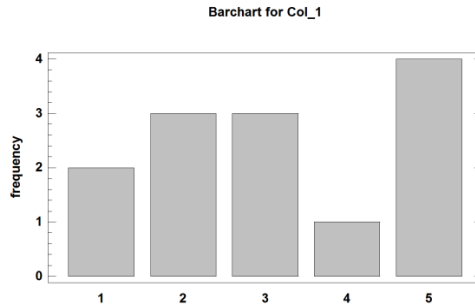
The situation is also complicated in the frequency distributions when the position of the mean and median is opposite in comparison with the common relations. First, we will focus on the relationship $\hat{x} > \bar{x} > \tilde{x}$. We have $\hat{x} = 4, \bar{x} = 3.36, \tilde{x} = 3$ and values of the selected measures are $\tau_{25} = 0, \alpha = -0.126, \tau' = -0.551, \xi = 0.31, \tau'' = 0.04$. We can see this example in Fig. 5. It is clear the measures α and τ' indicate negative skewness with the correspondence of the graph in Fig. 5 while the measures ξ and τ'' point to positive skewness. The quartile measure τ_{25} indicates symmetry which is given by the relation of quartiles mentioned above.



Source: Own

Fig. 5: The Example of the Frequency Distribution with the Relationship $\hat{x} > \bar{x} > \tilde{x}$

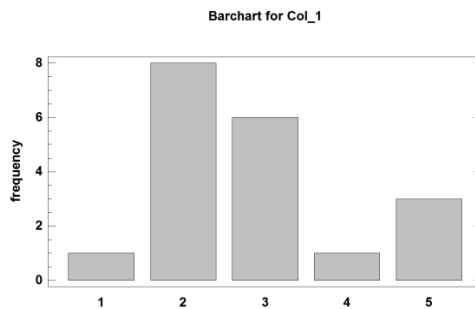
Simulations of other distributions with a similar character and the same relationship of the three measures of central tendency showed a similar behaviour of the selected measures except the measure α . We will illustrate it by another example. Let's have the frequency distribution described by following characteristics: $\hat{x} = 5, \bar{x} = 3.154, \tilde{x} = 3$. Values of the selected measures of skewness are $\tau_{25} = 0.333, \alpha = 0.033, \tau' = -1.265, \xi = 0.106, \tau'' = 0.231$. This distribution is shown in Fig. 6. As we can see, the measure α indicates positive skewness although the structure of the three measures of central tendency is very similar to the previous example when it pointed to negative skewness. The graph in Fig. 6 shows the mode lies on the right side but other information about the shape of the distribution is rather inconsistent. The quartile measure τ_{25} indicates positive skewness too and it was proven in many following simulations. The only measure which points to negative skewness is Pearson's measure τ' . The reason is the position of the mode.



Source: Own

Fig. 6: The Example of the Frequency Distribution with the Relationship $\hat{x} > \bar{x} > \tilde{x}$

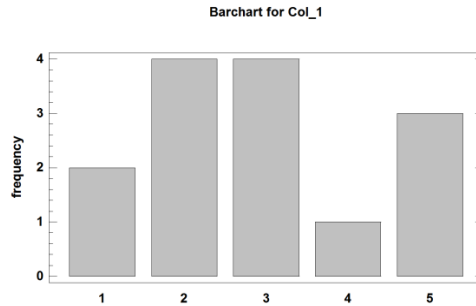
Then, we analyse the situation when the three measures of central tendency are in the relationship $\hat{x} < \bar{x} < \tilde{x}$. Their values are $\hat{x} = 2, \bar{x} = 2.842, \tilde{x} = 3$ and the values of the measures of skewness are $\tau_{25} = -1, \alpha = 0.808, \tau' = 0.761, \xi = -0.143, \tau'' = -0.053$. This distribution is portrayed in Fig. 7. Other simulations with the similar relation of the measures of central tendency sometimes showed both positive and negative skewness. The measure τ' naturally points to positive skewness in this case.



Source: Own

Fig. 7: The Example of the Frequency Distribution with the Relationship $\hat{x} < \bar{x} < \tilde{x}$

The relation of the mode to the other measures of central tendency and its position in a frequency distribution is very questionable in general. Sometimes we cannot determine the mode. And then, it is not possible to calculate the measure τ' . This case is shown in the following example. We suppose that $\tilde{x} > \bar{x}$ and the mean equals 2.93 and the median is 3. We calculated the measures of skewness again: $\tau_{25} = 0, \alpha = 0.35, \xi = -0.052, \tau'' = -0.143$. This situation can be seen in Fig. 8. If the quartile measure τ_{25} does not misinform about symmetry of a distribution like in this case, its value is negative, i.e. in correspondence with other measures. We can find the abnormality just in the case of the moment measure α which is the only positive from all the characteristics. But we cannot say it is a rule. Sometimes when the relationship $\tilde{x} > \bar{x}$ is valid, the measure α indicates the same type of skewness as the other measures.



Source: Own

Fig. 8: The Example of the Frequency Distribution with the Relationship $\hat{x} < \bar{x} < \tilde{x}$

In the situation when the median is less than the mean and we are not able to determine the mode, the measures τ_{25}, ξ, τ'' indicate the distribution is skewed to the right and the moment measure α sometimes points to positive skewness, sometimes negative. The behaviour of the measures has analogical tendencies as in the situation when $\tilde{x} > \bar{x}$.

Conclusion

The question of choosing a suitable measure of skewness and the interpretation of received outcomes is extremely complicated and we have come to the conclusion that there is not an explicit and universal solution. We suppose it is necessary to respect the specific character of surveyed data and then to choose the way of skewness measurement accordingly. Our findings about the behaviour of the selected measures of skewness are divided into two parts. Firstly, we focused on the examination of the character of a frequency distribution and we detected a few typical situations in accordance with a position of the three measures of central tendency (the mode, mean and median).

If classical relationships among the median, mode and mean – $\hat{x} < \tilde{x} < \bar{x}$ for positive skewness and $\hat{x} > \tilde{x} > \bar{x}$ for negative skewness – are valid in a distribution, all the selected measures of skewness identify positive or negative skewness in correspondence. A graph usually corresponds to the values of the statistics and has a generally presented shape – the peak of a distribution is on the left, or on the right.

A different situation arises in such distributions where the position of the median and mode is inverse in comparison with the classic relationships. Then, information about skewness of a distribution is rather inconsistent. The measures τ', τ_{25}, ξ and τ'' indicate positive (or negative) skewness, the moment measure α can assume both positive and negative values. The quartile measure τ' naturally assumes positive or negative value in accordance with the position of the mode.

Another problematic situation appears in the case when the mode and median are equal. In such situations the measures of skewness are often in conflict. While the measures τ', τ_{25}, ξ and τ'' indicate positive (or negative) skewness, the moment measure α gives antagonistic outcomes. The peak of the frequency distribution portrayed in a graph can be on the right, on the left or in the middle.

In the distributions where the mode cannot be determined, the measures τ_{25}, ξ, τ'' detect positive (or negative) skewness in correspondence and the measure α assumes both positive and negative values. Naturally, the measure τ' cannot be calculated.

The second aspect of our research was the evaluation of the selected measures of skewness in terms of their information competence and possibilities of their usage. In practice we can often find such situations in which the measures are not calculable or their values are evidently incorrect, i.e. the measures fail. The quartile measure τ_{25} fails in case when $\tilde{x}_{25} = \tilde{x} = \tilde{x}_{75}$ because then $\tau_{25} = \frac{0}{0}$, i.e. indeterminate expression – see [6, p. 59]. Though, a failure of this statistics is also evident in the situation when the relationship between quartiles is as follows: $\tilde{x} - \tilde{x}_{25} = \tilde{x}_{75} - \tilde{x}$ because then the measure indicates symmetry which does not exist in reality. At the same time, as we have mentioned above, this relation among quartiles is not rare.

The measure τ' which is based on comparison of the mean and mode points to symmetry of a distribution always when the mean is equal to the median. But this relation between the median and mean does not have to mean symmetry of a distribution. Moreover, the detection of mode which is necessary for the calculation can be impossible.

The measure τ'' based on comparison of number of values greater than the mean and less than the mean fails sometimes in situations when the relation $\tilde{x} > \bar{x}$ (or $\tilde{x} < \bar{x}$) is valid but the number of values greater than the mean equals the number of values less than the mean. Then, the measure indicates nonexisting symmetry.

The moment measure α relatively often indicates both positive and negative skewness in the situations which are completely the same in terms of the organisation of the mode, mean and median. This is the only measure based on all the values of a variable. It is a question if it is a positive fact. It is startling this measure usually assumes the different sign of its value in comparison with the other measures.

The results mentioned above allow us to say that each of the selected measures has its own weaknesses and limits. Therefore they fail in some situations or they are not detectable. Most of the failures consist in the fact that the measures indicate symmetry in distributions which are evidently asymmetrical, there is the only way how to correct this defect – to use other, more suitable statistics.

In the end we can say the greatest discrepancy appears while using the moment measure α which indicates in similar frequency distributions both positive and negative skewness. The measure τ' seems to be problematic too. The reason is the fact that the value of the mode is very idiosyncratic. The quartile measure τ_{25} and the measure ξ also show systematical defects but their advantage is their values are not under the direct influence of the mode so, their information competence should be better. We found the measure τ'' has the smallest defects. Its greatest advantage is completely clear and understandable interpretation, i.e. we know exactly how this measure detects skewness. While studying skewness of a distribution, it is necessary to make our expectations from the measure of skewness clear and proceed according to these expectations.

Acknowledgements

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MĚŘENÍ ŠIKMOSTI ROZDĚLENÍ ČETNOSTÍ EKONOMICKÝCH ÚDAJŮ

Tento článek je zaměřen na předložení a zhodnocení různých měř šikmosti, které se běžně uvádějí ve statistické a ekonomicko-statistické literatuře. Bylo zjištěno, že při jejich praktickém použití na konkrétních údajích dávají poměrně často protichůdné informace a nevedou k jednoznačným závěrům o šikmosti daného rozdělení. Byla provedena aplikace vybraných měř šikmosti na příkladech dat z konkrétní praxe a zároveň proběhly i simulace na smyšlených údajích. Bylo zjištěno, že v případě, kdy nastává mezi třemi nejdůležitějšími charakteristikami úrovně jeden z klasických vztahů $\hat{x} < \tilde{x} < \bar{x}$, resp. $\hat{x} > \tilde{x} > \bar{x}$, pak všechny uvedené míry šikmosti identifikují kladnou či zápornou šikmost shodně. V ostatních případech je třeba změnit standardní přístup k výpočtu těchto měř.

DAS MESSEN DER SCHIEFE DER HÄUFIGKEITSVERTEILUNGEN VON ÖKONOMISCHEN DATEN

Dieser Artikel ist auf die Beschreibung und Bewertung verschiedener Maße von Schiefen, die in der statistischen und ökonomisch-statistischen Literatur aufgeführt werden, orientiert. Es wurde festgestellt, dass die Verwendung dieser Maße mit konkreten Daten in der Praxis relativ oft zu widersprüchliche Informationen führt und nicht zu einem eindeutigen Beschluss über die Schiefe von einer bestimmten Verteilung führt. Es wurden bestimmte Schiefenmaße bei einigen Beispielen aus der Praxis berechnet. Zugleich wurden die gleichen Maße mit fiktiven Zahlen berechnet. In dem Fall, wenn unter den wichtigsten Lageparametern eine von den klassischen Relationen $\hat{x} < \tilde{x} < \bar{x}$ oder $\hat{x} > \tilde{x} > \bar{x}$ gilt, wurde festgestellt, dass alle genannten Schiefenmaße übereinstimmend auf die positive oder auf die negative Schiefe zeigen. In anderen Fällen ist es notwendig, die konventionelle Einstellung zu ändern.

POMIARY UKOŚNOŚCI ROZDZIELENIA CZĘSTOŚCI DANYCH EKONOMICZNYCH

Ten artykuł koncentruje się na prezentacji i oceny różnych pomiaru ukośności, które się często pojawiają się w literaturze statystycznej oraz ekonomiczno-statystycznej. Było stwierdzono, że w praktyce na specyficznych informacjach, może dać często sprzeczne informacje i nie prowadzą do jednoznacznych wniosków na temat ukośności rozdzieleni. Była wykonana aplikacja różnych pomiaru ukośności na przykładach danych z określonej praktyki i jednocześnie wykonana symulacja na fikcyjnych danych. Było stwierdzono, że w przypadku, kiedy pomiędzy trzema najważniejszymi cechami poziomu jeden z klasycznych zależności $\hat{x} < \tilde{x} < \bar{x}$, lub $\hat{x} > \tilde{x} > \bar{x}$, później wszystkie wspomniane pomiary ukośności rozpoznają pozytywną bądź negatywną ukośność identycznie. W innych przypadkach się musi zmienić standartową metodę do obliczania tych pomiaru.

THE (IN)SIGNIFICANCE OF DOMAIN NAMES FOR E-COMMERCE

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Abstract

The 21st century society together with its global market relies heavily on using information and communication technology and on employing e-commerce. Well established and regarded academic and practical opinion streams proclaim the heavy importance of e-commerce on current business. No doubt e-domiciliation has a technical significance. However, the impact of the verbal transcription of an e-address, a domain name, for e-commerce and its success is yet questionable. This issue requires interdisciplinary study and comparative analysis reflecting business reality, legal framework, behaviour patterns, consumer choices, national particularities and industry specifics.

This paper researches and summarizes the underlying setting, concepts, functions, and attempts to analyze the features, role, and function of domain names from a Czech, European, and even global and super-temporal perspective and link it to the manner and success rate of e-commerce. Various surveys, data collection and case observations are linked to published opinions in order to be compared, contrasted and if possible reconciled. This leads to a number of conclusions reflecting the ultimate goal. This is to enhance awareness about differences in perception of various types of domains based on the origins of business and customers as well as involved industry branches. From both business and consumer perspectives, the recognition of the significance of domain names for e-commerce and the interaction between the business itself, its intellectual property portfolio, domain and domain name is on the rise.

Keywords: Domain name; Top Level Domain (TLD); Internet; e-Commerce.

Introduction

Today, any successful business conduct requires using various approaches, strategies, and techniques. With the advent and increasing use of the Internet, the e-form becomes more or less compulsory for businesses. Naturally, businesses can, and probably should, develop other forms, including the maintenance of brick and mortar stores. As available data and professional and semi-professional publications strongly advocate and advise for facilitation for online shopping, then e-domiciliation is more or less a must. Yet what is the role and importance in labeling such an e-address? Do businesses need to just have domain availability or do they need to have a very particular domain availability?

If strictly sociological and technical aspects are left aside, then the question of the (in)significance of domain names for e-commerce can be approached by combining a comparative, function-systematic, and narrative analysis with a touch of the Socratic method while addressing a set of critical topics and issues. The starting point is the determination of Internet, e-commerce and their importance (1.) followed by the description of the nature and functions of top level domains and domain names (2.). Then can be scrutinized the potential of domain names to support or undermine e-commerce (3.). This information and analysis is projected to the real business scenery from the business (4.) as well as the consumers' perspective (5.) with a particular focus on the Czech Republic. The emerging significance of

domain names for e-commerce is further supported by additional statistics and data (6.). Naturally, recommendations and suggestions for deepening and extending of the study in this field are offered as well. Thus the ultimate conclusions are just a first step on the way to place domain names where they belong - in the very heart of the e-commerce.

1 The Internet, e-commerce and their importance

Today's society, very reliant on information technologies, increasingly stresses the correct use of the Internet for business conduct, globally [11]. The Internet is a net of nets, probably the most important net is the World Wide Web (www). The access of computers or other information technology devices is organized via the hierarchy of domains [18]. In the virtual Internet space there are large domains (TLDs) and each of them is further divided into sub-domains (second level domains), sub-domains of sub-domains (third level domains), etc. [10].

Technically, the Internet is a global, worldwide and free connection of network knots through computer networks. These knots are personal computers designated for access to the Internet, server computers for hosting sites and even Internet sites, websites, as such. Each knot has its own unique numeric code address determined by protocols - Transmission Control Protocol (TCP) an Internet Protocol (IP), i.e. TCP/IP and the Domain Name System (DNS) allows the use and conversion of a verbal transcription of a domain IP numeric code address. Currently, two protocols and their combination are used – IPv4, IPv6 and IPv6 Dual. The use of a numeric code version of an e-address is most impractical and not very consumer friendly. Therefore, DNS offers a conversion system translating the numeric code version of an e-address, into a verbal version, a domain name. A set of *prima facia* meaningless numbers is converted into a set of letters and numbers able to have a meaning and thus easy to memorize.

Business is conducted within the global and unified, or at least standardized and protocol-formatted, Internet space distribution. As a result, e-presentation, e-marketing and e-shopping are now vital hallmarks of current businesses. A broad definition of electronic business, e-business, would be conducting business with the assistance of telecommunication and telecommunication-based tools [4]. Electronic commerce, e-commerce, is generally known as one rather fundamental phase or level of electronic business, e-business, which entails electronic sales. Thus, e-commerce involves an exchange of data related to ordering, selling and generally completing business transactions increasingly important to conducting business. The volume of business transactions via the Internet has rapidly increased while the value of goods, services, and information exchanged through the Internet appears to be annually doubling or even tripling [20]. The potential of e-commerce to facilitate operations, increase revenue, and lower the cost and consequently stimulate strong economic growth is great [13].

Thus, it's very instructive to study e-business, to see and judge its basic levels: www presentation, e-commerce, integrated services of e-commerce and e-business conduct. E-commerce can really impact actual results of a business and definitely should be considered when addressing current critical business issues. Today's business should master "e" format, taking advantage of connecting the business strategy with new technological elements. Notably, most Czech businesses recognize the e-mandate and can be designated e-businesses with an e-presence, yet often they remain only at a basic level, not offering integrated services of e-commerce nor achieving e-business conduct. They do not have a faithful e-clientele, ultimately the e-commerce constitutes only over one quarter of their total sales [2].

2 The nature and functions of top level domain and domain names

Every Internet domain is unique and every domain name must be different from every other one. The longstanding practice of domain name registries is based on the acceptance and

processing of domain name applications on a first-come, first-served basis without any deep (or even at all) consideration of the legitimacy of the applicant to file such an application [1]. A domain name is a unique translation of a numeric code address pursuant to IPv4, IPv6 or IPv6 Dual. It is mainly a unique designation of an IP resource in verbal form, i.e. a verbal ID of a personal computer, server computer or website, with a clear and pre-determined tree structure, with a several letters formation separated at least by one dot. The sequences of a domain name goes from most specific to most general, i.e. the first letters in the formation, placed leftmost, concern a concrete computer and the last letters formation, at the very right, concerns a large group of computers, networks and websites – a top-level domain (TLD).

Traditionally, TLDs are grouped and categorized into two types – generic (international) TLDs (gTLDs) and country code, national, TLDs (ccTLD). The ending abbreviation of a gTLD will indicate the orientation and specialization of lower level domains appertaining to this gTLD, such as „.com“, „.org“, „.net“, „.edu“. However, if the concerned party prefers a classification pursuant to the country of origin more than the classification according to the specialization, then it can opt for a sub-domain within a TLD of a particular state – ccTLD, according ISO 3166, e.g. „.cz“, „.de“ or „.uk“. In 2012, the namespace consisted of 22 gTLDs, 250 ccTLDs and 30 international ccTLDs, each operated on a different model [12]. Yet due to the launch of the possibly revolutionary project of new gTLDs tailored on demand, i.e. allowing creative TLDs to anyone satisfying the requirements and paying the USD 185 000 fee, the scenery has been greatly modified in the last months [21].

Obviously, DNS and domain names were launched primarily due to a technical need. However, in the course of time it has become clear that the virtual and intangible domain name is not a mere facilitating instrument without value or just with a nominal value. Domain names have the potential to perform a multitude of functions with an impact on e-commerce. Primarily, a domain name is a consumer friendly verbal transcript of an original numeric code generated based on the used IP with a rather weak per se impact on e-commerce. Secondly, the domain name is similar to a business billboard [19] and thus it can be an address device, and also a marketing device and as such has a noticeable impact on e-commerce. Thirdly, the domain name somewhat overlaps with the trademark. The trademark is a collection of customers' perceptions associating the source and the product with the purpose to distinguish the goods and services from one source, to strive for customer loyalty, and to attract new customers [6]. The closeness of the domain name to the trademark leads to the potential of a domain name to meet the famous six criteria by Keller (memorable, meaningful, popular, portable, adaptable, and protection potential) [9] and become an instrument linking information and emotions, thus influencing e-commerce. Fourthly, the domain name is a key word reference and the development of browser and search engines along with the possibility to arrange for a top placing gives a new dimension to this originally overlooked aspect.

Every domain name has a pre-dot part referring to the sub-domain and post-dot part referring to the TLD. In other words, the e-address consists of a numeric or word reference pointing to the relevant TLD (a pre-set few letters behind the dot) and sub-domains (a creative conglomerate of letters before the dot). The key duty of the post-dot part of a domain name is identifying the pertinent TLD as a small sphere within the bigger Internet sphere. All domains registered under a TLD are labeled by domain names with the same few letters after the dot. Each TLD has its own regime with advantages and disadvantages, so there is no clear best TLD for business conduct and the selection of the TLD matters for business. The (in)significance of the wording of the part of the domain name pointing to sub-domains within a certain TLD appears to be arguable and complex. Unlike the post-dot part indicating the pertinent TLD and its regime, the pre-dot part does not imply a certain framework.

The significance of domain name wording for e-commerce is even more questionable. It has not yet been established whether the pre-dot part of a domain name and/or the post-dot part of domain name and/or the domain name as such in its entirety have direct or indirect impacts on the e-commerce. In addition, the role and functions of domain names have changed similarly to those of a trademark and it can be suggested that a domain name can have a symbolic meaning. Thusly, further studies, researches, and analyses in this respect should be conducted.

3 Economic and legal aspects of the domain name's potential impact on e-commerce

The e-status and e-activity of a business can be examined while focusing either on form (the e-domiciliation of the business per se – its domain name) or on content (the substance of the www pages and their functions). Domain names have become valuable information commodities, generating disputes, even positive law starts to recognize it, attempting to regulate it [14]. These attempts are more on the level of national law rather than international law, the lead taken in the USA, the EU, and Finland. Thus the backbone of the regulatory framework of domain names consists of intra-related and pre-formed Private law contracts [10]. The Czech re-codification of the Private law changes the definition of a thing (as opposed to a person), modifies the reach of ownership rights, and it (definitely) places the protection for and against domain names in the field of law against unfair competition [19].

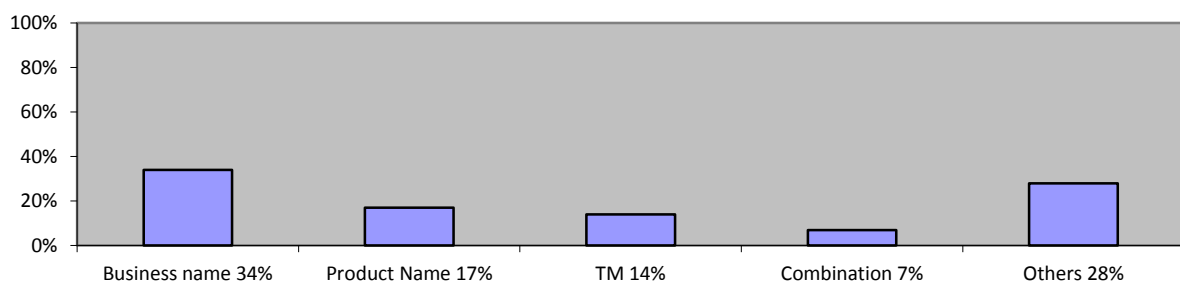
The uniqueness and implied identification role give an import and heavy potential to domain names. There are no two identical domain names within the Internet and there are no two unrelated parties using a domain name. Uniqueness doesn't imply business success, rather a chance to build it. Statements like *The domain name registration is the most crucial task amongst other tasks for you to conduct your business online* [5] correctly implies selecting and registering a domain name is the starting point, but overestimates its future impact.

The technical and economic conclusiveness of domain names clashes against legal positivism. Experts have unsuccessfully tried to put a domain name within conventional categories of assets protected by law. Some of them even felt that domain names aren't classic immovable-movable assets nor intellectual property assets and so don't have the objective right protection regime – *in rem* (such as ownership rights) and can at most be covered by the subjective and freely negotiated right protection regime – *in personam* (such as claims from a contract). In addition, there is an opinion stream trying artificially to separate the inseparable, the tangible and intangible aspects and elements of current reality and create a special Internet law for these issues, probably including as well domain names. Yet, after broad legal and philosophical analyses, it ultimately leads to an admission despite the substantial changes in contemporary society by the Internet that the fundamentals of law do not need to be revised [14].

From a practical angle, inaction, if not denial, in recognizing domain names' potential impact and importance contradicts the practical reality of current society. The lessening of the role, functions, and importance of a domain name may be reconciled with some archaic approaches to business, but definitely not with economic premises and social mandates of the 21st century. It is pointless to excessively dwell over the classification of domain names within conventional law categories. Rather, the observation of the current *modus vivendi* should be honoured. There is solid evidence that the domain name has the potential to have a significant value and to be a rapidly growing economic commodity and a valuable element of enterprise with a possible fair market value exceeding millions of EUR and USD [10].

4 Domain names established impact on e-commerce from the businesses perspective

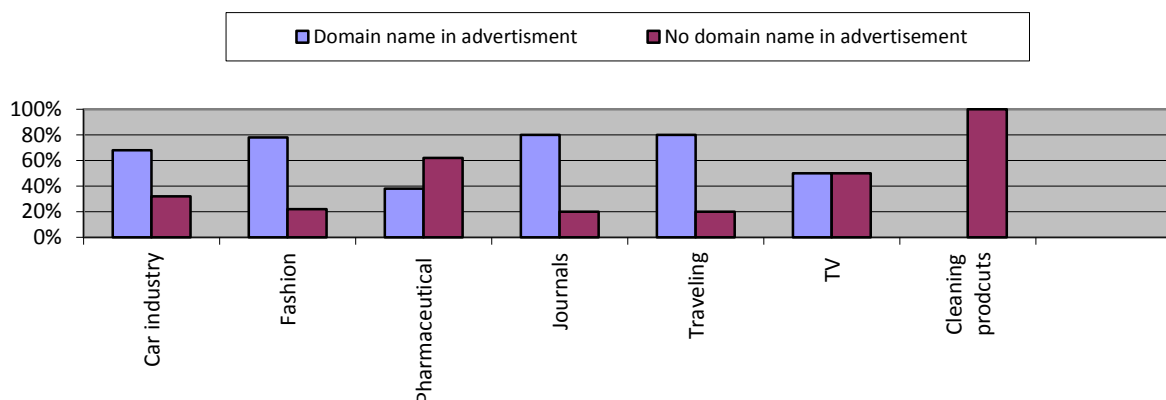
Creating and maintaining a domain labeled by a domain name is a long process requiring time, effort and expense. Despite certain technical limitations due to the IP functionality and required uniqueness of a domain name, there remains much space for discretion and for one's own personal preference manifestation. Businesses are aware that their domain names are their unique and hopefully longstanding not only addresses, but as well references. This is instrumental for their self-presentation and for attracting and maintaining the clientele. Due to the virtually and intangibility of e-commerce, an established "guaranteed" marking can be critical, or at least businesses appear to believe in it. Almost all businesses in the EU and in the USA have established their e-presence on the Internet and have at least one domain name. German businesses, in particular, perceive their domain name as a key for their identity, thus their domain names mirror their business name, i.e. the business designation registered within the Commercial Register is often copied into the domain name [15], as shown in Fig. 1.



Source: [15]

Fig. 1: Composition of the pre-dot part of a domain name

Statistics from business and industry support general conclusions of the link between domain name and business name. Other factors able to become a part of a domain name or shape it are the designation of the business key product and key trademark. Less influence is held by indicating the line of business, the business association membership or just creativity leading to fancy labeling [15]. Combining these elements, e.g. business name plus Trade Mark (TM), is rather rare, perhaps due to the desire to keep the name "short&sweet" and thus consumer friendly. The domain name is a tag used for e-commerce communication, but the domain name potentially can serve as an element in marketing and advertising campaigns especially in certain businesses branches, e.g. banking, financial, insurance, etc. [15] as shown below in Fig. 2.

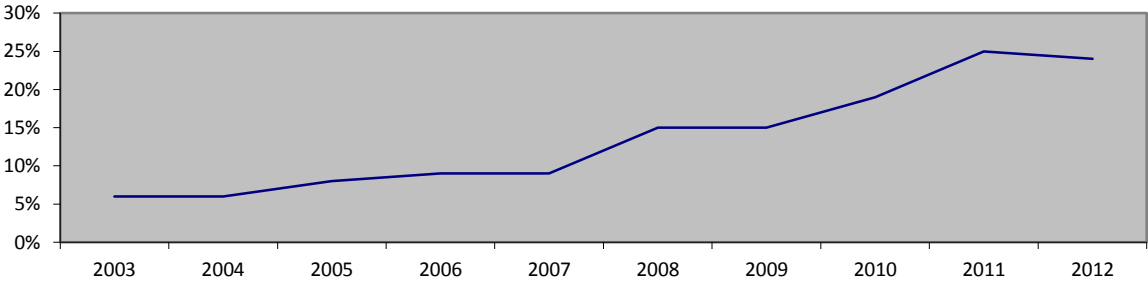


Source: [15]

Fig. 2: Use of domain names in marketing and advertising

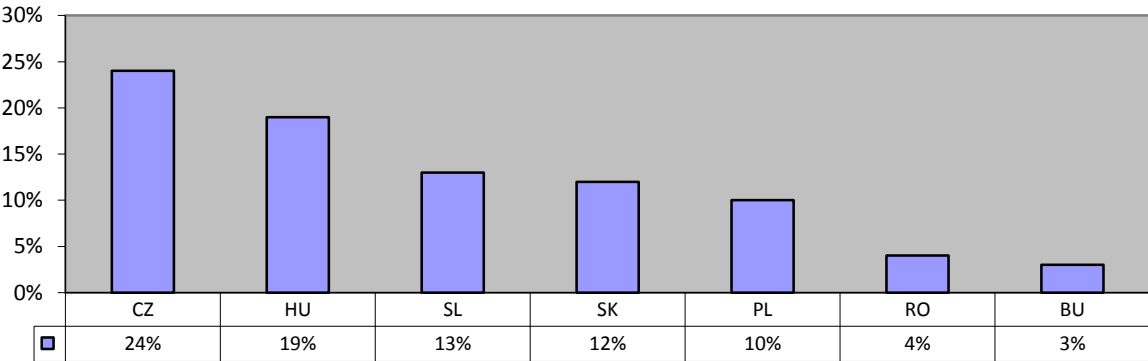
The collected data suggests various strategic management styles and different levels of employment of domain names for business conduct. Some businesses make their domain names an integral part of their business conduct and use it for e-commerce transactions as well as for Public Relation purposes, other businesses are more conservative and opt only for the use of domain names as a designation of the platform for e-commerce. Finally, there are businesses avoiding the Internet, or at least e-commerce. Regarding the first group, businesses embracing new technologies and including domain names in their business plans, strategic and operational management, one can discuss the manner of processing. Either domain names are created to fit into the strategically planned advertising and marketing endeavors of the particular business, or the domain name shapes the wording of advertising and marketing. Naturally, other factors should be taken into account, such as the possibility to be found through search engines or the (in)appropriateness to be presented in the Internet setting.

However, ultimately businesses consider their turnover, sales and profit. In this respect, the Czech businesses clearly increase their e-commerce, not lagging behind businesses from other members states, as illustrated by the data from Eurostat. In other words, currently over 20% of sales of businesses with more than 10 employees are done in the Czech Republic by e-commerce and this exceeds even the average for the entire EU, which is just 15% [22] as shown below in Fig. 3 and Fig. 4.



Source: [22]

Fig. 3: E-sales by Czech businesses with more than 10 employees



Source: [22]

Fig. 4: 2012 e-sales by businesses with over 10 employees from selected EU member states

The growing popularity of e-commerce in the Czech Republic is shown by the strong Czech customer drive to find the best (cheapest deal) on the Internet and can be contrasted with an e-commerce indifference in other member states accessing the EU in or after 2004.

Most businesses know that domain names in the entire wording perform various functions and aid in their e-commerce. They know that the post-dot part of a domain name is mainly a regime indicator and source of general orientation, the pre-dot part has a strong marketing and self-image potential to be expanded on. This common perception and awareness by business is clearly shown by prices for transferring a number of domains and their domain names belonging to the TLD Number 1 for business, TLD.com, which have several times exceeded one million USD in recent years [5]. Naturally, this is just the tip of the iceberg, and many deals and sales are confidential, or at least the amounts of negotiated and paid prices are.

Due to the first-served concept of domain name registration, businesses have formed several strategies to address a situation when their favourite domain name is already taken and they can't or don't want to buy it or litigate for it or against it. To these strategies belong the hyphenating, adding numbers, or incorporating the post dot TLD reference part in the wording for consumers [15]. This can be shown via a hypothetical case of a Telecom company from Germany unable to offer their products and services through telecom.com or telecom.de, and so moving to t-e-l-e-c-o-m.com or 123telecom.com or tele.com. The level of creativity is high, but the ultimate judge is the consumer who is inclined towards name simplicity.

In sum, businesses do care and expend much time and effort to phrase the pre-dot part of their domain name and to fight for it and against it, they definitely recognize the business significance of the pre-dot part of their domain name and are prepared to pay for it. The very wording depends upon the industry involved and generally tends to mirror the business name, or in certain cases, to reflect the line of production or the very product.

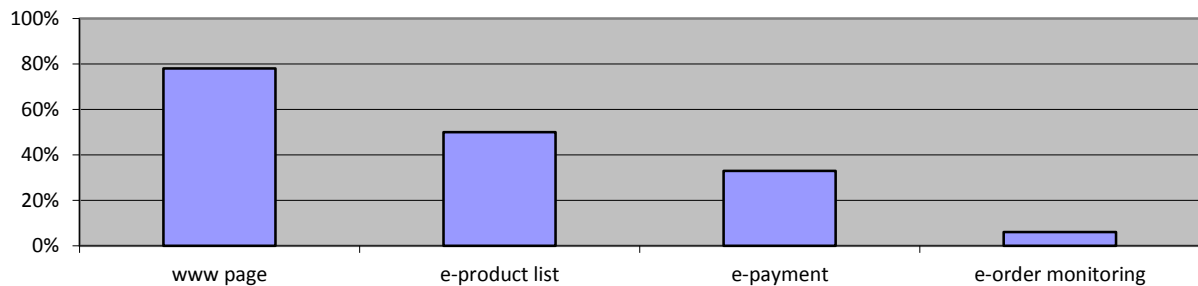
5 Domain names established impact on e-commerce from the consumer's perspective

Empirical results show that the readiness to use the Internet highly depends on the relevance of information available and ease of operations. Thus, consumer's interest in e-commerce chiefly depends upon their level of mastering Internet use and their individual evaluations of the value of goods, services, and products offered [17]. Consequently, consumers engage in e-commerce when they understand it and see it as a venue to get a better deal.

Consumers' behaviour and appreciation of domain names with respect to e-commerce seems to show even bigger differences than the attitude by businesses. The perception and acting of consumers, as potential customers, in this respect significantly varies upon the social group and country of origin. Even within the EU, we can observe these variations and different patterns pop up, suggesting that not all consumers endorse the business self-proclamation drive through domain names mirroring business names.

From an EU consumer's view, the two big benefits of e-commerce over traditional shopping are related more to the process than to the result, i.e. home comfort and ability to shop anytime. But Czechs observe other gains, the chance to get a cheaper price, to master the timing of selection and purchasing, larger selection, and the ability to view feedback from other buyers [20]. Maybe 'brick and mortar' overpricing and poor customer care have not completely disappeared from the Czech Republic, but consumers don't want to tolerate it, and gladly embrace other options, such as e-commerce. The domain venue seems to help Czech customers avoid a major shopping annoyance, being disturbed by rude shop assistants. Though most EU consumers start on-line shopping by visiting the www pages of the selected business individual or entity, under the domain name which probably sounds like business name, Czech consumers go for "best deals/ sale" using online comparative search engines [2]. In the Czech republic, over 25% of sales come via e-commerce and more than 78% of businesses have (access to) the basic platform for e-business, the www pages. Yet Czech

businesses seem reluctant in the use of their www pages, as less than half of them have on their www pages their products/services price list, one third of them accept online payment by customers and just 6% of them offer monitoring the status of the order placed by customers [2], as shown below in Fig. 5. Sale portals like Vypkupto.cz or Slevomat.cz are exceptions, confirming the rule about a weak readiness for e-commerce in the Czech Republic. That half of the Czech adult population explores sale portals comes from the big drive of Czech customers to get the best prices, seen as the lowest price, making concessions regarding quality and loyalty. Thus, the eagerness of Czech customers towards domains of comparing and sale portals can mean the insignificance of domains of other businesses pursuant to Czech customers.



Source: [2]

Fig. 5: Level of e-business by Czech Businesses

Actually, 49% of Czech consumers do e-commerce mostly searching through price comparing pages and media and 92% of Czech consumers at least sometimes use them. Czech consumers seem to care little as to what domain under what name they finally land to make a purchase. The wording of part of a domain name is stripped of a number of its functions, “degraded” to serve just as an address where reportedly the goods or services can be bought for the lowest price. This is an extreme example within the EU consumer basis, since the rate of consumers from the entire EU using the price comparing search engines is only 27% [2].

This apparent discrepancy can be explained disparately. Czech consumers are open to make bigger concessions concerning quality versus price in order to reach the cheapest price than consumers from the rest of the EU. Considering functions of domain names, it is worth noting that after a huge campaign and heavy promotion, 60% of Czech consumers give occasional priority to goods marked with the trademark for quality, i.e. Klasa or Czech made, while just one fifth of them frequently buy such products. The significance of such branding increases with the age of consumers, but in no one age group it becomes the critical factor [6].

Czech consumers do care about domain names, but research has not yet established it. Perhaps they really don’t care about domain names and don’t wish to spend time checking individual domains of businesses, extract information including data about price, and conduct a comparison by themselves. There is an issue of a lack of loyalty and respect on both sides. Perchance the Czech businesses are behind in their use of domains and domain names. There are more questions than answers, and taking into consideration the importance of e-commerce, it would be very instructive to identify the underlying problems and address them.

With consumers various views on the import and impact of the domain name on e-business, a statement about the (in)significance of domain names for e-commerce from the consumers perspective should be diversified, i.e. a set of statements and evaluations should be presented.

6 Domain names established impact on e-commerce – evidence by statistics

Any investigation concerning an intangible and virtual asset, such as a domain name, and its (in)significance for e-commerce within a postmodern information society should definitely entail data about the current use of domain names. Thus, the above-developed presentations about the general significance of domain names for e-commerce from the businesses' perspective and the diversified (in)significance of domain names for e-commerce from a consumer perspective should be completed by the objective data about domain name use.

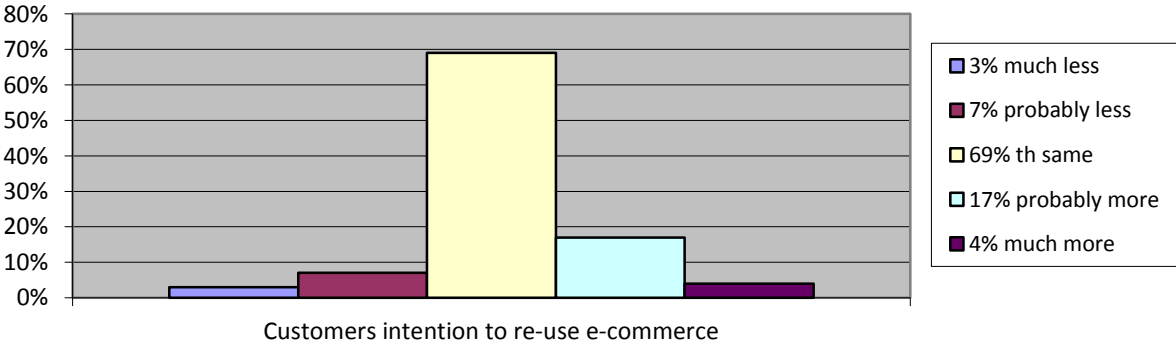
First, it should be stressed that most domains and domain names aren't used and so cannot be significant for e-commerce. More than 50% of domain names aren't used and don't lead to a functional www page, at least 90% of domain names have no potential to become an asset that can be commercialized at all and 99% of domain names cannot be negotiated for significant amounts [7], so only 1% of domain names are able to be sold for large amounts of money. At the same time, if a domain name is not for sale or is not for sale for a lot of money, it still does not necessarily mean that it is worthless and without an impact on e-commerce.

Secondly, regardless of the economic crisis, domain names auction and selling houses are busy, the largest one, Sedo, offers over 13 million domain names [7]. There are instances of the payment of millions of USD and EUR for domain name transfers, mostly for domain names with the post-dot part “.com”, but this information should be completed by learning of the impact of the transferred domain name on the e-commerce of the transferee.

Thirdly, domain names factor in the evaluation of the intellectual property portfolio of a business and it is a 'given' that the value of the intellectual property constitutes the biggest value of an enterprise. Nevertheless, there is an ongoing debate about the objectiveness, correctness and exactitude of these expert appreciations.

Fourthly, domain names are close to trademarks which are inherently linked to the brand symbolism with functional and emotional significance. [6] True, domain names serve for the functional purposes, but they can be as well a source, if not instrument, of reassurance that the products offered and sold through such a domain name will meet some expected standards.

Fifthly, consumers increasingly use e-commerce, it is unlikely the trend will change (Fig. 6).



Source: [20]

Fig. 6: Customers intention to use e-commerce again

Sixthly, the number of TLDs and domain names grow; their use is expanding, taking various faces. As the e-business world flexibly develops to address consumer's new needs and interests, the domain world promptly follows. There are strong indications that TLD.com has achieved a strategic advantage, which competitors cannot attain [16], and should maintain its leading position as the best general TLD for business conduct, including e-commerce. Yet,

the TLD scenery should be shaken by a small revolution, new gTLDs, which might be followed by a big revolution, such as substituting the DNS by another system, e.g. a system based on key words [16]. Another unknown in this respect is the issue of the impact of social nets, such as facebook, which already now are an immense reference platform for consumers.

Each domain name is unique in its wording as well as in its impact, importance, and value. To some extent, a domain name is just a form label which reflects the content, the business *per se*. The answer to the question about the (in)significance of domain names for e-commerce depends not only upon the businesses and customers, but as well upon the domain name itself.

Conclusion

E-commerce is a hallmark of our post-modern society and successful business conduct depends strongly on its appropriate use. The arena for e-commerce is the Internet, composed of large domain TLDs, with many small sub-domains carrying domain names. Each domain name has two parts separated by a dot, the pre-dot is a more or less a free creation and the post-dot is a pre-set reference to a TLD and thus an indicator of the pertinent regime. A competitive advantage in Internet business can be achieved only if critical elements and requirements are met and it can be legitimately suggested that the wording of a domain name is instrumental for e-commerce. Domain names seem to be capable to play a vital interactive role and can shape the business and the business can shape them.

There are small differences in the perception of the impact of domain names on e-commerce from the perspectives of businesses. The analysis of collected and compared data as well as the mere observation demonstrates the common tenor of businesses which endorses the significance of domain names for e-commerce. Naturally, this applies only to correct business with correct domains labeled by correct domain names.

There are large differences in perceiving the impact of domain names on e-commerce from the perspective of customers. There are variations based on the considered industries, nationality and social group of customers. Generalizing is misleading and the fact that 99% of domain names do not have a recognized high monetary value does not mean that they are worthless addresses without significance for e-commerce. Domain names are assets *sui generis*, they are definitely part of the intellectual property portfolio of a business and can even be the most precious element of an enterprise. Some domain names have reached the status of a billboard or even a trademark. A number of domain names have been registered as trademarks and many domain names mirror trademarks. This suggests that domain name wording is critical not only for e-commerce and imaging of businesses but also for the intellectual property portfolio of the business itself. A domain name is a tool to build up and shape promising business, but it is extremely rare that just the wording of a domain name *per se* would insure a long standing competitive advantage.

Thus more research should be done, more scientific data brought into this rather intuitive area. Businesses and customers need to learn better the concept of domain names and their potential to be well informed and to take advantage of today's e-commerce. The 21st century society and its global market are unimaginable without e-commerce and, more than ever, a successful e-commerce is hardly imaginable without an appropriate domain name strategy.

Acknowledgement

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(NE)DŮLEŽITOST DOMÉNOVÝCH JMEN PRO E-COMMERCE

Společnost 21. století s globálním trhem jsou silně poznamenány informačními a komunikačními technologiemi a jejich využitím. Internetový prostor se stal arénou pro nový způsob podnikání – konkrétně e-commerce. Není pochyb o tom, že e-domiciliace má technický význam. Nicméně vliv doménového jména na e-Commerce a jeho úspěšnost zůstává sporným. Tento článek předkládá interdisciplinární studii a reflexní analýzu ohledně charakteristických rysů a vzájemného ovlivňování mezi doménovými jmény a e-commerce z národního i globálního, podnikatelského i zákaznického pohledu. Toto vede k dílčím závěrům stejně jako další diskusi a podnětům pro další výzkum. V každém případě důležitost doménových jmen pro e-Commerce se stává čím dál zjevnější.

DIE (UN)BEDEUTUNG DER DOMAIN NAMEN FÜR DEN INTERNETHANDEL

Die Gesellschaft des 21. Jahrhunderts mit ihrem globalen Markt ist stark durch die Informations- und Kommunikationstechnik gezeichnet. Der Internet-Raum ist eine Arena für eine neue Art der Geschäftsführung, nämlich den Internethandel, geworden. Es gibt keinen Zweifel daran, dass die e-Domiciliation eine technische Bedeutung hat. Jedoch bleibt die Auswirkung des Domain-Namen für den E-Commerce und seinen Erfolg fraglich. Dieser Artikel legt eine interdisziplinäre Studie und eine reflektierende Analyse über die charakteristischen Zeichen und die reziproke Auswirkung zwischen Domain-Namen und Internethandel aus der sowohl nationalen als auch globalen Geschäfts- und Kundenperspektive vor. Dieses führt zu einigen Schlussfolgerungen sowie auch zu weiteren Diskussions- und Vorschlagslinien für zusätzliche Forschungen. In jedem Fall scheint die Anerkennung der Bedeutung von Domain-Namen für den Internethandel immer mehr an Bedeutung zu gewinnen.

(NIE)WAŻNOŚĆ NAZWY DOMENY DLA HANDLU ELEKTRONICZNEGO

Spółeczeństwo XXI funkcjonujące na globalnym rynku znajduje się pod dużym wpływem technologii informacyjno-komunikacyjnych oraz ich wykorzystywania. Przestrzeń wirtualna stała się areną nowego sposobu prowadzenia działalności - a mianowicie e-commerce, czyli handlu elektronicznego. Nie ma wątpliwości, że e-rezydencja ma znaczenie techniczne. Jednak wpływ nazwy domeny na handel elektroniczny i jego sukces pozostaje kwestią sporną. W niniejszym artykule przedstawiono badania interdyscyplinarne oraz analizę refleksyjną dotyczącą cech charakterystycznych oraz wzajemnego oddziaływania pomiędzy nazwami domen a e-commerce z punktu widzenia krajowego i globalnego, jak również z punktu widzenia przedsiębiorcy i klienta. To jest podstawą do sformułowania cząstkowych wniosków oraz podjęcia dalszej dyskusji i kontynuowania dalszych badań. Ważność nazw domen staje się w każdym razie dla handlu elektronicznego coraz bardziej odczuwalna.

EURO CRISIS FROM GERMAN AND FRENCH PERSPECTIVES IN 2013

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Abstract

After a very short time of the “Golden Age of the Eurozone” hard times have arisen for European integration. They revealed cracks in the very foundations, and (until then) hidden thoughts and opinions of key players in the EU arena. Recent emotions and different levels of a sense of obligation to deal with current problems seem to divide instead of bring together the big DUO, the Eurozone’s traction force, and even the EU itself. It should be noted that European integration after the Second World War was a product of the combination of French and German ways of thinking. In 2013, it seems that this purpose-built duality is falling apart. The aim of this paper is to research and analyze several aspects and elements of the Franco-German polarity relationship to the Eurozone scenery. Observation and comparison leads to a number of surprising results, which are supported by the data.

Keywords: Eurozone, Crisis, Integration, Export, GDP.

Introduction

France and Germany were two of the main architects of the various treaties and accords which gradually led to the formation of the EU. Though ancient rivals, as the two ‘central powers’ in the alignments that would become the EU, the French leaders, such as Mitterand and Giscard d’Estaing, were able to treat their vis-à-vis Schmidt and Kohl as good friends. In the prosperous times that preceded the crisis of 2007, they helped form a mutual admiration society, French and German leaders and other functionaries working hand in hand with each other, the two powers conniving to ‘set the agenda’ prior to any EU summit. Yet inlaid differences, such as attitudes towards work and promoting private enterprise, between the two countries would tend to take on added emphasis when the EU fell into hard times. How have these two fared since? The problem of the assessment of the complex relationship of France and Germany (1) can be framed and developed with the employment of the appropriate methodology focusing on the identification, description and analysis (2). The presented data and problem solving suggestions (3) deserved an interdisciplinary discussion (4) which should result in a conclusion wrapping the presented thoughts and putting them into a general setting.

1 Statement of a problem – assessing the relationship of France and Germany

With the 20th century having been devastated by two World Wars, the Cold War, the Depression, Fascism, Communism, and persecution of the Intelligentsia and Jews and Christians, leaders of exhausted ‘Middle Europe’ understandably felt that a spirit of cooperation, working together, could prevent future conflicts, “The Golden rule in action”. Thusly, for over 50 years now, leaders in Germany, France, Italy and other countries have been proud of their peaceful growth and co-existence, following America’s jump-starting the re-building process through the Marshall Plan.

As economies continued to flourish, the European Monetary Union was introduced by the Maastricht Treaty 1991/1992, one of the pre-conditions set by France for West Germany's unification with East Germany. The ‘Euro’ currency was introduced in 1999, taking physical form in 2002. Besides being a symbol of political unity, it was predicted that the common

currency would increase cross-border competition, lower import-export costs, and lead to price stability, among other benefits. In addition, it was felt that the common currency would help stimulate progressive convergence between member states.

While many of the micro and macroeconomic goals were attained, it soon became obvious that real convergence had not occurred in all member states, and that even the majority of member states were blatantly violating the EU stability and growth pact, which was insisted upon by German finance minister Theo Waigel. Though popular perception would place Italy, Spain and Greece as the guiltiest culprits, France and Germany were also among those caught violating their own rules. How have the two allies responded?

2 Methods

The bundle of European integration issues around the single-common currency and its area and era, the Eurozone and Euro crisis, needs to be approached and addressed with appropriate scientific methods. These predominantly investigating techniques must be deployed in an open-minded form, as this strongly interdisciplinary topic and stated problem cannot rely just on conventional ways of acquiring and processing information. There is an abundance of data and evidence, but it is not always empirically measurable and sufficiently objective. As a matter of fact, the key point in the study of the Eurozone (object) is the standpoint of the examiner (subject), thus inevitably the two strongest players - France and Germany - present a different, often hard to reconcile, analysis. In other words, there seem to be two leading sets of hypothesis, analysis and conclusions – the Hollandism vs. Merkelavianism.

The ultimate methodological selection for the stated problem led to the employment of scientific procedures of identification and description while using an abundance of resources, including strictly academic papers as well as press releases and newspaper articles, along with the observation of the general economic setting and available economic data. The analysis is predominantly functional and comparative with analogy elements. Both inductions and deductions are used as appropriate.

3 Data and problem solving

The political and economic European integration was set in motion following the Schuman Declaration based on three treaties in the 1950s, the Treaty of Paris establishing the European Coal and Steel Community (ECSC) and by the Treaties of Rome establishing the European Economic Community with a common market (EEC) and the European Atomic Energy Community (Euratom). The European Court of Justice (ECJ) was among the institutions formed and recognized by all of them for all three communities. The ECJ was able to change the Treaty of Rome establishing the EEC into a constitution and laid down the legal foundations for European integration, especially in the economics field. A driving factor for European integration was to strengthen the economic cooperation between Germany and France so as to prevent future conflicts in Europe [16].

There followed a number of other treaties, including the Treaty of Maastricht establishing the EU with a single market or internal market as well the expansion of the membership to 15. Things seemed to be going well, with positive prospects for European integration. Yet the future was not sanguine, but for various reasons many inside, as well as outside, players decided to overlook danger signs, or at least did their best to minimize them. Therefore, instead of an in-depth and careful implementation of ongoing legitimatization of the supranational approach and legitimate monitoring of the true willingness and preferences of the European citizenry, an overly positive picture was painted, drowning out any dissent. The five decades of European integration were thus described as glorious and successful, the EU

praised as vitally contributing to prosperity, democracy and security in Europe and its enlargement policy as a wonderful instrument of foreign policy. Inevitably, it was decided that such a splendid achievement should be delineated in a solemn constitutional format, making it more defined, official, and illustrious (and also reflecting on the glorious leaders). Thus, the preparation of the Constitutional Treaty started enthusiastically but then became an aborted attempt to be substituted by the reform treaty of Lisbon significantly changing the Maastricht Treaty on EU (TEU) and the Rome Treaty on EEC, becoming the Treaty on the Functioning of EU (TFEU) [16].

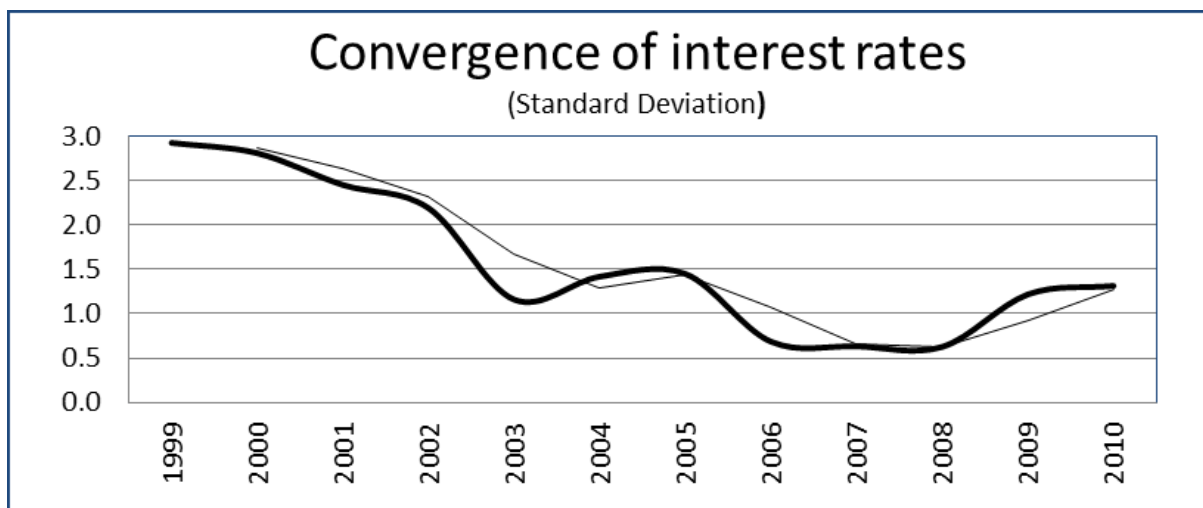
The Economic and Monetary Union (the EMU) was dreamed up during 1988-1989 by a group of central bankers, presaging the Maastricht Treaty of 1991. Bankers would come to have an increasingly influential role in the future, as the European Central Bank (ECB) would be made up of 11 central banks charged with monetary policy. For those countries wishing to join the EMU, 'Convergence criteria', budgetary and monetary strictures, were established. The criteria rules applied to exchange rates, national debt, inflation, interest rates, size of budget deficits, with the UK and Denmark (officially) and Sweden (de facto) opting out.

A unified currency for Europe, less than 60 years after the Second World War, was highly significant, and also a sign of further integration among the member nations. The aim of growing cross-border trade, increasing efficiency in financial as well as goods and services markets and reducing transportation costs and costs of doing business seemed well within reach. Another goal of the Euro was achieving price stability. However, it should have been clear to all that the 'great equalizer' of a common currency would lead to the more efficient and competitive manufacturing countries making inroads into those countries less well-organised. The business reality put these ideas, goals and expectations under the 'acid test', and the unfortunate outcome pushed the big EU duo into continued stress. These two close allies have presented divergent fortunes, with differing solutions ... and this has historic roots.

Two of the main proponents of the Euro, Jacques Delors, the French Head of the (in)famous EMU and EU creating Commission, and Helmut Kohl, German Chancellor during this Commission time, admitted, after the fact, that they each had a very weak background in economics, and it (eventually) showed. Interestingly enough, it was the same Jacques Delors, who two decades later bitterly stated that the Euro was flawed from the very beginning and, in referring to its creators, said "and now everyone must examine their conscience" [17]. Thus, according to the former architect of the single currency, the Euro was doomed from the start [12]. His suggestion about examining one's conscience has perhaps already been undertaken by himself [19].

The idea of a monetary union with no real fiscal union has proven to be harrowing. It was not put to a democratic vote of those who would be most impacted, namely EU citizens. As Economist Roger Bootle wrote, the Euro "...wasn't willed by the people but was rather thrust upon them by their leaders, without sufficient thought or preparation. They have created a monster which threatens to destroy the European economy – and with it, to threaten the world" [4].

However, in the short term, the Euro Zone's goal of price stability, while targeting inflation, quickly gained acceptance in financial and foreign exchange markets, bond markets rapidly became integrated, leading to a tightening together of government bond yields, the various countries' rates tending downwards towards well-regarded Germany's levels. The decrease of the deviation of the convergence of interest rates in the last decade is shown in the graph in Fig. 1.



Source: [2; 3]

Fig. 1: Convergence of interest rates

Apparent stability diminished currency risk, and financial institutions found it increasingly easy to borrow abroad. This led, in turn, to increased lending to the construction industry and housing sector, property values (temporarily) rose and debt increased. As the global financial crisis set in during 2007, however, bad bank debts and large governmental debts were exposed.

“Rules are made to be broken”, said General Douglas MacArthur. Although the Euro convergence criteria set by the Maastricht Treaty, i.e. the requirements to enter the third state of the EMU, include clearly the debt criterion of 60% and the deficit criterion of 3%, both France and Germany failed to meet them and thus do not satisfy Art.140 of the TFEU and the Stability and Growth Pact (SGP). As a matter of fact, both countries violated them soon after the signature of the SGP in 1997 and the same goes for almost all the other members of the Eurozone. These violations were constantly repeated and never resulted in any punishment, which only encouraged further transgressions [11]. “France has regularly broken the EU and Eurozone's 'golden rule' that budget deficits should not exceed 3pc of GDP annually, (with) a nonchalance that many believe helped sow the seeds of the current debt crisis” [20].

The real convergence does not occur in all member states. The regression modes, explanatory variable and dummy variables are statistically significant and for the period of 1995-2010 suggest that one of the slowest converging countries is Germany [13]. In this respect, the awareness about basic macroeconomic data about France and Germany is critical and thus is recapitulated in the following tables, i.e. in Tab. 1 for France and in Tab. 2 for Germany.

Tab. 1: Overview of France GDP, government deficit/surplus and debt in the EU

	2009	2010	2011	2012
GDP in million Euro	1 885 763	1 936 720	2 001 398	2 033 648
Government deficit	- 142 223	- 136 779	- 105 392	- 98 196
Ratio of annual deficit over GDP	- 7.5%	- 7.1%	- 5.3%	- 4.8%
Accumulated government debt in million Euro	1 493 385	1 594 977	1 716 887	1 833 810
Ratio of accumulated debt over GDP	79.2%	82.4%	89.8%	90.2%

Source: [2]

Tab. 2: Overview of Germany GDP, government deficit/surplus and debt in the EU

	2009	2010	2011	2012
GDP in million Euro	2 374 500	2 496 200	2 592 600	2 643 900
Government deficit	- 73 180	- 103 440	- 20 230	+ 4 090
Ratio of annual deficit over GDP	- 3.1%	- 4.1%	- 0.8%	+ 0.2%
Accumulated government debt in million Euro	1 768 919	2 056 089	2 085 181	2 166 278
Ratio of accumulated debt over GDP	74.5%	82.4%	80.4%	81.9%

Source: [2]

4 Discussion

Into this maelstrom, bolstered with Socialist fervour, with promises of increased social spending, avoiding austerity programs imposed by other EU nations and creating more jobs – at least in the public sector – came the self-proclaimed ‘normal president’, Francois Hollande. From the start of his taking power, the auguries were not propitious, as Hollande was drenched by a sudden rain squall at his inauguration, and later that day his jet was struck by lightning as he was making his way to Germany to meet with Angela Merkel. When he finally arrived at the Berlin airport, again in a downpour, he got lost on the airfield's red carpet reviewing the German troops, and had to be guided firmly by Mrs. Merkel's gripping his elbow, a sign of things to come.

Inasmuch as the leaders of Germany and France had, for many decades, together mapped out what the agenda would be prior to any EU summit, Merkel and Hollande were fated to work together...but that didn't mean that they had to like it, or respect each other. Before the French election, it was obvious that most EU leaders, Merkel included, hoped for the re-election of Hollande's predecessor, Nicholas Sarkozy, which did not bode well for Hollande's future relations with Merkel.

Early on, Mr. Hollande began distancing himself from austerity measures. Prior to the EU summit in October of 2012, Hollande attempted to ambush Mrs. Merkel by forming a ‘Mediterranean Front’ of France, Spain, Italy and Portugal to break Germany's hold on policy. His efforts failed ignominiously, Germany was annoyed, and Merkel began strengthening ties to the UK's David Cameron. Hollande and Merkel fought over supervision of national budgets, and according to a reporter present. “Such an open clash between the French and German leaders is rare at EU summits, a sign that Europe's landscape has changed radically since Mr. Hollande took power.” [8].

Breaking trust with the Germans was one of the least of Hollande's problems, however, as his unpopular raising of the top level of personal income taxes began to drive wealth and the wealthy (not just Gerard Depardieu) from France, lessening the number of entrepreneurs and thus losing job creation opportunities. When Article 6 of his new tax law raised the top rate of capital gains tax from 34.5% to 62.2% (in Britain it is 28%) it set off a firestorm of protest from businessmen, already staggering under restrictive labour laws. Article 6 was labeled ‘economic illiteracy’ and a disastrous economic mistake. In September, his budget called for higher taxes, but no slimming of the gargantuan state spending, with no plans to increase exports or encourage business, or offset France's long term loss of global competitiveness. At this point, Germany's finance minister, Wolfgang Schauble, tasked a (German) panel of top advisers to examine possible reform proposals for France. In November, France was stripped of its coveted AAA status by financial ratings agencies, unemployment hit a 13-year high, while its insistence of maintaining high French agricultural subsidies helped lead to the failure of the EU to reach an accord on EU spending for 2014-2020. Hollande has only nibbled at the

edges of the deficit, cutting 10 Billion Euros in spending and raising taxes (mostly on the rich) by 20 billion, the result insignificant for a 2 Trillion Euro budget.

When former President George W. Bush famously joked that one of France's problems is that there is no French word meaning 'entrepreneur', he hit the nail on the head. Although Hollande has spoken about stimulus spending, he has not undertaken much needed reforms of the restrictive business environment, mainly labour law.

"The French labour code has 3,650 pages and 200 pages are added every year. The Swiss labour code has 70 pages and I do not think Switzerland is a less efficient economy or labour market" says Henri de Castries, CEO of Axa, a French Insurance company which is one of the largest in the world [6].

In France, when a company grows in size such that it needs more than 50 employees, 34 additional labour laws and restrictions take effect, discouraging businesses from expanding. This helps explain why there are in France barely 4,000 SMEs – Small and medium enterprises – proportionately only half of the total that exists in either Germany or Great Britain [1]. Also, a multitude of many illogical rules and directives create havoc for any potential for growth, this during a terrible slump. Forced on business and private individuals with bureaucratic fervour, "They cost the 27 European Union countries an average of 3.7 percent of their gross domestic product a year, more than \$10 billion in the case of France, and hold back an incalculable amount of new investment" [7]. De Castries of Axa pointed out that with French public spending at 56 per cent of GDP it is 10 percentage points more than the average of the other Eurozone countries, the difference being 200 billion Euros, one tenth of France's 2 trillion Euro economy. "This 200 billion Euros is taken out each year from the people who know how to make money, create jobs and foster growth to subsidize benefits and public projects that do not necessarily have any significant rate of return, so it is no surprise that the competitiveness is not optimal" [6].

New rules for wheelchair access and fire protection threatens to shut down 80% of small independently run hotels, most of them in centuries-old buildings which are unable to enlarge hallways or stairs. A bureaucracy, when it becomes sick or dysfunctional, is termed a bureaupathy, and the French version has a flavour all its own. In addition, the current global post-modern society is founded on communications and current successful EU projects, such as TLD.eu or other projects in the sphere of intellectual property, are conceptually based on the technical harmonization and strong delegation to Private law subjects [14]. These well proven correct concepts should become an inspiration for the EU [15] and should preoccupy the minds of EU leaders and actors much more than the drive to increase the number of pages of various codes and regulations or the eagerness to have super modern wide elevators in medieval buildings.

In 2013, Hollande's bad luck continued, with the Cahuzac scandal, wherein the budget minister, in charge of fighting tax fraud was found to have been a tax fraudster himself, holding a secret Swiss bank account, and is faced with jail. In addition, the minister for industrial recovery, Arnaud Montebourg, once again proved his unfitness for the job by chasing away a 300 million dollar investment from Yahoo, this coming just after preventing Titan International from trying to buy a failing Goodyear French tire plant, to go along with similar failures. A highly unpopular forcing through of Gay Marriage has led to the largest street protests in 30 years, reflective as well of Hollande's unpopularity. In a mock election, it is estimated now that he would garner but 19% of the vote, with rightist Marine Le Pen ahead with 23% and former President Sarkozy netting 34% [18]. Perhaps to take the heat off Hollande from the French citizenry, in April of this year several of Hollande's ministers began to make insulting remarks about Germany, austerity, and Mrs. Merkel, without being

held accountable for their remarks by Hollande. The German response was to leak a memo by some of Mrs. Merkel's coalition partners which labeled France as “Europe’s biggest problem child” with a sick economy and a reform package that was, at best, aimless. Mrs. Merkel then denied that she knew of the report or agreed with it. As Mrs. Merkel might say, “Touche!”

Why does Germany fight so hard to keep the Euro, which has cost so many people in Greece, Spain, Portugal and other countries their jobs and futures? Because it is in their own best interest. The German “business and political elites know that the Eurozone provides German exporters with a large market of rather uncompetitive countries that buy their goods...Merkel must explain (to German voters) that Germany is paying into the bail-out funds not for idealism but out of self-interest” [10]. Germany has been restraining its domestic consumption, in the face of calls from the other EU zone members to increase it, while it has become an export-driven nation. In November, 2012, the US Treasury department released a damning criticism of the re-occurring trade surplus of Germany, branding it as a greater enemy in this regard than China. Germany's current account surplus at that point was at 6.3% of GDP, while China (for various reasons) was down to 2.6%, making Germany the biggest single source of trade imbalance in the world. The report said that the EMU regime of Southern austerity was not being met by offsetting stimulus in the North countries, thus holding back global recovery [9]. But as former GM Chairman ‘Engine Charlie’ Wilson famously declared “What’s good for General Motors is good for the USA”, and what’s good for Germany is.....good for Germany. In re to GM, GM Europe’s Opel-Vauxhall has reported losses of \$1.8 billion in 2012, Ford Europe lost \$1.75 billion, and Peugeot-Citroen of France lost \$2 billion. And Volkswagen? Volkswagen had profits of \$15 billion [21].

Meanwhile, in France, as of May, 2013, public spending is now at 57% of GDP, while the country’s public debt is nearly 94%, and unemployment has increased 11.5% in the one year since Francois Hollande took office. The European Commission, which has been granted new EU powers to enforce needed reforms in member countries, has demanded France make radical reforms to its bloated pensions and employment laws so as to try to increase France’s waning competitiveness. This demand went hand-in-hand with the Commission’s granting France two extra years to reach its budget’s deficit targets. “Our message to France is putting a great accent on structural reforms that are needed” said Jose Manuel Barroso, head of the European Commission, the EU’s executive body. “Cutting public spending, restoring competitiveness, opening up restricted markets, reforming the tax regime and loosening tight labour market regulations” continued Barroso. This announcement came on the same day that the OECD, club of large economies based in Paris called for almost exactly the same changes for France [5].

The IMF issued the same calls for reforms from France within the same week. Hollande's response was not one of gratitude, however, for the two years extension, rather one of denying that the EU could ‘dictate’ to France, and implying that France might ‘hunt and peck’ reform, and at its own (slow) pace. However, inasmuch as Europe’s Commissioner for economic and monetary affairs, Ollie Rehn has implied that he will use new EU powers, such as fines and other penalties, to force France to make needed reforms, it may just be more empty verbiage from Hollande. Meanwhile, a French documentary film about Hollande, entitled *Le Pouvoir* (The Power) has portrayed him as a timid, ineffectual, hen-pecked weakling, afraid to make decisions, and losing the respect of those working under him. Hollande’s recent announcement that the Eurocrisis was over will doubtless be given all the respect due its source.

Hollande’s approval ratings are the lowest in France’s history, though perhaps after Waterloo Napoleon’s might have been worse, had they measured such things in those days.

Conclusion

The dynamics of the French-German partnership, so important to leading the EU, has broken down, reflecting the fortunes of the Euro itself. Was the alliance built on a foundation of sand, just as the Euro seems to have been? The amateurish attempts of Hollande to show up Angela Merkel simply damaged his credibility on the world stage. France's refusal to reform its economy is considered as potentially the biggest threat to the continuance of the Euro, so it may prove out that Euro skeptics will be toasting Hollande in the future. Yet with correct leadership, facing reality and getting France's own house in order, the results could be drastically different, though still with perhaps a recognition from EU leadership that the euro experiment has caused far more damage than it is worth.

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EURO-KRIZE Z NĚMECKÉ A FRANCOUZSKÉ PERSPEKTIVY V ROCE 2013

Po velmi krátké době zlatého věku Eurozóny nastaly pro evropskou integraci těžké časy, které odhalily praskliny v samotných základech a (až do té doby) skryté myšlenky a názory klíčových hráčů na EU scéně. Nedávné emoce a různé úrovně pocitu závazku se vypořádat se současnými problémy spíše rozdělují než sblížíjí velké duo, tažné síly Eurozóny, a dokonce i samotné EU.

Je třeba poznamenat, že evropská integrace po druhé světové války je produktem spojení francouzského a německého myšlení. V roce 2013 se zdá, že tato účelová dualita se rozpadá. Smyslem tohoto příspěvku je výzkum a analýzu několik aspektů a prvků francouzsko-německého polaristického vztahu scénérii Eurozóny. Pozorování a komparatistika vedou k řadě překvapující výsledků, které jsou podloženy daty.

DIE EUROKRISE AUS DEUTSCHER UND FRANZÖSISCHER PERSPEKTIVE IM JAHRE 2013

Nach einem sehr kurzen „goldenen Zeitalter“ der Eurozone ist die europäische Integration auf schwierige Zeiten getroffen, die Sprünge in der Grundlage und die (bis jetzt) versteckten Gedanken und Meinungen der Schlüsselakteure in dem EU-Stadium aufgedeckt haben. Die neuen Gefühle und die unterschiedlichen Ebenen der Verpflichtung, sich mit den aktuellen Problemen auseinanderzusetzen, scheint das große Duo, die treibenden Kräfte der Eurozone, und sogar die EU selbst mehr zu teilen als zu verbinden.

Es sollte angemerkt werden, dass die europäische Integration nach dem zweiten Weltkrieg ein Produkt eines Treffens des französischen und deutschen Verstandes ist. Im Jahre 2013 scheint es, dass diese Dualität des Zweckes auseinanderfällt. Ziel dieses Artikels ist es, einige Aspekte und Punkte der französisch-deutschen Hassliebe in Bezug auf die Eurozonenlandschaft zu erforschen und zu analysieren. Die Beobachtung und die Vergleichsmethoden führen zu einigen überraschenden Ergebnissen, die durch Daten gestützt werden.

KRYZYS EUROPEJSKI Z PERSPEKTYWY NIEMIEC I FRANCJI W 2013 ROKU

Po bardzo krótkim okresie „Złotego Wieku” strefy euro, dla integracji europejskiej nadeszły trudne czasy, które ujawniły pęknięcia w samych fundamentach i (aż do tej pory) skryte myśli i opinie kluczowych aktorów działających na scenie UE. Niedawne emocje i różne poziomy poczucia obowiązku rozwiązania obecnych problemów bardziej rozdzielają, aniżeli zbliżają Wielką Dwójkę, siły napędzające strefę euro a nawet samą Unię.

Należy zauważyć, że integracja europejska po 2. wojnie światowej jest wynikiem połączenia myśli francuskiej i niemieckiej. W 2013 roku wydaje się, że ten celowy dualizm się rozpada. W niniejszym artykule rozpatrywane i analizowane są niektóre aspekty i elementy francusko-niemieckiej polaryzacji w strefie euro. Obserwacje i porównania prowadzą do wielu zaskakujących wniosków, które podparte są danymi.

FRANCHISING PERFORMANCE MEASUREMENT AND THE USE OF BALANCED SCORECARD METHOD IN FRANCHISING

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Abstract

The main field of the study in this article is performance measurement in franchising companies. This paper aims at identifying what types of metrics international franchising companies use in order to measure the performance of their business operations. In the theoretical part, the viewpoints of several authors are briefly introduced showing that the current ways in which franchising systems measure their performance are very diverse, with many companies lacking a unified and systematic approach. On the other hand some authors mention and recommend the use of Balanced Scorecard as an appropriate performance measurement method. Therefore the purpose of this study is to analyze the reality and the current situation among franchising companies and to answer the question of what kind of methods do they use to measure performance and if they know and use the Balanced Scorecard in practice. Empirical research among international franchising systems on this topic was conducted by the author, as an e-mail and online questionnaire, finding out that performance measurement really is an area with various approaches differing from company to company, focusing mostly only on basic financial data in majority of companies. Second part of the research focused on the use of Balanced Scorecard (BSC) which has shown that this method is very rarely used in practice; however, many companies do recognize its benefits of evaluating both financial and non-financial perspectives. The research also has provided data verifying a hypothesis of difference in opinion on the potential use of the Balanced Scorecard method between franchising companies operating in services and retail. Service companies focus more on soft metrics such as customer satisfaction, customer value and employee satisfaction compared to those operating in retail; therefore they tend to be more open towards use and appreciation of the Balanced Scorecard method as a relevant performance measurement tool.

Introduction

Outputs and performance of franchising organisations' operations greatly depend not only on the system concept itself and know-how shared by the franchisor, but mainly on daily operations run by both franchisor's own and franchisees' business units and products and services provided to the end customers. Showing how things should be done and how to improve them to achieve the best possible results and perform successfully is one of many tasks of the franchisor. In order to achieve desired objectives both on the level of the whole franchise system and on the level of individual business units, franchising companies need to manage their operations effectively. It is commonly believed that what you don't measure you don't manage, therefore measurement of performance and defining and monitoring the right KPIs is of vital importance.

All companies – business units owned by a franchisor and franchisees – operate under the same brand, display a uniform image and provide the same product or service offering. This

means that they should also be able to deliver the same performance results, run their operations following the same KPIs and manage their business in accordance with the same objectives and metrics desired to be achieved. It is important to state, however, that performance measurement is not only about financial metrics, it also includes monitoring of various indicators that are outside the scope of accounting systems and still have a significant influence on success and results of business operations.

In this sense it is interesting to analyse what kind of performance measurement and metrics do the franchising companies use, and how accurate these indicators are for evaluation of their short-term and long-term success. The research of the author is focused on two main areas which also construct the research questions:

- 1) What types of performance measurement methods do franchising companies use and do they use unified performance measurement systems to assure continuous and systematic approach?
- 2) Do franchising companies use a Balanced Scorecard method to measure their performance and what is their opinion on and perception of this method, both in case they use it or not?

In this article, the author proposes the use of the Balanced Scorecard method, with its financial and non-financial perspectives as a relevant tool to measure performance of franchising companies, mainly due to complexity of the system and relationships between the franchisor and franchisees. The author believes that such a complex system needs a sophisticated approach to performance management and that the BSC would be appropriate. The Balanced Scorecard method supplements traditional financial measures with criteria that measure performance from three additional perspectives – those of customers, internal business processes and learning and growth. [9][10][11]

This paper proceeds as follows. First theoretical framework introduces few works defining the franchising as an organizational system, performance measurement in franchising and the Balanced Scorecard as a performance measurement method. Then the main subject of the research is analysed – the Balanced Scorecard method implementation in franchising systems. The next section describes the findings of what performance measures are used in franchising systems in practice followed by the section describing the data and methodology of the empirical research among the franchising companies and its results. After presenting the research results and discussing its main findings, managerial implications and subjects to further research are identified.

1 Theoretical framework

1.1 Franchising

Few authors will be mentioned herein below who focus in their works on franchising from the perspective of its success evaluation and performance measurement and also pay attention to what measures and indicators they track, and what the main influencers of positive performance are. For example, Keup [12] provides in his book a definition of franchising, which, in his words and business language, is a method of marketing through which successful business owners (franchisors) expand the retail distribution of their goods or services by contracting with independent, third parties (franchisees). In exchange the franchisees pay an initial fee and ongoing royalties to the franchisor. However, franchising is not a method of generating income solely through the sale of franchises. It is the marketability and efficient distribution of a particular product or service, what makes the franchise operation successful and performance satisfactory.

Bradach [3] dedicates his work to in-depth study of franchising chain organizations. The aim of his book is to present a model of management for such organisations. He focuses on how chain restaurant organisations are managed to achieve their objectives. Bradach concedes that despite the importance of franchising companies for the economy, we often know very little about how they work. What is known is that all franchising companies do work with two models when running their business operations – they run their own business units, where they manage their employees, and they are in business partner relationship with their franchisees. Each of these two models focuses on slightly different metrics in accordance with its short-term and long-term objectives.

Norman [15] expresses that a business should have certain characteristics to be a good growth vehicle for franchising. Among other things, it needs to prove its concept with successful, profitable prototype stores or offices, and it must have defined systems for managing every aspect of the business. A franchisor must be able to give franchisees detailed instructions and best practices for running the business according to a system that has proven successful in the past. Norman argues that, how to measure success is however not identified in detail in many concepts.

1.2 Performance measurement in franchising

Several researchers and empirical studies analyse performance measurement in franchising. The conclusion based on their findings is that there exist several ways to measure performance in franchising including a large amount of elements.

For example, Elango and Fried [5] recognize that performance of franchise systems comprises multiple facets and levels. They recommend using multiple indicators when measuring franchise system performance. Similarly, Minguela-Rata et al [14] express that the performance of franchise systems is related with numerous dimensions and therefore it is necessary to consider several performance metrics. Rodriguez-Benavides et al [16] acknowledge that there is no consensus in the literature on the most suitable way to measure the performance of franchise systems. In their empirical study they conclude that different sources of information may be employed, several indicators whose criteria are, or are not, economic-financial are used, and furthermore, measurement may be carried out in an objective or subjective way. They conclude that franchise system performance is a variable which raises major problems in terms of measuring it.

Jones [8] describes managerial practice of franchising companies where they use benchmarking as a frequent management tool in order to assess and measure their performance. Benchmarking gives great valuable insight into performance once the analysis conducted has identified the right metrics needed. Use of benchmarking with regards to performance measurement and improvement is analysed also by Batchelor [2], who declares that benchmarking applied to franchising, is the combined practice of targeting, measuring and analyzing procedures and processes from throughout the concept in order to drive improvements in the organization. The most measurable aspects of the particular concept are to be found in order to focus on key metrics. Focusing on these key metrics and standardizing how they are measured allows one to put together an effective system. Davis [4] expresses his opinion that franchising industry may be spending too much energy worrying about factors it doesn't control and neglecting the factors that it could and should control. He grants that disciplined use of the right measurement tools will lead to performance-improving decisions. Davis, as well as the other authors, states that the degree to which franchise organisations track key performance indicators, and the specific metrics they choose to track, vary substantially.

Works and studies dedicated to performance measurement in franchising can lead us to creating a list of multiple metrics and indicators that will be a subject of further empirical research. One part of the survey questions will be focused on this set of indicators. Franchising companies will be asked to determine which metrics they use in their practice to measure performance and evaluate success.

1.3 Balanced Scorecard

The Balanced Scorecard (BSC) method was introduced in 1992 by Robert S. Kaplan and David P. Norton, and it “revolutionised conventional thinking about performance metrics”. [11] (editor’s note). Many companies adopted balanced scorecard concepts to improve their performance measurement systems. [7]

A BSC augments traditional financial measures with benchmarks for performance in three key nonfinancial areas:

- A company’s relationship with its customers;
- Its key internal processes;
- Its learning and growth.

When performance measures for these areas are added to the financial metrics, the result is not only a broader perspective on the company’s health and activities. It’s also a powerful organizing framework. [11]

As Kaplan and Norton claim most companies’ operational and management control systems are built around financial measures and targets, which bear little relation to the company’s progress in achieving long-term strategic objectives. Once the strategy is defined and the drivers are identified, the scorecard influences managers to concentrate on improving or reengineering those processes most critical to the organisation’s strategic success.

Horváth & Partner [7] describe in detail how to implement the Balanced Scorecard method in practice. They identify problems and issues that can be reasons for implementing the BSC in practice as an effective method to solve them, and also introduce how to create and roll-out the Balanced Scorecard within the organisation. Their methodology proposes a practical guidance how to set strategic objectives, how to select the right measures, how to set targets and how to create proposals of action steps. Such a methodology implemented into the franchising systems will be a subject to future research of the author.

2 Subject of the research: Balanced Scorecard in franchising

The author of this article believes that thanks to the dichotomy in franchising in managerial responsibility and objectives, shared by both, franchisor and franchisees, a powerful organizing framework and a broader perspective on the franchising company’s health and activities (as proclaimed above), are necessary, in order to assure its long-term success and effective performance. Therefore BSC method can be suggested and recommended.

Kaplan and Norton [11] state that in companies which present using the BSC method in practice, it provides a report on the company’s performance along its measures during the year. The measures are customized for each operating unit and include, for example market share, customer satisfaction and retention, employee competence, employee empowerment, and technology deployment. This approach is rarely seen being applied in practice by franchising companies though.

When studying literature and sources for this study, the author has found no works, neither theoretical, nor empirical, analysing the area of using the Balanced Scorecard in the specific

case of franchising, despite the fact that some authors do mention this method being used therein (for example Martius [13]).

Kaplan and Norton argue [9] that the Balanced Scorecard is more than a measurement system. They propose the companies to start using (or those that already do it to expand their current use of the BSC) to:

- clarify and update strategy;
- communicate strategy throughout the company;
- align unit and individual goals with the strategy;
- link strategic objectives to long-term targets and annual budgets;
- identify and align strategic initiatives and conduct periodic performance reviews to learn about and improve strategy.

The author of this study finds all these suggestions to be very relevant for franchising companies to be applied and aims to prove its applicability in future research.

Aforementioned findings from the literature and theory and author's viewpoint may lead us to formulate the following hypothesis:

Hypothesis 1:

The Balanced Scorecard method with its financial and non-financial perspectives is an appropriate method for performance measurement of franchises systems.

The empirical research in this study will be aligned around the aim to verify this hypothesis.

2.1 Performance measures in franchising practice

A thorough research focused on what performance measures are used in franchising companies in practice was conducted, studying first what various authors mention in their works, second, what some franchising companies publish in their annual reports, and based on these sources, three groups of measures (indicators) were created by the author. Very few secondary data sources from franchising companies, that would provide relevant and detailed information on indicators measured in practice, such as annual reports, were found and gave some insight; however, as mentioned before, here results were very diverse.

Therefore, it were mainly the works of following authors that provided the list of items used for empirical research: Anderson [1], Batchelor [2], Bradach [3], , Gorovaia [6], Jones [8], Sorenson and Sørensen [17].

Three groups of measures were created as lists presented in the survey, the first two comprising of financial the third containing non-financial indicators:

- A) Financial: revenue related performance metrics – pure financial indicators related to both revenues of franchisors and franchisees, mainly based on franchisee's payments to the franchisor (initial franchise fee, ongoing royalties, and other fees), sales etc.
- B) Financial: cost and profit related performance metrics (net profit, earnings before taxes, ROI measurement and other measures that count with investments by both franchisors and franchisees), also all indicators that influence both revenues and cost sides of franchising businesses.
- C) Non-financial performance measures – being more “soft” focused, customer oriented, employee oriented – potentially corresponding with measures of the three non-financial perspectives of the BSC (customer, internal process, learning and growth).

Figure 1 displays the three groups of performance measures introduced as those being used most frequently in franchising companies by various authors and found in several companies' annual reports.

A) Financial: revenue related performance metrics	B) Financial: cost and profit related performance metrics	C) Non-financial performance measures
Outlet revenues Income from entry franchising fees Income from royalties Sales Sales per square metre Net revenues Net revenue per worker Market share	Growth of the franchise system The total number of outlets Opening new outlets / year Profitability of individual outlets Turnover Profitability Growth Accounting profit (ROA average) Annual increase in sales (growth in sales) Market performance	Productivity Customer satisfaction Customer value Customer loyalty Customer retention Sensitivity to change and innovation Competitiveness of purchasing and supply conditions Employee satisfaction Employee turnover Employee retention Nature of organisationl culture Technology innovation Organisation learning

Source: Own research

Fig. 1: Performance measures used in franchising

3 Data and methodology

In accordance with the statistics report of the European Franchise Federation [18], there were approx. 9 970 brands estimated operating in 20 countries of the EU, where data were collected in 2010 for the last time. This number counts the number of brands, not companies, where some companies/corporations have several brands. Therefore the estimated number of franchising companies operating currently in EU is 9 thousand, which make the population of this study.

Multi-stage sampling was used to select the sample for the empirical research. The sample has been selected in two successive stages. First, there was a non-random sample selected, that reduced the population to 2 500 franchising companies. Units were selected purposefully in accordance with few criteria applied:

- a) franchising companies using the “business-format” franchising (this means whole concept and know-how is shared, not just resale of goods);
- b) franchising companies operating in retail and services;
- c) franchisor originates either in the EU or the USA;
- d) franchising system represented by owned- or franchisee business units in at least two EU countries (multinational scope of the franchise).

In the second step, there has been a random selection conducted, which has provided a list of 1000 franchising systems. These units have been addressed by sending them the research questionnaire. The questionnaire was accessible online based on a link sent to an e-mail of the franchising company executive office. The fieldwork was carried out between the months September 2012 and April 2013.

There were 382 questionnaires that returned back, out of these 374 questionnaires could be considered as valid (answers were complete and correct) and could be used for further data analysis. The Table 1 shows the distribution of business activity of those companies:

Tab. 1: Distribution of the responding units from the survey by business activity

Sector	Industry - field of business activity	Sample count	Percentage	
Services	Automobile renting (car rental)	12		
	Building and construction	4		
	Business products and services	7		
	Car wash and cleaning	5		
	Cleaning and laundry	9		
	Computer, electronic and internet services	6		
	Courier	9		
	Education	14		
	Fast food and coffee shops	29		
	Fitness and wellness	7		
	Hairstyling and cosmetics	9		
	Health and beauty	13		
	Home services - cleaing and repair	8		
	Hotels	18		
	Photo	11		
	Real estates	21		
	Restaurants	23		
	Senior care	5		
	Travel	8		
		Sub-total in services	218	58%
Retail	Bakery and confectionery	19		
	Clothing and footwear	32		
	Flower shops	13		
	Food - convenience stores	18		
	Furniture	7		
	Gardening products and DIY	11		
	Other retail	8		
	Pharmacies	14		
	Specialist shops	5		
	Supermarkets	23		
	Wine and gourmet shops	6		
		Sub-total in retail	156	42%
		Total	374	100%

Source: Own research

Performance may be analysed from the point of view of the franchisee, the franchisor, workers, customers and the company as a whole. The metrics used for different stakeholders may be different. In this study the performance has been analysed from the viewpoint of the franchising company as a whole but represented by the franchisor, as the one who leads the system. Therefore respondents addressed are representatives of the franchising system executives from franchise headquarter offices.

In order to complete the questionnaire, the franchising companies, in the first section, had to answer, whether they:

- 1) do have a performance measurement system in place, defined as a unified system for monitoring a defined set of metrics and number of specific indicators;
- 2) do monitor and measure specific indicators presented in the lists of the three groups (A, B, C) in their performance measurement system, two of them containing financial and one non-financial indicators;
- 3) do regard their own system of performance measurement as satisfactory or would see a room for improvement (this evaluation was made based on assessing 5 statements on the scale from 1 to 7, with 1 standing for “absolutely satisfactory” and 7 for “a lot to improve”).

In the second step, franchising companies were answering questions specifically related to the use of the Balanced Scorecard method:

- 1) whether they are already using the Balanced Scorecard method as a performance measurement tool;
- 2) whether they see the Balanced Scorecard as an appropriate tool for measurement of their franchising system performance that is (in case they use BSC) or could (in case they don't use BSC) be benefiting. In this sense, for companies that don't use the BSC, it was introduced and described briefly, highlighting the fact of comprising both financial and non-financial indicators in four perspectives – financial, customer, internal processes and learning and growth.

4 Research results

Selected results of the two steps of the empirical research will be presented. As presented already in the Table 1, the answers of respondents will be divided and presented in two sub-groups – companies representing services and retail, as there were interesting differences observed between these two sample groups.

Table 2 presents results of the query on the current status across franchising companies, where they were asked whether they had a unified performance measurement system in place.

Tab. 2: *The current status – unified performance measurement system in place*

Performance measurement system in place in the franchising company				
Sector	YES		NO	
Services	154		64	218
Retail	93		63	156
Total	247		127	374

Source: Own research

Table 3 displays counts of answers where respondents were selecting indicators they currently measure in their company. Once they had selected at least two items from one list (A, B or C), their answer was counted as 1 for the respective list of measures. Respondents could select indicators from one, two or all three group lists.

Tab. 3: *Performance indicators monitored and measured across franchising systems*

Performance indicators monitored and measured across franchising systems			
Sector	A - financial	B - financial	C - non-financial
Services	176	143	106
Retail	123	101	62
Total	299	244	168

Source: Own research

Table 4 shows the results of the query on the opinion and perception of own performance measurement system used by the companies. Again, in this table the responses are divided by sectors of services and retail. The results clearly indicate that franchising companies in the service sector do perceive their performance measurement much more as “there is a room for improvement” than “satisfactory”. In the retail sector, there is much greater balance in the expression of satisfaction with the current system and perceiving it as an area that could be improved.

Tab. 4: Results of query on the opinion on own performance measurement system

Performance measurement system in the company regarded as			
Sector	Satisfactory (Mean rated 1-3,5)	Room for improvement (Mean rated 3,6-7)	
Services	35	183	218
Retail	76	80	156
Total	111	263	374

Source: Own research

Answers to the question on current use of the Balanced Scorecard method in the franchising systems has provided interesting results. The survey answers were affirmative (i.e. “Yes, Balanced Scorecard is implemented and used in our company.”) in 16 cases only. This means, only 4.27 per cent of franchising companies in Europe currently use this method. All the other respondents gave a negative answer. This finding is contradicting to what literature proposes [13].

Interesting findings were also provided with regards to the last question of the questionnaire.

Tab. 5: Results of query on the opinion on Balanced Scorecard

Balanced Scorecard regarded as appropriate and benefiting					
Sector	YES	Percentage	NO	Percentage	Total count
Services	189	87%	29	13%	218
Retail	98	63%	58	37%	156
Total	287	77%	87	23%	374

Source: Own research

The results displayed in Table 5 show opinion difference, depending on whether the Balanced Scorecard is (for the 16 companies that stated its current use), or is potentially (those that don't use it) an appropriate tool for performance measurement in franchising companies, between the two sectors – services and retail. As this area was the main focus of the research, the hypothesis test of relative frequencies was performed to verify if there exists statistically significant difference between these two sub-groups of the sample.

Calculation was performed using the Statgraphics software for running the hypothesis testing comparing relative frequencies in two samples, i.e. the subgroups of service and retail, where respective franchising companies are active.

The sample proportions are 0.87 and 0.63, sample sizes are 218 and 156 respectively.

Approximate 95.0% confidence interval for the difference between proportions of affirmative answers to the opinion on the appropriateness of the Balanced Scorecard method in franchising of the two sub-groups – companies from the sector of services (n1) and the sector of retail (n2) is defined by values: (15.2% ; 32.8%).

Null hypothesis H0: $\pi_1 = \pi_2$, i.e. there is no difference between proportions = 0.0;

Alternative hypothesis H1: $\pi_1 > \pi_2$, i.e. (greater than)

Computed z statistic = 5.43733

P-Value = 2.71053E-8

Conclusion: We will reject the null hypothesis for alpha = 0.05.

The analysis presents the results of performing a hypothesis test concerning the difference between the two sample proportions. In the first sample of 218 observations, the sample proportion equals 0.87. In the second sample of 156 observations, the sample proportion equals 0.63. Since the P-value for the test is less than 0,05, the null hypothesis is rejected at the 95.0% confidence level. We can state that the results show statistically significant

difference in answers from the two research subgroups – service and retail franchising companies.

5 Findings and discussion

Various aspects of the performance of franchise systems shall be taken into account when specifying their metrics. In reality, not only the amount of elements or indicators that franchising companies measure differs, but also a difference exists as types of data and metrics are considered to be relevant for measuring the performance. Difference between service and retail franchising companies has been found and also proven to be statistically significant when it gets to the opinion on potential use, appropriateness and perceived benefit of the Balanced Scorecard used, or to be used, as a performance measurement tool in franchising. There is evidence of vast diversity, in how franchising companies work with measures, a high number of companies probably only await implementing some systematic approach, and those who already have systems in place still see room for improvement. In correspondence with opinions stated in literature, the organization's high level strategic objectives and measures must be translated into objectives and measures for operating units and individuals. [11]

6 Further research and managerial implications

There are several areas that can be suggested for further research and managerial implications. Developing methodology, suggestions and recommendations of BSC measures for franchising companies will be the aim of further research of the author and subject of her dissertation thesis. The main research questions will be what performance data should be tracked in order to ensure the best possible performance. Further work of the author on managerial implications would be aimed at: 1) Using the four perspectives of the BSC and its translating specifically into the franchising company's vision and strategy + introducing a methodology how a franchising company can build a strategic management system using the BSC method (as suggested by Kaplan and Norton [11]). 2) In dialogs with executives of franchising companies the author would define up to four times five performance measures (five indicators in each of the four perspectives of the BSC) in correspondence with current company objectives and set targets for each measure, in order to prepare a methodology for the Balanced Scorecard implementation in franchising in practice, including a suggested template of a Franchisee and Franchisor BSC.

Conclusion

This paper discussed the topic of performance measurement in franchising companies and presented the results of the empirical research conducted among franchising companies in the EU. The companies were requested to provide information on how they measure performance and evaluate success, if they had any systems in place, what kind of indicators they monitor and measure and if they use the Balanced Scorecard method or how they would perceive its potential use and appropriateness. Research questions provided answers dividing the respondents by field of their franchising activity that belong to two subgroups or sectors – services and retail. This paper analysed whether there exists any difference between the way in which performance is measured in these two sub-groups of franchising companies. This paper also analysed whether franchising companies assess the BSC method as a valuable and appropriate method to measure performance and evaluate success. With this aim a survey was conducted on a sample of different franchising systems operating in the European Union which provided back 374 valid questionnaires. The findings indicate that the status of performance measurement in franchising is very variable. Majority of systems only focuses

on few KPIs and metrics used, mainly in financial perspective, however large number of franchising systems admit that there is a gap and room for improvement in performance measurement and if a more sophisticated method is applied it would be beneficial for long-term success evaluation. Balanced Scorecard method is known theoretically, not very much used in practice in franchising though, however its benefits and value based on the fact of focusing on both financial and non-financial measures, are clearly realized and seen, mostly by the companies from service industry, less by companies from the retail sector.

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MĚŘENÍ VÝKONNOSTI VE FRANCHISINGOVÝCH FIRMÁCH A METODA BALANCED SCORECARD

Cílem příspěvku je identifikovat, jaké typy metrik používají franchisingové firmy k měření výkonnosti. V teoretické části jsou představena stanoviska několika autorů, kteří se shodují na tom, že způsoby a systémy, jakými franchisingové firmy měří svou výkonnost, se velmi liší, kdy mnoho firem naprosto postrádá nějaký jednotný a systematický přístup. Na druhé straně několik autorů zmiňuje vhodnost a doporučuje použít ve franchisingu metodu Balanced Scorecard. Autorka provedla empirický průzkum na toto téma mezi franchisingovými firmami formou online dotazování, jehož výsledkem bylo zjištění, že skutečně způsoby měření výkonnosti se mezi firmami značně liší a nejčastěji se zaměřují pouze na finanční měřítka. Druhá část průzkumu se věnovala metodě Balanced Scorecard, kde bylo zjištěno, že se používá jen zřídka, přestože si firmy, a to především z oblasti služeb, uvědomují její vhodnost a přínos, a to hlavně z důvodu sledování jak finančních tak nefinančních indikátorů.

PERFORMANCE-MESSUNG IN FRANCHISING-UNTERNEHMEN UND DIE BALANCED-SCORECARD-METHODE

Hauptthema dieses Artikels ist die Performance-Messung in Franchising-Unternehmen. Dabei wird untersucht, welche Metriken internationale Franchising-Unternehmen anwenden. Im theoretischen Teil werden die Standpunkte der verschiedenen Autoren kurz vorgestellt. Diese zeigen, dass die Möglichkeiten für Franchising-Systeme, ihre Leistung zu messen, sehr vielfältig sind. Bei vielen Unternehmen fehlt eine einheitliche und systematische Vorgehensweise. Auf der anderen Seite empfehlen einige Autoren den Einsatz der Balanced-Scorecard-Methode als geeignetes Performance-Messverfahren. Vom Autor wurde zu diesem Thema eine empirische Forschung unter den internationalen Franchising-Systemen in Form von E-Mail und Online-Fragebogen durchgeführt, mit dem Ergebnis, dass die Performance-Messung wirklich ein Gebiet mit sehr unterschiedlichen Ansätzen bei den einzelnen Unternehmen ist. Der zweite Teil der Forschung hat als Schwerpunkt den Einsatz der Balanced Scorecard und zeigt, dass diese Methode sehr selten in der Praxis verwendet wird, obwohl viele Unternehmen die Vorteile bei der Bewertung sowohl finanzieller als auch nicht-finanzieller Perspektiven durchaus erkannt haben.

POMIAR EFEKTYWNOŚCI W FIRMACH FRANCHISINGOWYCH A METODA BALANCED SCORECARD

Celem artykułu jest wskazanie wskaźników stosowanych przez firmy franchisingowe do pomiaru efektywności. W części teoretycznej przedstawiono opinie różnych autorów, którzy są zgodni co do tego, że sposoby i metody stosowane przez firmy franchisingowe do pomiaru ich efektywności są bardzo różne a w wielu firmach całkowicie brak jednolitego systemowego podejścia. Z drugiej strony niektórzy autorzy wskazują i rekomendują stosowanie w franchisingu metody Balanced Scorecard. Badania empiryczne przeprowadzone w tym zakresie przez autora w drodze ankiety online wśród firm franchisingowych wskazują, że sposoby pomiaru efektywności rzeczywiście bardzo się między firmami różnią, koncentrując się najczęściej tylko na miernikach finansowych. Druga część przeprowadzonych badań skupiała się na metodzie Balanced Scorecard i wskazała, że metoda ta jest bardzo rzadko stosowana w praktyce, chociaż firmy, w szczególności z branży usługowej, świadome są jej adekwatności i przydatności, przede wszystkim ze względu na monitorowanie wskaźników zarówno finansowych, jak i nefinansowych.

ANALYSIS OF THE INFLUENCE OF INTERNET SOCIAL NETWORKS ON EMPLOYEE SELECTION PROCESS IN THE CZECH REPUBLIC

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Abstract

The increasing popularity of social networks is constantly extending their influence, lately even to such specific fields as human resource management. The major part of the HR employees uses social networks for evaluating job applicants. This article provides a statistical analysis of quantitative data gathered from a targeted survey describing the current situation in social networks use among persons responsible for hiring new employees in the Czech Republic. The results obtained from this survey will be a subject of comparative analysis together with findings from the research study conducted in other developed countries serving as a benchmark. The overall results suggest that the influence of social networks on HR will further increase in the near future.

Introduction

The online social networks gradually gain new active users, which increases their impact on various aspects of our daily life. The screening of job applicants using online social platforms has become substantive in work of majority of HR professionals in the United States. They can thus verify the truthfulness of the information provided by job candidates, identify their references from other parties, or create an approximate image of a job seeker's personality. On the other hand, recruiters who do so move on the edge of ethics, because they can base their decision on information they are not legally eligible to consider. Given the growing popularity of social networks in the Czech Republic, a similar tendency can be expected to be occurring on the Czech Labour market too.

The main aim of this article is to analyse in details the use of social networking sites among Czech HR practitioners in the process of selecting new employees. This article will also study available research data from developed countries, and based on gathered findings provide a comprehensive comparison with the actual situation in the Czech Republic. This can be especially helpful in estimating possible future development.

The main basis for researching the subject was a targeted survey conducted in the Czech Republic between 19th April 2013 and 22nd May 2013. It had a form of an online questionnaire with key protected access available at Dotaznik.czu.cz. 15,744 persons from all the counties of the Czech Republic who demanded employees at the Labour Office last year and were registered on the job portal Nabidka-prace.czin.eu at the same time were sent an

email invitation to join the poll. The questionnaire was actually attended by 849 individual visitors, 35 of them however failed to complete it, and their answers were not considered any further. The actual sample thus includes 814 respondents responsible for hiring new employees. Of these, 374 were employed as HR specialists, 210 worked outside an HR department, 201 were company owners, and 29 were employees of personal agencies. The sample included various organisation sizes too. 9 persons with authority to hire new employees were from businesses currently without any additional staff, 151 worked in companies with less than 10 employees, 261 belonged to enterprises having between 10 and 49 workers, 244 claimed to work for companies employing 50-250 people, and 149 respondents came from an organisation with more than 250 employees. The surveyed HR practitioners also covered variety of business domains: 27 persons claimed to work in transportation, 38 in finances, 21 in information technology, 3 in culture and sport, 113 in the trade and tourism, 15 in defence and protection, 4 in the law field, 58 in the construction industry, 9 in research and science, 37 in education and training, 235 in manufacturing and operations, 33 in the health sector, 17 in agriculture and forestry, and eventually 204 operating outside these categories.

The gathered results of this survey were consequently compared with the United States nationwide research study by Harris Interactive from February 9 to March 2, 2012, which included 2,303 hiring managers and human resource professionals across industries and company sizes [2]. Other considered materials include a targeted survey carried out between May and June 2012 by the JobVite Company, which analysed answers from more than 1000 HR professional from all around the world [3], and a similar study by TrustedID Reppler from October 2011, based on answers from more than 300 US HR professionals [8]. It must be noted, that both Reppler and JobVite are portals focusing primarily at the HR specialists, and both offer services related to utilization of Internet social networks in recruiting. A poll conducted among members of these portals is therefore likely to be significantly biased towards the use of these technologies for prosperous employees screening. Independent researches from the field are however scarce.

The comparative studies between the Czech Republic and the United States are in a sense quite uncommon, because of the completely different cultural settings and different patterns of the HR management. On the other hand, the influence of the ongoing globalisation and actual carrying out of employee screening throughout online internet technologies mitigates the differences between individual countries. Nevertheless, all the major online social networks have been founded and spread to the world from the United States, so logically the rest of the world slightly falls behind in their use. While the usage of certain social networks (Facebook) has reached its top and is currently slowly on a decline in the United States, in the Czech Republic is the absolute number of its users still gradually growing [14]. Taking into account that Facebook is available in the Czech mutation since 2009, while in the United States operates since 2004, it can be assumed that certain development patterns in utilizing the social networks will be similar.

1 Employee Selection Process

Employee Selection is the process of putting the right men on right job. It is a procedure of matching organizational requirements with the skills and qualifications of people. Effective selection can be achieved only through effective matching. By selecting the best possible candidate for the demanded job, the organization will most likely achieve quality performance. Moreover, the employee turnover and absenteeism problems can be reduced and thus time and money saved. Proper screening of candidates takes place during selection procedure, when all the potential candidates who apply for the given job are tested. [7]

1.1 Employee selection phases

Koubek distinguishes two consequent phases of the employee selection process – preliminary phase and evaluation phase. [5]

1.1.1 Preliminary phase

The main aim of the preliminary phase is to define the free or potentially vacant position. It consists of three basic steps:

1. Defining the basic working conditions, and the detailed and clear description of the job.
2. Analysing the knowledge, skills, and personal qualities that a candidate should possess to fill the vacant position
3. Setting the specific requirements for qualification, education, length of experience, special skills, and other characteristics. An applicant who meets these requirements is a suitable candidate for a particular job. These requirements often become part of a published job offer. [5]

1.1.2 Evaluation phase

The preliminary phase is successfully concluded when a sufficient number of prosperous employees' resumes is gathered to choose from. The actual evaluation phase that closely follows typically consists of several steps; in practice is the most common a combination of two or three of the following options:

1. Examination of questionnaires and other documents submitted by an applicant.,
2. Preliminary interview, aiming to supplement some of the facts contained in the questionnaire and in written documents,
3. Testing of applicants using employment eligibility tests or with the help of specialized assessment centres (diagnostic program),
4. Selection interview,
5. Researching candidate's references,
6. Medical examination,
7. Decision on the selection of a particular candidate,
8. Informing applicants of the decision. [5]

Screening of applicants with assistance of online social networks can be integrated as a separate step in the candidate evaluation phase. It may support the applicants' references, and complement in creating their personal profiles and thus enhance the quality in recruitment processes.

2 Internet social networks used for screening job candidates

The survey distributed among 7,944 university and college students in 2012 in the United States discovered that almost one half of respondents' plans to use the social networks, like Facebook, Twitter, and LinkedIn, to look for a job. This means a fourfold increase over the past two years [1]. According to the research study carried out in 2011 on behalf of the Jobvite recruiting platform has about 16% of employees in the United States found their present job thanks to Internet social networks, compared with only 11% in 2010 [4].

2.1 Facebook

Facebook is the most popular Internet social network in the world. Its users can create profiles, which can be used for sharing personal information, and communication with other members of the social network, both privately and publicly. More than 3,900,000 registered users have a Facebook account in the Czech Republic [14], what presents approximately 37% of the Czech population, compared to 158,800,000 registered users, approximately 50% of the population, in the United States [14, 13]. It is also the most popular platform for looking for job opportunities in both countries. According to the Jobvites analysis from 2011, 48% of all job applicants searching for a job have used this platform at least once. The same study shows that more than 18 million of US citizens state they found their present job using Facebook. Index Kelly confirms this network as the main platform for seeking a job among the Y generation. Facebook has also gradually been working on establishing own tools for job search and job opportunities advertising [4].

2.2 Twitter

Twitter is a social platform, which enables its members to publish messages of maximum length of 140 characters. It has more than 175,000 users (approximately 1% of the Czech population), who publish their posts in Czech or Slovak language [12]. In the US use the Twitter social network more than 141,800,000 users (45% of the US population) [9]. The vast majority of Twitter users in the Czech Republic are IT or marketing professionals, which presents taunting opportunity for job offering entities.

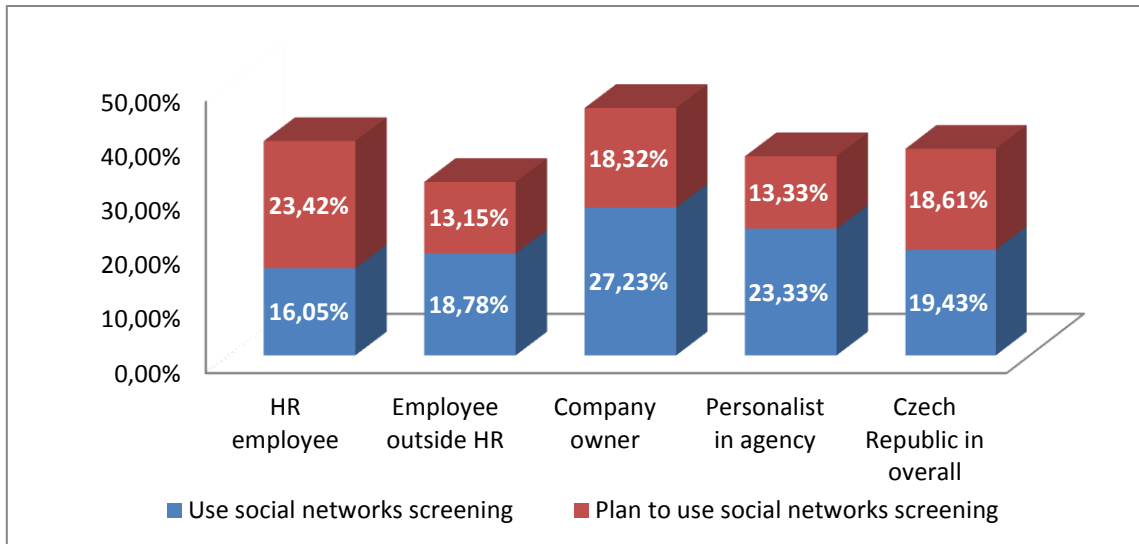
2.3 LinkedIn

LinkedIn is the biggest social network for professional users. The members can write their resumes, communicate with other people working in the same domain, and present themselves to their business partners. Keeping the personal profile on LinkedIn helps its owner to be seen on the labour market. LinkedIn platform has a module, which is dedicated directly to advertising job offers. More than 240,000 users (approximately 2% of the population) from the Czech Republic are currently registered [10], compared to more than 91,400,000 users (29% of the population) from the USA [11, 13].

3 Internet social networks use among HR practitioners

Recent research studies show significant variation in the relative share of those who use internet social networks for recruiting. Often quoted 2012 studies by Reppler and JobVite agreed that more than 90% of HR professionals screen the job applicants on social networks or plan to begin with this practice [3, 8]. The sample selection of these studies can however be hardly considered random, as was already mentioned before. In direct comparison stands nationwide research conducted by Harris Interactive in United States. According to it, 37% of HR practitioners screen candidates on Internet social networks, and 11% plan to begin with this practice [2]. It also points out that in 15% of US organisations is screening of candidates on internet social networks already forbidden by internal policies, mainly for ethical, and legal reasons [2].

This practice is on the verge of dawn in the Czech Republic even in 2013. In the conducted research have 19.43% of respondents confirmed they have actively screened the job applicants on an Internet social network. Another 18.61% of HR practitioners have claimed to be planning to adopt this technique. The detailed results are represented in the following figure, with special emphasis to the actual positions of respective respondents within an organization.

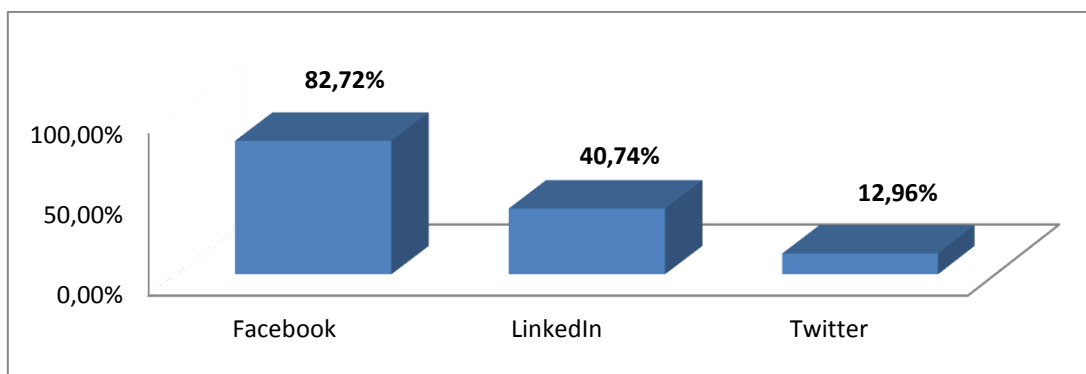


Source: Own

Fig. 1: Internet social networks screening in the Czech Republic among the various parties involved in hiring new employees

The results show the most interested in their future employees' behaviour on social networks are the hiring organization owners, naturally under the condition they are directly involved in the recruitment process. HR professionals plan to adopt this practice broadly. The candidates' behaviour on social networks is more likely to be examined when applying for a job in education (78% of surveyed recruiters from this field actually screens the prosperous employees), in bank and financial sector (52%), and information technologies (38%).

The CarrerBuilder research suggests that the prime position among social networks used for job candidate screening have Facebook, used by 65% of those who adapted this practice in the employee selection phase, closely followed by LinkedIn with 63% a Twitter used by 16% of recruiters [2]. When screening the applicants on Internet social networks, Czech HR practitioners use mainly Facebook; even at a much higher rate than their US counterparts. This is the logical consequence of Facebook being by far the most popular social network in the Czech republic, and relatively insignificant user base of both studied alternatives. Popularity of LinkedIn can be explained by its presentation as a professional network.

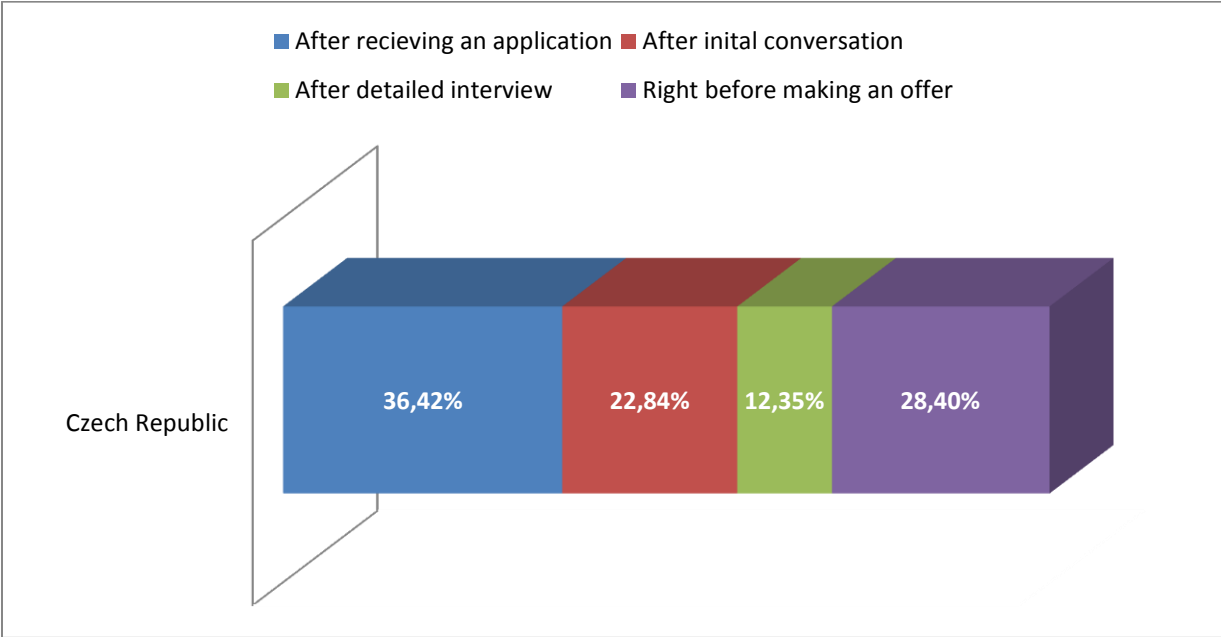


Source: Own

Fig. 2: Internet social network use by HR specialists in the Czech Republic

Various HR specialists use the social networks for the first time at different stages of the evaluation phase of the recruiting process. US HR assess candidate on social networks in 47% right after receiving an application, in 27% after the initial conversation, in 15% after a thorough interview, and in 4% before making an actual offer of employment [8]. Figure 3

describes when Czech recruiters examine social networks for information about a prospective employee for the first time.

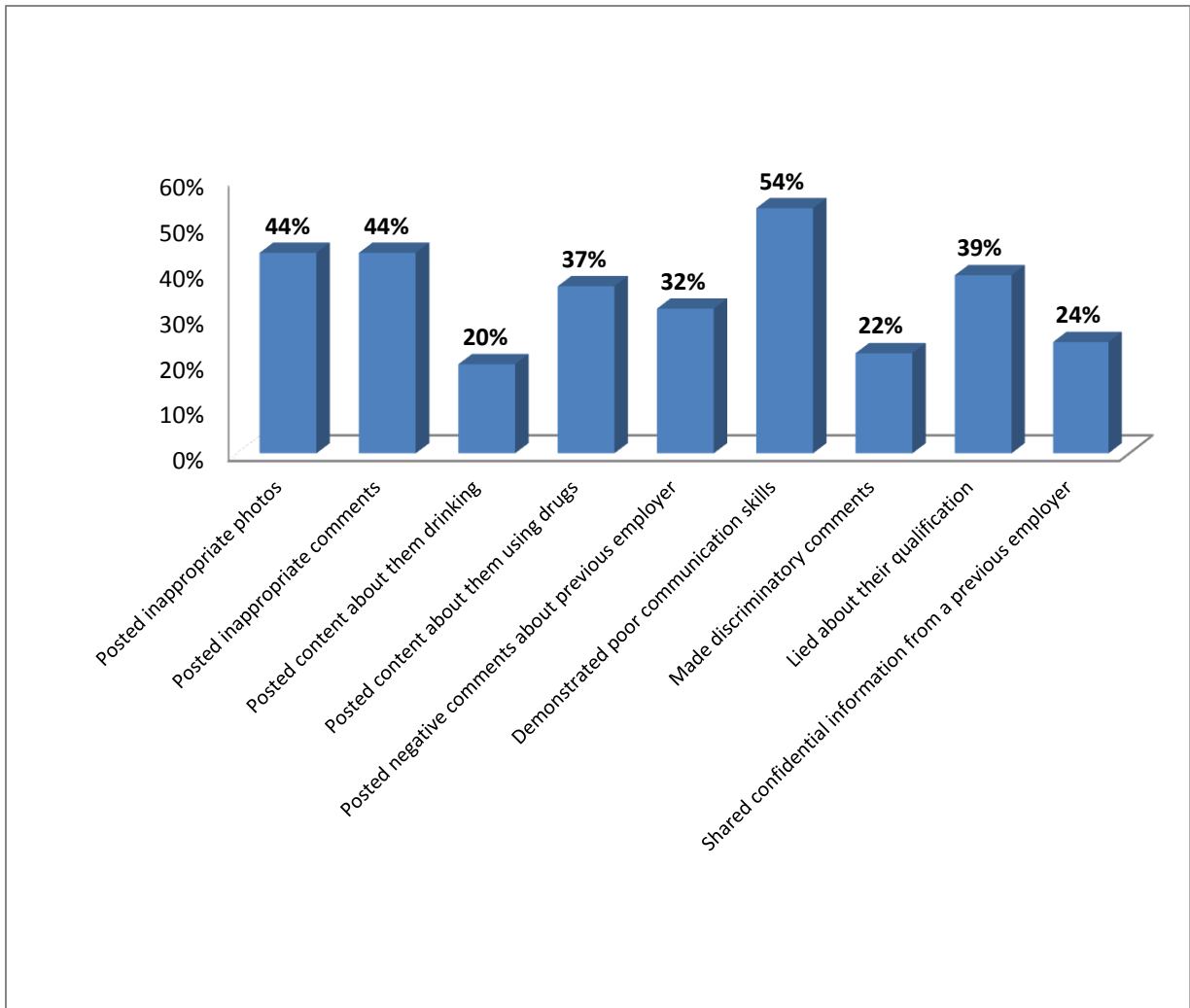


Source: Own

Fig. 3: The first screening of a candidate on social networks according to the stage of the recruitment process.

The difference between HR generalists in both countries is significant, especially in the last phase of the hiring process. That means applicants are actually screened on social networks mainly after successfully passing through a detailed interview in the Czech Republic. 65% of recruiters claimed to do so to find out if a candidate presents himself/herself professionally, 51% to evaluate if the candidate is a good fit for the company culture, 45% to learn more about the candidate’s qualifications, 35% to see if the candidate is well-rounded, and eventually 12% actively look for reasons not to hire a candidate [2].

34% of the US recruiters confirmed to reject an applicant because of what they saw about them on social networking site [2]. Only 25.3% of the Czech HR professionals, who actually use the social networks screening, refused to hire an applicant based on the information they gathered on social networks. Their main reasons for doing so are presented in following overview.

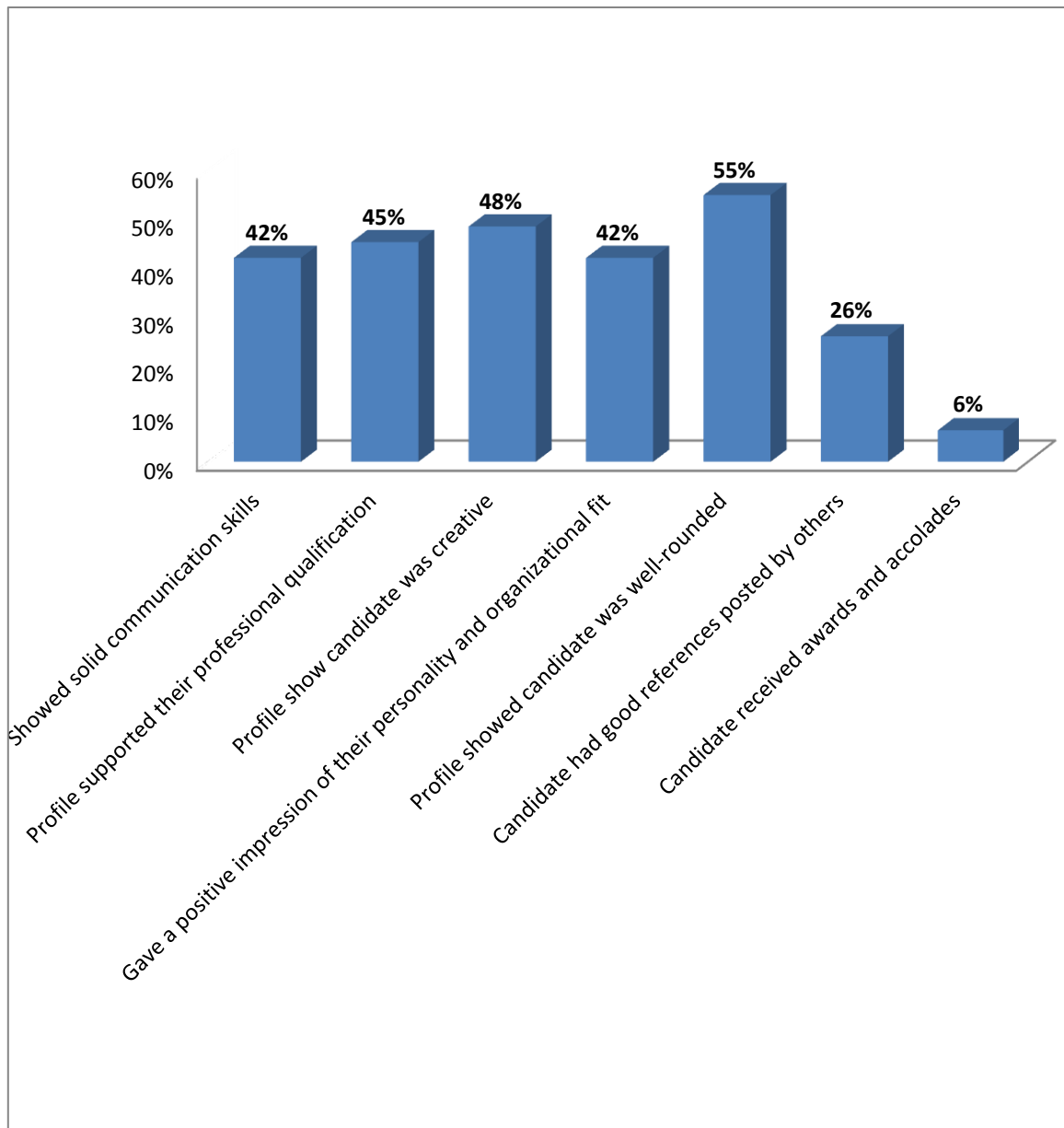


Source: Own

Fig. 4: Reasons for rejecting a candidate based on the findings from social networking sites

In the USA HR practitioners penalize a job candidate the most when they find out that they have a different qualification than claimed to have reached [8]. When asked to name the factors that can jeopardize the chances of an applicant to be hired, 49% of HR generalists mentioned provocative/inappropriate photos/info, 45% candidate drinking or using drugs, 35% poor communication skills. 33% bad mouthing previous employer, 28% discriminatory comments related to race, gender, or religion [2]. In the Czech Republic the most abundant reason for rejecting an applicant is a demonstration of poor communication skills on Internet social networks.

29% of the US recruiters on the other hand claimed to accept an applicant based on what they learned about her/him on an Internet social network [2]. When asking those HR practitioners to mark the main reasons for doing so, 58% selected a good feel for the candidate's personality, 55% candidate's professional image, 54% background information supporting a candidate's professional qualifications, 51% the overall candidate's well-rounded, 49% great communication skills, 44% creativity, 34% positive references about the candidate [2]. In the Czech Republic a prospective employee has been accepted because of what they saw about them on social networks by only 19.3% of HR practitioners. The actual reasons that made the Czech HR to hire an applicant based on the findings from social networks are presented and quantified in the following graph.

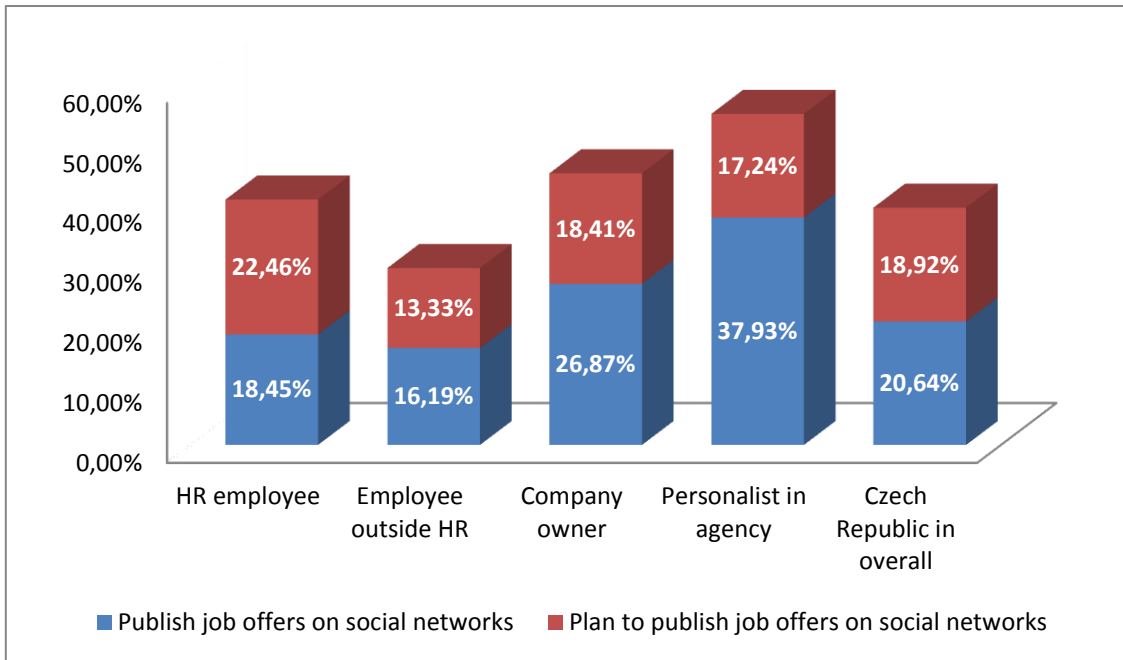


Source: Own

Fig. 5: Reasons for hiring a prospective employee based on the findings from social networking sites

When hiring based on information from social networks, references from other users, awards, badges, certificates, and similar factors honouring the potential employee's work are important both in the USA and the Czech Republic. Both countries' recruiters also value positive impression from a profile, which complements the professional qualification, and demonstrates creativity and communication skills of its owner [8]. Of active social recruiting practitioners, 89% have made a hire through LinkedIn, 26% through Facebook, and 15% through Twitter according to the JobVite worldwide survey [3].

The Internet social networks can also serve as a platform for publishing job offers. The answer to the question whether the recruiters and HR specialists publish or plan to publish some job offers on an Internet social network is addressed in details by the next figure.

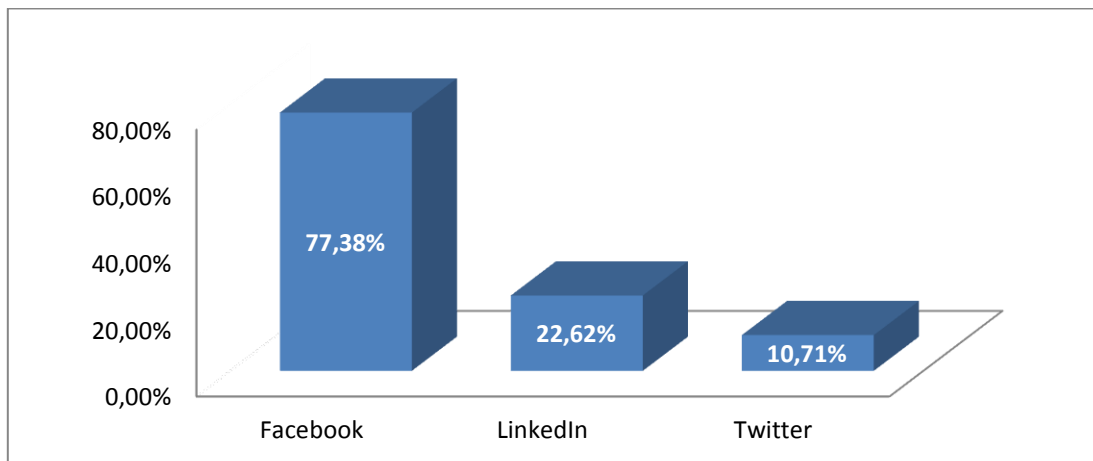


Source: Own

Fig. 6: HR use the Internet social networks for publishing job offers in the Czech Republic

The figure 6 shows that personal agencies are the most common users of Internet social networks for recruiting. Disseminating the awareness about an offered work position on the social networks is however more common among actual company owners.

People, who have already published some job offers on Internet social networks have in vast majority used Facebook, followed by LinkedIn, and Twitter. The detailed overview of the Internet social networks used among the 20.64% of surveyed HR professional, who confirmed to use this practice for presenting work offers, is shown in Figure 7.



Source: Own

Fig. 7: The proportion of social networks used by recruiters to publish job offers in the Czech Republic

Besides previously mentioned Internet social networks, Google Plus and Lide.cz have also been used, however, their absolute impact was minimal, and thus does not appear in the graphical overview.

Conclusion

This research points out that the influence of Internet social networks is gradually shifting to such aspects of human life that are not directly related to online behaviour. Over 38% of HR practitioners in the Czech Republic screen job candidates on social networks or plan to adopt this practice in close future. The way people interact and communicate on social networks can thus become an important part of creating a personal image. Users can demonstrate their knowledge, abilities, education, and personal characteristics to potential employers and thus support their resumes on diverse social networks. Czech recruiters analyse a job candidate's profile at different stages of the evaluation phase in the recruiting process – 36% right after receiving an initial application, 29% at the very end, before making an actual job offer. The candidates, whose profiles are well-rounded, showed creativity, and supported their professional and communication skills are the most likely to benefit in the recruiting process. On the other hand, poor communication skills, inappropriate photographs and comments, and drug abuse can seriously jeopardize any job aspiration.

When comparing research studies conducted in the Czech Republic and the United States, the results clearly show that the screening of job candidates on online social networks is already a well established practice in the United States, with 48% of HR practitioners using it or planning to do so in the future. Another growth in use of assessing applicants through online social networks in the Czech Republic thus can be expected. Both countries' recruiters alike have very similar preferences of what helps an applicant to get a job over a social network; US ones however show much stronger reluctance to previous employer badmouthing, and discriminatory comments. Czech recruiters use mainly Facebook for prosperous employee screening, because of its dominant position in the country compared to other studied social networks. Over 39% of the Czech HR practitioners also use, or plan to use, the tools provided by these social web platforms for posting job offers. Therefore, it can be assumed that the current procedures of personnel search throughout traditional job portals, which advertise available job positions on their sites, will be virtually replaced by specialized tools, which will either cooperate with or be directly operated by social networks.

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ANALÝZA VLIVU INTERNETOVÝCH SOCIÁLNÍCH SÍTÍ NA VÝBĚR NOVÝCH ZAMĚSTNANCŮ V ČESKÉ REPUBLICE

Zvyšující se popularita sociálních sítí má za následek rozšiřování jejich vlivu i do specifických oborů, mezi které patří také lidské zdroje. V současné době využívá sociální sítě pro prověřování uchazečů o práci velká část pracovníků v HR. Tento článek statisticky analyzuje kvantitativní data o aktuální situaci využívání sociálních sítí při náboru nových zaměstnanců osobami odpovědnými za přijímání nových pracovníků v České republice zjištěná formou dotazníkového šetření. Dosažená zjištění budou předmětem komparativní analýzy spolu s poznatky z výzkumných studií provedených v některé z jiných vyspělých zemí. Shromážděné výsledky naznačují, že význam sociálních sítí v oboru HR bude nadále vzrůstat.

ANALYSE DES EINFLUSSES VON SOZIALEN NETZWERKEN IM INTERNET AUF DER AUSWAHL VON NEUEN MITARBEITERN IN DER TSCHECHISCHEN REPUBLIK

Die wachsende Popularität sozialer Netzwerke beeinflusst mittlerweile sogar spezifischer Bereich wie das Personalmanagement. Die Mehrheit der Personalmanager bereits auf soziale Netzwerke zu, um Bewerber besser einzuschätzen. Dieser Artikel enthält eine statistische Analyse von quantitativen Daten aus einer gezielten Befragung beschreiben die aktuelle Situation in den sozialen Netzwerken unter Verwendung der Verantwortlichen für die Einstellung neuer Mitarbeiter in der Tschechischen Republik gesammelt. Die Ergebnisse aus dieser Umfrage erhalten wird eine Thema der vergleichenden Analyse zusammen mit den Ergebnissen aus der Studie in anderen entwickelten Ländern, die als Benchmark durchgeführt. Die gesamten Ergebnisse deuten darauf hin, dass der Einfluss von sozialen Netzwerken auf HR weiter in naher Zukunft zu erhöhen.

ANALIZA WPŁYWU PORTALI SPOŁECZNOŚCIOWYCH NA WYBÓR NOWYCH PRACOWNIKÓW W CZECHACH

Rosnąca popularność portali społecznościowych rozszerza swoje wpływy nawet w na takie dziedziny jak zarządzanie zasobami ludzkimi. Większa część pracowników działu HR używa portali społecznościowych do oceny kandydatów do pracy. Ten artykuł zawiera analizę statystyczną danych ilościowych zebranych z ukierunkowanego badania opisującego aktualną sytuację społeczną użytkownika sieci wśród osób odpowiedzialnych za zatrudnianie nowych pracowników w Czechach. Wyniki uzyskane z tego badania będzie przedmiotem analizy porównawczej wraz z wynikami z badań przeprowadzonych w innych krajach rozwiniętych, służących jako punkt odniesienia. Ogólne wyniki wskazują, że wpływ sieci społecznościowych na HR/Zasoby Ludzkie będzie dalej wzrastał w najbliższym czasie.

REGULATORY FRAMEWORK OF FINANCIAL CONGLOMERATES IN EUROPE

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Abstract

This paper deals with the analysis of the regulatory framework of financial conglomerates in Europe. The term financial group is very often confused with the term financial conglomerate. We can say that the financial conglomerate is a financial group, but the reverse cannot be said. Financial conglomerate is defined by the Directive 2002/87/EC, but in 2011 there was a “redefinition” of the term and that of the new Directive 2011/89/EU. The new directive should improve the supplementary supervision of financial entities in a financial conglomerate. The analysis of regulatory framework of financial conglomerates in Europe is the aim of this paper. The first part is focused on the structure of financial conglomerates and system of risks from the perspective of regulated entities and non-regulated entities. In the main part (second) is analyzed calculation of capital adequacy in financial conglomerate.

Introduction

In the Czech Republic, the activities of financial conglomerates are controlled by the Czech National Bank, through Law No. 377/2009 Coll., on the supplementary supervision of banks, credit unions, electronic money institutions, insurance undertakings and investment firms in a financial conglomerate and amending certain other Acts (the Act on Financial Conglomerates) [1]. The Directive 2002/87/EC [2] of the European Parliament and of the Council of December 16, 2002 on the supplementary supervision of credit institutions, insurance undertakings and investment firms in a financial conglomerate and amending Council Directives 73/239/EEC, 79/267/EEC, 92/49/EEC, 92/96/EEC, 93/6/EEC and 93/22/EEC, and Directives 98/78/EC and 2000/12/EC of the European Parliament and of the Council (the Supplementary Supervision Directive) was transposed in this Act. In the year 2011, the European Parliament and Council adopted a new Directive 2011/89/EU [3], whose main objective is improving the supplementary supervision of financial entities in a financial conglomerate.

Since the objective of improving the supplementary supervision of financial entities in a financial conglomerate cannot be sufficiently achieved by the Member States, the Directive 2011/89/EU was published, by which it is possible to achieve this goal at the Union level.

In the understanding of professionals in the Czech Republic, unfortunately, the difference between the concepts of financial group and financial conglomerate very often leads to confusion. In connection with the implementation of European legislation into national

legislation in the last years, most talked about have been financial groups and conglomerates and the transparency of their interconnection.

1 Understanding of Financial Conglomerates

To understand the financial conglomerates it is necessary to understand the basic difference between financial group and financial conglomerate. These terms, however, very often mistaken in the literature, lead to confusion. Financial conglomerate can be understood as a financial group, but this claim cannot be reversed.

Financial conglomerate has been defined in Directive 2002/87/EC, but in 2011 a new directive 2011/89/EU, which defines a financial conglomerate as a group or subgroup, where a regulated entity is at the head of the group or subgroup, or where at least one of the subsidiaries in that group or subgroup is a regulated entity, and which meets the following conditions [3]:

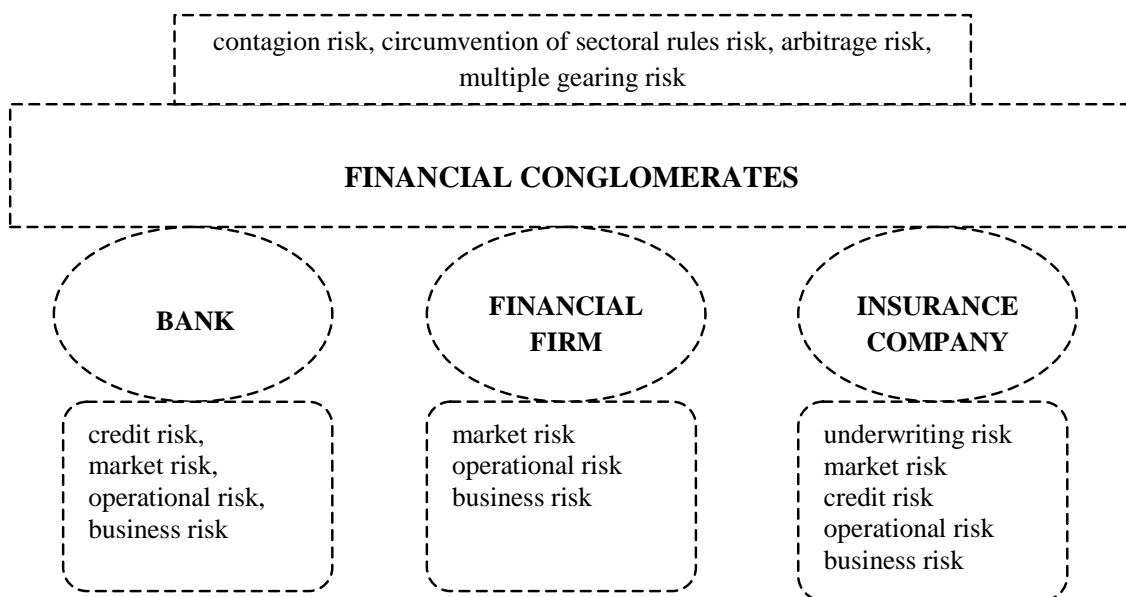
- where there is a regulated entity at the head of the group or subgroup:
 - that entity is a parent undertaking of an entity in the financial sector, an entity which holds a participation in an entity in the financial sector, or an entity linked with an entity in the financial sector by a relationship within the meaning of Article 12(1) of Directive 83/349/EEC [4];
 - at least one of the entities in the group or subgroup is within the insurance sector and at least one is within the banking or investment services sector; and
 - the consolidated or aggregated activities of the entities in the group or subgroup within the insurance sector and of the entities within the banking and investment services sector are both significant within the meaning of Article 3(2) or (3) of this Directive; or
- where there is no regulated entity at the head of the group or subgroup:
 - the group's or subgroup's activities occur mainly in the financial sector within the meaning of Article 3(1) of this Directive;
 - at least one of the entities in the group or subgroup is within the insurance sector and at least one is within the banking or investment services sector; and
 - the consolidated or aggregated activities of the entities in the group or subgroup within the insurance sector and of the entities within the banking and investment services sector are both significant within the meaning of Article 3(2) or (3) of this Directive.

The term financial conglomerate is a group consisting of at least one bank, insurance and investment (financial) firm.

The activities of the sectoral supervisors and regulators may be obstructed through the circumvention of sectoral rules [5], [6]. Near the regulatory point of view of the supervision of financial conglomerates, there are different levels of supervision [5]:

- at the single entity level,
- at the group level,
- at the conglomerate level.

The systems of risks of a financial conglomerate depend on the risk of the entities within the group and on the risk pertaining to the group as a whole (see in Fig. 1).



Source: Own elaboration from [5]

Fig. 1: System of Risks of the Financial Conglomerate

The entities that are part of financial sectors are represented in the following Tab. 1.

Tab. 1: Financial Sector Entities

Entities \ Sector	Banking Sector	Investment Sector	Insurance Sector	Mixed financial holding company
Regulated Entities	Credit institution Asset management company	Investment firm Asset management company	Life insurance undertaking Non-life insurance undertaking Asset management company	
Non-Regulated Entities	Financial institution (other than an investment) Ancillary banking service undertaking	Financial institution (other than an investment firm)	Reinsurance undertaking Insurance holding company	Mixed financial holding company

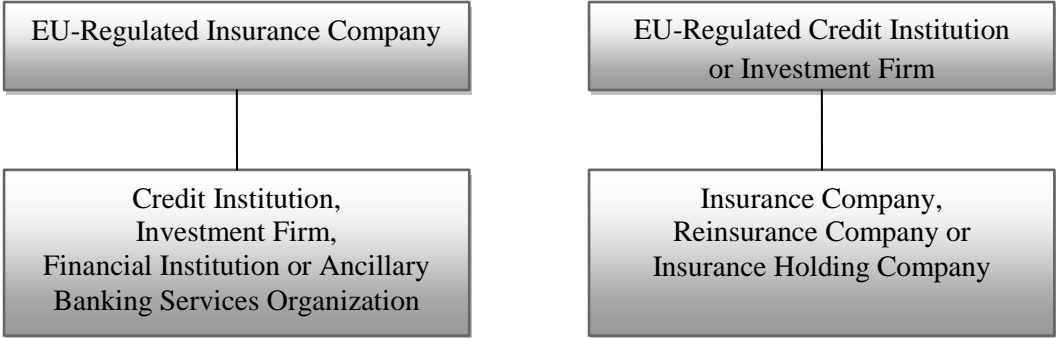
Source: Own elaboration from [7]

2 Calculation of Capital Adequacy in Financial Conglomerate

Capital adequacy in financial conglomerate is the most important aspect of the group financial position with respect to financial health of the conglomerate.

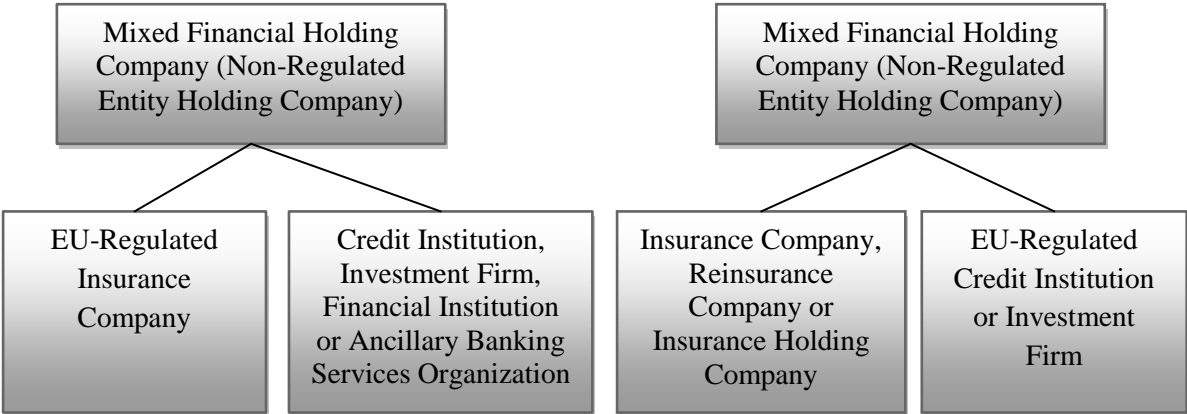
2.1 Financial Conglomerates Subject to Supplementary Supervision

The first three figures show hypothetical structures of financial conglomerate. Fig. 2 shows the notional solvency requirement of a non-regulated entity is equal to the capital requirement with which such an entity would have to comply under the relevant sectoral rules if it was a regulated entity of that particular financial sector [7].



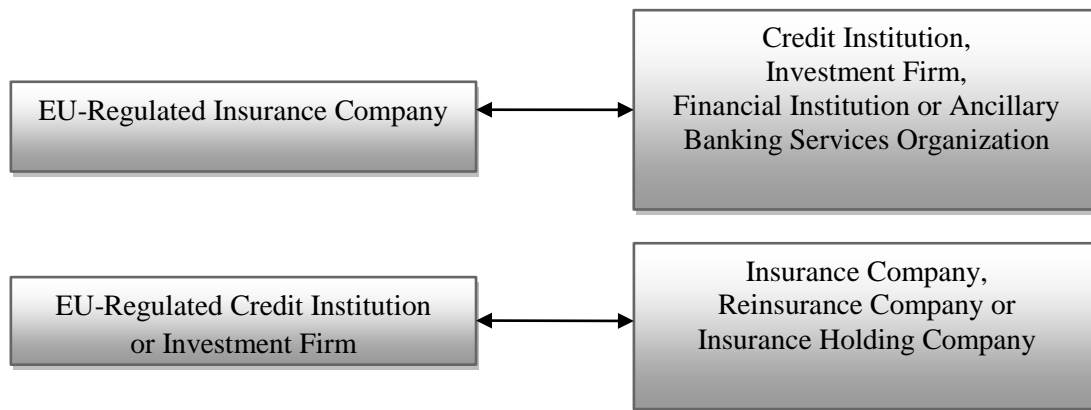
Source: Own elaboration from [6], [7]
Fig. 2: Group headed by an EU-Regulated Entity

The national solvency requirement of a mixed financial holding company is equal to the capital requirement of the most important financial sector within the financial conglomerate; this situation corresponds to Fig. 3.



Source: Own elaboration from [6], [7]
Fig. 3: Group headed by a Mixed Financial Holding Company with EU Head Office

There are no capital ties between entities in a financial conglomerate in the horizontal conglomerates (see Fig. 3). The coordinator normally identifies the proportional share of each entity to cover the solvency deficit of another entity.

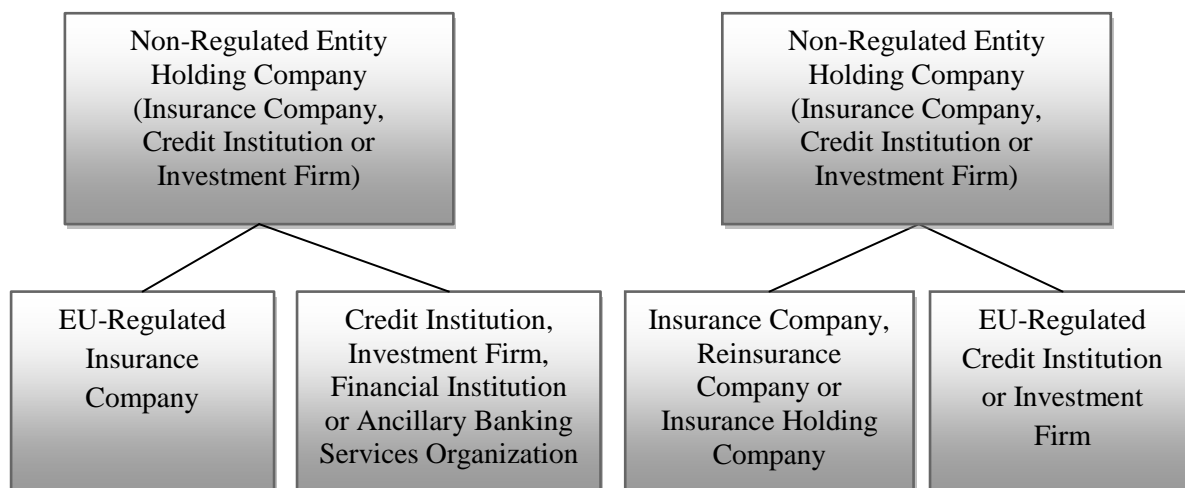


Source: Own elaboration from [6], [7]

Fig. 4: Horizontal Financial Conglomerate

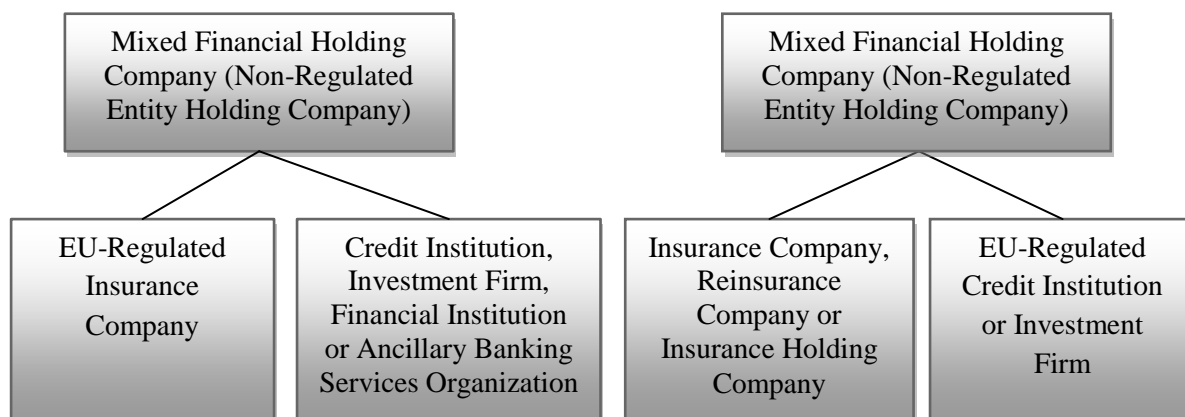
2.2 Financial Conglomerates Subject to Equivalent, Analogous or Appropriate Supplementary Supervision

Fig. 5 shows the hypothetical structure of financial conglomerates, if the group is headed by a non-regulated entity holding company.



Source: Own elaboration from [6], [7]

Fig. 5: Group headed by a Non-EU-Regulated Entity



Source: Own elaboration from [6], [7]

Fig. 6: Group headed by Mixed Financial Holding Company with Non-EU Head Office

Conglomerates that are headed by a mixed financial holding company are subject to supplementary supervision only if the group is mainly engaged in the financial sector, i.e., banking, insurance or investment services, and that in all financial conglomerates, the banking sector and the insurance sector must be significant [7].

2.3 The methodologies to calculate capital adequacy

There are three methods [6], [7] to identify the solvency requirement of the financial conglomerates. The aim of each method is to preserve the integrity of capital in the financial conglomerate and to ensure that it captures the risk of the group as a whole. The European Commission indentified these methods: accounting consolidation method (1); deduction and aggregation method (2); book value/requirement deduction method (3). All of the methods identify the supplementary capital adequacy requirements.

Method 1: Accounting consolidation, when the financial conglomerate is headed by a regulated entity and the other regulated entities belong to other sectors of financial conglomerate, can be expressed in the following formula:

$$SuppCAR = OF_{group} - \sum_i SR_{financial\ sector_i} \quad (1)$$

where $SuppCAR$ is Supplementary Capital Adequacy Requirement, OF_{group} is Own Funds,

$SR_{financial\ sector_i}$ is Solvency Requirement, i are entities of the financial sector within the group.

Method 2: Deduction and aggregation, when the financial conglomerate has a high degree of heterogeneity, is equal to:

$$SuppCAR = \sum_i OF_{reg\ and\ unreg} - \left(\sum_i SR_{reg\ and\ unreg} + \sum_j BV_{other} \right) \quad (2)$$

where $SuppCAR$ is Supplementary Capital Adequacy Requirement, $OF_{reg\ and\ unreg}$ is Own Funds, $SR_{reg\ and\ unreg}$ is Solvency Requirement, BV_{other} is Book Value of the participation, i are entities of the financial sector within the group, j are entities not belonging to the financial sector within the group.

Method 3: Book value/requirement deduction, when the parent entity has the most important role within the conglomerate, corresponds to:

$$SuppCAR = OF_{parent} - \left[SR_{parent} + \max(BV_k; SR_k) \right] \quad (3)$$

where $SuppCAR$ is Supplementary Capital Adequacy Requirement, OF_{parent} is Own Funds, SR_{parent} is Solvency Requirement, BV_k is Book Value of the participation, k is entities of the financial sector within the group.

Conclusion

This paper has analyzed the regulatory framework of financial conglomerates in Europe. The choice of methodology to calculate the capital requirement depends on the structure of the conglomerate. The financial conglomerates are regulated from Directives of the EU to maintain transparency of reporting capital adequacy requirements. Another important

influence is seen in the functioning of the new supervisory system. It will increase the effectiveness of the supervisory control within the financial entities of the financial conglomerate.

Acknowledgements

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REGULATORNÍ RÁMEC FINANČNÍCH KONGLOMERÁTŮ V EVROPE

Tento článek se zabývá analýzou regulačního rámce finančních konglomerátů v Evropě. Pojem finanční skupina je velmi často zaměňován s pojmem finanční konglomerát. Lze konstatovat, že finanční konglomerát je finanční skupina, ale toto tvrzení nelze říci opačně. Finanční konglomerát definovala směrnice 2002/87/ES, ale v roce 2011 proběhla „redefinice“ tohoto pojmu a to vydáním nové směrnice 2011/89/EU. Nová směrnice by měla zlepšit doplňkový dozor nad finančními subjekty ve finančním konglomerátu.

DER ORDNUNGSPOLITISCHE RAHMEN FÜR FINANZKONGLOMERATE IN EUROPA

Dieser Artikel analysiert die Rahmenbedingungen für Finanzkonglomerate in Europa. Der Begriff der finanziellen Gruppe wird sehr häufig mit dem Konzept eines Finanzkonglomerats verwirrt. Daraus kann geschlossen werden, dass des Finanzkonglomerats eine Finanzgruppe ist, aber dieser Anspruch kann nicht in umgekehrter gesagt werden. Finanzkonglomerats, die Richtlinie 2002/87/EG, aber im Jahr 2011 war „Neudefinition“ des Begriffs durch die Ausgabe einer neuen Richtlinie 2011/89/EU. Die neue Richtlinie sollte die Verbesserung der zusätzlichen Beaufsichtigung der Finanzunternehmen eines Finanzkonglomerats.

RAMY REGULACYJNE DLA KONGLOMERATÓW FINANSOWYCH W EUROPIE

Ten artykuł analizuje ramy regulacyjne dla konglomeratów finansowych w Europie. Pojęcie grupy finansowej jest bardzo często mylone z pojęciem konglomeratu finansowego. Można stwierdzić, że konglomerat finansowy jest grupą finansową, ale stwierdzenie to nie można powiedzieć, w odwrotnej kolejności. Konglomeratu finansowego, dyrektywa 2002/87/CE, ale w 2011 była „redefinicja” terminu poprzez wydanie nowej 2011/89/EU dyrektywa. Nowa dyrektywa powinna poprawić do dodatkowego nadzoru nad podmiotami finansowymi konglomeratu finansowego.

COALITION GOVERNMENTS AND INFLATION IN CENTRAL AND EASTERN EUROPE COUNTRIES

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Abstract

This paper deals with the political-economic relationships of the coalition governments in the countries of Central and Eastern Europe. The benefit of this paper is in its approach to testing the relationship of the political and economic characteristics in the whole region of Central and Eastern Europe, especially for coalition governments. This approach has rarely been applied in recent literature.

We used panel regression with fixed effect. Data revealed that the level of the incumbent government's majority in parliament is statistically significant and that the estimates showed a tendency of inflation to decrease by 0.22 percentage points in the case when the majority of the coalition increases by 1 percent. Single-party government and government with a minimal winning coalition (all parties in the government are necessary to form a majority in parliament) statistically significantly influenced the inflation even more and in comparison with other types of government, decrease the inflation by approximately 3 pp.

There were also statistically significant estimates for public expenditure and economic growth. The inflation estimate increased in the case of an increase in public expenditure or an increase in economic growth in Central and Eastern European Countries. Both relationships are predictable.

The number of political parties did not appear statistically significant in any of the tested models. The same situation appeared in the case of the variable concerning the prime minister belonging to the strongest political party in the coalition government.

Key words: Coalition governments; Central and Eastern European Countries; Economic policy; Inflation Monetary policy; Panel data; Government ideology.

JEL Classification: E52; E58; D72; C23.

Introduction

The relationship between various economic and political issues is widely discussed. This paper tries to add something concerning the role of coalition governments' influence on monetary stability (inflation). The paper focuses on Central and Eastern European countries, which witnessed a transition and then joined the European Union.

The main objective of the paper is to answer the question whether coalition governments had any influence on economic performance in Central and Eastern European Countries.

The paper is organized as follows. The first part is dedicated to economic policy and politics' influence on inflation. Then there is a description of data collection. Special attention is paid to this, as the data and methodology are crucial for the plausibility of the results. The third chapter concerns the model and methodology of statistical data processing. The following chapter discusses the results. The final chapter concludes.

1 Politics and Inflation

The usual approach is to view coalition governments from the political science aspect. To see them from the economic perspective is quite rare. Study [8] and [25] dedicated their effort to this topic. However, even in those works little attention has been paid to the political orientation and the structure of coalition governments.

The previous works focus on the influence of general politics on inflation [24] or the influence of hyperinflation on welfare [18]. Study [14] analysed inflation as the objective of left-wing and right-wing political parties' economic policy. There has yet to be found a study primarily concerning with the influence of coalition governments on inflation.

The influence of political parties' on inflation is divided into the roles of the parties of conservative or social democratic groups. Study [14] even mentions price stability as being the highest goal of economic policy for conservative political parties. On the contrary, left-wing parties aim at fighting against unemployment. Thus, those two groups differ in their approach and it can be expected that empirical analysis will prove the influence of political parties' right – left leanings on inflation.

The influence of economic policy on economic performance (including price stability) and on election results was studied using the political-economic cycle approach in the last couple of decades (see [21]; [1]; [10]). These studies tested whether the governments utilize economic policy tools to trade-off (mainly) between inflation and unemployment in the short term. According to these studies, the non-central bank subjects can play the significant role in the influencing of inflation. For the potential role of central bank, see [9]. The most recent findings concerning interest rates reveal that the key role is the independence of central bank. Leftist governments have lower short-term nominal interest rates in case the central bank independence is low. In contrast, short-term nominal interest rates are higher under leftist governments when central bank independence is high.” [3]. They mention also the discussion about central bank independence and channels of transmission and they also provide the excellent overview of empirical tests of partisan monetary policy from 1995 to 2009. The role of central bank is not the main theme in our paper, however.

Political parties can easily influence policies through their ministers in the government. The official coalition bargaining is much more difficult. That is why political parties prefer the particular portfolios, which are closest to the interests of their voters. This approach is important from both the point of view of the office-seeking concept and the policy pursuit concept of coalition governments. The difference is important and causes coalition bargaining not as a zero-sum game, but as a game with a positive effect on all the political parties included. It makes it possible to apply game theory as a special case with several preconditions from the general theory of coalition bargaining.

Inflation reduces economic growth and destabilizes a country by people's attempts to avoid losing their welfare by chasing foreign currency. This has a bad outcome for the domestic economy, as it shifts daily attention away from production, investment and frugality towards

hoarding and exchanging. However, as the study [18] shows, it does not bring the fall of democracy or signal the arrival of authoritarian rule. It also found the same result as [13] in the sense that inflation and huge deficits harm economic growth. In addition, study [23] adds that unanticipated inflation appears to increase income inequality.

Study [18] proposes that targeting inflation by the independent central bank may improve economic outcomes. It also proposes using this approach of independent authorities in other fields of life not only in the field of monetary policy.

Study [24] analyses the influence of politics on inflation and unemployment in the United States. That work confirmed attempts to influence the economy, especially during the election years in the United States. The analysis included 8 election years 1946-1976.

Study [20] tests the influence of macroeconomic development on the political behaviour of voters and its influence on elections in the case of Canada. It concluded that only one economic variable, unemployment, is statistically significant. Thus, inflation was statistically insignificant in the study. This was a surprising result, although the inflation rate increased the most rapidly between years 1972 – 1974 in Canada. Study [5] concludes that 15.2 percent of the electorate in the 1974 Canadian election based their vote on inflation targeting. The authors also found that just a few voters were prepared to credit the incumbent party for the economic policy in the field of inflation in 1984, although inflation in 1984 was quite low in comparison to previous years in Canada.

What are the ideological positions of political parties in governments like? Are they able to sustain their political views even if they are in a coalition with other partners (with diverse views on political issues)? Study [8] shows that conservative parties in a coalition government in Western Europe usually give up their political ideologies more easily than the socialist parties. The religious parties are in a similar position as the conservative parties. Liberal parties sometimes join the coalitions with social democratic parties and thus they leave their ideology behind. This is consistent with [14] definition of political parties' preferences in economic policy. Socialist and labour political parties' two main economic goals are full employment and equal distribution of income. For conservative parties only price stability ranks highest and even centre parties do not have specific goals at the same level. It enables centre and conservative parties to manoeuvre and make compromises when negotiating economic policy.

Study [16] points out that the left-wing parties have used governmental power to correct market outcomes according to their political ideology and values. Thus, societies move to a welfare state. Christian political parties have been the second strongest political force attracting working and lower-middle class voters. The authors also add that a strong need for revision of the welfare state appeared in the 1990s. Study [1] adds that the right-wing parties were more likely to cut benefits, not just raise them less, or cut them more than other political parties during the 1970s.

Study [8] argues that governments with socialist parties are more stable than bourgeois governments. Ideological divisions among bourgeois parties are potentially greater than those among parties of the left. Others [11] mention that the right-wing parties are fragmented by religious, secular, agrarian, nationalist and other issues.

The above-mentioned studies clearly show that governments do not behave purely ideologically; instead, they use a combination of policies, as they believe they are able to cope with problems that they come across. This may cause a methodological problem in the statistical methods in this paper. Approach used in [14], derived according to the positioning of political parties concerning their economic policy goals, is a bit static. For the purpose of

this paper, the methodologies of [17] and [19] are used. The methodology used in [17] is more flexible at comprehending the possibility to choose the economic policy according to the actual situation and the positions of competitors on the political market.

2 Data

This study focused on the influence of governmental political characteristics in parliamentary democracies on the monetary stability. We study the Central and Eastern European Countries (Bulgaria, Czech Republic, Estonia, Hungary, Lithuania, Poland, Slovakia and Slovenia). Those countries passed through a transitional period during the 1990s and started to behave as standard democratic systems afterwards. There are two main groups of data used in this paper – the political one and the economic one.

The statistical analysis used in this paper (described in chapter 3) is very demanding on the quality and extent of data. The analysed data set covers years beginning in 1993. The data set covers the transitional and post-transitional periods for all countries in question. The data for countries such as Poland, Hungary and the former Yugoslavia before 1993 might be interesting, but incomparable with other countries in the region. The data for the succession states in the former Yugoslavia was not included into the research as many of them were at war and in an unstable situation and the question of the economic situation was definitely not top of the list of political importance. There is also a problem with the data concerning the fluctuations and stability of party systems in Central and Eastern European Countries.

In some cases, there might be a problem for the statistical analysis in the case of caretaker governments and short-lived governments. Similar problems with data analysis of short-lived governments appeared in other studies (e.g. [20]). The problem of short-lived governments, usually with duration of less than 2 months, was solved by not including the relevant data of such governments. It was possible just in the case of the governments, which did not last for longer than two months due to the quarterly nature of the data in the analysed sample.

2.1 Data concerning economic situation

The economic data is based on quarterly information, as it makes it possible to take into account the precise timing of cyclical fluctuations in relation to elections. More detailed data, e.g. adjusted to the monthly data sets, do not allow a more precise econometric analysis to be carried out because of monthly time-series are incomplete and some variables are missing altogether. The delays in implementing economic policy are between a quarter of a year or a year, rarely for a shorter period. Thus, adjusting data to shorter periods does not produce a more precise analysis. An analysis on the quarterly data in the political-economic cycle analysis is also used in the works of [21], [1], [10]. Our choice of data frequency is in accordance with the previous research. For example, [6] used just ten annual observations for 1994 – 2003 in their econometric analysis, since the data for the Central and Eastern European Countries and the period before 1989 was unusable and that before 1994 was incomplete and unreliable.

As relevant economic variables were chosen the quarterly data for the consumer price index (as inflation, INF), the economic growth (GRO, measured as a percentage difference of the GDP per capita in relation to the previous quarter of the year), the unemployment rate (UNP), the balance of payments (FOR) and the relative change of the “government expenditure to GDP” ratio. To ensure comparability of all economic data and the same methodological approach for all data, the International Monetary Fund (IMF), OECD data and the European Statistical Office data were used. The main part of the data is of IMF origin.

2.2 Data concerning the political situation

The second group of data represents political data. There are more methodological complications with political data in comparison with economic data. The data on political coalitions and the proportion of power in the parliaments are based on several sources.

There are two main sources of political data concerning the left-right position of the governments used in this paper. The first data sample is based on the analysis by [19] of the governments in Central and Eastern European democracies. The countries for which the political-economic situation is tested in this paper are included in this data set. Those countries are: Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia. Finally, Latvia and Romania were not used in the analysis in this paper, as the economic data for those two countries was incomplete. This data was compared and supplemented by missing data, especially the data set for 2003 – 2005. That additional period is the period when the governments in question were still ruling until the end of 2005. The political character of coalition governments was based on the information gathered from several sources.¹ The methodology of collecting political data is the same as in [26], although the most crucial information concerning the political character of particular parties participating in governments is missing. This type of positioning of political parties on a left – right scale does not change in the long-term and is more static than the following one.

The second methodology used for positioning of governments in the left-right space is taken from [17]. This methodology is based on the approach that many countries witnessed a situation in which political parties' positions changed. Such a situation was also described in the case of Western countries. Study [17] shows that considering elections from 1945 to 1959 in Great Britain, the normally rightist conservatives moved from right of centre in 1945 to well within the left in 1955. According to [17] it was simply a particular strategic adjustment by conservatives who returned to a right-wing position in the 1960s. But it shows the more flexible and changeable position of a particular political party in the left-right scale in comparison to the [19] classification.

The methodology derived in [17] includes not only economic variables, but also international and human rights questions in its left-right positioning of the governments.

To collect information concerning the dates of the beginning and termination of the governments and numbers of political parties in governments was much easier. This type of information does not vary across information sources.

3 Econometric model

The main aim of this analysis is to analyse whether common economic and political variables are able to explain the variance of our key explained variable – inflation. The attention is focused on political variables, especially the type of government. We tested the following econometric model:

$$\text{INF} = f(\text{GRO}, \text{UNP}, \text{FOR}, \text{POW}, \text{NUM}, (\text{CAR1}, \text{DCAR1 or CAR2}, \text{DCAR2 or TOG}), \text{TIM}, \text{PREM}, \text{AFTER}) \quad (1)$$

where

¹ Based on www.parties-and-elections.de; <http://elections.online.fr> and web sites of national parliaments and governments.

GRO is the economic growth measured as the difference between two quarters in the country in question. It is a percentage of the difference of the GDP per capita in relation to the previous quarter of the year.

INF is the inflation rate in a particular country and quarter of the year. It is measured by the consumer price index.

UNP is the unemployment rate in a particular country and quarter of the year. It is measured as a percentage of unemployed people in the given economy's workforce.

FOR is the balance of payments measured quarterly.

POW is a variable indicating what kind of majority had the ruling coalition. It is measured as a percentage of the whole legislature in parliament. The numbers above 50% indicate majority governments, below 50% indicate minority ones. This value is measured by the number of seats in parliament, not by the share of votes in the elections. A majority is important, as a coalition usually needs a majority in parliament for a vote of confidence.

NUM is the number of political parties taking part in the ruling government.

CAR1 is the political character of the government. It is measured as a weighted rate based on the [19] classification.² This indicator describes the weighted average of the parties included by:

$$CAR = \sum_{i=1}^n \frac{P_i}{\sum P_i} PFi, \quad (2)$$

where i indicates i^{th} party of n parties in the coalition government, PFi indicates the appropriate political group, whose political programme is closest to the i^{th} party. The value of this variable ranges from 1 (Communist parties) to 14 (Single – issue parties). Categories 13 (Regionalist parties) and 14 are rare, thus the usual value of this variable ranges from 1 to 12 (Right-wing and nationalist parties).

DCAR1 is derived from the *CAR1* variable. This variable determines the political heritage of the previous government.

$$DCAR1 = CAR1(t) - CAR1(t-1), \quad (3)$$

Thus, this variable is below (above) zero in the situation when the previous government was more to the right (left) on the left-right scale in comparison to the incumbent government. This variable is equal to zero in the case of the same government (consistent with the previous government).

CAR2 is the alternative measure of political character of the government. It is measured as a weighted rate based on the [17] classification. Using the [17] methodology, a government's policy position is the weighted mean score of parties in government on each of the six policy scales covered in this methodology: Left-Right, planned economy, market economy, welfare, international peace, and EU scales. Weights are the proportion of parliamentary seats held by each party in the government. The few governments identified as non-partisan are reported as missing data.

It includes not only economic variables, but also variables concerning military and peace positions, human rights questions and others.

² This source respects the situation after the elections, but it was necessary to adjust the variables POW and CAR to the real situation in Parliament as some coalitions were created or were split up during the incumbency.

DCAR2 is derived from the CAR2 variable in a same way as DCAR1.

EXP denotes the percentage of the government expenditure related to GDP in a particular country and yearly quarter.

TOG is a set of 5 dummy variables (to avoid dummy variable trap) and indicates the last alternative measure of government type according to the [19] classification:

1. Single-party government (just one party holds the majority in parliament necessary for ruling the country and also holds all the seats in the cabinet).
2. Minimal winning coalition (all parties in the government are necessary to form a majority in parliament).
3. Surplus coalition (coalition governments exceeding the minimal winning criterion, which is met in type 2).
4. Single-party minority government (the party in government does not have the majority of the seats in parliament, but has all the seats in the cabinet).
5. Multi-party minority government (similar situation to 4, including 2 or more parties in the government, which do not have the majority of seats in parliament).
6. Caretaker government (these governments are temporary or they are governments with support across the whole political spectrum for a pre-agreed period).

TIM controls for duration of the government. It is measured by quarters after the nomination of the government. For example, the value for the first quarter (0 – 2nd months) is 0, for the second quarter (3rd - 5th months) the value of this variable equals to 1, etc. The beginning of the government is determined by the nomination of the prime minister, not the vote of confidence vote in Parliament.

PREM denotes the situation when the strongest political party in the ruling coalition occupies the seat of the prime minister (0 means that the prime minister is a member of another political party other than the strongest one in the coalition government, 1 denotes that the strongest party occupies the seat of the prime minister).

AFTER is a variable used for differentiating transitional and post-transitional periods. It is 0 for 1993 – 1999 and the value is 1 for the period 2000 – 2005. Such a split is also based on [17] hypothesis that parties in Central and Eastern European Countries would demonstrate two major swings (liberalization and then “social democratisation”) in the first decade following the regime change.

All qualitative variables passed common test for their stationarity. We used panel data regression modelling with fixed effect as proposed by [12] to be able to control for the differences between countries. Discrete variables were handled as dummy variables.

4 Results and discussion

The final model (see equation (1)) is presented in Table 1. To improve the quality of model we employed some “auxiliary variables” – the autoregressive term (AR1), and to deal with the seasonality we utilized the standard procedure based on the seasonal dummy variable, see [3]. The overall quality of model is sufficient; the adjusted R-squared is 0.55 which is comparable with other similar studies. Furthermore, Durbin-Watson statistics is 2.15 and indicates there is no problem with autocorrelation of residuals. According to the F-test, we can reject the null hypothesis that all the country effects are zero.

Tab. 1: *The final model for the inflation as dependent variable*

Variable	Coeff.	Std. Error	t-Statistic	Prob.	Fixed Effects	Coeff.
Political var.					BUL--C	12.6
TOG1	-3.78	1.52	-2.48	0.014	CZ--C	14.8
TOG2	-2.22	1.17	-1.90	0.059	EST--C	14.0
POW	-0.22	0.10	-2.16	0.031	HUN--C	12.8
					LIT--C	16.5
Economic var.					POL--C	15.7
EXP	0.32	0.12	2.72	0.007	SLO--C	13.3
GRO	1.32	0.05	26.74	0.000	SVK--C	14.8
Auxiliary variables						
S3	-19.83	2.16	-9.19	0.000		
S4	-18.45	2.31	-7.99	0.000		
AR(1)	-0.13	0.06	-2.04	0.042		

Diagnostic tests:

R-squared	0.65	Mean dependent var	2.64
Adjusted R-squared	0.55	S.D. dependent var	13.74
Durbin-Watson stat	2.15	Prob(F-statistic)	0.00

Notes:

S is a seasonal component according to the first quarter of the year. Thus, S2 means the second quarter, S3 the third quarter and S4 the last quarter of a year. S1 was used as a reference category.

Source: IMF, OECD, own calculation using Eview 6 econometric software.

Model reveals that public sector expenditure (EXP) is statistically significant with estimates showing a positive relationship between inflation and public expenditure. It seems there is also a statistically significant influence of seasonally adjusted economic growth (GRO). A growing economy is connected with increasing price levels. These conclusions fit the mainstream economic theoretical assumptions.

The most interesting result concerns the relationship between the incumbent government (POW) having a majority in parliament and inflation. Regression estimates show that a higher majority is connected with lower inflation. In more detail, the regression estimates show a tendency of increasing parliamentary majority leading to decreasing inflation. The estimates of the relationship show that if the majority increases by one percentage point, the estimated inflation decreases by 0.22 percentage points. Single-party government (TOG1 – just one party holds the majority in parliament necessary for ruling the country and also holds all the seats in the cabinet) and government with the minimal winning coalition (all parties in the government are necessary to form a majority in parliament) significantly influenced the inflation (see coefficient -3.78 and -2.22 respectively).

Conclusion

Some interesting economic relationships were derived from the study of socio-economic data for Central and Eastern Europe countries. We focused on the structure of government and inflation.

The most interesting result concerns the relationship between the incumbent government having a majority in parliament and inflation. Regression estimates show that a higher majority is connected with lower inflation. In more detail, the regression estimates show there is a statistically significant tendency of increasing parliamentary majority to lower the rate of inflation.

We checked the relationships for the other theoretically relevant variables (public expenditure and economic growth). Growth in public expenditure usually causes a growth in inflation and the same is true for the higher economic growth.

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KOALIČNÍ VLÁDY A INFLACE V ZEMÍCH STŘEDNÍ A VÝCHODNÍ EVROPY

Článek se zabývá politicko-ekonomickými vazbami koaličních vlád v zemích střední a východní Evropy.

Analýza dat odhalila statisticky významný vliv politické většiny na pokles inflace o 0,22 procentních bodů (za každé 1 % většiny vlády v parlamentě). Vlády sestavené z jedné strany a vlády minimální vítězné koalice (všechny strany ve vládě jsou nezbytné pro vytvoření většiny v parlamentu) statisticky významně ovlivnily inflaci ve srovnání s jinými typy vlád. V takovém případě byl pokles inflace přibližně o 3 procentní body.

KOALITIONSREGIERUNGEN UND INFLATION IN DEN LÄNDERN MITTEL- UND OSTEUCOPAS

Der Artikel befasst sich mit den politischen und wirtschaftlichen Bindungen der Koalitionsregierungen in den Ländern Mittel- und Osteuropas.

Die Datenanalyse hat einen statistisch bedeutsamen Einfluss der politischen Mehrheit auf den Inflationsrückgang um 0,22 Prozentpunkte (für jedes 1 % der Regierungsmehrheit im Parlament) entdeckt. Im Vergleich mit anderen Regierungsarten haben die von einer einzigen Partei gebildeten Regierungen sowie Regierungen einer knapp siegenden Koalition (alle Regierungsparteien sind für die Parlamentsmehrheit unentbehrlich) die Inflation statistisch bedeutsam beeinflusst. In einem solchen Fall beträgt der Inflationsrückgang 3 Prozentpunkte.

RZĄDY KOALICYJNE I INFLACJA W KRAJACH EUROPY ŚRODKOWEJ I WSCHODNIEJ

Artykuł dotyczy powiązań polityczno-gospodarczych rządów koalicyjnych w Europie Środkowej i Wschodniej.

Analiza danych wykazała statystycznie znaczący wpływ większości politycznej na spadek inflacji o 0,22 punkty procentowe (dla każdego 1 % większości rządu w parlamencie). Rządy utworzone przez jedną partię polityczną oraz rządy koalicji minimalnie zwycięskich (wszystkie partie polityczne w rządzie są niezbędne do stworzenia większości w parlamencie) miały statystycznie znaczący wpływ na inflację w porównaniu z innymi typami rządów. W takim przypadku spadek inflacji wynosił około 3 punktów procentowych.

TOURISM COMPETITIVENESS OF POLAND AT THE BACKGROUND OF THE WORLD AND EUROPEAN COUNTRIES

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Abstract

The problems of company competitiveness represent one of the most significant research streams nowadays. In spite of abundant theoretical output in this domain, the concept of company competitiveness and spatial systems brings about numerous controversies. In general, terms it may be defined as the ability to achieve success in the course of economic rivalry. From the perspective of tourism competitiveness, it can refer to enterprises, to a sector, a region and a country. It is understood as the skill of preparing such tourist offer, which distinguishes a particular enterprise, a region or a country at the background of others, and as the result stands the chance of attracting tourists and enhancing socio-economic benefits associated with tourism development.

The objective of the paper is to present tourism competitiveness in Poland at the background of selected countries worldwide and the European Union, as well as attract attention to the role played by the EU funds in its construction.

Introduction

Competitiveness represents a relative category since it assumes the comparison of one object against others in terms of their different characteristics. It can be approached as a quality, an attribute, an effect, a result or a process. In general, competitiveness refers to the skill of competing, i.e. functioning and surviving in a competitive environment. This concept is commonly used in theory and practice in relation to, e.g. economic entities, sectors, national economy, products, management systems, information, structures or strategies. It is also more and more often applied in territorial systems (e.g. regions, locations). M. E. Porter is considered the author of spatial systems competitiveness. The concept of competitiveness can be assigned to both the least advanced units (e.g. a product, an enterprise) and to complex ones such as economic and territorial systems (e.g. economy, sector, region, location). The research studies focused on competitiveness take, most frequently, into consideration the following economic systems [4, p. 166]:

- company competitiveness,
- sector competitiveness,
- cluster competitiveness,
- national economy competitiveness,
- the competitiveness of international blocks.

With reference to tourism one can analyze the competitiveness of tourist enterprises, tourist destinations (e.g. locations, regions, country), as well as sector or branch competitiveness (e.g. hospitality sector). Therefore, tourism competitiveness of the mentioned above systems

consists in obtaining permanent benefits from tourism development by all entities functioning in a given area [3, p. 436-459]. Having applied the suggested by H. Trabold hierarchical model based on four fundamental aspects of competitiveness it is possible to distinguish the following aspects in terms of tourism competitiveness referring to a territorial system (e.g. a country, a region):

- the system's ability to prepare and sell a given tourist offer,
- the ability to attract investors (domestic and foreign) interested in investments in tourism infrastructure elements and also in workforce (tourist pension),
- the ability to adopt a tourist destination to the changing environmental conditions (including the needs and expectations of potential tourists),
- the ability to earn money allowing to cover current expenditure and investment needs, and to obtain profit [6].

In the above context the improvement of tourism competitiveness, referring to a spatial system (e.g. a country, region), can be done by means of:

- activities performed in the area of supply consisting in e.g. the development of tourism and semi-tourism infrastructure components featuring a tourist destination, improved cooperation and coordination of activities carried out by the supply area participants of the tourism market, focused on the development of new and attractive offers,
- activities addressed to tourism demand enhancement (e.g. the improvement of these offer elements, distribution and promotion channels, as well as the pricing policy, which are desired by tourists),
- the improvement and construction of a particular and unique tourist destination image (e.g. marketing policy).

The problems of factors underlying competitiveness represent crucial elements of the discussion referring to economic entities and territorial systems competitiveness. This concept also covers the reason which directly influences a given entity competitiveness (positively or negatively), i.e. all possible circumstances having impact on the effectiveness of development factors implementation.

In the perspective of the above remarks the objective of the study is to compare tourist competitiveness of Poland at the background of the selected countries. It focuses on the presentation of the spatial system of a country with particular emphasis on the role of impact factors. The Travel and Tourism Competitiveness Index developed by the World Economic Forum experts constitutes the basis for such assessment.

1 Factors influencing tourist destination competitiveness

The factors responsible for spatial units' competitiveness are subject to numerous classifications. In terms of tourist destinations' competitiveness, these factors can be divided into exogenous and endogenous ones [2, p. 69-70]. Among exogenous factors, the following can be listed:

- geographical location and the related tourist pension,
- location with reference to places of potential tourist demand concentration (influencing the so-called area communication accessibility),
- seasonality (length of the tourist season),

- trends and external factors influencing tourist demand for different forms of tourism.

On the other hand, endogenous factors, which result from the capital inherent in a given area, are mainly represented by:

- tourism assets and management,
- regional and local policy specifying tourism sector development possibilities,
- social capital and entrepreneurship initiatives of residents,
- promotion and image creation of a particular spatial unit.

As the result of impact exerted by the listed factors a given spatial unit (e.g. a country, a region, a location) obtains competitive advantage, i.e. recognition among potential tourists as an attractive area in terms of tourism-specific needs realization.

In the conditions of tourism market globalization and an increasing competitiveness, referring not only to companies but also to tourist destinations, it is inevitable to make comparisons and create the rankings of competitiveness in tourism. They can serve useful causes related e.g. to tourism policy reorientation at either national or regional level.

The problems of territorial units' competitiveness, with reference to tourism, have become the focus of interest to experts representing the World Economic Forum. They developed The Travel and Tourism Competitiveness Index (TTCI), which consists of 14 factors (elements) divided into three sub-groups, namely:

- factors influencing competitiveness in the area of tourism and constituting the responsibility of national authorities (e.g. tourism policy, sustainable development, safety, health care, sanitary conditions),
- business environment conditions and tourism infrastructure,
- natural, cultural and human resources in tourism¹.

The suggested indicator and its components allow for measuring factors responsible for the diversified development of tourism and travel sector in terms of attractiveness and competitiveness in particular countries.

2 The competitiveness of Poland as a tourist destination

The listed above groups of factors constitute the basis for specifying the travel and tourism competitiveness index (TTCI) which is the starting point for preparing the ranking of countries published every two years by the World Economic Forum. The analysis of results presented in the report of 2011² indicates that Poland (as a tourist destination) was ranked as 49 among 139 countries worldwide. While comparing this result with reports of 2007 and 2009 attention should be paid to further development of Poland's competitiveness as a tourist destination. In 2007, Poland was ranked as 63 and in 2009 as 58. With reference to 2011 the improvement was by 14 places among world's countries covered by the ranking. Table 1

¹ More in: J. Blanke, T. Chiesa, *The Travel and Tourism Competitiveness Report 2011*. Beyond the Downturn. World Economic Forum. Geneva: 2011.

² Derek M.: *Walory turystyczne jako czynnik konkurencyjności regionów [Tourist assets as the factor of regional competitiveness]*, [in:] Gołembski G. (ed.). *Turystyka jako czynnik wzrostu konkurencyjności regionów w dobie globalizacji [Tourism as the factor of regional competitiveness enhancement in the times of globalization]*. Poznań University of Economics. Poznań: 2008.

illustrates Poland's ranking position having considered 14 decisive factors regarding the travel and tourism competitiveness index (TTCI).

The analysis of data presented in table 1 allows for the conclusion that Poland is competitive in terms of its tourism potential related to natural and cultural assets (54 and 17 place respectively). Poland's focus on sustainable development in tourism should also be positively evaluated (ranking position improvement from 65 to 37), human resources quality (43 position) and telecommunication infrastructure development (44 position). During the period of 2007-2011 a significant improvement was observed in the position of Poland considering the sub-group of factors covered by the competencies of central government authorities (from 63 up to 49) and factors identified as "natural, cultural and human resources in tourism" (from 60 to 30 ranking position).

Tab. 1: *The position of Poland in an international tourism competitiveness ranking in the period of 2007, 2009 and 2011*

The travel and tourism competitiveness index (TTCI) and its components		The position of Poland		
		2007	2009	2011
The travel and tourism competitiveness index (TTCI)		63	58	49
Factors covered by the State competencies		63	72	49
1.	Tourism policy	66	75	49
2.	Sustainable development	65	63	37
3.	Safety	71	91	50
4.	Health care and sanitary conditions	89	57	44
5.	Tourism prioritization	42	82	98
Business environment factors and tourism infrastructure		62	68	65
6.	Air transport infrastructure	86	79	88
7.	Road transport infrastructure	61	68	78
8.	Tourism infrastructure	46	59	52
9.	Telecommunication infrastructure	43	41	44
10.	Pricing competitiveness	83	105	66
Natural, cultural and human resources in tourism		60	29	30
11.	Human resources	44	56	43
12.	Attitudes towards tourism	122	102	132
13.	Natural resources	19	54	54
14.	Cultural resources	19	21	17

Source: [1]

It, however, has to be noticed that in the presented ranking, having considered only the European countries, Poland was ranked as 28 among 42 countries in 2011. Poland was overtaken only by such countries as: Croatia (24 in the European ranking), Montenegro (25), Bulgaria (27) and Polish neighbours: Germany (2), Czech Republic (22) and Hungary (26), the first three positions in this ranking (in 2009 and 2011) were taken by, respectively: Switzerland, Germany and Austria.

The results of tourism competitiveness ranking, referring to particular countries, confirm the fact that there are numerous and diversified factors influencing tourism. It seems that in terms of competitiveness impact, exerted by the first sub-group of factors, the central government initiatives, in cooperation with local authorities at particular levels, aimed at establishing

adequate climate for tourism development as well as entrepreneurship in tourism referring to tourist destination areas, are fully founded.

Polish low position in the sub-group of “Business environment and tourist infrastructure” factors (65 position) indicates the need for intensifying activities focused on both external and internal communication accessibility of our country and its attractive regions in relation to tourism. It also seems founded to initiate activities underlying Poland’s image changing, since Poland is still observed as the country of increased risk factor (even though there are significantly positive changes regarding the safety level – 50 position in 2011 comparing to 91 in 2009).

While analyzing the methodology for the construction of the travel and tourism competitiveness index, it has to be emphasized that it is positively and relatively strongly correlated with the number of tourist arrivals. In this context it is worth presenting some information illustrating the inbound tourist traffic volume to Poland in the selected European countries (tab. 2).

Tab. 2: *The arrivals of foreign tourists to selected European countries in the period of 2007-2010 (in thous. of people)*

Specification	2007	2008	2009	2010
Austria	20,766	21,935	21,355	22,004
France	81,900	79,218	76,824	76,800
Spain	58,666	57,192	52,178	52,677
Germany	24,420	24,866	24,223	26,875
Italy	43,654	42,734	43,239	43,626
Switzerland	8,448	8,608	8,294	8,628
Czech Republic	6,680	6,649	6,032	6,334
Hungary	8,638	8,814	9,058	9,510
Poland	14,975	12,960	11,890	12,470
Croatia	9,307	9,415	9,335	data unavailable
Portugal	12,321	6,962	6,439	6,865
Slovakia	1,685	1,767	1,298	1,327

Source: [7]

Even rough analysis of the presented data allows for the conclusion that in spite of fluctuations in the number of tourists visiting European countries the tourism sector has been showing certain resistance to economic prosperity changes in the recent few years.

3 The implementation of EU funds for tourism policy competitiveness improvement

The condition for Poland’s competitive advantage construction by means of tourism is the implementation of activities aimed at the creation of attractive tourist products of supra-national significance, the promotion of tourist assets, ongoing development of tourist infrastructure and upgrading human resources quality in tourism. The crucial role in the above activities is played by the EU means, which were obtained by the tourism sector within the framework of a long-lasting financial perspective 2007-2013. The major source of EU funds for tourism takes the form of support covered by the Operational Programme ‘Innovative economy’ within Measure 6.3.: The promotion of Poland’s tourism assets and Measure 6.4.: Investments in tourism products of supra-regional importance. The funds for Polish tourism competitiveness strengthening also originate from other operational programmes. The scale of support for Polish tourism competitiveness improvement is illustrated by data presented in tab. 3.

Tab. 3: The EU funds planned in the period of 2007-2013 for the improvement of Poland's tourism competitiveness (in mln Euro)

Name of the programme		Allocated funds
Operational Programme 'Innovative economy'		
1.	Measure 6.3. Promotion of Poland's tourism assets	30.0
2.	Measure 6.4. Investments in tourism products of supra-regional importance	138.0
Operational Programme 'Development of Eastern Poland'		
1.	Objective V.1. Promoting sustainable tourism development	5.88
2.	Objective V.2. Bicycle routes	73.70
3.	Objective III.2. Infrastructure of congress and fair travel	81.76
Regional Operational Programmes (covering the implementation of projects within the framework of tourism)		731.32
Operational Programme Infrastructure and Environment		479.87
Operational Programme Human Capital (projects covering tourism)		86.48

Source: [5].

The implementation of projects financed from the EU funds and supported by internal means covers the spectrum of activities referring to, among others, complex promotion of Poland's tourism assets (the project entitled: "Let's promote Poland together"), the establishment of tourism products of supra-regional importance (21 projects), the construction of bike tourism infrastructure taking the form of routes covering five regions of Eastern Poland or the construction or reconstruction of 1706 tourist and recreation facilities.

Conclusions

The improvement of Poland's position in an international tourism competitiveness ranking presents a desirable phenomenon, while the potential of available tourism assets offers opportunities for it. Owing to the European Union funds and internal sources, as well as high activity of territorial authorities (at regional and communal level), the projects focused on Polish regions tourism attractiveness enhancement are carried out and facilitate both higher recognition and competitiveness of Poland at an international arena.

On the other hand, the analysis of factors influencing tourist competitiveness of Poland attracts attention to the following crucial issues:

- the need to intensify cooperation between local authorities and private sector representatives for the benefit of further tourism infrastructure development (the formula of public-private partnership),
- the intensification of activities to improve both internal and external transport accessibility of Poland and its tourist regions,
- the provision of financial means for the implementation of projects covering to the development of tourism in the new EU financial perspective (2014-2020), as well as the financial guarantee for tourism oriented projects after finalizing their financial support from the EU funds.

Without ensuring the above activities maintaining the current position of Poland in the attractiveness and competitiveness ranking may turn out problematic.

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TURISTICKÁ KONKURENCESCHOPNOST POLSKA NA POZADÍ JINÝCH STÁTŮ EVROPY A SVĚTA

Problematika konkurenceschopnosti organizací patří nyní k důležitějším oblastem vědeckého výzkumu. Přes řadu teoretických studií existujících v této oblasti, vzbuzuje koncepce konkurenceschopnosti firem a územních celků mnoho kontraverzí. Celkově ji lze označit jako schopnost uspět v hospodářské soutěži. Z hlediska cestovního ruchu se konkurenceschopnost může týkat podniku, sektoru, regionu a státu. Znamená schopnost připravit nabídku cestovního ruchu, která příslušný podnik, region nebo stát odliší od jiných, a v důsledku přiláká návštěvníky a zvýší socio-ekonomické přínosy související s rozvojem cestovního ruchu.

Cílem příspěvku je prezentovat turistickou konkurenceschopnost Polska na pozadí vybraných států Evropské unie a světa a upozornit na úlohu evropských fondů v jejím vytváření.

DIE TOURISTISCHE WETTBEWERBSTÄTIGKEIT IN POLEN IM VERGLEICH MIT ANDEREN LÄNDERN IN DER WELT UND IN EUROPA

Die Problematik der Wettbewerbstätigkeit von Organisationen gehört gegenwärtig zu den wichtigsten Richtungen der wissenschaftlichen Forschung. Trotz vieler theoretischer Werke in diesem Bereich erregt die Idee der Wettbewerbstätigkeit von Firmen und räumlichen Systemen viele Kontroversen. Im Großen und Ganzen kann man sie als eine gewisse Fähigkeit dazu bezeichnen, Erfolge im wirtschaftlichen Wettbewerb zu erzielen. Vom Standpunkt des Fremdenverkehrs kann die Wettbewerbstätigkeit Betriebe, Bereiche, Regionen und das ganze Land betreffen. Darunter versteht man ein Können bei der Vorbereitung des touristischen Angebots, das diesen konkreten Betrieb, diese Region oder dieses Land unter anderen hervorhebt, was im Resultat Touristen anlockt und den gesellschaftlich-wirtschaftlichen Nutzen im Bereich der Fremdenverkehrsentwicklung bringt. Ziel des Artikels ist es, die touristische Wettbewerbstätigkeit Polens im Vergleich mit anderen ausgewählten Ländern in der Welt und in der Europäischen Union darzustellen und die Aufmerksamkeit auf die Rolle der EU-Fonds bei der Gestaltung der Wettbewerbstätigkeit zu richten.

KONKURENCYJNOŚĆ TURYSTYCZNA POLSKI NA TLE KRAJÓW ŚWIATA I EUROPY

Problematyka konkurencyjności jednostek stanowi wspólnie jeden z ważniejszych nurtów badań naukowych. Pomimo dużego dorobku teoretycznego w tym zakresie, koncepcja konkurencyjności firm i układów przestrzennych budzi wiele kontrowersji. Ogólnie można ją określić jako zdolność do osiągnięcia sukcesu w rywalizacji gospodarczej. Z punktu widzenia turystyki konkurencyjność może dotyczyć przedsiębiorstw, sektora, regionu oraz kraju. Oznacza ona umiejętność przygotowania oferty turystycznej, która wyróżni dane przedsiębiorstwo, region lub kraj na tle innych, a w efekcie przyciągnie turystów i zwiększy korzyści społeczno-gospodarcze związane z rozwojem turystyki.

Celem artykułu jest przedstawienie konkurencyjności turystycznej Polski na tle wybranych krajów świata i Unii Europejskiej oraz zwrócenie uwagi na rolę funduszy unijnych w jej kształtowaniu.

SELECTED ASPECTS OF INVESTMENT ATTRACTIVENESS OF REGIONS

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Abstract

The paper presents selected problems referring to investment attractiveness of regions. Its initial part discusses theoretical aspects of investment attractiveness determinants. Next the examples of determinants regarding regional investment attractiveness are listed. They are divided into six thematic groups of factors: economic, socio-cultural, political and administrative quality, technological and innovative, natural and image specific ones. The analysis of the report published by The Gdańsk Institute for Market Economics, and referring to investment attractiveness of Polish regions, constitutes the core part of the paper. There are also presented e.g. the decisive factors influencing investment attractiveness of Polish regions including their characteristics, as well as the analysis of positions occupied by particular regions in terms of investment attractiveness in the recent eight years.

Introduction

As far as socio-economic development of contemporary regions is concerned the problems related to their investment attractiveness constitute the vital element to be considered in the course of creating long-term strategies of territorial development. The activities aimed at investment attractiveness improvement should be referred to in a complex manner, as well as implemented and monitored successively. Particular attention should be paid to domestic and foreign investors having free funds at their disposal and interested in making investments in a given region. Passive dissemination of information about a region may turn out an insufficient strategy in the process of attracting investments. One of the basic steps to be taken seems preparing complex investment offer covering, from the perspective of investors, all crucial elements in favour of a territorial unit competitive advantage. Success, in terms of regional offer promotion, depends, to a large extent, on regional authorities' involvement, their intensified activities and creativity. It is them who carry the burden of reaching potential investors and strengthening the entrepreneurial oriented attitudes among the users of regional space [6]. In some cases, however, to be regarded as a short-sighted approach, the responsible regional institutions do not put enough effort into the long-term support for investors' functioning and the entire energy disappears after attracting a particular investment. Incentives and enhancement addressed to the already functioning entities should represent the vital component of the position earned in terms of investment attractiveness.

The term of investment attractiveness represents a complex concept and covers the entire spectrum of factors which are important from the perspective of potential investments and performed economic activities. The perception of a region, regarding its investment attractiveness, depends on an investor him/herself. It is the investor's primary job to analyse numerous determinants present in a given area and crucial from his/her perspective, as well as the potential advantages resulting from the invested capital. Therefore the investment attractiveness can be defined e.g. as the ability to persuade an entrepreneur to make a

particular investment based on the location advantages, possible to achieve in the process of performing economic activities [7].

Among the objective determinants in favour of regional investment attractiveness the general level of its development can be listed. An important role is played here by the life quality of a given community. It also reflects, to an extent, the efficiency of activities undertaken by public institutions. Another component takes the form of regional development dynamics, manifested by the condition of economic prosperity. It reflects the level of local authorities' activity and the entrepreneurial sector involvement in constructing competitive advantage of the area. Additionally, it illustrates the level of optimism shared by local residents and their approach to entrepreneurship. Attention should also be paid to the attractiveness of regional products offer, at both domestic and foreign market, showing qualifications of local population and their creative potential. Regional socio-geographic determinants are e.g. presented by the general level of culture, the recognized systems of values, the openness to innovation and changes. It is also crucial to be aware of attitudes and social conflicts, the level of professional activity, the migrations of population or the level of crime. The situation diagnosis in terms of economic, financial, technical and organizational infrastructure can be regarded as one of the key areas to be considered by potential investors. The conducted infrastructure analysis offers the picture of expected funding sources availability, the supply market development, the prices of supplied raw materials, products, logistic services and the possible cooperation. The next package of factors refers to the quality of services offered to entrepreneurs by public institutions, the activities performed by local government, the promotion of entrepreneurial attitudes or professional enhancement programmes. It is also vital to consider the adjustment of regional educational offer to the expectations of new investors and the existing entities, as well as the efficiency of regional development funds implementation.

The first part of the study presents a relatively extensive list of selected determinants responsible for investment attractiveness of regions. The analysis of a report referring to regional investment attractiveness, in the cross-section of Polish regions, constitutes the core part of the paper. The study of The Gdańsk Institute for Market Economics is based on the implementation of quantitative data originating from the system of public statistics supplemented by the information originating from other sources. Within the framework of the selected assessment method the procedure of characteristic features accessibility measure classification was applied. It was assumed that the assessment is of relative nature and the average value for a set of regions constitutes the reference point. The report does not cover all aspects of investment attractiveness due to the unavailability of selected quantitative data, the problems in qualitative data quantification and their incompleteness.

The paper presents an attempt to indicate the selected problems referring to investment attractiveness of Polish regions. The particular emphasis is put on the report analysis referring to Polish regions' investment attractiveness and the identification of investment attractiveness determinants.

1 The determinants of investment attractiveness of regions

Literature references offer many studies covering the problem of investment attractiveness determinants. They are divided according to various criteria (hard – soft, common – unique, qualitative – quantitative, etc.). However, certain discrepancies occur in qualifying particular factors in groups and assigning their ranks, or in their significance ranking. Developing a universal list of regional attractiveness determinants represents, beyond any doubt, a difficult task. It becomes even more complicated due to the fact that for different investors the same factors can be of larger or smaller importance in terms of particular economic activities. In

case of an entrepreneur selling all his/her production outside regional markets the regional sales market absorption capacity does not have to be of the utmost importance. These entities which carry out manufacturing processes based on operational staff do not consider important the supply of university graduates speaking foreign languages. A company rendering consulting services will probably focus on more important investment determinants than the local climate, natural resources and the surrounding landforms. Additionally, the universal approach issue is complicated owing to the specific and unique advantages available only in selected areas (e.g. access to the sea, numerous relics of the past, location along the country border, attractive natural resources, strong and rich in their traditions academic centres, congenital entrepreneurship of residents). The table below presents an attempt to offer the list of investment attractiveness determinants referring to regions. The particular factors were divided into six thematic groups (economic, socio-cultural, political and administration quality, technological and innovative, natural and image specific).

Tab. 1: *The list of selected determinants of investment attractiveness of regions*

<i>Thematic groups of factors</i>	<i>Determinants of investment attractiveness</i>
<i>Economic</i>	<ul style="list-style-type: none"> • the level and pace of economic development, • regional market absorption, • access to sales markets, • transport accessibility of a region, • technical infrastructure condition, • ecological infrastructure, • telecommunication infrastructure quality, • the diversification of existing industry sectors, • production capacity, • the development of SME, • economic situation of the functioning entities, • competition from other regional entities, • foreign investments structure, • the structure of property prices, • spatial management structure, • waste management, • the development of metropolises, • regional unemployment structure, • the existing labour resources, • tax abatement system, • offered, complex packages of investment relieves, • special economic zones functioning, • proximity to the sources of raw materials or spare parts supply, • foreign exchange rate risk, • costs of credit, • supply and energy costs, • the course of inflation processes, • the availability of diverse funding sources, • venture capital availability, • labour costs, • regional community wealth, • legal regulations, the stability of execution regulations, • the implementation of funds for regional development, • the possibility of market niche exploration, • the salary structure of employees, • the functioning of modern organizational structures, • the structure of private ownership, • business environment institutions, • financial institutions, • recreation and leisure infrastructure,

	<ul style="list-style-type: none"> • costs of living in a region, • the functioning of professional activation programmes, • advisory and consulting companies, • the system of professional trainings.
<i>Socio-cultural</i>	<ul style="list-style-type: none"> • demographic structure of regional community, • the supply of tertiary education graduates, • the supply of qualified personnel, • the supply of unskilled personnel, • the supply of personnel with good command of foreign languages, • the availability of management personnel, • social infrastructure conditions, • entrepreneurial attitudes of regional community, • openness to organizational and cultural changes, • climate for entrepreneurship, • local community mobility, • the sense of regional identity, • regional community creativity, • public safety, • international exchange at different social levels, cultural and scientific exchange, • globalization trends, • the pace of urbanization processes, • social ecological awareness, • consumption structure in a region, • the diversity of leisure time spending forms, • the availability of services meeting the needs of enterprise sector employees, • business ethics, • local community living standards resulting from material status and satisfaction from current life situation, • the system of values in force, • community participation in solving developmental problems.
<i>Political and administration quality</i>	<ul style="list-style-type: none"> • the activity of local government institutions in attracting investors, • political scene stability, • strong leadership inspiring social community members, • social and political conflicts occurrence, • the involvement of politicians in the development of entrepreneurship, • the continuity of conducted pro-development policy, • the functioning of significant national and international institutions in the region, • regional leadership for entrepreneurship development, • cooperation of regional institutions at national and international level, • the power of trade unions, • the level of acceptance for activities undertaken by local authorities and the community, • the level of internal and external client service by public institutions' employees, • professional management, • the command of foreign languages by public institutions' employees, • the functioning and updated complex offer for investors.
<i>Technological and innovative</i>	<ul style="list-style-type: none"> • high schools and research centres presence, • entrepreneurship incubators and technological incubators, • technology transfer centres, • advanced technologies of regional products, • production quality diversification, • high-tech industry sectors development, • innovation of regional products and services, • knowledge-based economy, • cooperation of scientists and entrepreneurs, • regional community consensus for innovation, • the structure of intellectual capital,

	<ul style="list-style-type: none"> • the structure of research and development expenditure presented by public and commercial institutions, • legal protection of innovative solutions, • support for regional innovation systems, • the implementation of regional innovation strategies, • pro-innovative attitudes creation among investors and regional community, • research infrastructure condition, • the implementation of new technologies.
<i>Natural</i>	<ul style="list-style-type: none"> • climatic conditions, • landforms, • available natural resources, • favourable geographical location, • the rationalization of natural environment resources management.
<i>Image</i>	<ul style="list-style-type: none"> • regional brand at national and international arena, • the attractiveness and brand of products and regional services, • the image of a region functioning in the general public opinion, • the prestige of population working and living in a region featuring a recognizable brand, • establishing the sense of loyalty towards a region, • experiences and opinions of the existing investors.

Source: Author's compilation based on [1], [2], [3], [4], [5], [8], [9], [10], [12], [15], [16]

The majority of presented determinants are of traditional nature and appear in studies referring to the investment attractiveness or the competitiveness of regions in different configurations and arrangements. The relatively new area to be considered is the group distinguished within the framework of image-specific determinants [14].

Having assumed that international investment competitiveness and attractiveness of a region constitute the most desirable condition, these regions which offer brand products should be most successful in competing on international markets [13]. On the other hand, these regions which are competitive at an international market present better capacity for the brand products creation. Such a relation results from the experience gained in the course of rivalry in an international environment. Attention should also be paid to opinions and experiences of the existing investors. Potential investors, especially the foreign ones, can pay attention to information received from other entrepreneurs. Positive information can facilitate investment choices and shorten the process of searching for an optimal region to initiate business activities.

2 Investment attractiveness of regions based on the example of Polish regions

An abundance of rankings and lists referring to investment attractiveness of countries, regions or towns have appeared in recent years. An interesting report, referring to investment attractiveness of Polish regions and sub-regions, has been developed, for many years, by The Gdańsk Institute for Market Economics. It offers the synthetic assessment of particular territorial units' attractiveness.

The report refers to investment attractiveness as the ability to stimulate towards undertaking investments by offering the package of location activities possible to achieve in the process of business operations. It has to be emphasized that the investment policy, focused on upgrading investment attractiveness of a region, is the component of broader regional and local development policy. Additionally, regional authorities represent the crucial, however, not the only creators of the mentioned above policy, since it also depends on local authorities, entrepreneurs, scientists, non-governmental organizations or business environment institutions (e.g. Regional Development Agency).

The discussed study provides the analysis of several dozens of sub-variables constituting the background for evaluating the spatial diversification of particular advantages in terms of location factors. In case of regions the analysis covered the following determinants: transport availability, labour costs, the size and quality of labour resources, sales market capacity, economic infrastructure development level, social infrastructure development level, general public safety level, regional activity with reference to investors. In each of the above listed areas several sub-factors were distinguished. Additionally, particular factors were assigned percentage weights indicating the significance regarding investment attractiveness (tab. 2). The report is mainly based on quantitative data originating from the public statistics system supplemented by data and information from other sources. As far as the investment attractiveness assessment method itself is concerned the procedure of characteristic features accessibility measure classification was applied.

Tab. 2: *Investment attractiveness factors in regional perspective*

<i>Factors</i>	<i>Factor characteristics</i>	<i>Weight (%)</i>
<i>Transport accessibility</i>	<p>Transport accessibility influences the investment attractiveness of a region by, e.g.:</p> <ul style="list-style-type: none"> • the reduction of supply costs of raw materials and components indispensable in manufacturing processes, • allowing for and cutting final products delivery costs, • ensuring adequate conditions of passenger transport necessary for the contacts of business partners. <p>Transport accessibility assessment also requires accepting reference points for which it is defined. The following were considered:</p> <ul style="list-style-type: none"> • the location of a region regarding country western border, • the location of a region regarding the country capital, • the location of a region regarding international airports, • the location of a region regarding important seaports. <p>It has to be added that depending on the type of planned business activities the particular components of communication accessibility present different significance level.</p>	20
<i>Labour costs, the size and quality of labour resources</i>	<p>In terms of labour resources factor it facilitates as follows:</p> <ul style="list-style-type: none"> • the employment of an expected number of workers, • the employment of workers presenting the professional desired skills and experience, • the employment of workers presenting adequate abilities, personal attributes (e.g. creativity, dutifulness, innovativeness in functioning, responsibility), • increasing labour costs ensuring investment profitability. <p>While assessing labour resources the following factors were considered:</p> <ul style="list-style-type: none"> • the number of employed residents, • the number of unemployed residents, • the number of job vacancies, • the inflow of secondary school and university graduates, • the level of salaries. 	25
<i>Sales market capacity</i>	<p>The local market capacity influences investment attractiveness by means of offering possibilities for selling products and services at this market by a potential investor. High regional market capacity also allows for cutting down on the final cost of a particular commodity by transport costs reduction. While assessing investment attractiveness in terms of sales market capacity the following factors were considered:</p> <ul style="list-style-type: none"> • the size of sales market, • the wealth of households, • investment expenditure of enterprises. <p>The role of this factor depends on the type of conducted business activities. It is relatively lower in case of industrial sector, higher in case of goods and services dedicated to the regional market for final clients.</p>	15

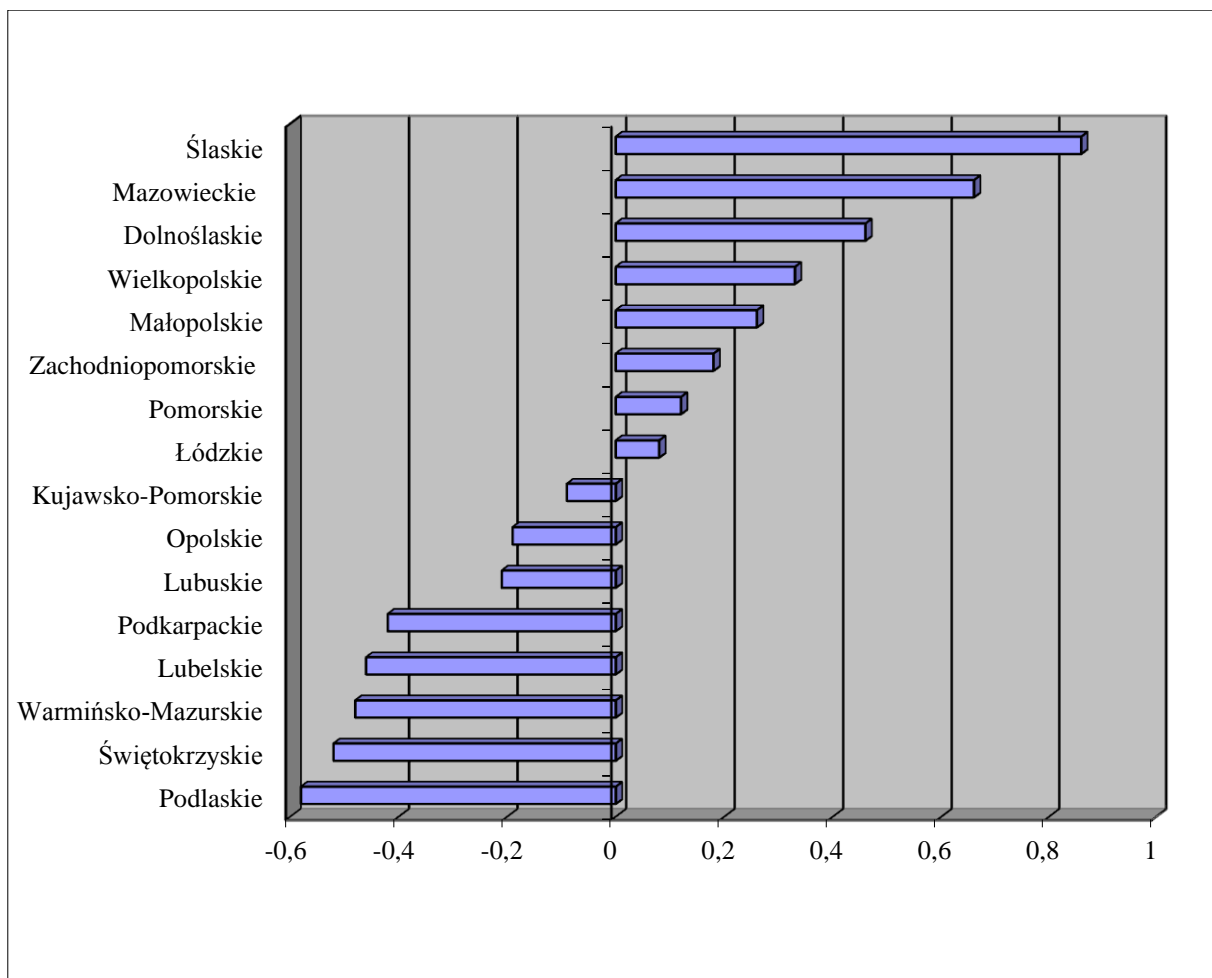
<p><i>The level of economic infrastructure development</i></p>	<p>Economic infrastructure is related to the level of investment attractiveness by means of investment implementation process improvement and its further functioning. As far as investment attractiveness is concerned the following infrastructure components were included:</p> <ul style="list-style-type: none"> • business environment institutions density, • the presence of research and development centres, • the number of events, e.g. fairs or exhibitions, • special economic zones functioning. <p>As in the case of other factors the role of economic infrastructure depends on the type of activities performed. E.g. in case of manufacturing processes free investment areas are vital, while in case of high-tech activities the presence of R&D centres is crucial.</p>	<p>10</p>
<p><i>The level of social infrastructure</i></p>	<p>Social infrastructure influences indirectly the level of regional investment attractiveness, by e.g.:</p> <ul style="list-style-type: none"> • establishing favourable and attractive working conditions, • creating favourable climate for tolerance, entrepreneurship innovation and creativity, • attractive conditions for the organization of trainings, conferences and business meetings. <p>Within the framework of investment attractiveness analysis the following social infrastructure components were included:</p> <ul style="list-style-type: none"> • the number of and the activities conducted by culture institutions (e.g. cinemas, theatres), • infrastructure saturation with hospitality business and gastronomy. <p>Social infrastructure represents the crucial factor for the location of activities based on high-tech services. In this high quality area both human capital and creativity are of utmost importance.</p>	<p>5</p>
<p><i>General public safety level</i></p>	<p>The general public safety level has a relatively limited impact on the investment choices of potential investors. It is mainly related to the sense of personal safety, the safety of co-workers and important business clients. Additionally, the low public safety level may result in:</p> <ul style="list-style-type: none"> • the reduction of work resources quantity and quality as the result of migrations caused by the living conditions deterioration in a region, • social capital deficits occurrence hindering the implementation of planned investments, • the intensification of social pathology indirectly confirming the existing government system. <p>For the purposes of investment attractiveness analysis with reference to social safety level the following factors were considered:</p> <ul style="list-style-type: none"> • the level and structure of entrepreneurship, • the level of crime detection. 	<p>5</p>
<p><i>Regions activities for investors</i></p>	<p>Regional activity for investors should be understood in this respect as the ability to create place image, its brand construction or establishing climate for entrepreneurship development. Due to the soft nature of the factor and difficulties in its precise measurement it covers only a part of the broader policy implemented by regional authorities.</p> <p>Within the framework of regional activities the following factors were considered:</p> <ul style="list-style-type: none"> • the number of investment offers in Polish Information and Foreign Investment Agency, • information and promotional activities addressed to investors from the country of capital origin carried out with adequate support offered to regions by Polish foreign centres. 	<p>20</p>
<p>Total</p>	<p>X</p>	<p>100</p>

Source: Author's compilation based on [11]

The general analysis of regional investment attractiveness (picture 1) has a summarizing dimension. The results were presented based on the previously analyzed partial evaluations.

Śląskie region holds the first position in the ranking. It should be observed that the highest position of Śląskie region mainly results from its favourable situation in terms of labour resources and costs, as well as its social infrastructure. The remaining factors were also highly assessed. The region presented worse results with reference to the general public safety level, which may come as a surprise.

High investment attractiveness is also characteristic for Mazowieckie region (best transport accessibility, sales market, activities focused on investors), Dolnośląskie region (best economic infrastructure) and Wielkopolskie region. The regions which also present above average results are the following ones: Małopolskie, Zachodniopomorskie, Pomorskie and Łódzkie. Close to average rating was recorded in: Kujawsko-Pomorskie, Opolskie and Lubuskie regions. The worst, in terms of investment attractiveness, were: Warmińsko-Mazurskie, Świętokrzyskie and Podlaskie regions. It should also be observed that general public safety was assessed as best in Podkarpackie region which, however, did not improve significantly this region's position in an overall ranking due to the low rank of this particular factor.

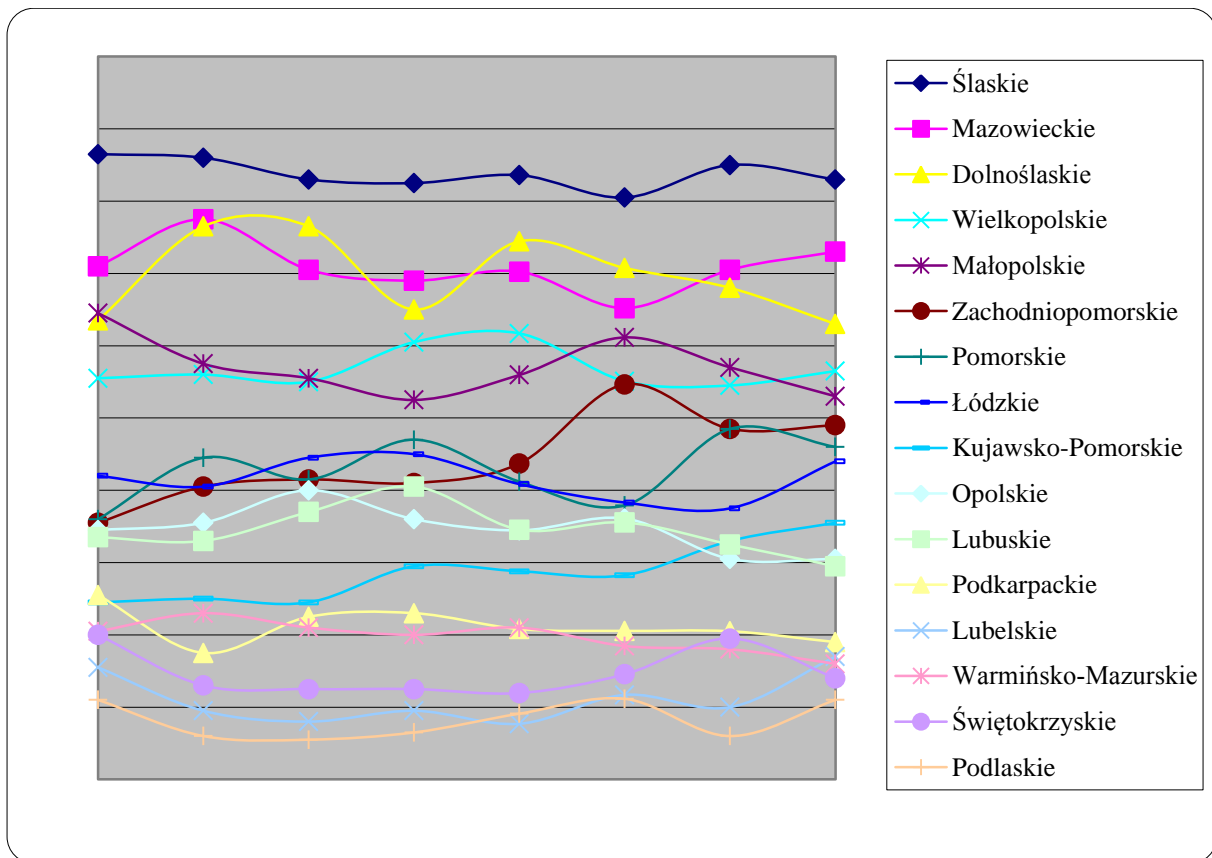


Source: Author's compilation based on [11]

Fig. 1: Investment attractiveness of Polish regions in 2012

As far as the position of particular regions is concerned regarding investment attractiveness in the course of the recent eight years (picture 2), a certain clear trend has been visible. The presented list features a significant stabilization which proves how difficult it is to improve investment attractiveness of a unit in a relatively short time. Changes, which can result in such improvement, require many years of intensified activities considering the entire spectrum of

determinants involving the largest possible number of regional scene actors. It seems that the major role in this process should be played by regional authorities in cooperation with business and science representatives, as well as organizations representing the interests of regional community.



Source: Author's compilation based on [11] and the respective reports from previous years

Fig. 2: Investment attractiveness of Polish regions in the period of 2005- 2012.

Śląskie region remains at the first position and the distance of other regions was either insignificantly reduced or none at all. The largest progress in strengthening its investment attractiveness was observed in Zachodniopomorskie region. The noticeable improvement was also recorded in Mazowieckie, Wielkopolskie, Pomorskie, Łódzkie, Kujawsko-Pomorskie and Lubelskie regions. The invariably poor condition, in this respect, is characteristic for Warmińsko-Mazurskie, Świętokrzyskie and Podlaskie regions.

Conclusions

In summary, it has to be emphasized that an undisputable desire for innovative and pro-investment attitudes does occur on the part of regional authorities which influences the dynamic regional development in turbulent and competitive environment of a territorial unit. The invariably crucial role in attracting investors is played by transport infrastructure, technical infrastructure facilities, labour resources and costs, property prices and geographical location. At the same time the growing interest of investors is focused on a favourable regional image with particular attention paid to opinions of entities which have already been functioning in this region. The vital role is also played by the prevailing entrepreneurial climate or the activities performed by research and development centres in developing solutions for economic practice. Additionally, the development of regional innovation system, the stability of political scene, the level of services offered to investors by public institutions,

the command of foreign languages presented by regional community, its wealth or professional offer of advisory and consulting companies should not be underestimated.

Regional investment attractiveness upgrading can result in numerous measurable advantages and stimulate the socio-economic intensification of the entire region functioning. The inflow of investments to a particular region is always accompanied by acquiring knowledge and seeking innovative solutions. It goes along with implementing modern management structures and opening new jobs, including these requiring specific professional qualifications. The regional productivity increases, new training cycles are organized, frequently accompanied by the growing GDP and budget revenues. New products are available, new sales markets are opened, new residents arrive with creative individuals among them who support the existing human capital and enhance regional communities towards entrepreneurial activities. The process of investment attractiveness strengthening represents both positive and desirable phenomenon. It imposes the whole range of favourable transformations, from technical infrastructure through education to the quality of public administration which altogether result in regional community living standards improvement and business operations advancement.

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VYBRANÉ ASPEKTY INVESTIČNÍ ATRAKTIVITY REGIONŮ

Tento článek je věnován vybraným otázkám souvisejícím s investiční atraktivitou regionů. V úvodu jsou prezentovány teoretické aspekty a podmínky pro investiční atraktivitu. V další části příspěvku je uveden příklad seznamu faktorů ovlivňujících investiční atraktivitu regionů, a to v členění na šest tematických skupin faktorů: hospodářské, socio-kulturní, politické a správní kvality, technologické a inovační, přírodní, imageové faktory. Jádrem článku je analýza zprávy Ústavu pro výzkum tržní ekonomiky, která se věnuje investiční atraktivitě polských vojvodství (největších samosprávných územních celků). Jsou prezentovány mj. faktory rozhodující o investiční atraktivitě polských regionů včetně jejich charakteristiky a analýza pozice jednotlivých vojvodství z hlediska investiční atraktivity za posledních osm let.

AUSGEWÄHLTE ASPEKTE DER INVESTITIONSANZIEHUNGSKRAFT DER REGIONEN

Im Artikel wurden ausgewählte Fragen dargestellt, die sich auf die Investitionsanziehungskraft der Regionen beziehen. In der Einführung wurden die theoretischen Aspekte, Bedingungen der Investitionsanziehungskraft besprochen. Im weiteren Teil wurde die beispielhafte Zusammenstellung der Determinante der Investitionsanziehungskraft der Regionen präsentiert, in Verteilung in sechs Gruppen der thematischen Faktoren: der wirtschaftlichen, gesellschaftlich-kulturellen, politischen und der Administrationsqualität, der technologisch-innovativen, natürlichen und imagebildenden. Den Kern des Artikels bildet die Analyse des Rapports vom Institut für Forschung der Marktwirtschaft, der sich auf die Investitionsanziehungskraft der polnischen Woiwodschaften bezieht. Präsentiert wurden unter anderem die Faktoren, die über die Investitionsanziehungskraft der polnischen Regionen entscheiden zusammen mit der Charakteristik sowie auch die Analyse der Position der einzelnen Woiwodschaften bezüglich der Investitionsanziehungskraft in dem Zeitrahmen der letzten acht Jahren.

WYBRANE ASPEKTY ATRAKCYJNOŚCI INWESTYCYJNEJ REGIONÓW

W artykule przedstawione zostały wybrane zagadnienia odnoszące się do atrakcyjności inwestycyjnej regionów. Na wstępie poruszone zostały teoretyczne aspekty, uwarunkowania atrakcyjności inwestycyjnej. W dalszej części zaprezentowane zostało przykładowe zestawienie determinantów atrakcyjności inwestycyjnej regionów, w podziale na sześć grup tematycznych czynników: gospodarcze, społeczno – kulturowe, polityczne i jakości administracji, technologiczno – innowacyjne, naturalne, wizerunkowe. Rdzeń artykułu stanowi analiza raportu Instytutu Badań nad Gospodarką Rynkową odnoszącego się do atrakcyjności inwestycyjnej polskich województw. Zaprezentowane zostały, m.in. czynniki przesądzające o atrakcyjności inwestycyjnej polskich regionów wraz z charakterystyką oraz analiza pozycji poszczególnych województw pod względem atrakcyjności inwestycyjnej na przestrzeni ostatnich ośmiu lat.

RESEARCH ON CUSTOMER SATISFACTION WITH THE SALE OF FOOD AND ITS QUALITY IN THE CZECH CONSUMER MARKET

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Abstract

The article presents selected problems of customer satisfaction with the food quality on the basis of secondary and primary research and a brief outline of the current state of knowledge of the issues examined. Customer satisfaction is related to the quality of products. Customers have expectations that are influenced by their experience, advice, competition information and financial capabilities. The quality of food products has specific aspects and is currently in the centre of attention of the inspecting authority. The issue of the quality of food is extensive and may have different points of view. Realized secondary research focuses on selected problems of monitoring food quality on the Czech consumer market. Primary research checks up the customer satisfaction with food products on a selected sample of respondents with regard to their income level.

Introduction

Transformation of retail in the Czech Republic after 1989 reflected in the whole past period in the growth of the width and depth of trading range and its quality. The concept of quality has lately often been pronounced in terms of quality of food, which the supervisory authorities monitor directly in the stores. Certain negative results of inspections lead to questions whether the sale of low-quality food products is only a failure of an individual or a system error in the management of business enterprises and their stores. Both effects contribute to the deterioration of the image of companies and reduce customer satisfaction with the purchase of food products. For companies that are associated with violations of the principles in the sale of food, it can lead to customer migration to the competition. We have already registered this effect around year 2003. Supervisory authorities in the Czech Republic recently contributed to higher customer awareness of the inspections at stores and the findings related to the quality of food. This information may induce changes in the behavior of consumers when buying food, and their level of satisfaction or dissatisfaction.

There is no doubt that it is necessary to take care of customers to be satisfied with the products companies. Some companies, even though they present themselves as customer-oriented companies, are in fact only trying to sell the highest number of products even though the product quality does not match the required standards. Satisfied customer, says Cooper Lane in his book, tells his positive experience to others [2, p. 133]. A satisfied customer is becoming one of the most effective ways of attracting new customers.

The main goal of our article is to present the partial results of primary research conducted through a questionnaire survey focused, amongst other things, on the level of satisfaction of Czech consumers when purchasing food. Partial goals are a brief outline of the current state of theoretical knowledge and secondary research on food quality in their purchase and based on available statistical data and information from the control of supervisory authorities.

1 Brief outline of the current state of knowledge on the examined issues

In literature, there are many definitions of customer satisfaction [3, p. 11]. Satisfaction in general can be defined as “the degree of fulfilment of customer expectations, which is associated with how the customer perceives and evaluates purchased product” [7, p. 849].

How do customers form their expectations? Expectations are partly the result of customer experience, friendly advices and competitive information and promises [8, p. 150]. Many organizations systematically measure how customers act, identify factors influencing shopping satisfaction, and operatively change it. Companies with experience measure customer satisfaction and customer loyalty regularly, because it is one of the keys to maintaining a customer focus and success of the company. Data on customer satisfaction do not work long term [9, p. 539]. Competition can overcome us, our satisfied customers soon become dissatisfied, and they leave us. Many methods are used during monitoring the level of customer satisfaction. Examples of the used methods are: hotline, polls, wishes and complaints, analysis of lost customers, mystery shopping, customer satisfaction surveys, etc.

As stated by Zamazalová, between satisfaction and loyalty there is a link, but unfortunately not the case that every satisfied customer will automatically become regular customer [16, p. 214].

Customer satisfaction and business profitability are closely linked with the quality of products and services, which are provided to the entire value chain, which is the main tool for identifying ways to create more value for the customer [9, p. 542, p. 544]. Quality is defined in different ways (ability to use, fulfilling requirements, exemptions to the variations). Kotler uses the definition of the American Society for Quality Management, which is characterized by quality as the sum of the elements and characteristics of the product or service that create the ability to satisfy expressed or implied needs [9, p. 545].

Quality is, in terms of three layers of product, included in genuine, real and tangible product [5, p. 159]. Besides quality, other generally considered categories are: brand, style, packaging, preparation, manufacturer name etc. In the broadest context, a quality of product represents capability to perform its functions. It defines the specific characteristics, such as durability, reliability, accuracy, etc. [5, p. 167].

The requirements for adequate quality for food products are very specific. It is a multi-criteria parameter [14], which includes hygienic, nutritional, technological, sensory and information aspects. It also includes own use value based on the ease of culinary preparation, consumption, durability and economic aspects. Quality is created throughout the entire food chain. The most basic terms of food quality are food safety and hygiene, which are related to health of customer.

Examples of main aspects of food quality: [14]

- Sensorial quality is given by appearance, color, shape, smell, taste and consistency, which are the main criteria for choosing a customer.
- Nutrition quality is represented by nutritionally desirable and undesirable ingredients. Among the desirable components belong nutrients, including proteins, carbohydrates,

fats, vitamins, antioxidants, fibre and dry matter according to the recommended doses. Unwanted components are residues of pesticides, nitrates, heavy metals, mycotoxins, drug residues, pathogenic organisms and allergens.

- Utility value (functional suitability) decides on the suitability of the food for commercial or industrial purposes. Information about functional suitability gets consumer from product packaging or labels. The customer then finds out whether the product is suitable for cooking, frying or baking. What is the storage life, way of preparation and how much it costs?

Food quality is currently the center of attention of supervisory bodies. Let us have a closer look at how it is in practice.

2 Secondary research results and discussion

Research work was carried out by secondary research, which was focused on selected studies conducted in the Czech Republic on consumer satisfaction with food quality and monitoring examples of the Czech Agricultural and Food Inspection Authority, as the main supervisory authority. It was followed by primary research using questionnaires.

2.1 Monitoring customer satisfaction with quality of food

Companies are not the only ones who are dealing with monitoring satisfaction, but it is also a focus of various research agencies or universities. Many factors influence customer satisfaction, such as satisfaction with purchases, satisfaction with services, satisfaction with retail environment or satisfaction with the company as a whole [16, p. 215]. There may be other areas, like the possibility of financing, price/quality ratio, company image, etc. Results of renowned research agencies related to customer satisfaction conducted long term can be generalized and represent a theoretical contribution to the researched issues. For example according to GfK Praha, the following topics belong to monitoring of customer satisfaction [11, 16, p. 216]:

- overall satisfaction with the product, service, company,
- overall satisfaction with the place of sale/environment,
- overall satisfaction with the sales staff,
- overall satisfaction with the use/availability of information.

If we want to look at how satisfied with the quality of goods in selected types of stores customers are [4, p. 22], we find that most customers are satisfied with the quality in supermarkets (95%), then in hypermarkets (94%), discount stores (94%) and smaller convenience stores (90%).

According to the TOP C, customer satisfaction is important for the following reasons [1]:

- customers are the only source of income for the company,
- customers bring company turnovers, which company needs for its successful operation,
- satisfied customers will buy from you again and recommend you to potential customers.

Heses's researches [4, p. 26-27], dealing with the behavior of consumers when buying food, pointed out that before the year 2000 Czech consumers favored price and only thereafter

quality. After 2000, Czech consumers changed system of shopping for food. They are looking for a large shopping center with wide range of goods, and favor quality, then price.

2.2 Monitoring quality of food in the Czech Republic

Official checks of food quality at the retail level is performed in the Czech Republic mainly by the Czech Agriculture and Food Inspection Authority (hereinafter CAFIA). Requirements for quality of food are laid down in the Czech national legislation, rarely in European regulations. For some foods are not directly determined, but inspection checks verify the information on the product placed on the packaging, with its real content. Controls were focused on hygiene, critical control points, labeling, documentation, and data usability. Therefore, inspections can also check the quality of those products for which quality criteria are not explicitly required by law. However, you cannot compare the results, the number of inputs in longer period because CAFIA annual report for each year does not provide completely comparable information. In any case, it is possible positively rate the increased information to consumers.

In 2009 [17], 34,806 entries to businesses were carried out. Whole 73.1% of these entries took place at the retail level. Number of non-conforming lots was worth a total of 4,581, of which were 88.1% in retail trade. If we look at the country of origin of unsatisfactory samples, then we can say that 54.4% were originally from the Czech Republic, from EU 27.2%, 9.41% were from third countries. For 8.92% of the samples their origin was not determined. In 2010 [18], 37,536 entries to businesses were carried out. Most entries had again been in the retail (76.02%). Number of non-conforming lots was 4483, again in retail it was a significant majority (87.6%). Primarily the retail level is adversely affected by the quality of food products. The main results of the checks are seen in Table 1. Report from the year 2011 [19] does not follow completely the indicators monitored in the previous two years, as previously mentioned, so we cannot make the comparison of the data. The report contains a much more intense focus at controls. Official controls were influenced by two food crises that took place in Germany and France, and partly related to the unauthorized components used in livestock feed. Fortunately, the Czech Republic confirmed no defective batch of meat in this regard.

By type of all controlled food products was the situation in 2009-2011 as follows (see Table 1). It is interesting to note that Table 1 does not show alcohol at all (except wine), which is a source of huge problems in the Czech Republic from September 2012 and unfortunately even cost human lives. We may speculate that the checks were performed mainly in the constant retail network. Ambulatory network apparently was ignored.

As mentioned above, consumer information about the food quality increased. Aside from the CAFIA, many other institutions informed about it and websites on the internet as well. The question is what the validity of these resources is. We may agree with the President of the Association of Commerce and Tourism in the Czech Republic, who evaluates the CAFIA reports as “a mixture of poorly sorted reports” [6]. Their information is not entirely clear and understandable. Investigation of problems with methyl alcohol also shows that the control system will have to be reconsidered.

Tab. 1: Order of non-conforming lots in % in the total volume of the samples in 2009-2011

2009	2010	2011
Chocolate and sweets (59%)	Chocolate and sweets (58%)	Chocolate and sweets (64%)
Wine (49%)	Pasta (44%)	Starch and starch products (60%)
Fish and aquatic life (41%)	Wine (41%)	Ice cream and frozen products (52%)
Pasta (39%)	Processed vegetables and fruit (39%)	Wines other than grape (50%)
Vegetables (38%)	Dehydrated products (38%)	Pasta (47%)
Frozen products (38%)	Coffee, coffee substitutes and tea (36%)	Honey (39%)
Ice cream and frozen products (37%)	Fresh fruit (35%)	Wine (38%)
Mushrooms (35%)	Fresh vegetables and mushrooms (34%)	Fish and aquatic life (37%)
Meat and meat products (35%)	Eggs and egg products (32%)	Fresh fruit (28%)
Dehydrated products and flavoring (34%)	Ice cream and frozen products (30%)	Fresh vegetables (25%)

Source: [17, 18, 19]

3 Primary research results and discussion

Primary research using a questionnaire survey was conducted during March and May 2012 mainly in the Moravian-Silesian region (more than 90% of respondents). The sample included 518 valid questionnaires.

Structure of the questionnaire focused on the broader issue of the sale of food products. Questions for respondents were oriented on the purchasing behavior of consumers when buying food, quality of food, buying regional food and organic food.

3.1 Primary research issues, methodology and sample characteristics

Given the focus of the article, we choose only relevant answers concerning these main areas:

- satisfaction with the quality of food purchased in the preferred store,
- degree of satisfaction with the main assortment types,
- sale of expired food products,
- expiry date forgery,
- quality of domestic and foreign food, relation to foreign goods.

The obtained data were evaluated in the MS EXCEL. Starting point is descriptive statistics, relative frequency of responses and creation of contingency mostly two-dimensional relational tables. Answers of respondents are related yet to another criterion, which is the average monthly household income. To get research results with higher informative value, we conducted the sorting of the second grade.

In the sample structure, the consumers with the household income less than 20 thousand CZK (33.40%) prevail, followed closely by the households with the income of 21 to 30 thousand CZK (32.63%), and lastly households with the income of 31 to 40 thousand CZK (22.39%).

Part of the sample are also two small groups, the first one with the household income of 41 to 50 thousand CZK (7.53%) and the second with over 50 thousand CZK (2.7%). According to the income level structure of the sample, we might see that the research results are affected greatly by the households with the average monthly income up to 30 thousand CZK (66.03%). The highest amount of respondents preferred purchase in supermarket (46.09%), followed by hypermarket (28.07%) and small convenient store (13.91%).

3.2 Evaluation of the selected research areas

Satisfaction with the quality of food in preferred store

Let us see how the respondents are satisfied with their preferred store (see Table 2). Definitely satisfied are most households with the highest income (42.86%), although the proportion of rather satisfied represents half of the respondents. Most of the other income groups, as shown in Table 2, are usually more satisfied. Given that there is a competitive environment, the customer has the option to choose the store. It depends on what stores are available in the surrounding area. If all the preferred mass retail units committed offenses relating to food quality, then the choice of customers has been to some extent limited.

Tab. 2: Satisfaction of respondents with the quality of food

The level of satisfaction	Relative frequency (in %)				
	under 20	20-30	31-40	41-50	above 50
Yes	14.45	18.34	18.10	7.69	42.86
Rather yes	69.95	70.42	60.35	66.67	50.00
No	8.09	4.14	7.76	5.13	0.00
Rather no	7.51	6.51	12.07	20.51	7.14
No answer	0.00	0.59	1.72	0.00	0.00
Σ	100.00	100.00	100.00	100.00	100.00

Source: own calculations

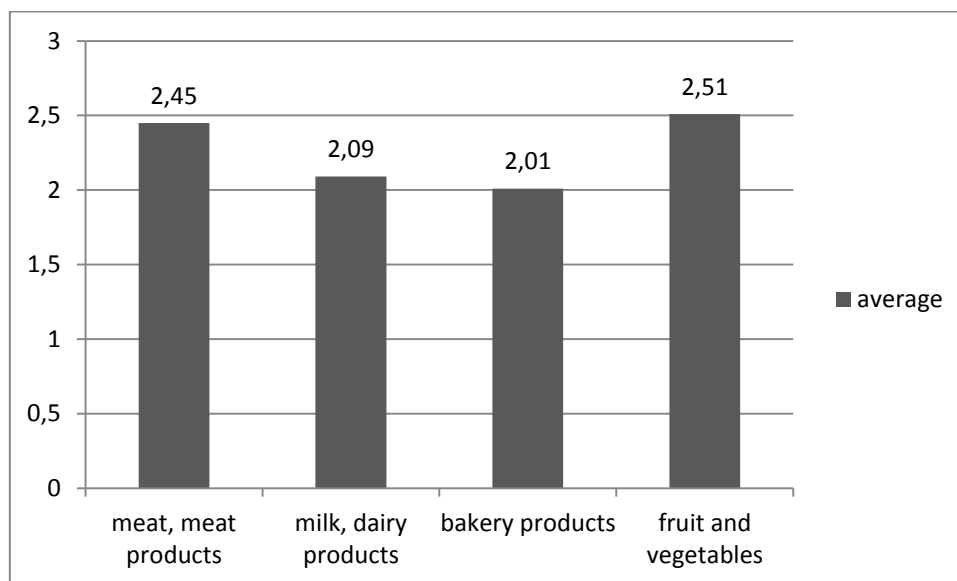
Satisfaction rate with main types of assortment

For satisfaction with the main types of assortment, we used five-point rating 1-5, corresponding to the school qualification, which was used to calculate the average values (Figure 1). The most frequently occurring value (modus) is 2 for all kinds of assortment. The calculation of the average values shows that respondents are least satisfied with fruits and vegetables, the second position is the meat and meat products, in third place milk and milk products, and the fourth position are bakery products. Bakery products are therefore best rated. It would be interesting to see how the respondents answer after the publication of traders, whether their products are prepared from the frozen stock. This duty to inform customers was scheduled to start from August 1, 2012.

Expired food sales

The following proportions can be observed in the structure of the sample. The largest shares of respondents (47.68%) are the ones, who did not notice that their preferred store is selling expired food. The second largest group is respondents who noticed sold food had been expired. Those who believe their store does not sell expired food are about one fifth of the sample (21.43%). In Table 3, we see how the respondents of different household income levels answered. Most respondents in the group with income level above 50 thousand CZK (35.71%) have noticed the sale of expired food. The same proportion of respondents in this income group claimed that they do not see expired food in their store, which was most of all income groups. In the other income groups was the highest proportion of those who did not notice the sale of such food, the highest value was recorded in the income group between 41-

50 thousand CZK. These respondents were in this income group more than half (53.85%). More than half of the respondents admitted that answer even within income groups 20 to 30 thousand CZK (51.48%).



Source: own calculations

Fig. 1: Graph 1 Satisfaction rate with the main assortment types

Tab. 3: Sales of the expired food

Expired food	Relative frequency (in %)				
	under 20	20-30	31-40	41-50	Above 50
Yes	33.53	31.36	27.59	20.51	35.71
No	21.96	16.57	25.86	25.64	35.71
I did not notice	44.51	51.48	45.69	53.85	28.58
No answer	0.00	0.59	0.86	0.00	0.00
Σ	100.00	100.00	100.00	100.00	100.00

Source: own calculations

Relabeled expiry date of food

Supervisory authorities found in their inspections that the stores relabeled expiry date of food, so that they can sell it to customers without any problems and had thus no financial loss. In terms of the surveyed sample, almost 70% of respondents monitor the expiry date of food purchased but only 22.01% of respondents have noticed the fact of relabeling. Let us see if somehow responses varied according to income groups (Table 4). At first glance, we can see that the higher the household income, the smaller the proportion of respondents who confirmed that they noticed relabeled expiry date of food. The largest proportion of respondents is in the income group of less than 20 thousand CZK and the smallest share has the group above 50 thousand CZK. These numbers are not that crucial. Respondents from all income groups usually confirm that they have not seen relabeled expiry dates. Here we can observe opposite relation to the positive question. The higher the income group of households, the higher the proportion of negative responses is. The proportion of respondents having a negative response ranges from 71.68% for less than 20 thousand CZK, up to 92.86% with the highest incomes, as seen in Table 4.

Tab. 4: Relabeled expiry date

Relabeled expiry date	Relative frequency (in %)				
	under 20	20-30	31-40	41-50	Above 50
Yes	28.32	21.89	18.10	10.26	7.14
No	71.68	78.11	81.90	89.74	92.86
Σ	100.00	100.00	100.00	100.00	100.00

Source: own calculations

Evaluation of the sales staff expertise

Buying food is usually carried out quickly and often stereotyped. The customer does not make a long decision. The main role is played by the price and quality advantage. Yet we cannot say that it could work entirely without sales staff. Even in food products, we can find new products that we do not know and we need advice. The answers of respondents we see in Table 5. For a positive reply, we can notice a downward trend with household income increasing. High score has the rather yes answer, it even is the highest in the group above 50 thousand CZK income (71.43%). If we look at the negative responses (no, rather no), for groups of 31-40 and 41-50 thousand CZK majority of respondents believe that staff would not be able to advise expertly. President of the Association of Commerce and Tourism in the Czech Republic believes that the quality of the staff plays a key role. Unfortunately, it has not improved and has not the potential either because of low wages in the retail and high staff fluctuation. [6]

Tab. 5: The ability of staff to give professional advice

Staff suggestion	Relative frequency (in %)				
	under 20	20-30	31-40	41-50	above 50
Yes	13.29	10.06	7.76	7.69	7.14
Rather yes	41.04	42.01	37.07	30.77	71.43
No	20.81	16.57	16.38	23.08	14.29
Rather no	24.86	31.36	38.79	38.46	7.14
Σ	100.00	100.00	100.00	100.00	100.00

Source: own calculations

Tab. 6: Is the quality of domestic food lower?

Quality of domestic food	Relative frequency (in %)				
	under 20	20-30	31-40	41-50	above 50
Yes	13.88	13.02	14.66	15.38	7.14
Rather yes	19.65	7.10	19.82	12.82	35.72
No	52.02	60.36	50.00	53.85	57.14
Rather no	14.45	19.52	14.66	17.95	0.00
No answer	0.00	0.00	0.86	0.00	0.00
Σ	100.00	100.00	100.00	100.00	100.00

Source: own calculations

The quality of domestic and foreign food, relation to foreign goods

What respondents think about the quality of domestic and foreign food is shown in Table 6. Most respondents incline to the view that domestic food has a lower level of quality. In addition to their own experience, this view might have been confirmed by many scandals abroad, which we have mentioned previously. The level of household income did not manifest itself for negative responses in any definite trend. Unequivocally positive answers basically mean the preference of foreign quality. With the growth of income level, however, the

proportion of respondents who think that the quality of domestic resources is at a lower level than that of foreign ones.

Conclusion

Generally, it can be said that customer satisfaction with the preferred store and the company is closely linked with the quality of food. Even though, as some experts admit, this relationship is not entirely proportional. According to recent researches, the quality is in the first place when buying food. Consumer awareness of food quality increases, but that does not mean that our food is of a worse quality, as our primary research reflects. There are many unanswered questions. The scope of the article does not allow for that. For example, we did not address the problem of substitutes in food products at all. We assume that the food quality will provoke discussion, especially the quality of alcohol.

Summing up all the results, we come to the following conclusions:

- most income groups are satisfied with purchase and food quality in preferred store, however, prevails answer rather yes than definite satisfaction,
- the quality of fruit and vegetables is evaluated the worst (2.51), the second position is the meat and meat products (2.45),
- most income groups have not noticed the sale of expired food, with the exception of households with income above 50 thousand (35.71%),
- most income groups did not notice relabeled expired food in their preferred store, the response rate is relatively high, the smallest share represents income group of under 20 thousand CZK (71%), the largest proportion are the most affluent customers (92.86%),
- the ability of staff to give professional advice when buying food is not clearly positively viewed in all income groups, in addition, their share is low and decreases with the growing income,
- most income groups tend to think that domestic food does not have a lower level of quality.

When buying food, behavior of consumers can generally be affected by many factors, including their personal characteristics such as age, education, social status and economic conditions. Looking at the results of the primary research, we find that the income level of the customer does not always play an important role in the evaluation of individual situations and issues. We believe that the social stratification of our society is not as clear-cut as it is in established market economies. The greatest differences were observed in some areas between the groups with the lowest and the highest incomes.

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VÝZKUM SPOKOJENOSTI ZÁKAZNÍKŮ S PRODEJEM POTRAVIN A JEJICH KVALITOU NA ČESKÉM SPOTŘEBITELSKÉM TRHU

Článek prezentuje vybrané problémy spokojenosti českých zákazníků s kvalitou potravin na základě sekundárního a primárního výzkumu i stručného nástinu současného stavu poznání zkoumané problematiky. Spokojenost zákazníků souvisí s kvalitou výrobků. Zákazníci mají svá očekávání, která jsou ovlivněna jejich zkušenostmi, radami, informacemi konkurence i finančními možnostmi. Kvalita potravinářských výrobků má specifické aspekty a je v současnosti středem pozornosti dozorových orgánů. Problematika kvality potravin je rozsáhlá a může mít různé úhly pohledu. Realizovaný sekundární výzkum se zaměřuje na vybrané problémy monitorování kvality potravin na českém spotřebitelském trhu. Primární výzkum ověřuje spokojenost zákazníků s potravinami na vybraném vzorku respondentů s ohledem na jejich příjmovou úroveň.

FORSCHUNG DER ZUFRIEDENHEIT DER KUNDEN MIT DEM LEBENSMITTELVERKAUF UND DER LEBENSMITTELQUALITÄT AUF DEM TSCHECHISCHEN VERBRAUCHERMARKT

Der Artikel präsentiert ausgewählte Probleme mit der Zufriedenheit der tschechischen Kunden mit der Lebensmittelqualität aufgrund einer Sekundär- und Primärforschung und eines kurzen Skizzierens des gegenwärtigen Erkenntnisstandes der geforschten Problematik. Die Zufriedenheit der Kunden hängt mit der Qualität der Produkte zusammen. Die Kunden haben ihre Erwartungen, die mit ihren Erfahrungen, Konkurrenzinformationen, Ratschlägen und finanziellen Möglichkeiten zusammenhängen. Die Qualität der Lebensmittelprodukte hat ihre spezifischen Aspekte und steht in der Gegenwart im Mittelpunkt der Aufsichtsorgane. Die Problematik der Lebensmittelqualität ist umfangreich und kann verschiedene Betrachtungsweisen haben. Die umgesetzte Sekundärforschung richtet sich auf ausgewählte Probleme bei der Beobachtung der Qualität auf dem tschechischen Verbrauchermarkt. Die Primärforschung überprüft die Zufriedenheit der Kunden mit den Lebensmitteln auf Grundlage eines ausgewählten Musters der Studienteilnehmer in Bezug auf ihr Gehaltsniveau.

BADANIE ZADOWOLENIA KLIENTÓW ZE SPRZEDAŻY ARTYKUŁÓW SPOŻYWCZYCH I ICH JAKOŚCI NA CZESKIM RYNKU KONSUMPCYJNYM

Artykuł przedstawia wybrane zagadnienia związane z zadowoleniem czeskich klientów z jakości artykułów spożywczych, oparte na badaniach pierwotnych i wtórnych oraz krótkiej charakterystyce obecnego stanu wiedzy nt. badanego zagadnienia. Zadowolenie klientów związane jest z jakością produktów. Klienci mają swoje oczekiwania, na które wpływają ich doświadczenia, porady, informacje konkurencji oraz możliwości finansowe. Jakość artykułów spożywczych ma swoje specyficzne aspekty i jest obecnie w centrum zainteresowania organów nadzoru. Kwestie dotyczące jakości artykułów żywnościowych są obszerne i można je rozpatrywać z różnych punktów widzenia. Podjęte wtórne badania zorientowane są na wybrane problemy monitorowania jakości artykułów spożywczych na czeskim rynku konsumpcyjnym. W ramach badań pierwotnych sprawdzano na wybranej próbie respondentów zadowolenie klientów z artykułów spożywczych przy uwzględnieniu wysokości ich dochodów.

THE USE OF SOCIAL NETWORKS BY WORKING PEOPLE

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Abstract

In the dynamically developing market environment of today it is very difficult to do successful business and lead a firm towards long-term prosperity. Owners of firms are well aware of the necessity to incorporate tools using the concept of Internet social networks into business, promotion and communication equipment. Thanks to the development of modern technologies, the increase in the use and sharing of multimedia and never ending changes in purchase behaviour the utilization of social networks keeps increasing. The objective of this article is to analyse and define a specific behaviour of working people as users of online social networks, while focusing on the utilization for marketing purposes. The article's beginning is dedicated to the theoretical basis and to the short introduction of online social networks. The practical part analyses data obtained on the basis of an executed questionnaire survey, the definition of a specific use of social networks by working people and subsequently the statistical verification of two hypotheses via statistical formulas and correlation analysis. The conclusion sums up the entire issue, including the executed survey, with recommendations for how to use social networks for marketing purposes correctly.

Introduction

Changes generated by globalization, contemporary trends and intensive technical developments lead to the establishment of new communities, cooperation and the synergic effect via established amounts of connections and influences. Although markets still exist their role in the human and business environment is diminishing. The physical capital is, from the economic viewpoint, being pushed to the margin [1]. On the other hand, the intellectual, knowledge and customer capital is highly appreciated. Success is related not only to the amount of property, it also comes from the customer potential and from the ability of the firm to swiftly respond to changes and the expectations of customers. Marketing employees need to be in touch with their customers and potential customers, and it is the websites of social networks that provide for such contact with increasing regularity [5].

Within the period of three years Internet social networks have become a popular activity on the Internet. The most frequently used social network in the Czech Republic is Facebook.com with 3.8 million registered users, with a huge start on LinkedIn.com with 250 000 registered users or Twitter.com with 100 000 registered users [2]. Therefore if an entrepreneur is to manage their firm successfully, they should use these social networks in an efficient manner. The reason for setting up a corporate profile is, in the first place, online presentation on social networks and the option of better targeting, so-called hypertargeting [4]. Feedback from customers is of utmost importance for entrepreneurs/marketing employees and conversation and the possibility to discuss and respond through a social network can subsequently be used to obtain required information and data with the assistance of statistical analyses.

In the Internet era of today successful firms no longer rely exclusively on traditional forms of communication, for instance promotion limited to TV commercials. New technologies offer

new possibilities, while it should be emphasized that it is especially the quality of relationships that matters, and not only technology as such. Signing up with a social network is not enough, the efficient administration of the corporate profile requires constant evaluation, responding to feedback, planning further developments and large amounts of time and energy.

1 Aims

The objective of this article is to analyse and define a specific behaviour of working people in the use of Internet social networking. The research takes into account the current analysis of the behaviour of users of online social networks and the habits in the use thereof. The emphasis is put on the possible use of the results for marketing purposes fitting for the planning and administration of campaigns.

2 Methodology

The article presents results obtained from the questionnaire survey, when the return rate on questionnaires was 63%. Based on assumptions defined in advance and on the basis of general theoretical methods, two hypotheses have been formulated. To confirm or refute the set hypotheses formulas for statistical evaluation and correlation analysis were used with the objective to prove a mutual (non-)correlative relationship between defined variables. For evaluation, the statistical functions of the programmes MS EXCEL and STATISTICA were used.

3 Research

Quantitative investigation was performed on the sample of 125 users registered in social networks in the Czech Republic using the method of self-completed questionnaires. Questionnaire forms, including the enclosed letter, were provided and spread via Internet social networks. The research involved a wide range of users of social networking as to their age, education and variety of registrations in social networks.

One of the research's objectives was to find out why individuals signed up with concrete social networks, whether the time they spent on social networks was increasing or decreasing, what information they published, whether they made use of chats with entrepreneurs, what their attitude to adverts was like and what their overall gain from social networks was.

In the first phase, the data were rearranged and divided into groups. In this article, the emphasis is placed on the 'working people' group.

3.1 Results from the survey

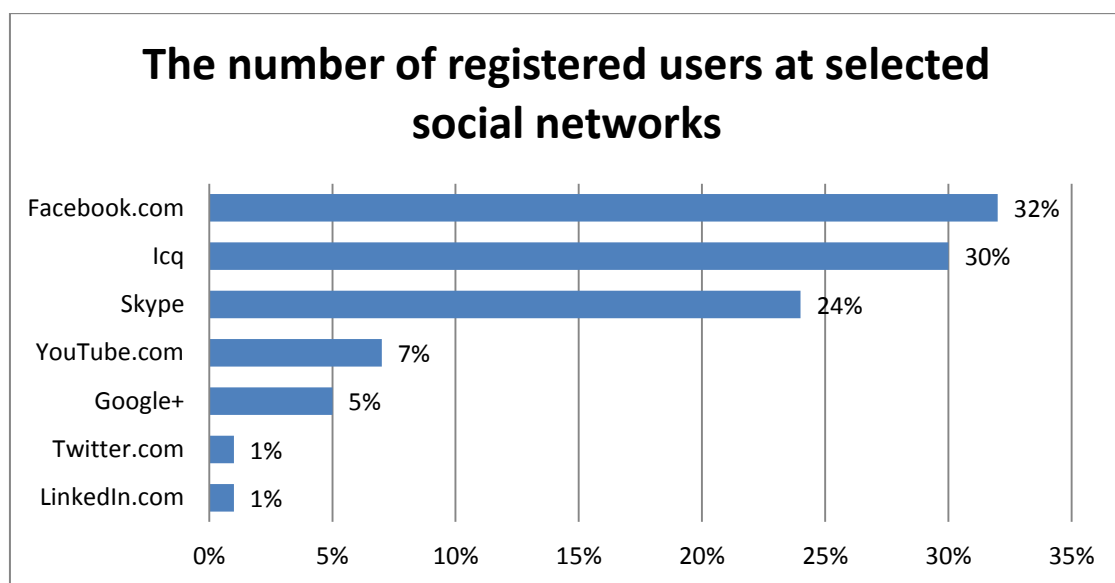
53 working respondents took part in the questionnaire survey. The composition of the examined sample was as follows:

- women: 37 respondents,
- men: 16 respondents,
- age category 21-30 years: 42 respondents,
- age category 31-40 years: 2 respondents,
- age category 41-50 years: 7 respondents,
- age category 51-60 years: 1 respondent,
- completed education – primary: 4 respondents,

- completed education – secondary with apprentice certificate: 6 respondents,
- completed education – high school with school leaving exams: 21 respondents,
- completed education – specialized education after high school: 9 respondents,
- completed education – university: 17 respondents.

3.1.1 Registering in social networks

84% of all respondents have signed up with the social network Facebook.com. Most owners of the account at Facebook.com also have an account at the ICQ social network (93%). Another popular communication network is Skype (64%, mostly women 75%). The less popular ones are YouTube.com (18% respondents, mostly women 80%) and Google+ (13%, mostly women 70%). Social networks Twitter.com and LinkedIn.com are not as popular (2%).



Source: Own

Fig. 1: The number of registered users at selected social networks

One reason why to sign up with Facebook.com was the possibility to make use of the potential of the largest base of contacts and friends. Another, though less frequent reason was the possibility to monitor economic information via adding and watching TV channels in the form of articles, women preferred the adding and watching of interesting channels from the sphere of fashion, cosmetics and cooking, while men preferred sports automobile channels and channels in the sphere of computer technology. As far as the social network Skype is concerned, the main reason for registration was the possibility to make phone calls with the family and friends for free. The most frequently used applications on social networks were chats, photographs and videos, contact search. Somewhat less popular were social groups and games. Games were a popular application with the age group 41-50 years.

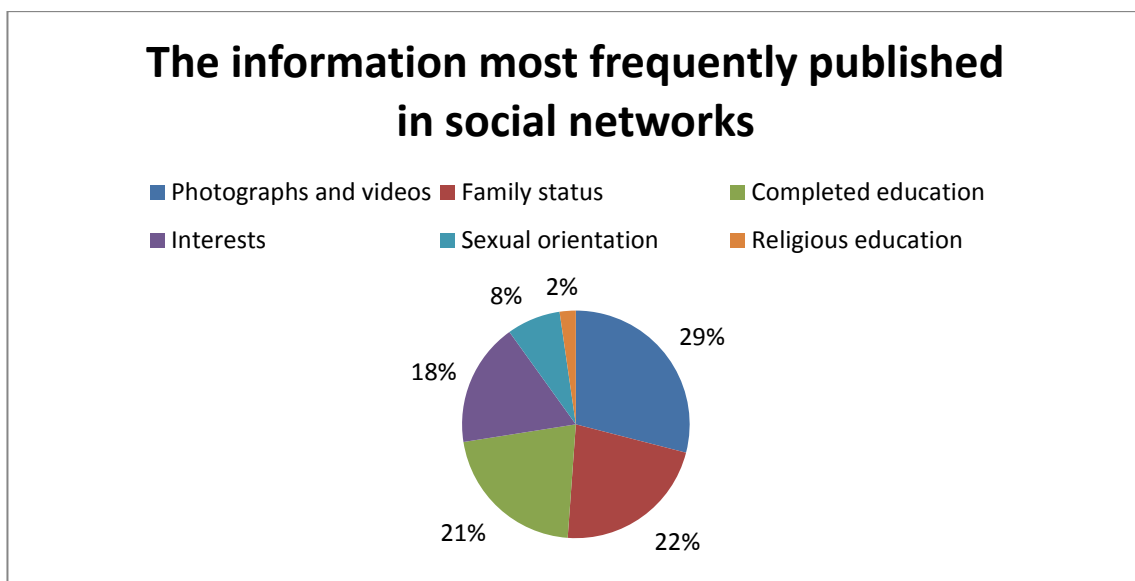
3.1.2 Time spent in social networks

On average, respondents spent two and a half hours in social networks a day; with women, this average was higher by half an hour. Still, 90% of the respondents perceived that they tended to spend less and less time in social networks, and that because of their workload and the decision to spend more time with the family and friends. This fact should be considered urgent by marketing employees and I recommend that hyper targeting be used to address the

group in question with specific information or otherwise it would be fitting to choose another target group. During working hours 58% of the respondents did not use social networks, 28% of the respondents were allowed to sign in to their accounts and 14% signed in, even though they were not allowed to do so.

3.1.3 Data published on personal profiles

The most frequently published data on personal profiles were photographs and videos, completed education, marital status and interests; the opposite applies to sexual orientation and religion, as shown in Image 2. The ban to display the profile to the public provided in the setting was selected by 52% respondents, 28% respondents protected their information partially and 18% not at all (especially respondents with secondary education).

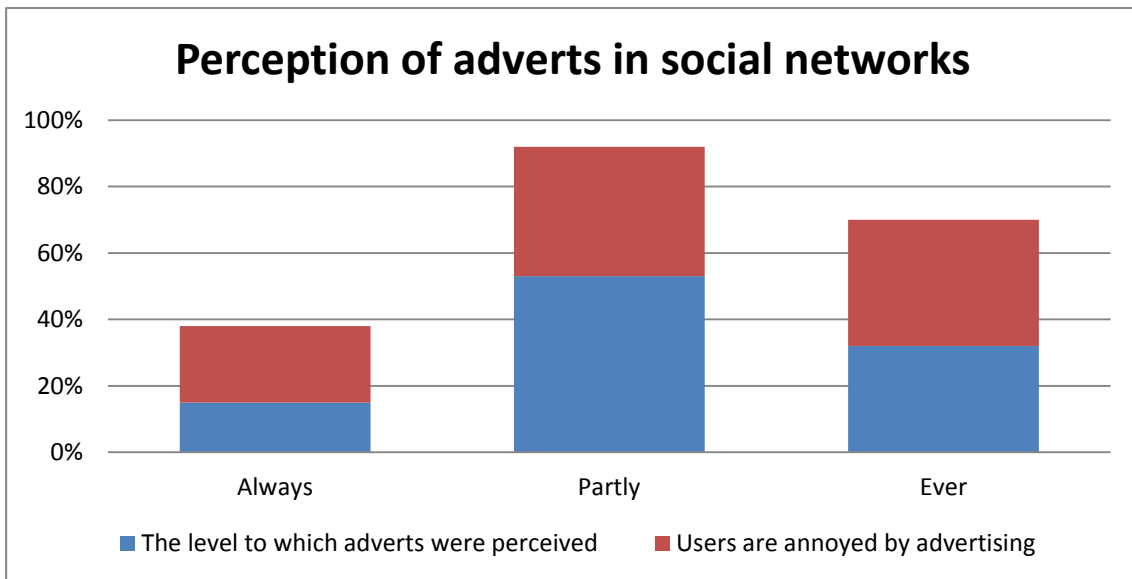


Source: Own

Fig. 2: The information most frequently published in social networks

3.1.4 Perception of marketing stimuli by working people

A half of the respondents used chatting with friends, some occasionally with public media and firms (16%). Moreover, they stated that as far as adverts were concerned they were sometimes aware of them (58%) or never aware of them (33%), 52% of the respondents were partially aware of advertising pages of firms, 39% of them partially minded these adverts, 37% of these respondents did not mind them at all, and 22% of the respondents stated that they always minded adverts, as shown in Image 3. The entire 26% of the respondents were captured by some of the adverts placed in social networks and only 3 of the respondents (women) bought the product thanks to this advert (cloths, gift vouchers). Women were mostly attracted by adverts promoting clothes for adults and children, cosmetics, discount campaigns, gifts, jewellery, relaxation and adventure holidays, restaurants and animal foodstuff, including supplements for pets. The attention of men was mostly captured by adverts promoting betting on sports, machines from electrical engineering, cars and technical novelties in computers and mobile phones.



Source: Own

Fig. 3: Perception of adverts in social networks

The majority of the respondents (69%) have never so far aired their (dis-)satisfaction with a product directly on the web profile of the firm in question, the remaining ones (mostly women) used voting about the satisfaction level, open discussion and commentaries. As confirmed by Table 1 the respondents most often seek information before a planned purchase of a product thanks to references and discussions. Occasionally the respondents used corporate profiles where they learnt required information about the product and contact information for sales branches.

Tab. 1: How often users search up information before a planned purchase of a product

	I often use	I use occasionally	I do not use
Corporate contact	12%	22%	20%
Corporate profile	4%	19%	23%
Product information	32%	19%	19%
References	36%	20%	18%
Discussions/chats	16%	20%	20%

Source: Own

3.1.5 The benefit and disadvantage of social networks for the working people

The respondents viewed these points as benefits they derived from social networks: a large base of friends, easier communication with colleagues from worker, procurement of references, the option to organize informal work-related events and entertainment. On the other hand, the loss of free time, privacy and the lack of concentration at work were perceived as negative aspects.

Men would welcome better graphics and interlinking to other social networks, women would welcome the option to divide friends into groups, and also an easier control of how to set the protection of privacy.

Three fourths of the respondents were able to imagine our times without social networks. However, they were not going to cancel their accounts at social networks because they could use them to stay in touch with friends and 32% of the respondents still enjoyed social networks.

3.1.6 Prediction about the development of social networks

For future, the respondents expected social networks to develop from the technical/graphic viewpoint and to get interlinked with other social networks. They saw the predicted trend in improving concrete existing networks, rather than in the number of newly created ones.

3.2 Discussion

The following 2 hypotheses were formulated based on the data stated above:

- Hypothesis I: *Users of social networks participate in discussions with firms at their corporate profiles in a social network and seek other information before a planned purchase of a product takes place.*
- Hypothesis II: *Users of social networks the attention of which was caught by adverts in their profile will buy the promoted product.*

The hypothesis I is based on the assumption that if users are interested to chat with firms at their corporate profiles, they will seek information yet before a planned purchase of the product takes place.

For the evaluation of the attitude related questions no. 9 (*To what level do you participate in discussions?*) and no. 16 (*How often do you use social networks to seek information yet before a planned purchase of a product?*) the following statistical formula was selected [3] (1).

$$X = \frac{(1 * X_1) + (2 * X_2) + (3 * X_3)}{N}, \quad (1)$$

where:

N is the number of respondents,

X_1 number of persons who answered with the variant provided,

X_2 number of persons who answered with the variant provided,

X_3 number of persons who answered with the variant provided.

The value scale was set for values <1-3>; namely 1 = I often use, 2 = I occasionally use, 3 = I do not use at all. A numeric interval <1; 1.5> was determined to verify hypothesis I. The calculation of attitude related questions no. 9 and no. 16 was as follows.

$$X_9 = \frac{(1 * 1) + (2 * 9) + (3 * 43)}{53} = 2,79 \quad \boxed{X_9 \notin \langle 1; 1,5 \rangle} \quad (2)$$

$$X_{16} = \frac{(1 * 1) + (2 * 13) + (3 * 39)}{53} = 2,72 \quad \boxed{X_{16} \notin \langle 1; 1,5 \rangle} \quad (3)$$

The calculations given above have not confirmed the validity of the hypothesis I. Users of social networks do not participate in chats at corporate profiles and do not search information before actually buying the offered products. Information obtained from references and chats with friends is considered as more valuable by them.

The hypothesis II is derived from the assumption that if the user's attention is caught by a displayed advert for a product the user will buy the product.

A statistical method based on correlation analysis was used to confirm or refute this hypothesis II. The selected X, Y were dichotomous values, i.e. the value was either 0 or 1. The method of tetrachoric correlation was selected. This method is more laborious but also more

reliable for the evaluation of how close the relations between the variables are. Firstly, the values were sorted out into arranged couples (X, Y). Table 1 shows that it was necessary to compose the so-called tetrachoric (four-field) table where A gives the number of pairs (0, 0), B the number of pairs (0, 1), C the number of pairs (1, 0) and D the number of pairs (1, 1). Moreover the condition $A + D > 20$ for the use of the coefficient of tetrachoric correlation R_{tetr} has been met.

Tab. 2: Tetrachoric (four-field) table

X/Y	0	1	Total
0	A 39	B 1	40
1	C 10	D 3	13
Total	49	4	53

Source: Own calculation in Statistica

The limit level of significance at which we would still refute the hypothesis II was set to $p_{tetr} = 0.11$ [3]. Moreover, the so-called tetrachoric ratio K in the amount of 11.7 was calculated according to the following formulas

$$K = \frac{(A * D)}{(B * C)} \quad (4)$$

$$K = \frac{(39 * 3)}{(1 * 10)} = 11,7 \quad (5)$$

The value of the coefficient of the tetrachoric correlation R_{tetr} has been identified to be 0.75792; the calculation was based on the following formula [6]:

$$R_{tetr} = \cos\left(\frac{\pi}{1 + \sqrt{K}}\right) \quad (6)$$

$$R_{tetr} = \cos\left(\frac{\pi}{1 + \sqrt{11,7}}\right) = 0,75792 \quad \boxed{p_{tetr} 0,11 < R_{tetr} 0,75792} \quad (7)$$

The calculations displayed above have verified the hypothesis II. There is a close relationship between an ad captivating the attention of the user and the purchase of this product by the user registered in a social network. The verification of the hypothesis II only confirms the theoretic recommendation that products promoted on social networks should be as impressive and attractive for a concrete user as possible.

Conclusion

Social networks on the Internet may be a very useful communication and promotion tool. It shall be emphasized that the technical task of setting up a profile is not sufficient in itself. If a firm requires an effective return on invested finances, work and time, it is necessary to monitor specifics, preferences, opinions and chats of users of social networks continuously. If the firm supports such information with results of various marketing analyses, statistics and investigation, they obtain almost a complete overview of the issue in question. The firm may use these results to react flexibly to changes in purchase behaviour, innovate products and processes and continuously improve the overall attitude of the firm to its customers. The objective of the article was to analyse and define specific behaviours of working people as users of social networks. Therefore the questionnaire survey has been evaluated in detail, thus arriving at the specifics stated above. On the basis of theoretical assumptions two hypotheses

were determined. The hypothesis I, which assumed that users of social networks take part in chats with firms at their corporate profiles at a social network and in this way search information before a planned purchase of a product takes place, has not been confirmed. The hypothesis II, which defined the assumption that users of social networks who have been attracted by an advert at a social network will buy the promoted product, has clearly been confirmed. It will certainly be useful to keep monitoring the developments in the use of social networks by working people in future.

Acknowledgements

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VYUŽÍVÁNÍ SOCIÁLNÍCH SÍTÍ PRACUJÍCÍMI

V dnešní tržně dynamicky se rozvíjejícím se prostředí je schopnost úspěšně podnikat a vést firmu dlouhodobě k prosperitě velmi obtížné. Současní majitelé firem si velmi dobře uvědomují nutnost začlenit nástroje využívajících koncept internetových sociálních sítí do firemního, propagačního a komunikačního řízení. Díky rozvoji moderních technologií, nárůstu používání a sdílení multimédií, neustálé změně kupního chování, se využívání sociálních sítí neustále zvyšuje. Cílem článku je analýza a definování specifického chování pracujících jako uživatelů online sociálních sítí se zaměřením na použití pro marketingové účely. Začátek článku je věnován teoretickým východiskům a stručného představení online sociálních sítí. Praktická část se věnuje analýze dat na základě provedeného dotazníkového šetření, definování specifického užívání sociálních sítí pracujícími a následně statistického ověření dvou hypotéz pomocí statistických vzorců a korelační analýzy. Závěr shrnuje celou problematiku, včetně provedeného výzkumu s doporučením pro správné využívání sociálních sítí k marketingovým účelům.

DIE NUTZUNG SOZIALER NETZWERKE DURCH ARBEITNEHMER

In der heutigen, sich dynamisch entwickelnden Umgebung ist es sehr schwierig, erfolgreich zu unternehmen und eine Firma langfristig zu Prosperität zu führen. Die heutigen Firmeneigentümer sind sich sehr gut der Notwendigkeit bewusst, Werkzeuge und Konzepte der sozialen Netzwerke im Internet in die Firmen-, Werbe- und Kommunikationsprozesse mit einzubeziehen. Dank der Verbreitung der modernen Technologien, einer wachsenden Nutzung und Beliebtheit der Multimedien und dank stetiger Änderungen des Kaufverhaltens werden die sozialen Netzwerke immer stärker genutzt. Das Ziel des Artikels ist eine Analyse und Definition des spezifischen Verhaltens der Arbeitnehmer in der Rolle von Anwendern der sozialen Netzwerke im Internet, mit besonderem Augenmerk auf die Nutzung für Marketingzwecke. Die Einleitung des Artikels ist theoretischen Ausgangspunkten und einer kurzen Vorstellung der online Sozialnetzwerke gewidmet. Der praktische Teil behandelt die Analyse von Daten aus einer durchgeführten Umfrage und definiert die spezifische Nutzung sozialer Netzwerken durch Arbeitnehmer. Abschließend werden die zwei Hypothesen mithilfe von statistischen Formeln und einer Korrelationsanalyse statistisch geprüft. Der Schluss fasst die gesamte Problematik einschließlich der durchgeführten Untersuchung zusammen und bringt Empfehlungen zur richtigen Nutzung der sozialen Netzwerke zu Marketingzwecken.

WYKORZYSTYWANIE SIECI SPOŁECZNOŚCIOWYCH PRZEZ PRACUJĄCYCH

Współcześni właściciele firm bardzo dobrze uświadamiają sobie konieczność wdrożenia narzędzi wykorzystujących koncepcję internetowych sieci społecznościowych w zarządzaniu firmą, promocją i komunikacją. Celem niniejszego artykułu jest przeprowadzenie analizy i zdefiniowanie specyficznego zachowania pracujących jako użytkowników sieci społecznościowych online z ukierunkowaniem na ich wykorzystywanie do celów marketingowych. Na wstępie opisano zagadnienia teoretyczne oraz krótko przedstawiono sieci społecznościowe online. Część praktyczna poświęcona jest analizie danych w oparciu o przeprowadzone badania ankietowe, zdefiniowaniu specyficznego wykorzystywania sieci społecznościowych przez pracujących a następnie statystycznemu sprawdzeniu dwóch hipotez za pomocą wzorów statystycznych i analizy korelacji. W zakończeniu całe opisywane zagadnienie oraz przeprowadzone badania podsumowano, wskazując właściwe wykorzystywanie sieci społecznościowych do celów marketingowych.

PROFILE OF KNOWLEDGE WORKERS IN SOCIAL SERVICE MANAGEMENT

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Abstract

The contribution responds to a problematic of knowledge workers and their management in the environment of social services, which has not been investigated much up to now. Post-communist period has opened room for new business opportunities, but it has also set up new challenges and new requirements in order to perform better form of meeting requirements and expectations of customers. In order to form preconditions for recruiting professional managers to cover all kinds of important positions in the organization and obtaining potential competitive advantages, it is necessary to compile efficient profile of a manager in social services and the manner of its sophisticated elaboration.

Introduction

In postmodern society, when implementing stated strategy the management of organizations focuses more than ever before on the reasonable use of all resources, especially the human ones. Management is multidisciplinary and thus comprehensive science that puts accent on professional (scientific) requirements and skills (practical, applicative) of a manager as the subject of management, a manager as a modern leader and a manager who is in the contemporary society full of various kinds of knowledge capable to lead so-called knowledge workers when forming the knowledge and developing its theory. Objective perception of reality, visionariness, energization of human resources, clarification of one's life mission while respecting natural law and mental principles derived forms a characteristic feature for modern leaders [11]. In the management of knowledge workers who create values mostly based on relevant knowledge necessary for operation of the company, however, the process of creating values has its own specifics, which unlike management of other executive employees do not allow managers to e.g. perform their direct control. The manager should be furnished with personal characteristics, social and emotional intelligence; he should also be able to perceive social life integrally in respect of emotionally and socially mature society.

People do not follow anyone who they do not trust. If they do, they assume that their behavior will not cause any harm to the other person at all. In such case, most people are willing to open themselves and cooperate. Trust can be of a different character than friendship. People believe managers whose behavior is consistent, whom they know and who do not arouse uncertainty. It is not necessary for people to be always in agreement with the manager, they need to understand his reasons for solving the problem in a certain way at least [7]. Formal authority grounded in his position provides the manager much lesser power due to increased

importance of power based on knowledge. In other words, many times subordinates show more to be certain of their job (their knowledge is more complex) than their superiors. Relationship between a manager and a (knowledge) worker of the company is being gradually transformed into an equivalent partnership. The main role of such relationship is their cooperation with positive effects on work productivity of employees. Based on the description of J. Kamoda [1], the risk of discord between initiative of a manager as the leading subject and reaction (behavior, discussion) of a knowledge worker as the managed subject is marked in every social system and it is necessary to have this awareness and strive to minimize it by means of an accurate formulation of initiative, qualification growth of a manager and a knowledge worker with appropriate stimulation respecting the motivators of the object.

The employees do not form a homogenous group in any organization; it is always a group of diverse types of employees with varied knowledge and responsibility [8]. This requires manager's individual approach to each employee. In order to provide successful realization of this task, it is necessary for knowledge workers to obtain adequate classification. Out of six types of approach described by L. Mládková [8], here we speak of the description of classification of so-called knowledge workers depending on the entrusted post (position) and its demandingness on so-called golden skills, as well as the value added to the output due to utilization of tacit knowledge (KWP matrix).

In proposed contribution, we analyze selected possibilities of creation and utilization of manager's work profile in social services, in the context of well-educated society, by means of a model of required psychosocial competencies used by selecting the best candidate for the specific job position. The contribution is one of the intermediate outcomes of the project No. EEIG-01/SU/2012 - European Economic Interest Grouping – Bruxelles: "Knowledge worker and ethical dimension of management on the path to the emotional and mature social society".

1 Current Situation of the Research Topic

Changing society conditions ask for qualified social help. The primary image of a philanthropic and altruistic social worker motivated to help others has gradually changed into an image of a highly qualified professional having not only good knowledge of the matter but also having the required skills and qualities.

Management as such is a knowledge composition of requirements for management entities, namely:

- Proficiency, knowledge (what to know)
- Practical skills, the ability to apply the knowledge (what to achieve)
- Social maturity, personal qualities and characteristics (what to be like).

Human resources play the main role in the process of quality enhancement in the social sphere. When working they create new values and create added values in logistics. Human resources enhance suitability and effectiveness of running operations, i.e. they fulfill the clients' requirements and expectations, and make sure that the given sources are used responsibly. Prerequisites for real fulfillment of the objectives of social work are to be set by managers on all levels. In case personal standards for leading workers cannot be unified, personal standards within the standards of quality become important. A manager with poor education and proficiency, a manager, who does not know the background of these kinds of companies, is always a bad investment. An enquiry shows that most of the employees of social facilities have a low ability to utilize modern information and communication technologies (ICT). About 85% of asked respondents who use ICT at work do not think new

ICT knowledge is important. It might be because of the age structure of the social workers as well as because of low implementation of new IKT technologies [10].

Nowadays the quality of people (human resources) seems to be very important. Though it is not certain what the above mentioned quality means. It could be knowledge, skills and abilities as well as loyalty and attitude, in one word. The concept of competence seems to integrate all of the above mentioned. For the success of a company it is essential that managers have the ability to get around in fast changing environment and to execute the required activities. American Council on Social Work Education determines the competence of social workers by obtaining a university diploma, applying critical thinking at work, practicing the job in accordance with professional ethical principles, professional use of one self, understanding various forms of discrimination, knowledge of the profession history, by applying the necessary skills when working with target groups and solving problems, understanding the interaction between individuals and social systems, the ability to analyze the impact of social policy on the lives of clients, influencing the social policy, the ability to evaluate results of the research and to design studies, the ability to evaluate own work and the work of your colleagues, the art of communication with clients, colleagues and the public, providing supervision capability, being able to work in the existing organizational structure and the ability to enforce necessary changes [5].

The current approach in the social sciences is largely about procedures based on object (problem) observation (perception), the hypotheses formulation and their verification by experiment. This scientific approach was also used to obtain and verify knowledge about the nature and properties of objects active in the social sphere, as well as the research subject – manager in the social sphere, who helps to create the object. Based on the obtained knowledge, observation and examination of the selected object (problem) it is possible to precede to the verification of the acquired data - in this case, psychosocial competencies necessary to perform the function of the “optimal” manager on the selected level of management.

Due to the particular type of the target facility a pilot study was first launched. Based on qualified estimates the pilot study surveyed personal requirements on managers and other so called knowledge workers active in the social sphere. We used a methodology of knowledge workers classification depending on the duties entrusted (position) and its demand on so-called golden skills, as well as the value added to output through the utilization of tacit knowledge. Subsequently, the research itself was carried out. One possibility to implement the verification of psychosocial competencies necessary to carry out the profession of an optimal manager is to apply the factor analysis. It allows for analysis of different working positions in facilities of all kinds and sizes. Management of any organization usually tries to fill its working positions with employees with maximal compatibility in order to achieve its highest. It creates conditions for the prosperity of the given organization.

The process of M. Droppa [2] seems to be the one suitable to create the quantitative model of psychosocial competencies (variables) of a job position. Based on this model, it is important for each job position to set its **psychosocial competencies** (variables) necessary for carrying out the work at the position. In a further selection process they become the variables required to create **correlation matrices**. Elements of the correlation matrix arise from the estimation of pair wise preferences of variables. To estimate them a correlation coefficient expressing the degree of strength of a link between two variables is used. Hence the necessary correlation matrices are created. They serve to determine the elements of an **aggregated matrix**. The aggregated matrix elements are determined from the maximum values of the correlation matrix elements. They express the mutual correlation between the two variables. To calculate the **importance (weights)** of variables and to determine their order the method of principal

components is used. The method is based on the calculation of Eigenvalues and Eigenvectors of the aggregated matrix (using software Mathematica). Creating a **quantitative model for job variables** is the last stage of this method. The model of variables is created by comparing them on the basis of percentiles and their top to down arrangement. Subject variables in the model structure become the employee's required variables. Psychosocial competencies of the employees in their job performance are measured by the battery of tests. According to M. Gaziova [4], almost each of the surveyed competencies can be expressed in terms of percentiles. The more significant the score, the higher the value assigned to the responsibility.

2 The Matrix Concept of Knowledge Workers

Should we try to use the potential of knowledge workers to the fullest, it is necessary to try to identify subgroups belonging to the numerically large group KWP (Knowledge Worker Productivity). These subgroups should show common features and therefore in some aspects they require similar management approaches. For the concept of knowledge workers to be applicable in practice, it is necessary to develop a classification in the form of a matrix. This matrix has two axes that determine the location for each job (position) in the model [9]:

- The Y axis contains **“tacit knowledge added value to output”**. This term refers to the characteristics of each of the positions, not to a particular employee or his personal tacit knowledge. Each employee has his own tacit knowledge, but only knowledge related to the work done and to what degree that knowledge is important to the given employee performance should be taken in account. Therefore, we focus on potential of the position and review how much tacit knowledge contributes to the tasks associated with the success of a particular position. Y-axis expresses the value of tacit knowledge, which can deliver the required performance at work - the extent to which tacit knowledge can help knowledge workers to carry out their mission in the best way possible.
- The horizontal axis X of the model describes the level (value) of **“golden skills”** required for a particular job position. It is about skills such as independence, creativity and the ability to solve problems. Increasing the level of golden skills is quite complicated. Although it is possible to slightly improve the level of creativity or to gain greater independence, the employee must possess these characteristics and start using and improving them. It is clear that these characteristics of gold are complementary, e.g. problem solving and creativity always go “hand in hand”. Also, there are no metrics to measure the golden skills (the same applies to tacit knowledge), the location of the position is therefore subjective.

Based on defining axes of the analytical matrix it is possible to find the location for each job position (profession) depending on the level of tacit knowledge and skills necessary to carry it out. This in turn allows defining an employee profile for each position. Grouping and segmentation of these professions (positions) into different groups allows for further classification of knowledge workers based on profiles necessary for carrying out the given position. It is also a way to evaluate how easy (difficult) it is to exchange individual employees for others more qualified, or whether the work position requires lifelong learning, or if it is “talent-oriented”, or if it requires the top knowledge workers only.

When researching personal skills of managers in social sphere according to the concept of knowledge worker matrix (KWP matrix) based on the analysis of the data base that we acquired in the implementation of pre-research (controlled interviews, $n = 50$ respondents - see Table 1) we found out that up to 88% respondents (100% of top managers and 76% of managers at middle management level) expect the founder of a private social service and the

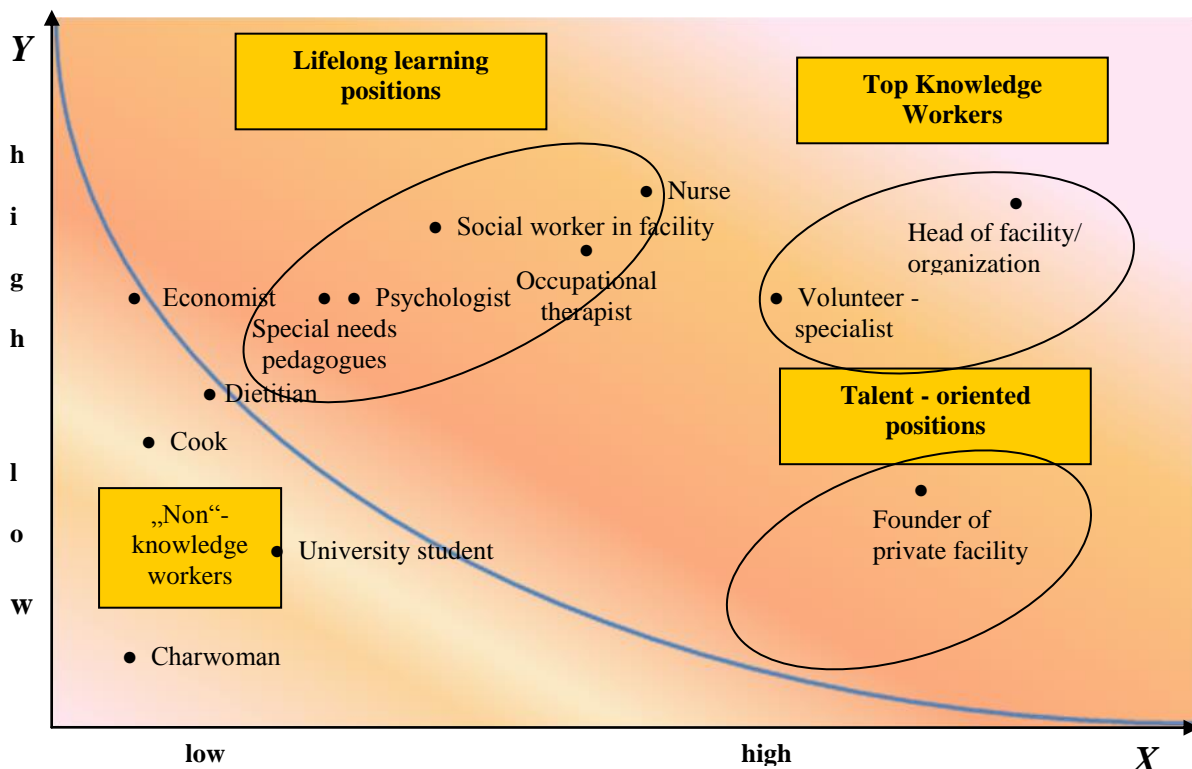
head of the facility to possess “golden skills” (average 90.5% or 88.4%). The factor “value added to output due to use of tacit knowledge” is satisfactory only in the job position of the head of the facility (average 86.4%). The subsequent research (Delphi method) on a sample of managers from Houses of Social Services ($n = 16$) showed slightly lower expectations, compared to the entire sample of managers - of respondents ($n = 50$). We ascribe it to a more realistic view via the expert method, allowing comparison of our own point of view with other experts.

Tab. 1: Breakdown of Respondents by the Type of Facility

Type of Facility	Number of Top Managers	Number of Managers on Middle Level
Senior Nursing Homes	5	4
Orphanages and Day Nursing Homes	4	5
Houses of Social Services	8	8
Resocialization Centers	2	2
Office of Labour, Social Affairs and Family	6	6
Total	25	25

Source: Own

The further analysis confirmed that there was a negligible interdependence (interaction) between the factor “golden skills” and the factor “tacit knowledge added value” in case of managers – respondents. There was also a small effect on estimate of values of the golden skills and the tacit knowledge added value arising from the position of the respondents in the organizational structure (top management and middle management).



Definition:

X – “Golden skills” required by the positions,

Y – Value added by tacit knowledge to the performance

Source: Own

Fig. 1: Knowledge worker in Social sphere – positions classification

Based on the analysis of controlled interviews ($n = 50$ respondents) the KWP matrix (Fig. 1) was worked out. It shows the status of the profession (job position) depending on the demand for so called golden skills (x -axis), as well as the value added to the output by utilizing the tacit knowledge (y -axis). To clarify this, figure 1 shows the given professions (job positions).

3 Researches of Personal Prerequisites of a Manager in the Social Sphere

From the battery of 17 psychosocial competencies (Table 2), suitable for executives in the social sphere, which was compiled on the basis of the analysis of the researches at the Institute of S. Nahalka KU in Poprad, managers (respondents) and experts entrusted with the implementation of testing (psycho diagnostics) agreed completely on 10 competencies (80% agreement in those competencies). Those are further analyzed (Table 2, bold).

Tab. 2: *Psychosocial Competences of Employees in the Social Sphere*

Variable	Competence	Variable	Competence
1	Art of Communication	10	To handle stress
2	Assertiveness	11	Objectivity
3	To be pro sociable	12	Verbal expressing
4	Empathy	13	Competitiveness
5	Creativity	14	Thinking and judgment
6	Ability to work in a team	15	Selective focusing
7	Ability to lead people	16	Constructive thinking
8	Analytical skills	17	Numeric competence
9	Ability to solve problems		

Source: Own

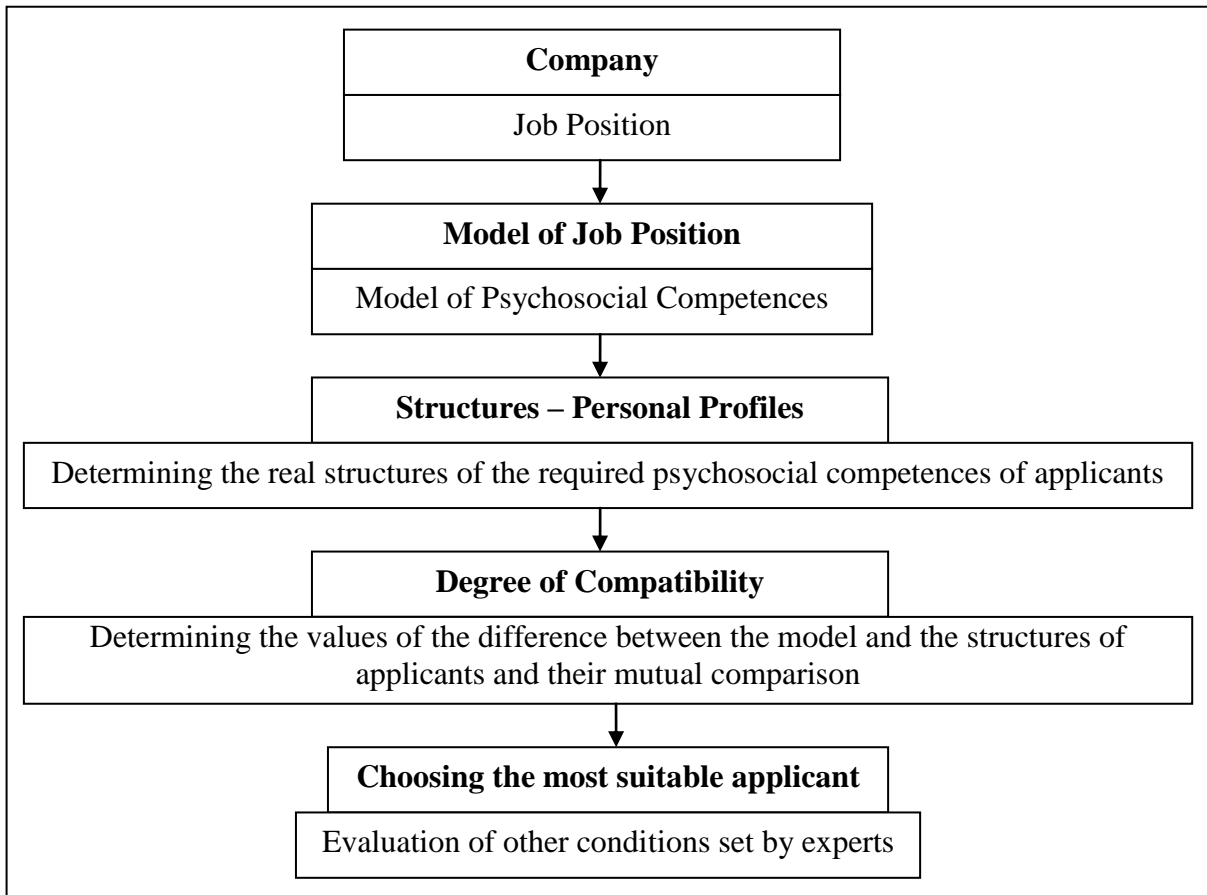
Each of these skills can be tested. Since the largest group of respondents (Table 1) were managers of Houses of Social Services ($n = 16$), further testing of psychosocial competencies (using expert Delphi method) focused on applying the above mentioned theoretical procedures for selecting a manager - Head of facilities of the Social services in practice. In questionnaires managers – respondents suggested a composition (Table 3) of the most important psychosocial competencies necessary to carry out the job of a particular manager on the selected management level.

Tab. 3: *Composition of the Most Important Psychosocial Competences*

Variable	Competence	Percentage of respondents (%)	Variable	Competence	Percentage of respondents (%)
1	Constructive thinking	86.50	6	Empathy	62.50
2	To be pro sociable	81.25	7	To handle stress	62.50
3	Ability to solve problems	75.00	8	Numeric competence	50.00
4	Thinking and judgment	75.00	9	Creativity	50.00
5	Ability to work in a team	75.00	10	Assertiveness	43.75

Source: Own

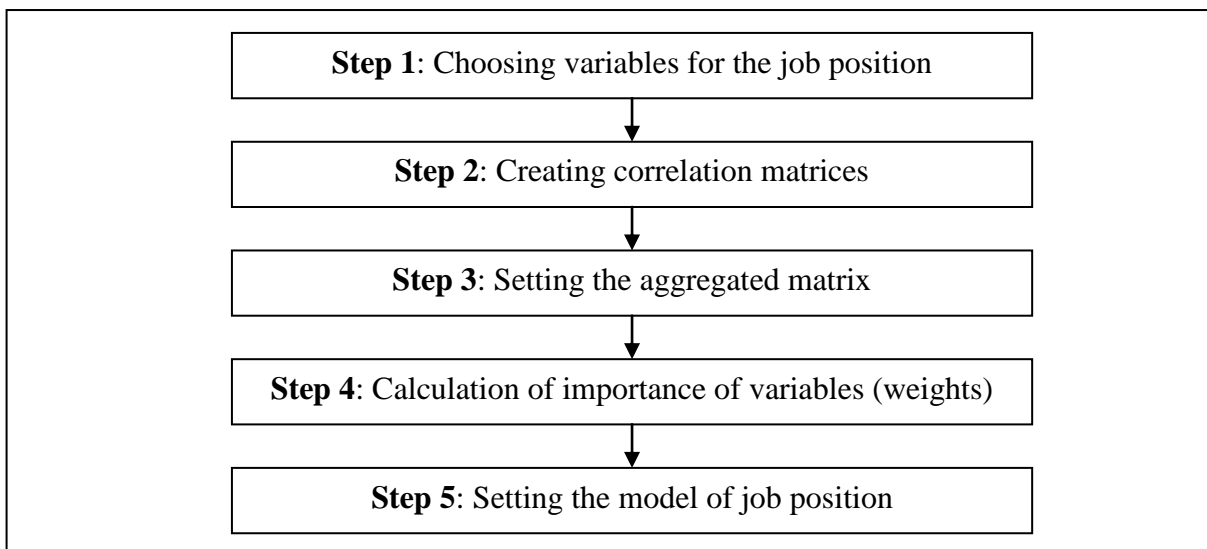
A methodology of M. Droppa and J. Kamoda [3] was used to select the most suitable candidate (three candidates) for the selected job position (Figure 2).



Source: [3]

Fig. 2: *The Steps for Selecting the Most Suitable Candidate for the Job Position*

In determining the logical sequence of steps of determining a job position model we have chosen the procedure by M. Droppa and J. Kamoda [3], which is schematically shown in Figure 3.



Source: [3]

Fig. 3: *Applied Sequences of Steps in Determining a Model of a Job Position*

Preparing three correlation matrices (Created by the founder, the manager – external consultant and the psychologist - external consultant) formed an aggregated matrix (Table 4).

Tab. 4: Aggregated Matrix

	X ₁	X ₂	X ₃	X ₄	X ₅	X ₆	X ₇	X ₈	X ₉	X ₁₀
X ₁	1.000	-0.950	0.605	0.635	0.705	0.555	0.350	0.675	0.590	0.650
X ₂	-0.950	1.000	0.705	0.600	0.450	0.745	0.570	0.830	0.600	0.594
X ₃	0.605	0.705	1.000	0.410	0.350	0.750	0.410	0.705	0.745	0.705
X ₄	0.635	0.600	0.410	1.000	0.645	0.795	-0.990	-0.983	0.895	0.395
X ₅	0.705	0.450	0.350	0.645	1.000	-0.705	-0.650	0.885	-0.725	-0.975
X ₆	0.555	0.745	0.750	0.795	-0.705	1.000	0.400	0.895	0.550	0.950
X ₇	0.350	0.570	0.410	-0.990	-0.650	0.400	1.000	0.725	0.915	0.660
X ₈	0.675	0.830	0.705	-0.983	0.885	0.895	0.725	1.000	0.950	0.970
X ₉	0.590	0.600	0.745	0.895	-0.725	0.550	0.915	0.950	1.000	0.950
X ₁₀	0.650	0.594	0.705	0.395	-0.975	0.950	0.660	0.970	0.950	1.000

Source: Own

Using Le Verier methods, Horner scheme and other relevant steps helped to set **the weights of the selected variables** based on the calculated Eigenvalues and Eigenvectors of the aggregated matrix (Table 5).

Tab. 5: Weights and Ranking of Model Importance in the Given Job Position

Variables	μ_1	μ_2	μ_3	μ_4	μ_5	μ_6	μ_7	μ_8	μ_9	μ_{10}
Weights (%)	-12.81	7.01	33.54	24.06	18.46	5.85	20.68	23.32	11.51	-31.62
Ranking	9.	7.	1.	2.	5.	8.	4.	3.	6.	10.

Source: Own

To calculate the Eigenvalues and Eigenvectors the Mathematica program was used. **The model of a specific job position** was determined by comparing the percentiles assigned to individual variables and their top-down design (Table 6).

Tab. 6: Model of Job Position “Head of a Separate Department”

Ranking	Variables	Competence	Weights (%)
1.	μ_3	Thinking and judgment	33.54
2.	μ_4	Selective focusing	24.06
3.	μ_8	Constructive thinking	23.32
4.	μ_7	Ability to solve problems	20.68
5.	μ_5	Empathy	18.46
6.	μ_9	Creativity	11.51
7.	μ_2	To handle stress	7.01
8.	μ_6	Ability to work in team	5.85
9.	μ_1	Competitiveness	-12.81
10.	μ_{10}	Numeric competence	-31.62

Source: Own

For the candidate to be successful in required core competences by using the factor analysis as a tool in the selection of appropriate personnel for managerial positions (proposing a quantitative model of psychosocial competencies for the selected job position) the candidate must meet three conditions. The first condition: *Achieving a minimal deviation from a quantitative model.* The second condition: *Achieved percentile values of the first three variables of the quantitative model (X₃, X₄ and X₈) must be at least 12% and the other two variables (X₇, X₅) must be at least 9%.* Third condition: *Not exceeding the tolerance level of 7 points (difference value of the deviation of the considered candidate and the candidate with a minimal value of deviation, if that candidate did not qualify in condition No.2).*

The first condition (the minimal value of the error value) was met by the candidate No. 1. The second condition (reaching minimal values of percentiles in specified variables) was met by only the candidate No. 3. The third candidate met the condition No. 3 (value difference in deviation between the candidate No. 3 and the candidate No. 1 = 3.02 points). The most suitable candidate for the job position “head of the separate department – housing facility for people with disabilities” is in accordance with the established procedure the candidate No.3. He was the only candidate to meet all the conditions set by experts.

Conclusion

In the course of the past twenty-five years, social-economic development in post-communist countries has achieved great shift concerning entrepreneurship, or, changes that gradually reflect on the business conditions, economics and subject management at the market. In contemporary varied environment with typical dynamic changes, non-profit organizations and organizations providing social services can no more depend on the past inertia forces. World economic and financial crisis greatly influences also organizations reliant on the help of others. Such organizations need to be ready to increase in demand for rendition of services, drain of financial resources and more effective utilization of knowledge.

Knowledge character will influence also its exchange. The more tacit the knowledge is, the more the technologies need to concentrate on the simplification of its direct sharing among the people. The more explicit is the knowledge, the easier it is to keep it in structural forms (by means of IT) and utilize it in the organization activities. Therefore, it is necessary to attain managers of a new quality and knowledge workers as a dynamic component of human resources. The contribution suggests various possibilities.

In order to implement the knowledge management into the organization, it is assumed to create reasonable conditions within the organization. “One of the specific conditions for implementation and operation of knowledge management is co-called knowledge-sharing culture – a culture of sharing knowledge and information. It is a willingness to share one’s knowledge, information and experience and enable all the employees to take full advantage of it on behalf of the entire organization. The ability of employees to understand the context under which given knowledge emerged, their willingness to accept the knowledge, embrace, utilize and develop it further forms another important preconditions for successful implementation of the process” [6].

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PROFIL ZNALOSTNÍCH PRACOVNÍKŮ V MANAGEMENTU SOCIÁLNÍCH SLUŽEB

Příspěvek reaguje na dosud málo probádanou problematiku znalostních pracovníků a jejich řízení v prostředí sociálních služeb. Postkomunistická doba otevřela prostor pro nové podnikatelské možnosti, ale připravila také nové výzvy a nové požadavky pro lepší plnění požadavků a očekávání zákazníků. Sestavení dobrého profilu manažera v oblasti sociálních služeb a způsob jeho sofistikovaného propracování je předpokladem pro získání kvalitních manažerů pro všechny důležité pozice v organizaci a získání potenciální konkurenční výhody.

PROFIL EINES KREATIVEN FACHMITARBEITERS IM MANAGEMENT DER SOZIALDIENSTLEISTUNGEN

Dieser Artikel reagiert auf bislang wenig erforschte Problematik kreativer Fachmitarbeiter und ihr Management im Bereich der Sozialdienstleistungen. Postkommunistisches Zeitalter öffnete den Raum für neue unternehmerische Möglichkeiten, aber sie brachte auch neue Aufforderungen und Rufe mit sich, um Erwartungen der Kunden besser zu erfüllen. Ein neues sophistisches Manager-Profil in Sozialdiensten und die Art und Weise, wie man dieses Profil zusammenstellt, ist eine der Voraussetzungen für Erwerb neuer Manager auf hohem Qualitätsniveau in allen wichtigen Positionen einer Organisation und auch zur Beschaffung eines potentiellen Konkurrenzvorteils.

PROFIL PRACOWNIKÓW WIEDZY W ZARZĄDZANIU USŁUG SOCJALNYCH

Artykuł jest odpowiedzią na bieżną, ale niedostatecznie zbadaną problematykę pracowników wiedzy emisji i zarządzania w środowisku usług socjalnych. Okres postkomunistyczny otworzył drogę do nowych możliwości biznesowych, ale są także produkowane nowe wyzwania i wymagania, aby lepiej sprostać wymaganiom i oczekiwaniom klientów. Montaż dobrego profilu menedżera w usługach socjalnych i sposób jego wyrafinowanego rozwoju jest koniecznym warunkiem do uzyskania wysokiej jakości menedżerów na wszystkich ważnych stanowiskach w organizacji i zdobycia potencjalnych przewag konkurencyjnych.

STATISTICAL ANALYSIS OF INSURANCE MARKET IN THE CZECH REPUBLIC BY USING GROSS PREMIUM WRITTEN OF NON-LIFE INSURANCE IN 1995-2012

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Abstract

The insurance industry is a dynamic industry that responds to all current changes in the environment in which it operates. These are, first, changes in economic conditions, but also there are changes in the character of insurability of risks. The insurance market is always changing and depending on these factors. For this reason the paper deals with the statistical analysis of the insurance market development through one of the basic indicators of insurance, in particular by gross written premium. The analysis of the insurance market covers the period 1995–2012, according to available information from the Czech National Bank.

Introduction

The paper is focused on analysis of the insurance market in non-life insurance at years 1995-2012. To capture the development of the insurance market by using indicators gross written premium will be applied statistical analysis using time series. The first part explains basic characteristics of time series that are implemented on the selected value of the indicator. In the paper will be also evaluated an appropriate function for the development trend of gross premium written of non-life insurance and the development prediction by years 2013, 2014 and 2015. Values and diagrams are created using Microsoft Excel and Statgraphics Centurion XVI.

It is important to note that the analysis doesn't include any economic shocks, effects of inflation or other economic variables affecting the insurance market.

1 Elementary insurance indicators

To capture the development of the insurance market can be used several insurance indicators (gross premium written, insurance density or insurance penetration).

Gross premium written expresses the premium payable under insurance contracts. Using this indicator it is possible to express the level of the insurance market and also this indicator is a measure of the performance of insurance companies in the market. [4]

Given that gross premium written is also influenced by the size of the country it can be used other indicators in cases of comparison of insurance markets with other countries. Firstly we can mention insurance density that expresses premiums per capita or secondly insurance penetration expressing premiums in % of GDP. [4]

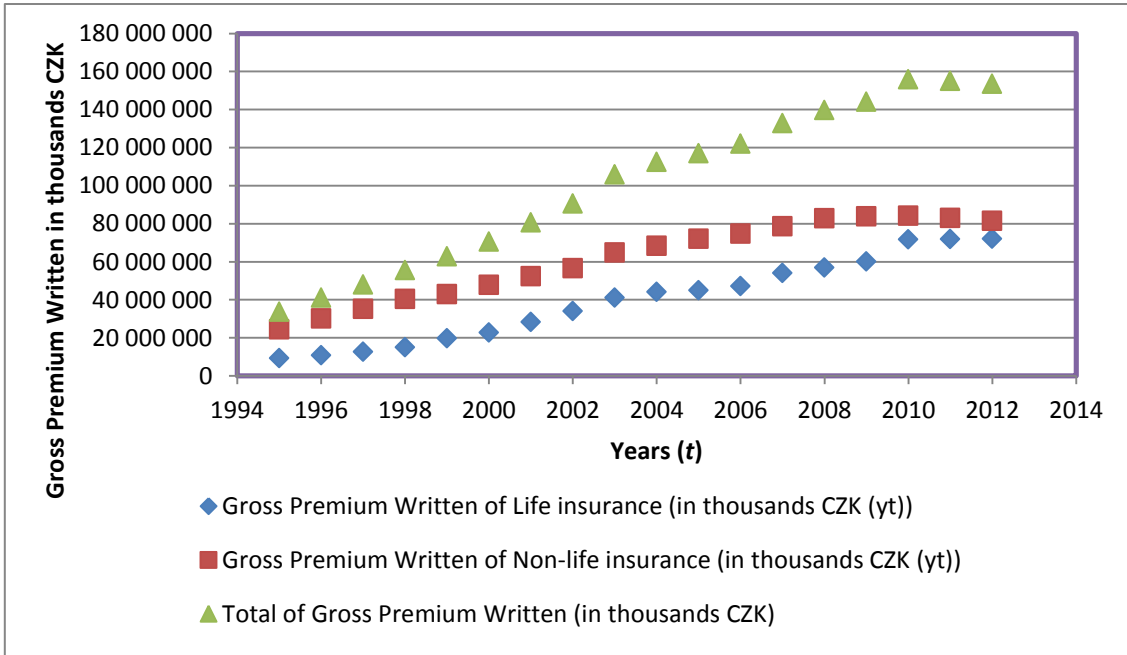
2 Development of gross premium written in the Czech Republic

The following Tab. 1 contains data about the development of the insurance market in the Czech Republic in years 1995–2012 using the numeric expression of gross premium written in life and non-life insurance. From these values is apparent increasing trend of total gross premium written (see also Fig. 1). From percentage shares can be seen changing proportions of life and non-life insurance. Although there is higher percentage share of gross premium written of non-life insurance, we can see faster trend of growth in gross premium written of life insurance.

Tab. 1: Development of gross premium written of life and non-life insurance (1995–2012)

Year (<i>t</i>)	Gross premium written of life insurance (in thousands CZK (y_t))	Gross premium written of non- life insurance (in thousands CZK (y_t))	Total of gross premium written (in thousands CZK)	Percentage share of gross premium written of life insurance in total gross premium written	Percentage share of gross premium written of non-life insurance in total gross premium written
1995	9 341 715	24 453 990	33 795 705	27.64	72.36
1996	10 937 216	30 187 465	41 124 681	26.60	73.40
1997	12 692 286	35 292 424	47 984 710	26.45	73.55
1998	15 089 372	40 547 974	55 637 346	27.12	72.88
1999	19 793 331	42 990 785	62 784 116	31.53	68.47
2000	22 770 132	47 819 214	70 589 346	32.26	67.74
2001	28 281 966	52 462 237	80 744 203	35.03	64.97
2002	34 036 346	56 624 001	90 660 347	37.54	62.46
2003	41 128 802	64 817 070	105 945 872	38.82	61.18
2004	44 201 009	68 377 194	112 578 203	39.26	60.74
2005	44 954 269	72 125 154	117 079 423	38.40	61.60
2006	47 233 389	74 889 748	122 123 137	38.68	61.32
2007	54 128 225	78 767 841	132 896 066	40.73	59.27
2008	56 909 094	82 942 866	139 851 960	40.69	59.31
2009	60 209 323	83 961 630	144 170 953	41.76	58.24
2010	71 764 862	84 231 496	155 996 358	46.00	54.00
2011	72 009 104	83 083 478	155 092 582	46.43	53.57
2012	72 049 292	81 549 574	153 598 866	46.91	53.09

Source: Own elaboration [3]



Source: Own elaboration from Tab. 1

Fig. 1: Development of gross premium written of life and non-life insurance (1995–2012)

3 Elementary characteristic of time series

Time series can be understood as sequence of values of a certain statistical indicator arranged in time. To assess properties of time series can be used number of characteristics to obtain basic elementary information. From the basic characteristics we used: the first difference, the second difference, the growth coefficient, the growth rate, the increase rate, the average absolute gain and the average growth coefficient. [2], [5], [6].

Absolute gain (the first difference) (1) expresses the change in the value of the indicator at time t to time $t - 1$.

$$\Delta_t^{(1)} = y_t - y_{t-1} \quad (1)$$

The average absolute gain (2) represents the average annual change in the value of the indicator for the period studied.

$$\bar{\Delta} = \frac{(y_2 - y_1) + (y_3 - y_2) + \dots + (y_T - y_{T-1})}{T-1} = \frac{\sum_{t=2}^T \Delta_t^{(1)}}{T-1} = \frac{y_T - y_1}{T-1} \quad (2)$$

The second difference (3) reflects increases or decreases in the value of the first differences.

$$\Delta_t^{(2)} = \Delta_t^{(1)} - \Delta_{t-1}^{(1)} \quad (3)$$

The growth rate (4) expresses how many times the value of the indicator changed.

$$k_t = \frac{y_t}{y_{t-1}} \quad (4)$$

Provided this indicator has multiplied 100 times, it characterizes by how many percent of the value at time $t-1$ increased at time t . This coefficient is also named the growth rate (T_{ty}).

The average growth coefficient (5) is calculated as the geometric mean of individual coefficients of growth. Growth rates are also used as criterion to find an appropriate trend function.

$$\bar{k} = \sqrt[T-1]{k_2 \cdot k_3 \cdot \dots \cdot k_T} = \sqrt[T-1]{\frac{y_2}{y_1} \cdot \frac{y_3}{y_2} \cdot \dots \cdot \frac{y_T}{y_{T-1}}} = \sqrt[T-1]{\frac{y_T}{y_1}} \quad (5)$$

The increase rate (6) expresses the percentage change in value of the indicator.

$$\delta_{y_t} = T_{y_t} - 1 \quad (6)$$

4 Elementary characteristic development of gross premium written of non-life insurance in the Czech Republic

Tab. 2 contains elementary characteristics of gross premium written of non-life insurance in the Czech Republic. These characteristics indicate that the biggest increase in the volume of gross premium written of non-life insurance was in 2003. It can be explained by the increase of various natural disasters, especially floods that hit the Czech Republic in 2002.

Tab. 2: Elementary characteristic of gross premium written of non-life insurance in the Czech Republic

Years (t)	Gross premium written of non-life insurance (in thousands CZK (y _t))	Δ _t ⁽¹⁾	Δ _t ⁽²⁾	k _t	T _{y_t}	δ _{y_t}
1995	24 453 990.00	×	×	×	×	×
1996	30 187 465.00	5 733 475.00	×	1.23	123.45	23.45
1997	35 292 424.00	5 104 959.00	-628 516.00	1.17	116.91	16.91
1998	40 547 974.00	5 255 550.00	150 591.00	1.15	114.89	14.89
1999	42 990 785.00	2 442 811.00	-2 812 739.00	1.06	106.02	6.02
2000	47 819 214.00	4 828 429.00	2 385 618.00	1.11	111.23	11.23
2001	52 462 237.00	4 643 023.00	-185 406.00	1.10	109.71	9.71
2002	56 624 001.00	4 161 764.00	-481 259.00	1.08	107.93	7.93
2003	64 817 070.00	8 193 069.00	4 031 305.00	1.14	114.47	14.47
2004	68 377 194.00	3 560 124.00	-4 632 945.00	1.05	105.49	5.49
2005	72 125 154.00	3 747 960.00	187 836.00	1.05	105.48	5.48
2006	74 889 748.00	2 764 594.00	-983 366.00	1.04	103.83	3.83
2007	78 767 841.00	3 878 093.00	1 113 499.00	1.05	105.18	5.18
2008	82 942 866.00	4 175 025.00	296 932.00	1.05	105.30	5.30
2009	83 961 630.00	1 018 764.00	-3 156 261.00	1.01	101.23	1.23
2010	84 231 496.00	269 866.00	-748 898.00	1.00	100.32	0.32
2011	83 083 478.00	-1 148 018.00	-1 417 884.00	0.99	98.64	-1.36
2012	81 549 574.00	-1 533 904.00	-385 886.00	0.98	98.15	-1.85

Source: Own elaboration from Tab.1

The result of average absolute gain is for non-life insurance 3 358 564 thousand CZK. The result of average growth coefficient is 1.07341816205 (which corresponds to 107.3%).

5 Elementary methods of modeling the trend component

The trend in time series can be described by trend functions unless the development of time series corresponds to a particular function of time (for example: linear, quadratic and exponential). [2]

Linear trend function (line) has the following form (7):

$$T_t = \beta_0 + \beta_1 t \quad (7)$$

Quadratic trend function (parabola) has the following form (8):

$$T_t = \beta_0 + \beta_1 t + \beta_2 t^2 \quad (8)$$

Exponential trend function has the following form (9):

$$T_t = \beta_0 \beta_1^t \quad (9)$$

For trend identification and forecast of gross premium written of non-life insurance in the Czech Republic for the period 1995–2012 was used the program Statgraphics Centurion XVI. We considered three basic trends: linear trend, quadratic trend and exponential trend. To evaluate the suitability of the trend have been identified and assessed values of trend function forecast, values of the root mean squared error (*RMSE*) and values of modified index of determination (R_M^2). [2]

RMSE (10):

$$RMSE = \sqrt{\frac{1}{T} \sum_{t=1}^T (y_t - \hat{y}_t)^2} \quad (10)$$

where \hat{y}_t is modeled values at time t .

Determination modified index (R_M^2) (11):

$$R_M^2 = R^2 - \frac{(1-R^2)(k-1)}{T-k} \quad (11)$$

Because of possibility of comparison of trend functions R_M^2 was selected whereas apply the higher value of this index the better model captures the trend of time series. It follows that the most suitable trend function will have the highest value of this index.

It was also performed hypothesis testing. There were created two hypotheses – the tested hypothesis is known as the null hypothesis (H_0) and the second is an alternative hypothesis (H_1). At null hypothesis we consider the parameter is not acceptable and on the other hand we consider at the alternative hypothesis that the parameter is acceptable. For the conclusion of testing is also decisive P-value, which is the lowest level of significance at which can be rejected the hypothesis. Necessary to noted that we considered the significance level $\alpha = 0.05$. In conclusion was performed total F-test, under which it can be decided about the suitability of the model as a whole.

6 Identification of trend in non-life insurance and forecast

6.1 Linear trend function

Trend function forecast: $\hat{T}_t = 25\,942\,500\,000 + 3\,731\,920\,000t$

RMSE: 4 766 420 000

R_M^2 : 94.5689%

Tab. 3: Hypothesis testing (linear trend)

H ₀ :	$\beta_0 = 0$	$\beta_1 = 0$	The line isn't acceptable model.
H ₁ :	$\beta_0 \neq 0$	$\beta_1 \neq 0$	Non H ₀
Parameter:	$\hat{\beta}_0: 25\ 942\ 500\ 000$	$\hat{\beta}_1: 3\ 731\ 920\ 000$	×
Test criterion:	t-test: 11.0679	t-test: 17.2341	F-test: 297.01
P-value	0.0000 < 0.05	0.0000 < 0.05	0.0000 < 0.05
Test conclusion	Disapprove H ₀ , prove H ₁ .	Disapprove H ₀ , prove H ₁ .	Disapprove H ₀ , prove H ₁ .

Source: Own elaboration

6.2 Exponential trend function

Trend function forecast: $\hat{T}_t = 24.1201 \cdot 0.0690854^t$

RMSE: 8 474 620 000

R_M^2 : 89.0137%

Tab. 4: Hypothesis testing (exponential trend)

H ₀ :	$\beta_0 = 0$	$\beta_1 = 0$	Exponential function isn't acceptable model.
H ₁ :	$\beta_0 \neq 0$	$\beta_1 \neq 0$	Non H ₀
Parameter:	$\hat{\beta}_0: 24.1201$	$\hat{\beta}_1: 0.0690854$	×
Test criterion:	t-test: 379.916	t-test: 11.7787	F-test: 138.74
P-value:	0.0000 < 0.05	0.0000 < 0.05	0.0000 < 0.05
Test conclusion:	Disapprove H ₀ , prove H ₁ .	Disapprove H ₀ , prove H ₁ .	Disapprove H ₀ , prove H ₁ .

Source: Own elaboration

6.3 Quadratic trend function

Trend function forecast: $\hat{T}_t = 15\ 648\ 800\ 000 + 6\ 820\ 020\ 000t - 1\ 62\ 532\ 000t^2$

RMSE: 2 455 720 000

R_M^2 : 98.5583%

Tab. 5: Hypothesis testing (quadratic trend)

H ₀ :	$\beta_0 = 0$	$\beta_1 = 0$	$\beta_2 = 0$	Parabola isn't acceptable model.
H ₁ :	$\beta_0 \neq 0$	$\beta_1 \neq 0$	$\beta_2 \neq 0$	Non H ₀
Parameter:	$\hat{\beta}_0:$ 15 648 800 000	$\hat{\beta}_1:$ 6 820 020 000	$\hat{\beta}_2:$ -1 62 532 000	×
Test criterion:	t-test: 8.0291	t-test: 14.4398	t-test: -6.72876	F-test: 582.10
P-value:	0.0000 > 0.05	0.0000 > 0.05	0.0000 > 0.05	0.0000 > 0.05
Test conclusion:	Disapprove H ₀ , prove H ₁ .	Disapprove H ₀ , prove H ₁ .	Disapprove H ₀ , prove H ₁ .	Disapprove H ₀ , prove H ₁ .

Source: Own elaboration

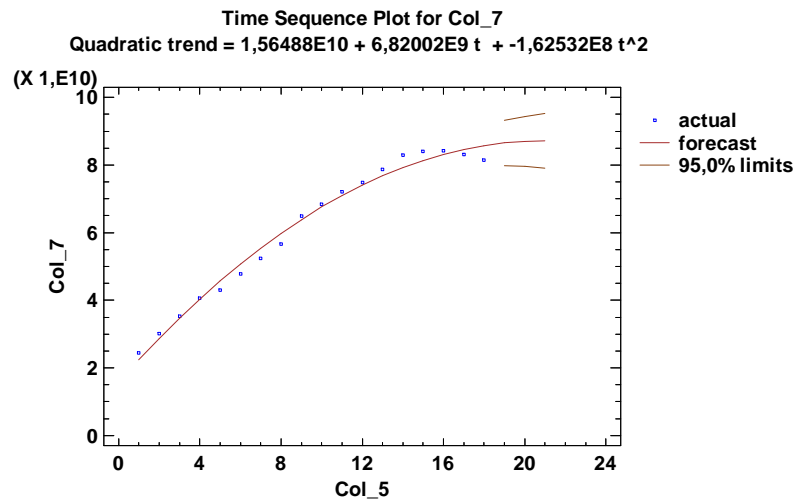
6.4 Summary of results

Based on results of partial t-tests and total F-test can be said that the most suitable model is quadratic trend. This trend also has the highest value of modified index of determination.

Using by Statgraphics Centurion XVI was constructed forecast of time series development of gross premium written of non-life insurance for years: 2013, 2014 and 2015. Fig. 2 shows time series equalization by quadratic trend and forecast of development by next three years.

According to the results of statistic program the predicted values of gross premium written of non-life insurance with 95% confidence level will be:

- in year 2013 between 79 872 900 000 CZK and 93 237 800 000 CZK;
- in year 2014 between 79 718 100 000 CZK and 94 355 200 000 CZK;
- in year 2015 between 79 080 700 000 CZK and 95 305 100 000 CZK.



Source: Own elaboration

Fig. 2: Time series equalization by quadratic trend and forecast of development by next three years

To check the correctness of our choice was in the program Statgraphics Centurion XVI constructed by using automatic prediction of the model, which uses so-called “Akaike Information Criterion”. (12) Using this method is chosen as the most suitable model for the analyzed time series the model with the lowest value of the criterion. [1]

$$AIC = -2 (\text{maximum log likelihood}) + 2 (\text{number of independently adjusted parameters})(12)$$

Other methods were excluded mainly due to an insufficient number of indicator values. Based on the results of automatic prediction was confirmed that the best model is the quadratic trend.

Conclusion

By using the analysis of the insurance market through indicator of gross premium written of non-life insurance can be seen growing trend in the period 1995–2010 and since 2011 can be observed a decrease. The development of this indicator recorded the most dynamic growth in 2003.

According to the results we can say that the most appropriate model for time series equalization of gross premium written of non-life insurance is quadratic trend. According to the forecast by next three years we can observe growing trend at a slower pace. According to the results of statistic program the predicted values of gross premium written of non-life insurance with 95% confidence level will be in year 2013 between 79 872 900 000 CZK and 93 237 800 000 CZK; in year 2014 between 79 718 100 000 CZK and 94 355 200 000 CZK and in year 2015 between 79 080 700 000 CZK and 95 305 100 000 CZK.

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ANALÝZA POJISTNÉHO TRHU V ČR POMOCÍ PŘEDEPSANÉHO HRUBÉHO POJISTNÉHO NEŽIVOTNÍCH POJIŠTĚNÍ V LETECH 1995-2012

Pojišťovnictví je dynamické odvětví, které reaguje na veškeré aktuální změny prostředí, ve kterém funguje. Jedná se jednak o změny ekonomických podmínek, ale také o změny v charakteru pojistitelnosti rizik. Pojistný trh se tak stále mění v závislosti na výše uvedených skutečnostech. Z tohoto důvodu je příspěvek zaměřen na analýzu pojistného trhu pomocí jednoho ze základních pojistných ukazatelů, konkrétně pomocí předepsaného hrubého pojistného. Analýza pojistného trhu se vztahuje k období 1995–2012 dle dostupných informací z České národní banky.

DIE ANALYSE DES VERSICHERUNGSMARKETS IN DER TSCHECHISCHEN REPUBLIK DURCH BRUTTO PRÄMIEN VON ALLGEMEINEN VERSICHERUNGSBEDINGUNGEN IN DEN JAHREN 1995-2012

Die Versicherungswirtschaft ist eine dynamische Branche, die für alle aktuellen Veränderungen in der Umwelt, in der sie tätig reagiert. Dies sind zum einen die Veränderungen der wirtschaftlichen Bedingungen, sondern auch durch Veränderungen im Charakter der Versicherbarkeit von Risiken. Der Versicherungsmarkt ist immer im Wandel und in Abhängigkeit von den oben genannten Fakten. Aus diesem Grund wird das Papier auf der Analyse des Versicherungsmarktes durch eine der grundlegenden Indikatoren der Versicherung, insbesondere durch die gebuchten Bruttoprämien konzentriert. Die Analyse des Versicherungsmarktes deckt den Zeitraum 1995–2012, nach den vorliegenden Informationen aus der Tschechischen Nationalbank.

ANALIZA RYNKU UBEZPIECZEŃ W CZECHACH PRZEZ BRUTTO UBEZPIECZEŃ MAJĄTKOWYCH W LATACH 1995-2012

Branża ubezpieczeniowa jest dynamicznie rozwijający się sektor, który odpowiada na wszystkie obecne zmiany w środowisku, w którym funkcjonuje. Są to, po pierwsze, zmiany w warunkach ekonomicznych, ale także zmiany w charakterze ubezpieczeniu ryzyka. Rynek ubezpieczeń zawsze się zmienia w zależności od wyżej. Z tego powodu, papier koncentruje się na analizie rynku ubezpieczeń przez jeden z podstawowych wskaźników ubezpieczenia, w szczególności przez składki przypisanej brutto. Analiza rynku ubezpieczeń obejmuje lata 1995–2012, zgodnie z dostępnymi informacjami z Czeskiego Banku Narodowego.

WEAKNESSES OF THE CURRENT REGULATORY FRAMEWORKS OF THE EU INTEGRATED FINANCIAL MARKET

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Abstract

With regard to the globalization and integration trends within the EU, there have been significant changes in the development of financial markets. A strong and reliably functioning financial market is a prerequisite for healthy development of the economy of each country. Therefore, such a regulatory and supervisory framework should be developed that not only ensures its efficient functioning, transparency and stability, but also provides protection to investors, depositors and policyholders, who should have the option to choose from quality products. It is important to realize that the quality of functioning of financial markets and their stability is largely influenced by the quality of regulation and supervision. The question is whether the current EU regulatory measures are beneficial and what can be seen as weaknesses.

Introduction

Regulation and supervision of financial markets have always been very questionable issues within each state. Due to developments in financial markets and due to global and EU integration trends it is necessary to look at regulation and supervision from a much more complex point of view. It is not possible to only consider the national scale, but it is necessary to also take into account the European and world scale at which changes are taking place in the area of financial regulation and supervision.

The recent financial and economic crisis has exposed weaknesses in the regulation and supervision of financial markets, which led to the creation of the Larosière Group, which identified the causes of the financial crisis (low interest rates and excess of liquidity contributed in particular to the crisis in USA, the fault of corporate management as well as wrong authentication of risks by financial institutions). Based on that, we recommended measures that would improve the European system of financial supervision. The paper

focuses on one of the current topics, specifically on regulation of financial markets and identification of weaknesses of the current regulatory frameworks of the EU integrated financial market.

This paper, which was created within the student project titled “EU Approaches to the Regulation of Financial Markets and its Influence on the Czech Financial Sector” No. 38009, aims to assess and evaluate the deficiencies of the current regulation. To correctly evaluate the current state of regulation, it is necessary to structure around the basic theoretical facts regarding the importance of regulation of financial markets as well as around the current institutional arrangements.

1 Importance of Financial Regulation

Today, significant tendencies towards linking the world in various areas – political, economic, socio-cultural and other - can be seen in connection with globalization trends. With respect to that fact, it is essential to ensure stability of the financial system in today’s globalizing world. Financial markets regulation and supervision are often considered the main tools to achieve this goal. In the introductory part of the paper it is therefore necessary to first explain the terms “regulation and supervision of financial markets”.

All over the world, the financial market is one of the most important segments of the economy. It basically constitutes a “blood circulation” in which money flows between economic entities. The global economic and financial crisis that erupted in September 2008 increased efforts put into the regulation of financial services.

Regulation is a set of rules and standards that guide functioning of financial institutions whose main objective is to increase financial stability and client protection. Regulation can take on various forms from information requirements to stringent measures such as capital requirements. On the other hand, supervision is a process designed to control financial institutions to ensure that the rules and standards are used properly. In practice, regulation and supervision are interrelated and therefore it is important to assess them together.

Regulation and supervision mostly take place on two main levels – national (provided by national organizations, in many cases by national central banks) and international. International organizations issuing the standards have only an advisory function. Within the EU, its own regulatory principles are adopted that must be incorporated into the legislation of the Member States of the EU. However, in most cases these recommendations are based on the recommended standards of worldwide regulatory bodies. [3]

International regulation of financial services concerns mainly three areas of the financial market:

- Banking – Basel Committee on Banking Supervision – BCBS;
- Insurance – International Association of Insurance Supervisors – IAIS, International Association of Deposit Insurers – IADI;
- Securities – International Organization of Securities Commissions – IOSCO

The basic objective of regulation and supervision of financial markets is to create long-term stability, maintain the functionality and reliability of the markets and protect investors. The aim is to reduce market risks and the likelihood of destabilization of the financial system, irrecoverability of deposits, investments or insurance benefits due to insolvency, to promote efficiency, safety and reliability of the financial system and also to eliminate the appearance of unfair trading, fraud, immoral behaviour detrimental to market participants and money laundering, and to thereby protect consumers. The regulator must try to find a balance

between ensuring stability and security of the entire financial system on the one hand and competitive, innovative environment on the other. [3]

The institutional structure of financial services regulation at the European level is now undergoing a significant evolutionary, maybe even revolutionary process. And not only with regard to the efforts to respond to the financial crisis, but also thanks to the Lisbon Treaty, whose aim is to reform the institutions of the EU and its functioning. Lisbon Treaty provides to the EU the legal framework and tools necessary to meet future challenges and fulfil people's expectations. (it strengthens the European Parliament and national parliaments, gives citizens more opportunities to express their opinion and better defines the division of powers between the EU and Member States). It also simplifies decision-making procedures and voting rules and increases the EU capacity for action in priority areas. The Lamfalussy process – a system of institutions and processes through which regulatory rules for financial markets in the EU arise, which was valid until recently – will thus undergo fundamental changes soon. The aim of this process was to simplify and speed up the legislative process of the EU within the area of financial services. On the basis of this four-level process of the EU institutions created political framework legislation. The basic idea of the Lamfalussy process should, however, remain unchanged and it is the achievement of such a regulatory mechanism that would be sufficiently fast, flexible, democratic and transparent with regard to the dynamics of financial markets. Emphasis is also placed on the mutual cooperation of all stakeholders - creators, executors of regulation as well as regulated entities. [11]

2 Institutional Structure of Regulation and Supervision of Financial Markets

A number of national, European and also international organizations deal with the question of regulation. Given the high number of organizations collaborating in the creation of regulatory measures, it is important to ask the question whether regulation of financial markets is sufficiently effective. It is also necessary to think about who is responsible for the regulation as a whole or who is responsible for the creation of regulatory measures.

In the context of the interconnection of the world, we would like to mention the process of integration in the supervision of financial institutions and financial markets. The level of integration can be assessed according to several criteria:

- Rate of concentration of the volume of financial operations in individual regulation and supervision institutions;
- Total number of institutions responsible for the regulation and supervision.

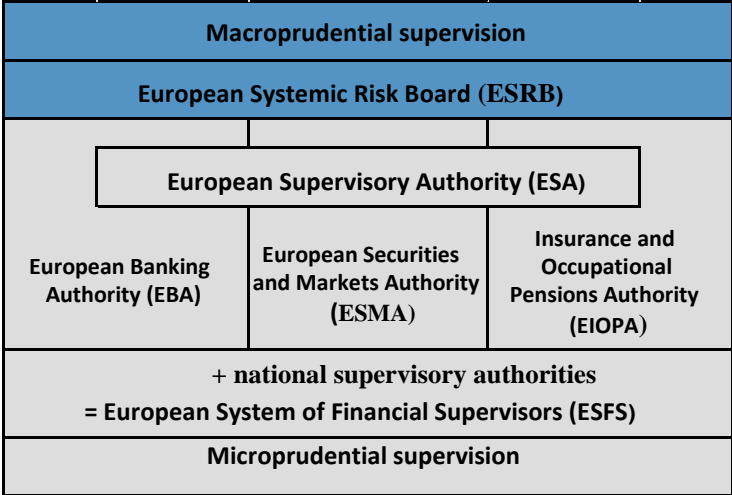
We can mention two basic models of institutional arrangements for financial regulation and supervision:

- Sectoral model, which is organized by the main sector of financial intermediation:
 - Section of banking regulation and supervision;
 - Section of regulation and supervision of the capital market;
 - Section of regulation and supervision of insurance companies.
- Functional model which also has three versions:
 - Separate regulation;
 - Partial integration;
 - Full integration.

Given the fact that financial regulation at the European level affects financial markets of individual Member States, it should be borne in mind that there are significant differences between Member States. These differences can be seen partly in specific economic conditions of the financial markets, i.e. the economic level of the country and the historically specific institutional arrangements, but also in the legal system of the country. For these reasons, it is important to ensure adequate harmonization of European legal acts with the acts of the member countries. [4]

With the growing internationalization and globalization, cooperation in the regulation and supervision at the international and global level is gaining significance. The importance of international organizations can be seen especially in that they allow the creation of a common platform to solve common issues and in order to meet common objectives and ensure the effectiveness of financial supervision in the EU. Starting point of this effort can be seen in that four-level process (first level deals with the key principles of primary legislation, the second level receives detailed technical implementing measures, the third level deals with the cooperation of supervisors and fourth level deals with monitoring and enforcing legislation). [5], [13]

At the global level, the following institutions are particularly important in terms of financial regulation and supervision - Organization for Economic Co-operation and Development (OECD), World Trade Organization (WTO), International Monetary Fund (IMF) and other. At the international level, we can mention - Financial Stability Forum (FSF), Financial Stability Board (FSB), Basel Committee on Banking Supervision (BCBS), International Organization of Pension Supervisors (IOPS), International Association of Insurance Supervisors (IAIS) and other. Within the European Union, the following institutions are important in terms of regulation - European Commission, European Parliament, European Insurance Committee (CEA), European Banking Authority (EBA), European Insurance and Occupational Pensions Authority (EIOPA), European Securities and Market Authority (ESMA) etc. Given the above list of institutions, we can talk about the disproportionately large number of regulatory entities, indicating the complexity of the decision-making process itself and the complexity of the implementation of these decisions. [13]



Source: Self elaboration [7]

Fig. 1: European supervisory structure

Given that the financial crisis has helped reveal systemic weaknesses of the European supervisory framework, it was necessary to create a new organizational and conceptual structure of European institutions (see Fig. 1). Two completely new supervisory authorities were established – ESFS – European System of Financial Supervisors and ESRB – European

Systemic Risk Board. ESRB deals with macroprudential supervision and ESFS deals with microprudential supervision. The aim of ESRB is mainly to identify and monitor systemic risk and make recommendations for its reduction. ESFS is made up of a number of financial supervisory authorities of Member States cooperating with new European supervisory authorities. [9], [15]

3 Weaknesses of the Current Regulatory Framework

The current form of regulation that was created in response to the global financial crisis is the subject of many discussions, which lead to contradictory opinions regarding the tightening or easing of financial market regulation. Tightening refers to a change in the provisions relating to the regulation and supervision leading to the removal of identified deficiencies. It should be noted that more information about the regulation could be learnt primarily through the study of the causes of previous financial crises. [13]

In the current financial system, new regulatory measures are adopted that would strengthen the resilience and reliability of individual financial institutions. The banking sector is currently establishing the Basel III regulation which is a proposal of BCBS focused mainly on strengthening the capital adequacy of banks, i.e. the ability to absorb risk. On the other hand, the European Commission is leading the Solvency II project to develop harmonized standards for insurance supervision in the EU. [1]

3.1 From Solvency I to Solvency II

The existing solvency margin requirements were established in 1973 within the first non-life insurance directive (73/239/EEC) and in 1979 within the first life insurance Directive (79/267/EEC). The third generation of the life insurance Directive (92/96/EEC) and non-life insurance directive (92/49/EEC) gave the basis for creation of a single insurance market.

The single passport/license principle was introduced to the field of financial services. Based on this principle, entity can operate in any Member Country under the authorization (license, registration) issued in one country in which the entity has place of business or place of residence. The entity operates on basis of notification obligation to the competent authority of the country which has granted permission. Activity in the single market is carried out depending on the degree of integration into the host Member State economy. It is based on the right to establish branches (so-called right of establishment) and on the freedom to provide services (direct services without establishing branches in the Member States). One of the most competitive insurance markets in the world is EU insurance market. [3]

This system is grounded in mutual recognition of supervision exercised by the various national authorities according to the rules harmonized to the extent necessary at the EU level. Requirement of insurers to generate sufficient solvency margin is one of the most important prudential rules.

The current regulatory framework of solvency adjustment represented a significant progress at its beginning. Solvency I has considerable shortcomings in the present of financial integration and interconnection of financial services. These weaknesses are seen especially in the conception of capital requirements and in the fact that solvency is monitored with regard to the liability side of the balance sheet and doesn't reflect the asset side of the balance sheet. [4]

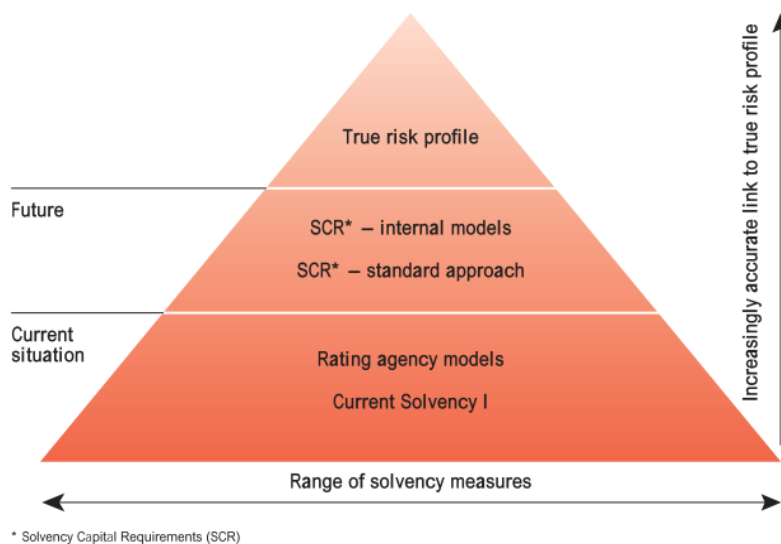
Capital requirements under the Solvency I are not based on the risk profile, because they do not take into account the risks of insurance company. This is only a capital requirements calculation based on the size of the portfolio; single legislative framework is not established for measuring of risks, which is not integrated; risk management has very little effect on

capital requirements; mentioned composition of the assets on the balance sheet is not taken into account but composition of the liabilities is taken into account; other significant risks are not taken into account (operational, legal, etc.). [4]

The new Solvency II regime emphasizes in its three-pillar structure:

- quantitative requirements concerning the regulation of technical provisions; Minimal Capital Requirement (MCR) which is a kind of guarantee; Solvency Capital Requirement (SCR) whose calculation is based on the assessment of underwriting risk, credit risk, market risk, operational risk and liquidity risk; rules for investing of insurance companies into various investment instruments;
- qualitative requirements relating to internal control systems adequate to business structure and risk profile of the insurance company; risk management; principles of supervision which are focused on the functionality of the insurer's management systems;
- obligation to disclosure information of the risks; scenario analysis of assets and technical provisions; transparency and comparability strengthening of insurance products and business of the insurer. [8]

The transition from Solvency I to Solvency II shows Fig. 2 below.



Source: [6]

Fig. 2: From Solvency I to Solvency II

A. Böhm a K. Mužáková consider “adopting the concept of Solvency II as binding regulation for crossing of the invisible boundary between the creation of the single market in insurance on the basis of harmonization of national standards and the creation of dirigiste EU institutions regulated system of the subjects behavior of this market.” [5]

The introduction of Solvency II currently seems problematic. At first, it was assumed that the system Solvency II will replace the existing Solvency I regime in November 2012. The second term for the application of this methodology was the beginning of 2013. The fact that in this period a regime of capital adequacy (solvency) and reporting to the insurance sector wasn't adopted, raises among European insurers considerable concern. Based on the Directive of the European Parliament and of the Council 2012/23/EU of 12 September 2012 amending Directive 2009/138/EC (Solvency II) as regards the day of her execution, the date of application and the date of repealing certain Directives. Recently, there has been a strong

pressure to Solvency II Directive to come into force on 1 January 2014. Postponement is due to differences of opinion between Member States concerning the final form of the project. However, it is also considered other postponing implementation Solvency II to 2016 or 2017. EIOPA, however, disagrees with reflections on the postponement of the original term and insists on the implementation of Solvency II in 2014 as planned. [4], [8]

3.2 From Basel II to Basel III

According to the Czech National Bank, weaknesses of Basel II banking regulation can be seen chiefly in low quality requirements (the ability to absorb losses) and quantity requirements (relative to risk-weighted assets) of bank capital; in the lack of liquidity risk regulation due to the dependence of many big banks on finance through the financial market (as opposed to funding via deposits); in the complexity of Basel II rules; in underestimation of credit risk by relying on statistical models of risks measurements and the trustworthiness of external ratings of many financial instruments; in the procyclicality of Basel II (the tendency to strengthen the credit cycle) or in regulatory capital requirements that insufficiently limited the incentive to raise earnings from capital through increasing of ratio of liabilities to equity (leverage). [7]

The regulatory framework Basel III will be progressively implemented within the banking reform process between years 2013 and 2014. Basel III should make significant changes in the regulation of capital requirements: The new definition of regulatory capital means strengthening of global capital framework with raising the quality, consistency and transparency of the capital base, strengthen the risk coverage with a capital conservation buffer, supplementing the risk-based capital requirement with a leverage ratio, reducing procyclicality and promoting countercyclical buffers, addressing systemic risk and interconnectedness, a new liquidity requirement and other elements (“SIFIs” – Systemically Important Financial Institutions). [2] [14]

The aim of regulators is to regulate complex financial markets by increasingly complex regulatory frameworks. It should be noted that such complexity in the financial market may not only be beneficial, but it can cause market failure and lead to over-regulation both various segments of the financial market and the financial system.

Although Basel III and Solvency II aim to ensure sufficient regulatory capital, which is held by banks and insurance companies, it is necessary to point out certain differences. Basel III aims to improve the quality and level of capital. Solvency II aims to improve the protection of policyholders by ensuring that the quality and quantity of capital required is determined by the risks to which insurers are exposed. At the same time Basel III and Solvency II were characterized by different developmental processes as Basel III was created in response to the recent financial crisis, but Solvency II creates standard, which is fully based on the risk for the entire European insurance sector. Given that the banking and insurance sectors are characterized by a completely different business models and represent different role in society, the regulation should be adapted to this facts. [1], [12]

Of the many views on current regulatory measures may be mentioned prof. C. Goodhart and prof. Wagners opinion expressing the idea that even if the regulatory framework Basel III progressively closer to a safer financial system, we can see some flaws. One of the possible deficiencies perceive a lack of diversification of financial institutions caused by the passage of time, financial institutions are becoming more and more similar to each other and interconnected, resulting in the exposure of financial institutions funding the same risks [10]

Conclusion

Firstly, changes in the Solvency I and Solvency II regulations and secondly changes in the Basel II and Basel III regulatory frameworks were assessed in this paper. Given that increasingly complex regulatory frameworks are arising from the regulation, weaknesses can be seen in the current regulation, which of course have an effect on the stability of financial markets. As the main weaknesses of the current treatment Solvency I have been found mainly in the concept of capital requirements, in the failure to disregard the assets and risk profile of the insurance companies. Weaknesses of the regulatory framework of Basel II can be seen in the lack of quality requirements but also of quantity requirements of bank capital, in the complexity of one project or in the underestimation of credit risk. At present, there is only waiting for the introduction of new regulatory projects Solvency II and Basel III, while Solvency II faces the problem of the continuous postponement of the implementation date. Of course, only the act of implementation in practice shows other possible challenges to move in the desired direction. Finally, it is necessary to add basic rules for regulation to be effective - take into account the different approaches to banking and insurance market, fast, efficient and inexpensive implementation of regulatory projects.

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SLABÉ STRÁNKY SOUČASNÝCH REGULATORNÍCH RÁMCŮ INTEGROVANÉHO FINANČNÍHO TRHU EU

S ohledem na globalizační a integrační trendy v rámci EU dochází k výrazným změnám ve vývoji finančních trhů. Silný a spolehlivě fungující finanční trh je předpokladem pro zdravý vývoj ekonomiky každé země. Měl by tedy být vytvořen takový rámec regulace a dohledu, který nejen zajistí jeho efektivní fungování, transparentnost a stabilitu, ale také poskytne ochranu investorům, vkladatelům a pojištěncům, kteří by měli mít možnost volby z nabídky kvalitních produktů. Je třeba si uvědomit, že kvalita fungování finančních trhů a jejich stabilita je ve velké míře ovlivněna kvalitou regulace a dohledu. Otázkou je, zda jsou současná regulatorní opatření EU prospěšná a jaké lze spatřovat slabé stránky.

SCHWÄCHEN DER BESTEHENDEN RECHTLICHEN RAHMENBEDINGUNGEN DES INTEGRIERTEN EU-FINANZMARKTES

Angesichts der Globalisierungs- und Integrationstrends innerhalb der EU kommt es zu erheblichen Veränderungen in der Entwicklung der Finanzmärkte. Ein starker und zuverlässig funktionierender Finanzmarkt ist eine Voraussetzung für eine gesunde Entwicklung der Wirtschaft des jeweiligen Landes. Es sollten daher solche regulatorische und aufsichtsrechtliche Rahmenbedingungen entwickelt werden, die nicht nur für ihre effiziente Funktionsweise, Transparenz und Stabilität sorgen, sondern auch einen Schutz der Anleger, Sparer und Versicherungsnehmer gewährleisten, denen die Möglichkeit der feinen Produkte gegeben werden sollte. Es sollte angemerkt werden, dass die Qualität der Funktionsweise der Finanzmärkte und deren Stabilität in hohem Maße von der Qualität der Regulierung und Aufsicht beeinflusst werden. Die Frage ist, ob die aktuellen EU-Vorschriften vorteilhaft sind und was als Schwäche betrachtet werden kann.

SŁABE STRONY OBECNYCH RAM REGULACYJNYCH ZINTEGROWANEGO RYNKU FINANSOWEGO UE

Ze względu na tendencje globalizacyjne i integracyjne w ramach UE rozwój rynków finansowych ulega istotnym zmianom. Silny i stabilnie funkcjonujący rynek finansowy stanowi przesłankę dla zdrowego rozwoju gospodarki każdego kraju. Powinny być zatem stworzone takie ramy regulacyjne i nadzorcze, które nie tylko zapewnią jego efektywne funkcjonowanie, przejrzystość i stabilność, ale również ochronę inwestorów, deponentów ubezpieczonych, którzy powinni mieć możliwość wyboru z oferty wysokiej jakości produktów. Należy mieć świadomość, że jakość funkcjonowania rynków finansowych i ich stabilność w dużej mierze zależna jest od jakości regulacji i nadzoru. Pytaniem pozostaje, czy obecne działania regulacyjne Unii są korzystne i jakie można dostrzegać ich słabe strony

RETURNS ON EDUCATION AND OVERQUALIFICATION – CASE OF THE EU AND THE CZECH REPUBLIC

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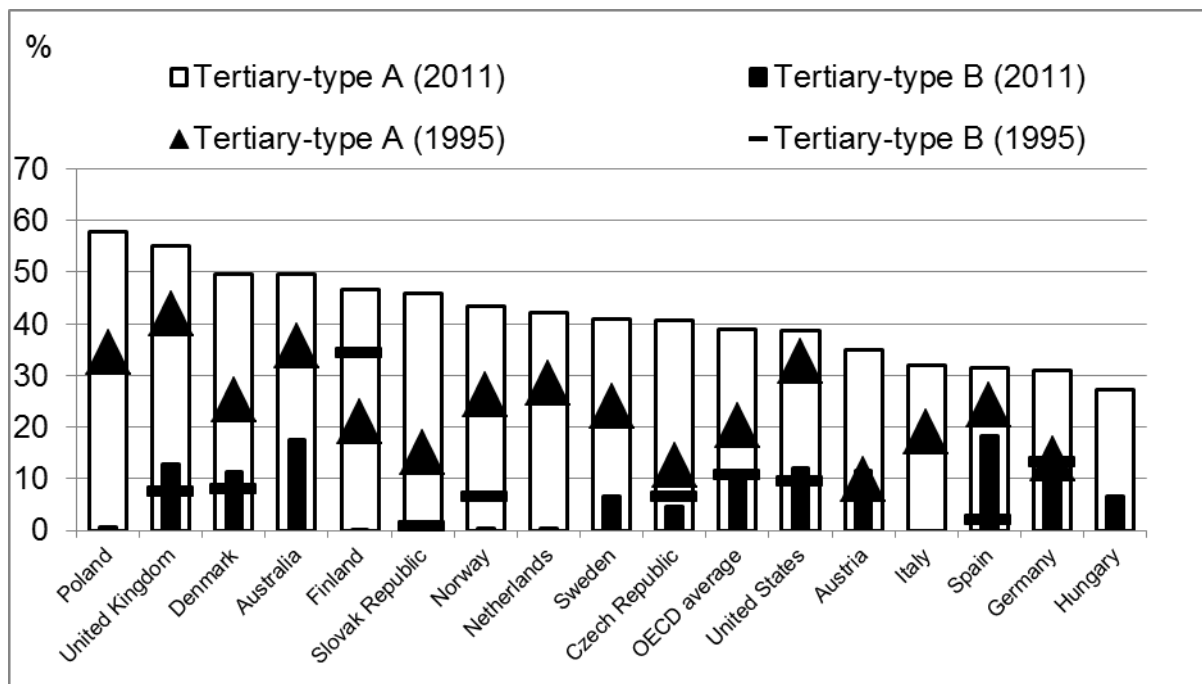
Abstract

The aim of this paper is to analyse and evaluate the current state of overqualification and underqualification in the EU countries and in the Czech Republic. There are steadily increasing numbers of education system graduates and persistent demand for education in the population. This leads to fears that the mismatch between jobs requirements and workforce qualifications will increase. Public educational policy seems to support this controversy. While numbers of enrolled students at secondary schools and public universities and consequently numbers of graduates are rising, there could be shortage of skilled level jobs in the future. The paper discusses various methods used to measure the level of education required for the job and the relevant theories (searching and matching, human capital theory, assignment theory etc.) that can be used for interpretation of overqualification. The last chapter analyses and evaluates current state of overqualification in the EU countries and in the Czech Republic and deals with the empirical results of the impact of overqualification on earnings.

Introduction

The paper is a follow-up to the previous study on overeducation and labour mismatch in the ACC Journal 2012/3 (see Urbánek, [27], p. 209 f.). The results of this previous article were substantially extended and only parts of it were used for better understanding of the methodology in this paper. New chapters were added – own research based on data from European Social Survey 5, year 2010, including statistics of education mismatch, impact of education mismatch on earnings and regression analysis of returns to education, over- and underqualification.

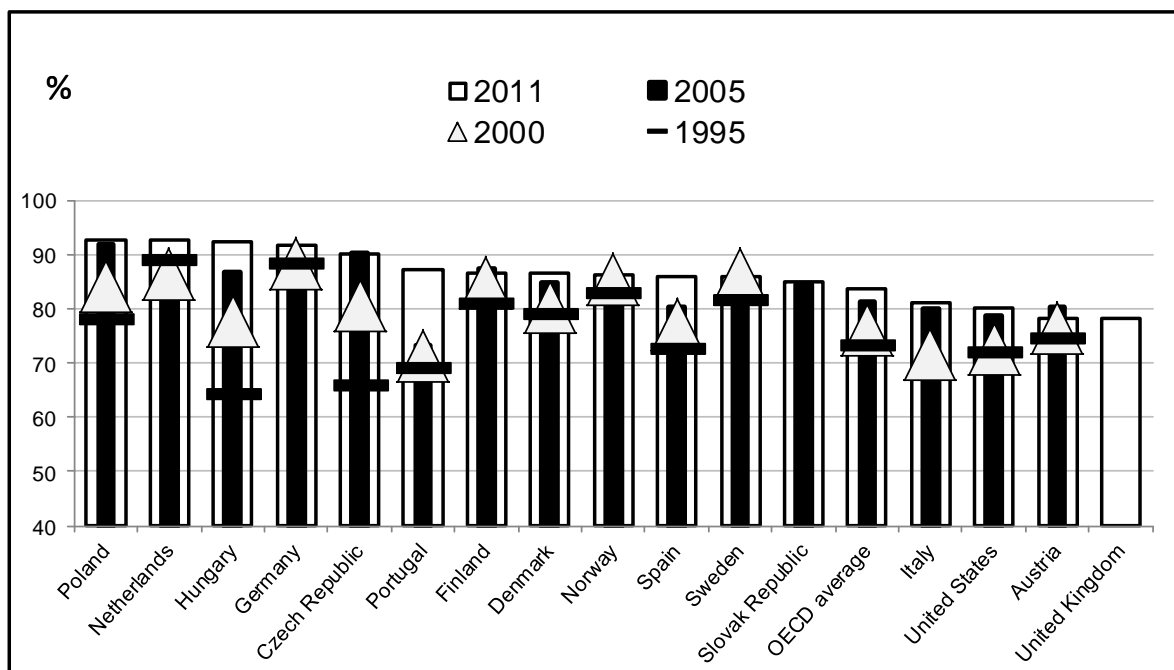
Steadily increasing numbers of education graduates and persistent demand for secondary and university education in the population in the last decades lead to concerns about the mismatch between jobs requirements and workforce qualifications. Enrolments to schools, vocational institutions and universities are growing, especially at tertiary education institutions. The chart (Figure 1) shows the increase of the numbers graduates from tertiary education institutions (mainly universities) between years 1995 and 2011. In the Czech Republic, number of graduates from tertiary education institutions type A (Master's Degree institutions) increased from 12.6% of age-specific group in the year 1995 to 40.62% in the year 2011. Similar trends can be seen in almost all developed countries; however, by contrast to growing numbers of type B graduates (Bachelor's Degree) in many OECD countries between 1995 and 2011, in the Czech Republic numbers of Bachelor's Degree graduates decreased. It seems that tertiary-type B programmes are recently being phased out and graduation rates from these programmes have fallen in favour of more academically oriented tertiary education. The consequence of this trend from tertiary education Type B towards Type A is growing job mismatch as will be analysed later in this article.



Source: [21], own calculations

Fig. 1: First-time graduation rates in tertiary-type A and B education (1995 and 2011)

Similarly, numbers of students enrolled into upper secondary education have increased substantially in almost all developed countries (see Figure 2).



Source: [21]

Fig. 2: Enrolment rates of 15-19 year-olds (1995, 2000, 2005 and 2011)

Yet many various studies have indicated that these secondary and tertiary education graduates are entering labour force with more education than is actually required for their jobs – they are overeducated. Although the increase in all educational levels has been accompanied by growth of high skill jobs demand, the rate of this growth was arguably slower than supply of qualified, i.e. graduated workers. The result of this difference between higher supply of

graduates and demand for them at the labour market leads to overqualification and allocation of skills may be less than optimal. Overqualification is a problem broadly discussed in the economic and sociological literature for last two or three decades and it has serious consequences for labour market effectiveness and educational investment.

1 Human capital theory and problem of overqualification

From the point of view of human capital theory, overqualification is somewhat puzzling. People should not invest in their education which they cannot and will not fully utilize. When on the labour market, according to the neoclassical economic theory, they will earn wage fully corresponding to their education and demand for their skills will give them same return for their overqualification as for required qualification.

There has appeared abundant literature on overqualification in recent decades, both in theoretical and in empirical fields (see for example meta-analysis of 25 studies on overqualification in an article by Groot et al ([13], p.153). Peter Sloane notes that this field of research is coming of age ([25], p. 11) and this is reflected – among others – in a special issue of the *Economics of Education Review* on Overschooling ([9]). Substantial literature is also summarized in Sloane's article ([25]) and there are 33 articles and papers reviewed in this text. Generally speaking, the economic analysis of overqualification was started by Richard B. Freeman in his *The Overeducated American* from a macroeconomic point of view in the year 1976 (see [3]). Freeman found that the rate of return to higher education had fallen in the seventies in the U.S.A. and attributed it to an excess supply of graduates. However, recent literature (as mentioned above) mainly focuses on the income effects of overqualification and on individual level.

All above mentioned studies (and many others) show that return to overqualification is higher than that of people having required qualification for this job but is lower compared to the return of people having correct job for this higher qualification. Being overqualified creates a premium relative to the job but penalty relative to the qualification ([3]).

There are several possible explanations for the existence of overqualification ([15]): First, it can be a compensation for the lack of other human capital endowments (e.g. ability, experience, on-the-job training), or in other words overeducated workers are substituting formal for informal human capital or are less capable than adequately educated individuals ([17], p. 521). Also in this human capital perspective, overqualification can stem from the deliberate choice of overqualified worker entering low-skill job as an opportunity for initial experience as an additional human capital investment. This part of human capital explanation was tested by Sicherman ([24]) with good results.

Second explanation of overqualification is connected with career mobility and in this sense, overqualification is a temporary situation ([15]). "Searching and matching" process is an effect of imperfect information in the labour market environment and as such, it can be temporary situation. It means that this explanation is not mutually exclusive with above mentioned additional human capital investment ([15]).

In extreme contrast to human capital theory explanation of overqualification is job competition model created in 1975 by Lester Thurow. In this model, it is assumed that marginal productivity is derived from the job rather than from the worker and the employers use personal qualities (incl. education) only for hiring. Wages are paid according to jobs and return to human capital over the level required for the job is zero. Workers that are more educated are hired on supposition that for their training will be necessary fewer costs.

Finally, job assignment model is a strand of literature based on the proposition that there is an allocation problem in assigning workers to various jobs. Labour supply and labour demand are complex entities and measuring match quality is in line with attention for the assignment of heterogeneous workers to heterogeneous jobs ([15]). Earnings in this model are a function of both worker and job characteristics.

According to human capital theory, returns to education are best measured using data on actual earnings of graduates during their lifetime (either longitudinal data, which is not easily obtained, or cross-sectional data). There are several sources of this data however, especially for the Czech Republic, the data is not comprehensive and covered time interval is not long enough for these calculations. This data then is used to estimate entire age-earning profile as can be seen in Fig. 3 and also return to investment can be calculated using the following equation (for full discussion see [22]):

$$\sum_{t=G}^R [E_1(t) - E_0(t)] (1+r^*)^{-t} - \sum_{t=E}^G [E_0(t) + C(t)] (1+r^*)^{-t} = 0 \quad (1)$$

where: $E_0(t)$ = pre-university education earnings function, $E_1(t)$ = university education earnings function, $C(t)$ = direct costs function, E = beginning of education age, G = graduation education age, R = retirement age, r^* = rate of return of investment to education.

Due to the scarcity of good longitudinal data cross-sectional data have to be used in order to make longitudinal statements. There are some good estimates that control for differences between longitudinal and cross-sectional data.

There is another method for calculation approximate returns to education that is not very dependent of longitudinal data and therefore easy to apply. This is so called short-cut method ([23]):

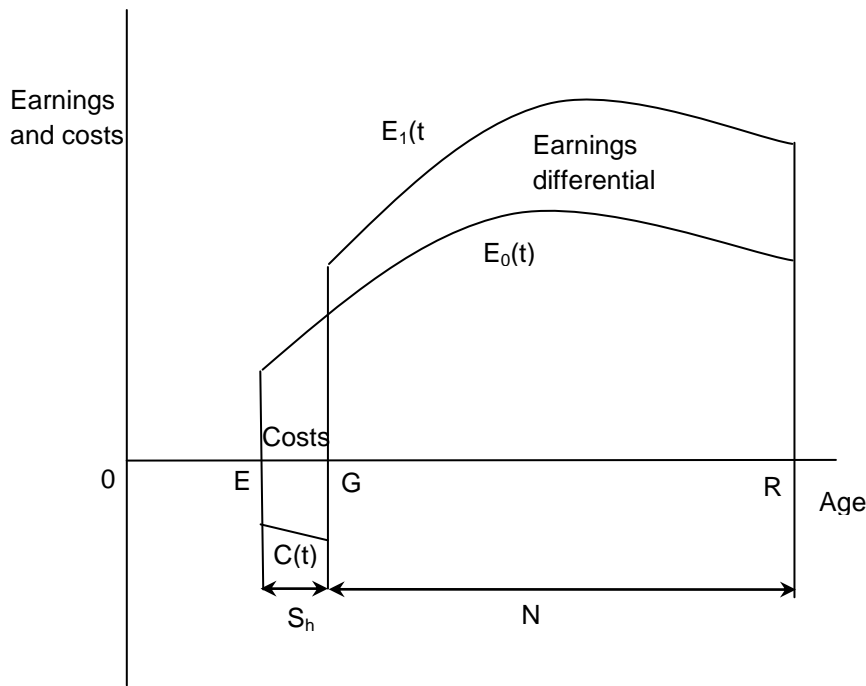
$$r^* = \frac{AE_i - AE_j}{k \cdot S \cdot AE_j} \quad (2)$$

where: r^* = rate of return of investment to education, AE_i = mean earnings of an individual with university education, AE_j = mean earnings of an individual with university secondary education, S = number of years of university education, k = coefficient of direct costs.

It is important to note that human capital theory has also possibility to control its empirical results through regression analysis of demand for education as it has been pioneered by Gary Becker, Theodore Schultz and Jacob Mincer (see [1]). The most quoted and simple model is Mincer's earnings equation, which is empirical approximation of the human capital theoretical framework:

$$\ln w_i = X_i \beta + b s_i + \delta ex_i + \gamma ex_i^2 + u_i \quad (3)$$

where w_i is an earning measure for an individual i such as earning per hour or week, s_i represents a measure of their schooling, ex_i is an experience measure, X_i is a set of other variables assumed to affect earnings and u_i is a disturbance term. In this context, b can be considered the private return of schooling (see [11]).



Source: [23], own adaptation

Fig. 3: Age-earnings profile and full method of returns to education

In estimating the rate of return from schooling, the coefficient of the schooling variable is often interpreted as the percentage increase in the hourly wage associated with one additional year of schooling and is, according to Psacharopoulos and Patrinos [23] not accurately referred to as the rate of return to schooling, regardless of what educational level this year refers to. Though convenient this method requiring fewer data might be, it is inferior to the direct method as it assumes flat age-earnings profiles for different levels of education. However, neither referring to wage effects as returns to schooling nor flat age-earnings profiles assumptions is “damaging or unrealistic”. [23]

2 Methodology

Following human capital theory and Mincer’s earnings equation (for details see also Urbánek, [27], p. 213) there is a possibility to create an equation adding together Mincer’s (it means human capital theory model) and Thurow’s job competition models. Sometimes this equation is referred to as the Duncan and Hoffman or the ORU model (ORU stands for **O**verqualification – **R**equired qualification – **U**nderqualification):

$$\ln w_i = \beta_0 + b_r S_r + b_o S_o + b_u S_u + \delta ex_i + \gamma ex_i^2 + u_i \quad (4)$$

where $\ln w_i$ is logarithm of earnings, β_0 is a constant; b_r ; b_o ; b_u are estimated coefficients of qualifications (or schooling) and q are qualification variables: S_r for years of qualifications required to do the job; S_o for years of overqualifications; S_u for years of underqualifications. The Mincer’s human capital specifications implies that $b_r = b_o = -b_u$; Thurow’s job competition specification implies that $b_o = b_u$ ([25], p. 14).

Since the basic version of the ‘Mincerian’ function does not distinguish between different levels of schooling, an extended earnings function was developed, which substitutes a series of 0–1 dummy variables for S , corresponding to discrete educational levels. The extended earnings function may be expressed as follows:

$$\ln w_i = X_i \beta + b_p D_p + b_s D_s + b_u D_u + \delta ex_i + \gamma ex_i^2 + u_i \quad (5)$$

w_i is an earning measure for an individual i such as earning per hour or week, $b_{(p,s,u)}$ represent coefficients of schooling at primary, secondary or university levels respectively and $D_{(p,s,u)}$ are dummy variables for primary, secondary or university levels respectively, ex_i is an experience measure, X_i is a set of other variables assumed to affect earnings and u_i is a disturbance term.

The private rate of return between levels of education can then be calculated from the extended earnings function by the following formulae:

$$r_p = \frac{b_p}{S_p}; r_s = \frac{b_s - b_p}{S_s - S_p}; r_u = \frac{b_u - b_s}{S_u - S_s} \quad (6; 7; 8)$$

where r_p is the rate of return to primary education, r_s is the rate of return to secondary education and r_u is the rate of return to university education and S is years of schooling.

The rationale for this procedure is that the rate of return is computed by means of the following formula that is educational level specific:

$$r_j = \frac{\ln w_j - \ln w_i}{\Delta S} \quad (9)$$

where j is index of higher level of education than i ; ΔS is difference between years of schooling at individual school levels.

According to Cohn ([7]), another model gives good and comparable results:

$$\begin{aligned} \ln w_i = & X_i \beta + \alpha_1 ADSCH_i + \alpha_2 OVERSCH_i + \alpha_3 UNDERSCH_i \\ & + \alpha_4 (ADSCH_i * EXP_i) + \alpha_5 (OVERSCH_i * EXP_i) \\ & + \alpha_6 (UNDERSCH_i * EXP_i) + u_i \end{aligned} \quad (10)$$

where $\ln w_i$ is natural logarithm of gross earnings, δ and α are regression coefficients respectively, $ADSCH_i$ is number of years of adequate schooling, $OVERSCH$ and $UNDERSCH$ are numbers of years of overschooling and underschooling ($OVERSCH = SCHOOL - ADSCH$, where $SCHOOL$ is number of years of actual education; similarly $UNDERSCH = ADCH - SCHOOL$), EXP are years of experience, X_i is a set of other variables assumed to affect earnings and u_i is a disturbance term (index i is for individual i).

As to measuring of required, over- and underqualification, three alternative measurement methods can be used to find the degree of overqualification or underqualification (for more details, see Urbánek [27], p. 211 f.):

1) Systematic job evaluation by professional job analysts who specify the required level of education (degree) for the job and occupational classification. Overeducation or undereducation is difference between required and actual education. This type of measurement is referred to as an objective measure.

2) Worker self-assessment – the workers themselves specify the qualification required for the job answering the question as e.g. “What kind of education does a person need in order to perform your job?” Difference between actual and assessed education is over- or

undereducation. This type of measurement is referred to as a subjective measure and it was used in this paper.

3) From realized matches, where required education is derived from actual level of workers' education as a mean (or sometimes mode) of their educational attainment. Overeducation then occurs when the level of education is more than one standard deviation above the mean; similarly, undereducation is one standard deviation below the mean. This method of measurement is called empirical method.

Job analysis by experts could bring best results ([13]). However, this data is rarely available and we can find subjective measure in most overqualification analyses ([13], [16]). From the meta-analysis of 25 studies of overqualification ([13], p.153) were obtained 50 estimates on the incidence of overqualification and 36 estimates for the incidence of underqualification. The unweighted average of the incidence of overqualification is 23.3% (standard deviation 9.9%) and unweighted average of the incidence of underqualification is 14.4% (standard deviation 8.2%). In the study of U.K. graduate labour market ([9]), 38% of graduates were overeducated in their first job. This proportion fell to 30% after six years. Results for the Czech Republic can be found in the study of 25 European countries ([12]) and are as follows: 49.5% overeducated; 44.3 undereducated.

Returns to education are usually calculated using equations similar to above presented equations. Results of 25 studies included in meta-analysis of overqualification in the labour-market ([13], p.153) show that return to a year of education required was 7.9% in 1970s and 1980s; in 1990s rate of return to a year of education required increased to about 12%. For all these years, rate of return to a year of overqualification was 2.6%, while the rate of return to a year of underqualification was -4.9%. Detailed results of returns to overqualification and underqualification and also values of incidence of overqualification and underqualification are in Groot ([13]). The study of Galasi ([12]) shows for 25 European countries results similar to Table 1, however for the Czech Republic the returns to education for required year is equal to return to education for attained year – both returns are 7.1%. Pooled sample data shows the returns to education for required year equal 9.7% and return to education for attained year equal 7.2%.

3 Data

Cross-section data come from European Social Survey, round 5, year 2010. Surveys were carried out in 26 countries and original number of respondents in all surveys together was 52 458. All country samples are representative of all persons aged 15 and over, regardless of their nationality, citizenship or language and individuals are selected by strict random probability methods. For this paper were used data for 21 EU countries (no data were available for Austria, Italy, Latvia, Luxembourg, Malta, Romania). From this sample of countries data were selected only for employees (omitted were self-employees and respondents without economic activity, such as pensioners etc.) and this reduced set contains 11 137 respondents (EU incl. Czech Republic). Separate set of data was created for the Czech Republic with 544 cases (representative sample consisted of 249 females and 295 males).

Respondents reported, among other things, their gross salary, education, required education for their position, years of experience and other variables. Required qualification for the position was obtained by the question “About how many years of education or vocational schooling beyond compulsory education would they (possible candidates for your position) need?” Other independent variables used in the regression included gender, country and age. Basic descriptives are in Tables 1 and 2.

Tab. 1: Basic statistics for the sample of the EU – means, standard deviations in parentheses

	Male	Female
S (years of education)	12.53 (2.430)	12.86 (2.431)
Age (years)	41.69 (11.874)	42.18 (11.445)
Experience (years)	20.77 (12.258)	19.52 (11.610)
Monthly salary (EUR)	2300.26 (1997.98)	1635.77 (1426.96)

Source: ESS5 [10], own calculations

Tab. 2: Basic statistics for the sample of the CZ – means, standard deviations in parentheses

	Male	Female
S (years of education)	11.99 (1.660)	12.25(1.723)
Age (years)	40.86 (10.992)	41.73 (10.278)
Experience (years)	19.76 (11.249)	18.95 (10.951)
Monthly salary (EUR)	904.57 (445.07)	692.47(254.31)

Source: ESS5 [10], own calculations

Overqualification and underqualification ratios were calculated using subjective measure, i.e. answer to the question “About how many years of education or vocational schooling beyond compulsory education would they (possible candidates for your position) need?” These answers created values of adequate education for the job and were compared with education of the respondents. Calculations based on these answers are in the Table 3. Results in this table are consistent with finding of Groot ([13]) and Galasi ([12]), however percentages of overqualification for the European females (over 50%) are quite high and it seems that it can be a result of high rates of unemployment in the EU (especially in the Eurozone countries), when people are – due to tight labour market – willing to take jobs below their qualifications. Results for the Czech Republic are higher in the part of underqualification – in the same vein as above, it can be result of better situation on the labour market where also candidates with lower than necessary qualification can obtain a job. At the same time, there can be also bias towards higher levels of adequate schooling, as people overstate requirements of their job to give more importance to their position. The result is higher percentage of underqualified workers. Results in Table 4. show average years of overschooling, underschooling, years of education necessary for the job, average age of respondents and years of experience, separately for EU countries and the Czech Republic. Values for the EU countries are generally higher, with the exception of higher overschooling of Czech females.

Tab. 3: Percentage distribution of adequate qualification, under- and over-qualification

EU Countries	All	Male	Female
Underqualified	29.34	32.40	26.43
Adequately qualified	22.43	21.36	23.42
Overqualified	48.24	46.24	50.14
Czech Republic			
Underqualified	41.85	41.03	42.86
Adequately qualified	19.10	16.92	21.74
Overqualified	39.04	42.05	35.40

Source: ESS5 [10], own calculations

Tab. 4: Means of overschooling, underschooling, adequate schooling, education, age, years of experience.

		Years of over schooling	Years of under schooling	Years of education necessary for job	Years of full-time education	Age of respondent	Years of experience
EU COUNTRIES							
All N=11137	Mean (Std. deviation)	2.86 (1.63)	1.95 (1.29)	12.51 (2.58)	12.70 (2.44)	41.94 (11.66)	20.12 (11.94)
Males N=5393	Mean (Std. deviation)	2.79 (1.58)	1.98 (1.38)	12.44 (2.61)	12.53 (2.43)	41.69 (11.87)	20.77 (12.26)
Females N=5744	Mean (Std. deviation)	2.93 (1.66)	1.92 (1.18)	12.58 (2.55)	12.86 (2.53)	42.18 (11.44)	19.52 (11.61)
CZECH REPUBLIC							
All N=544	Mean (Std. deviation)	2.76 (1.55)	1.37 (.81)	11.89 (2.44)	12.11 (1.69)	41.26 (10.67)	19.39 (11.11)
Males N=295	Mean (Std. deviation)	2.59 (1.46)	1.23 (.59)	11.59 (2.28)	11.99 (1.66)	40.86 (10.99)	19.76 (11.25)
Females N=249	Mean (Std. deviation)	3.01 (1.66)	1.54 (.99)	12.25 (2.58)	12.25 (1.72)	41.73 (10.29)	18.95 (10.95)

Source: ESS5 [10], own calculations

Effects of overqualification and of underqualification on earnings (i.e. on returns to adequate schooling, over- and underschooling) were estimated using augmented Mincer's earnings equation proposed by Cohn ([7]) and presented in this paper as an Equation (10). Results of regression analysis using this model are in the Tables 5, 6, and 7.

Tab. 5: Model summary

Model Eq. (10)	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
	0.544a	0.296	0.294	0.88903	0.708
a. Predictors: (Constant), Years necessary for job calculated for full time education (ADSCH), Years of overschooling = SCHOOL-ADSCH, Years of underschooling=ADSCHOOL-SCHOOL, Adschool*Experience, Overschooling*Experience, Underschooling*Experience					
b. Dependent Variable: LN w					

Source: ESS5 [10], own calculations

Tab. 6: ANOVA

Model Eq. (10)	Sum of Squares	df	Mean Square	F	Sig.
Regression	1.842.232	6	307.039	781.480	0.000a
Residual	4372.909	11130	0.393		
Total	6215.141	11136			

Source: ESS5 [10], own calculations

Tab. 7: Regression coefficients and t-ratios for Model Eq. 10

Model Eq. (10)	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	6.090	0.063		96.660	0.000		
Years necessary for job calculated for full time education	0.073	0.005	0.169	15.202	0.000	0.696	1.436
Years of overschooling = SCHOOL – ADSCH	0.010	0.012	0.010	0.800	0.004	0.560	1.787
Years of underschooling = ADSCHOOL – SCHOOL	-0.059	0.026	-0.037	-2.235	0.025	0.308	3.243
Adschool * Experience	0.000	0.000	0.038	2.600	0.009	0.409	2.444
Overschooling * Experience	0.001	0.000	0.019	1.382	0.167	0.452	2.214
Underschooling * Experience	0.004	0.001	0.100	5.471	0.000	0.257	3.896

a. Dependent Variable: LNw

Source: ESS5 [10], own calculations

Results of regression carried out on the data from European Social Survey, Round 5 (year 2010) [10] show that results are similar to that found by other researchers (see e.g. [13]). Rate of return to adequate schooling is high at 16.9%, on the other hand, rate of return to overqualification (overschooling) is positive but at much lower level of 1%. We could expect negative rate of return to underschooling at -3.7% , what means that missing year of education for the job lowers wage by 3.7%. All these values are statistically significant. Interaction variables for schooling and experience also show positive values and it means that experience can increase wages for all cases of schooling; however, coefficient for interaction between experience and overschooling is not statistically significant. Moreover, these results are counterintuitive since more experienced and therefore older workers should have lower rate of return to adequate schooling or overschooling, i.e. coefficients Adschool * Experience and Overschooling * Experience should be negative.

Conclusions

Overqualification is a very important issue in all developed countries and it is a great challenge to the relevance of more investment in the education. If many workers have more than required education or qualifications then continuing the expansion of secondary and higher education is inefficient. Research carried out in this paper firstly addressed questions connected with education and earnings, or with returns on investment to education, based on human capital theory. In methodological part various possibilities how to calculate consequences of overeducation/undereducation for earnings and returns to education were analysed. The equation used by Cohn and Ying Chu Ng in their article on incidence and wage effects of overschooling ([7]) was used for the research presented in this paper. The paper also dealt with measurement problems of overqualification and underqualification. Final parts of the paper firstly analysed incidence of overqualification and underqualification in the EU countries and in the Czech Republic. Several studies show that overeducation is not as serious as presented and its incidence is overestimated when the heterogeneity of workers is not taken into account. Similarly, negative effect of overeducation on earnings is not so big when endogeneity of overeducation is controlled. Overeducation also can be temporary situation

when worker is beginning the career on labour market. However, statistical analysis carried out on the cross-section data from European Social Survey Round 5 (2010) found that incidence of overschooling is high, with values near 50% for the EU countries and around 40% for the Czech Republic. Secondly, regression analysis of the data from ESS5 was carried out to find wage effects of overschooling and underschooling. As to effects on returns to education, the results show that the rate of return to overschooling is positive and lower than the rate to adequate (required) schooling, while rate to underschooling is negative. I am fully aware that the results are limited by many factors, e.g. omitted variables, model specifications etc. However, it can be concluded that education and job mismatch is not minor problem and should be taken into account. All these questions deserve further research because efficient educational policy will be one of the main factors supporting economic growth in the future.

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NÁVRATNOST INVESTICE DO VZDĚLÁNÍ A NADMĚRNÁ KVALIFIKACE – PŘÍPAD EU A ČR

Cílem této práce je analyzovat a zhodnotit současný stav překvalifikovanosti a podkvalifikovanosti v zemích Evropské unie a v České republice. Trvale roste počet absolventů vzdělávacího systému a přetrvává poptávka po vzdělání v populaci. To vede k obavám, že nesoulad mezi požadavky na kvalifikaci pracovních sil a pracovních míst se zvýší. Veřejná vzdělávací politika spíše podporuje tuto kontroverzi. Zatímco počty zapsaných studentů na středních školách a veřejných vysokých škol a tudíž počty absolventů rostou, počet kvalifikovaných pracovních míst roste pomalu. Příspěvek se zabývá různými metodami používanými pro měření požadované úrovně vzdělání pro práci a příslušnou teorií (vyhledávání a porovnávání pracovních míst, teorie lidského kapitálu, teorie přiřazení atd.) které mohou být použity pro interpretaci překvalifikovanosti. Poslední kapitola analyzuje a hodnotí aktuální stav překvalifikovanosti v zemích EU a v České republice a zabývá se empirickými výsledky vlivu překvalifikovanosti na výdělky.

RETURN ON INVESTMENT IN DER BILDUNG UND ÜBERQUALIFIKATION – IM FALLE DER EU UND DER TSCHECHISCHEN REPUBLIK

Das Ziel dieser Arbeit ist es den gegenwärtigen Stand der Überqualifikation und Unterqualifizierung in den EU-Ländern und in der Tschechischen Republik zu analysieren und zu bewerten. Es gibt eine ständig wachsende Zahl von Absolventen des Bildungssystems und eine anhaltende Nachfrage nach Bildung in der Bevölkerung. Es führt zu Befürchtungen, dass sich das Missverhältnis zwischen der Zahl der Arbeitsplätze und den Anforderungen an die Qualifikationen in der Belegschaft in nicht allzu ferner Zukunft erhöhen wird. Die öffentliche Bildungspolitik scheint diese Kontroverse zu unterstützen. Die Arbeit beschäftigt sich mit verschiedenen Methoden, die verwendet werden, um die erforderliche Ausbildung für bestimmte Jobs zu messen, und mit den damit verbundenen Theorien (Such- und Matching, Humankapitaltheorie Zuordnung Theorie etc.), die für die Interpretation der Überqualifikation verwendet werden können. Das letzte Kapitel analysiert und bewertet aktuelle Überqualifikation in den EU-Ländern und in der Tschechischen Republik und beschäftigt sich mit den empirischen Ergebnissen der Auswirkungen von Überqualifikation auf den Verdienst.

ZWROT Z INWESTYCJI W EDUKACJĘ A NADMIERNE KWALIFIKACJE – PRZYPADEK UNII EUROPEJSKIEJ I REPUBLIKI CZESKIEJ

Celem niniejszego opracowania jest analiza i ocena aktualnego stanu nadmiernych kwalifikacji i niedostatecznych kwalifikacji w krajach Unii Europejskiej oraz w Republice Czeskiej. Stale wzrasta liczba absolwentów systemu oświaty a w populacji utrzymuje się popyt na kształcenie. Rodzi to obawy, że rozbieżność między wymaganiami dotyczącymi kwalifikacji siły roboczej a miejscami pracy ulegnie zwiększeniu. Prowadzona publiczna polityka edukacyjna bardziej wspomaga tę kontrowersję. W artykule przedstawiono różne metody stosowane do pomiaru wymaganego poziomu wykształcenia niezbędnego do pracy oraz podstawy teoretyczne (poszukiwanie i porównywanie miejsc pracy, teoria kapitału ludzkiego, teoria przyporządkowania itp.), które mogą być wykorzystane do interpretacji nadmiernych kwalifikacji. Ostatni rozdział Analizuje i ocenia obecny stan overqualification w krajach EU i w Republice Czeskiej i poświęcono wynikom badań empirycznych dotyczących wpływu nadmiernych kwalifikacji na zarobki.

MEAN-REVERSION OF MALAYSIAN COMPANIES' GROWTH OF EARNINGS

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Abstract

Corporate accounting-based variables tend to mean-revert in the long run. This is particularly visible in the case of growth variables, such as sales growth or earnings-per-share (EPS) growth. Mean-reversion of earnings growth means that companies which in a given period report above-average / below-average growth tend to show significantly slower / faster pace of this growth in the following periods. In this paper we explore the phenomenon of reversion toward the mean of earnings-per-share growth of companies listed on the Kuala Lumpur Stock Exchange in the period of 2001-2011. The research confirmed the strong tendency of EPS growth to revert toward the mean. The “super-fast” EPS growth tends to be both preceded and followed by below-average growth and the deep declines of earnings tend to be preceded and followed by above-average EPS growth.

Introduction

Many research studies found that corporate financial results (measured by e.g. sales growth, profitability, earnings growth, asset turnover, etc.) tend to strongly mean-revert in the long run. This mean-reversion means the convergence of those economic results toward the economy-wide average levels [1; 3; 4; 7; 8]. The reversion toward the mean is particularly strong in the case of growth variables, such as sales growth or earnings growth. According to the research, from 1960 through 1999 only 8 of the largest 150 companies on the “Fortune 500” list managed to increase their earnings by an annual average of at least 15% for two decades [5]. Another research showed that only 10% of large U.S. companies had increased their earnings by 20% for at least five consecutive years, only 3% had grown by 20% for at least 10 years straight, and not a single one had done it for 15 years in a row [12]. In a more comprehensive study the researchers found that over the 1951-1998 period only a small proportion of companies grew their earnings at the above-average pace for longer time, which means that the persistence of relatively fast earnings growth is very limited [2]. The presence of mean-reversion means that maintaining above-average pace of corporate earnings growth is extremely difficult in the long-run.

However, although mean-reversion of corporate financial results is well documented for developed economies, it is much less explored in the case of emerging markets. In our previous research we confirmed the presence of mean-reversion in the case of financial results of the Polish public companies [10; 11]. However, we are not aware of any other study related to mean-reversion of earnings among Malaysian companies. This paper explores the

phenomenon of reversion toward the mean in the case of earnings-per-share (EPS) growth of companies listed on the Kuala Lumpur Stock Exchange in 2001-2011 years.

The remainder of the paper is organized as follows. In the next section we describe the data and research method used in the study. Then the section that presents the empirical results follows. The paper closes with concluding comments.

1 Data and Research Method.

In the research the data concerning annual earnings-per-share (EPS) of companies listed on the Kuala Lumpur Stock Exchange were used. The historical financial results were obtained from “Malaysia Stock Performance Guide” publications. In the sample we included the companies for which all the necessary data were available, resulting in 5.498 firm-year observations. The analysis comprised the eleven-year period between the 2001 and 2011. The only analyzed variable was the corporate earnings-per-share growth defined as follows:

$$EPSG_t = \frac{EPS_t - EPS_{t-1}}{|EPS_{t-1}|}, \quad (1)$$

where:

$EPSG_t$ - growth of earnings-per-share of a given company in year t ,

EPS_t - earnings-per-share of a given company in year t .

The summary statistics of the data used are presented in the table below.

Tab. 1: Summary statistics computed for earnings-per-share growth* in the analyzed samples.

Year	Arithmetic mean	Median	Standard deviation
2001	-15.1%	-3.2%	567.9%
2002	202.9%	11.5%	2745.2%
2003	38.5%	21.6%	438.8%
2004	-30.5%	20.1%	1292.9%
2005	21.8%	7.7%	171.3%
2006	-50.1%	10.4%	1441.8%
2007	85.5%	25.4%	1647.1%
2008	-18.3%	2.3%	419.0%
2009	4.5%	-1.8%	1084.7%
2010	39.7%	14.5%	518.3%
2011	-7.5%	7.8%	327.3%

* earnings-per-share growth as defined by formula (1)

Source: “Malaysia Stock Performance Guide” (different editions); authors’ calculations

The investigated sample is characterized by significant diversity of EPS growth, both in cross-sectional dimension (between individual companies within the individual years) as well as time-series dimension (between individual years). In only two years the median EPS growth rate was negative. This happened in recession years. For all the analyzed periods the arithmetic mean differed significantly from the median (with highly variable scope and direction of these differences). This suggests that the intercompany distribution of EPS growth is far from normal and heavily unstable. The standard deviations computed for all the years are three-digit or four-digit, which confirms that there exists huge intercompany diversity in terms of earnings growth.

The whole sample under investigation was divided into seven moving sub-samples. Each sub-sample comprised five years. The first sub-sample embraced the period between 2001 and 2005, the second one embraced 2002-2006 period, etc. The last sub-sample embraced the period between 2007 and 2011. In each of the sub-samples we visually analyzed the reversion toward the mean of the corporate EPS growth.

In the case of the first sub-sample all the companies under investigation were sorted in order of decreasing EPS growth in the middle year, which is in 2003 (from the company with the highest growth to the company with the lowest growth in 2003). The EPS growth data computed for the individual companies were then normalized with the following formula:

$$NEPSG_t^i = EPSG_t^i - MedianEPSG_t^n, \quad (2)$$

where:

$NEPSG_t^i$ - normalized growth of earnings-per-share of i -th company in year t ,

$EPSG_t^i$ - growth of earnings-per-share of i -th company in year t (as defined by formula 1),

$Median EPSG_t^n$ - median growth of earnings-per-share of all n companies in year t ,

n – number of companies included in the sample in year t .

Then the sorted companies were divided into five quintiles so that the first quintile embraced 20% of companies with the fastest normalized EPS growth in 2003 and the last quintile embraced 20% of companies with the slowest normalized EPS growth in 2003. Because total number of observations usually cannot be divided equally into five quintiles we omitted from the computations the adequate number of observations with the slowest EPS growth. For each of the quintiles constructed in this way the median normalized EPS growth in 2003 was computed. The median normalized EPS growth rates for individual quintiles were calculated as the medians of all observations of individual normalized EPS growth rates of companies included within the given quintile.

Then, for the same quintiles, the median normalized EPS growth in the preceding two years (i.e. 2001 and 2002) as well as in the following two years (i.e. 2004 and 2005) was computed. Analogous computations were made for the remaining six sub-samples (comprising 2002-2006, 2003-2007, 2004-2008, 2005-2009, 2006-2010 and 2007-2011 periods). The results obtained from all seven sub-samples were averaged in order to obtain the findings which are more representative for long-term processes. The results from individual sub-samples may be distorted by some factors specific for a given five-year period. For example, the sub-sample for years 2003-2007 covers the period of fast economic growth, while the sub-sample for years 2007-2011 covers the period of world economic crisis. Although individual sub-samples may be biased by these specific factors, these biases tend to smooth out when the results are averaged. Thanks to this, the final results capture only the long-term patterns.

The research method described above enables visual inspection of the behavior of corporate EPS growth in five-year windows. It enables observation of the paths of the decrease / increase of the relative EPS growth in the quintiles with the highest / lowest EPS growth in a given year (period t), both in two years before the t year as well as in two years following the t year.

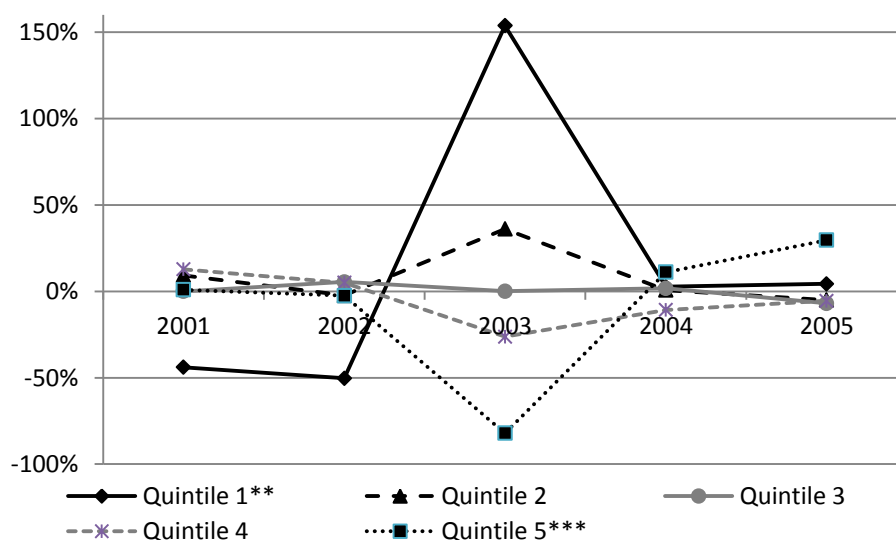
2 Results

Fig. 1 presents the phenomenon of reversion toward the mean in the case of earnings-per-share growth in the first sub-sample (comprising 2001-2005 period). The figure shows the

medians of normalized EPS growth in five quintiles formed on the basis of the data for 2003 year.

As can be seen, there was the strong tendency of reversion toward the mean of EPS growth in the period under investigation in the case of two extreme quintiles. Particularly, companies with the fastest EPS growth in 2003 (Quintile 1) were those with deep EPS declines in the preceding two years (2001-2002). They also tended to report slightly above-average EPS growth (but much slower than in 2003) in the following two years (2004-2005). In contrast, stocks with the deepest EPS decline in 2003 (Quintile 5) were those with the fastest EPS growth (much above the market-wide averages) in the following two years (2004-2005). However, they did not report any significant and consistent deviations from the market averages in the preceding two years (2001-2002).

Interesting results were also obtained for the in-between quintiles, particularly Quintile 4, in which case relatively deep normalized EPS growth in 2003 followed two years of above-average growth (2001-2002) and was followed by two years of sub-par growth (2004-2005). It means that both portfolios with below-average growth in 2003 (Quintile 4 and Quintile 5) were characterized by completely different pictures in the following two years. Quintile 5 showed above-average growth and Quintile 4 reported sub-par growth in 2004-2005. Probably this stems from the fact that accounting earnings of companies forming Quintile 5 were much more burdened by one-off factors, such as provisions or restructuring charges. Such factors bring about the so-called low-basis effect and result in jumps of earnings in the following years. In contrast, companies forming Quintile 4 experienced in 2003 EPS declines which perhaps to a larger extent resulted from normal and recurring (e.g. cyclical) earnings-drivers.



* normalized earnings-per-share (EPS) growth as computed in accordance to formulas (1) and (2)

** 20% of companies with the fastest EPS growth in 2003

*** 20% of companies with the slowest EPS growth in 2003

2003 is the year for which the initial sort of all the companies is made.

Source: "Malaysia Stock Performance Guide" (different editions); authors' calculations

Fig. 1: Medians of normalized EPS growth* in five quintiles of companies in 2001-2005 sub-sample

Analogous computations were conducted for the remaining six sub-samples. However, due to the space limitations the detailed results for the individual sub-samples are not presented here.

Instead, in the Tab. 2 as well as on the Fig. 2 the averages obtained for all seven sub-samples are presented.

Tab. 2: Averaged* medians of normalized EPS growth in five quintiles of companies in all seven sub-samples.

Quintiles of companies	Period				
	T-2	T-1	T	T+1	T+2
Quintile 1***	-18.9%	-25.4%	141.5%	-5.6%	0.0%
Quintile 2	0.0%	1.4%	32.9%	-3.0%	-6.8%
Quintile 3	1.9%	3.0%	0.7%	-4.1%	-1.6%
Quintile 4	7.8%	1.1%	-24.0%	-1.4%	-0.6%
Quintile 5****	3.3%	2.3%	-80.4%	38.5%	19.3%

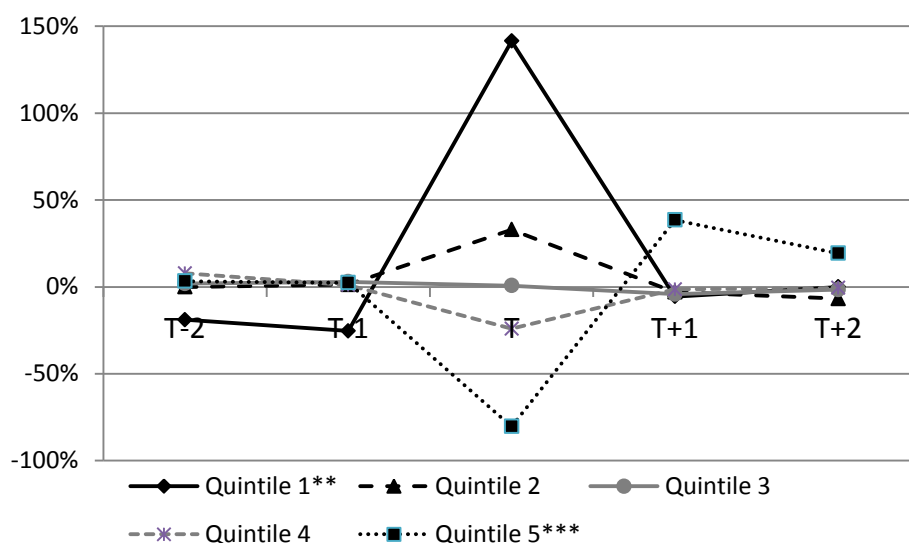
* each number in the table is the arithmetic mean from the seven values taken from the seven sub-samples for a given quintile and for the given period

** T means sorting period (year in which the companies are sorted and divided into five quintiles); periods from T+1 to T+2 and T-1 to T-2 are the following and preceding years, respectively

*** 20% of companies with the fastest EPS growth in sorting period (i.e. in year T)

**** 20% of companies with the slowest EPS growth in sorting period (i.e. in year T)

Source: "Malaysia Stock Performance Guide" (different editions); authors' calculations



Each number on the chart is the arithmetic mean from the seven values taken from the seven sub-samples for a given quintile and for the given period

** 20% of companies with the fastest EPS growth in sorting period (i.e. in year T)

*** 20% of companies with the slowest EPS growth in sorting period (i.e. in year T)

Source: "Malaysia Stock Performance Guide" (different editions); authors' calculations

Fig. 2: Medians of normalized EPS growth in five quintiles of companies in 2001-2005 sub-sample

The data shown in Tab. 2 and on Fig. 2 present the averaged numbers for all seven sub-samples. For example, the value for the first quintile in year T (equaling 141.5%), where T is the year for which the sort of all the companies is made, constitutes the arithmetic mean of the seven medians of normalized EPS growth obtained for the first quintile in the third year of all seven sub-samples. This number (equaling 141.5%) means that the median EPS growth in the group of 20% of companies with the fastest EPS growth in any given year is on average about

141.5 percentage points higher than the median EPS growth in the group of all the companies listed on the Kuala Lumpur Stock Exchange in the same year. Analogously, the value for the first quintile in period T+1 (equaling -5.6%), where T+1 is the year following the year for which the sort of all the companies is made, constitutes the arithmetic mean of the seven medians of normalized EPS growth obtained for the first quintile in the fourth years of all seven sub-samples. This number (equaling -5.6%) means that the median EPS growth in the group of 20% of companies with the fastest EPS growth in period T, which in period T is on average about 141.5 percentage points higher than the median EPS growth in the group of all the companies, in the following year (i.e. T+1) is on average 5.6 percentage points lower than the median EPS growth in the group of all the companies.

As can be seen, the 2001-2011 period was characterized by a significant reversion toward the mean of EPS growth of companies listed on the Kuala Lumpur Stock Exchange, particularly in the case of companies with above-average pace of EPS growth in period T. In the years under investigation the median normalized EPS growth in the first quintile in period T averaged 141.5%. That means that the median EPS growth in the first quintile exceeded the median EPS growth among all the companies by about 141.5 percentage points, on average. However, in the following two years (T+1 and T+2) these companies tended to report below-average (or close to average) growth of earnings. Consistent results were obtained for Quintile 2 and Quintile 3 (which also cover stocks with above-average EPS growth in period T and sub-par growth in the following two years). Somewhat surprisingly, below-average earnings growth in periods T+1 and T+2 is also reported by companies included in Quintile 4 (which covers stocks with below-average growth in period T). However, even here the mean-reversion is evident (given the rising, although negative, values of normalized EPS growth from period T to T+2). In this light, the only portfolio providing above-average growth in periods T+1 and T+2, is Quintile 5, which includes stocks with deep declines of earnings in period T.

Interesting findings are also suggested by data for periods from T-2 to T. We can see here that Quintile 1, covering stocks with “super-fast” earnings growth in period T, is the only portfolio with below-average EPS growth in both periods T-2 and T-1. This suggests that the earnings “take-off” in period T (with three-digit normalized growth) reflects in this case some kind of “catching-up effect”. This suggests that fast growing earnings in period T are just making up for the preceding significant EPS drops. However, this “take-off” is rather extraordinary and one-off, because in the following year (i.e. T+1) these stocks’ earnings again tend to lag behind the market average. In contrast, Quintile 2 and Quintile 3, both covering stocks with above-average EPS growth in period T, tend to experience above-average growth also in the preceding two years. However, as we already noted, this relatively fast medium-run growth (lasting at least three years from T-2 to T), is rather temporary. This growth is broken in the following two years, when companies making up these two quintiles tend to consistently lag behind the market average growth.

Mean-reversion is also experienced by stocks included in Quintile 4 and Quintile 5. Both these portfolios include companies reporting above-average EPS growth in periods T-2 and T-1, followed by sub-par growth in period T. However, the similarities of these two quintiles in periods from T-2 to T are clearly broken in the following two years. The fall of earnings in period T in Quintile 4 (which is relatively modest as compared to Quintile 5) is continued in periods T+1 and T+2. In contrast, the collapse of earnings in period T in Quintile 5 is reversed as soon as in the period T+1 and continued in period T+2. As was noted before, this suggests that accounting earnings of companies forming Quintile 5 are much more (than in case of Quintile 4) burdened by one-off accounting charges, such as assets write-downs and write-offs. Perhaps these charges are too deep and reflect some kind of “cookie-jar reserves”. They

may be reversed to some extent in the following years, resulting in vivid recovery of earnings. In contrast, the sub-par earnings growth of companies forming Quintile 4, seem to result more from normal and recurring earnings-drivers (such as cyclical sales drops) than from subjective one-off accounting charges.

Finally, both extreme portfolios seem to relay consistent (although mirrored) findings. In period T the “super-fast” earnings growth of Quintile 1 and “super-deep” earnings collapse of Quintile 5 result probably from factors of highly temporary nature. The “super-fast” normalized EPS growth of Quintile 1 in period T is both preceded (in periods T-2 and T-1) as well as followed (in periods T+1 and T+2) by below-average EPS growth. In contrast, the “super-deep” decline of normalized EPS growth of Quintile 5 in period T is both preceded (in periods T-2 and T-1) as well as followed (in periods T+1 and T+2) by above-average earnings growth.

Conclusion

The research presented in this paper was based on the data concerning earnings-per-share growth of companies listed on the Kuala Lumpur Stock Exchange in 2001-2011 years. Our findings corroborated that relative corporate earnings growth tends to revert toward the mean. This mean-reversion is particularly strong in the case of extremely fast growing earnings as well as extremely deeply falling earnings. It means that companies characterized by “super-fast” EPS growth / “super-deep” EPS decline in any year, usually experience below-average / above-average relative growth in the following years.

The mean-reversion of EPS growth is less consistent in the remaining quintiles of stocks. However, it seems to be still discernible here. Stocks forming Quintile 2 and Quintile 3 are featured by above-average growth in period T (although not as “super-fast” as in the case of Quintile 1) and also in two preceding years (T-2 and T-1). In contrast, they tend to report significantly sub-par growth in the following two years (T+1 and T+2). Companies making up Quintile 4 are in turn featured by below-average growth in period T (although not collapsing as deeply as in the case of Quintile 5) and also in two following years (T+1 and T+2). However, they tend to report above-average growth in the preceding two years (T-1 and T-2).

According to the findings of other research studies [6; 9], investors tend to over-extrapolate the past growth rates of corporate earnings too far into the future. As a result, the actual future earnings of currently fast-growing companies are usually lower than expected (resulting in negative earnings surprises). In contrast, the actual future earnings of currently slow-growing companies tend to be higher than expected (resulting in positive earnings surprises). Given that stock prices tend to react to earnings changes, the investors’ over-extrapolation of past earnings brings above-average stock-returns of companies with below-average past earnings growth and below-average stock-returns of companies with above-average past earnings growth. Our results, confirming the strong mean-reversion of EPS growth rates, constitute evidence that extrapolating corporate past financial results into the future is not justified.

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RŮST ZISKŮ A JEHO ZPĚTNÝ NÁVRAT K PRŮMĚRU NA PŘÍKLADU MALAJSKÝCH SPOLEČNOSTÍ

Vykazované účetní proměnné se v dlouhodobém horizontu vracejí směrem k průměru. Tato skutečnost se projevuje zejména u proměnných růstu jako např. tempa růstu tržeb nebo růstu ukazatele zisku na akcii (EPS). Jestliže účetní jednotka v daném období vykázala nadprůměrné/podprůměrné tempo růstu zisku, lze v dalších obdobích očekávat významně pomalejší/rychlejší tempo růstu. Tento článek zkoumá fenomén návratu k průměru u ukazatele růstu zisku na akcii u společností obchodovaných na burze cenných papírů v Kuala Lumpur za období 2001-2011. Výzkum potvrzuje, že ukazatel růstu EPS se významně navrácí k průměru. Extrémně rychlému růstu ukazatele EPS předchází podprůměrný růst a podprůměrný růst současně následuje i v dalších obdobích. Obdobně prudký propad ukazatele je doprovázen předchozím i následným nadprůměrným růstem.

KONVERGENZ ZUM DURCHSCHNITTSNIVEAU IM FALLE VON GEWINNDYNAMIK DER MALTESISCHEN UNTERNEHMEN

Die finanziellen Jahresergebnisse der Unternehmen haben eine Tendenz zur langfristigen Konvergenz zum Durchschnittsniveau. Diese Erscheinung ist besonders für die Kennziffern der Dynamik wie Einkommensdynamik oder Gewinndynamik pro Aktie (EPS) charakteristisch. Die Konvergenz der Gewinndynamik bedeutet, dass die Gesellschaften, die in einer bestimmten Periode eine überdurchschnittlich hohe/niedrige Wachstumsrate zeigen, in den folgenden Perioden bedeutend langsamere/ schnellere Dynamik erzielen. Im Rahmen dieses Artikels wurde die Konvergenz zum Durchschnittsniveau im Falle von Gewinndynamik der auf der Börse Kuala Lumpur in den Jahren 2001-2011 notierten Unternehmen, untersucht. Die starke Tendenz der Gewinndynamik zum Durchschnittskonvergenz wurde im Rahmen dieser Studie bestätigt. Die „super-schnelle“ Gewinndynamik pro Aktie ist gewöhnlich durch die überdurchschnittlich niedrige Wachstumsrate in den früheren oder späteren Perioden begleitet. Die bedeutenden Gewinnverluste pro Aktie sind dagegen durch die überdurchschnittlich hohe Wachstumsrate vorangegangen, oder sie die hohe Wachstumsrate vorangehen.

REWERSJA DO ŚREDNIEJ W PRZYPADKU DYNAMIKI ZYSKÓW MALEZYJSKICH SPÓŁEK

Wyniki finansowe firm wykazują tendencję do długoterminowej rewersji do średniej. Zjawisko to jest szczególnie wyraźne w przypadku wskaźników dynamiki, takich jak dynamika przychodów czy dynamika zysku na akcję (EPS). Rewersja dynamiki zysków oznacza, iż spółki, które w danym okresie raportują ponadprzeciętnie wysokie / niskie tempo wzrostu, w kolejnych okresach wykazują zwykle znacznie wolniejszą / szybszą dynamikę. W niniejszym artykule zbadano zjawisko rewersji do średniej w przypadku dynamiki zysków spółek notowanych na giełdzie w Kuala Lumpur w latach 2001-2011. Badanie potwierdziło silną tendencję dynamiki zysków do rewersji do średniej. „Super-szybkiej” dynamice zysku na akcję w danym okresie towarzyszy zwykle ponadprzeciętnie niskie tempo wzrostu w okresach wcześniejszych i późniejszych, natomiast głębokie spadki zysków na akcję poprzedzają zwykle oraz są poprzedzone ponadprzeciętnie wysokim tempem wzrostu.

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