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Conference Theme:
Modern Trends in corporate management – the world of opportunities

Aim of the Conference:

The aim of the conference is to share information and research results among experts from universities, research and consulting institutes and successful companies concerning topics related to modern trends in corporate management in the perspective of numerous upcoming opportunities and challenges in human resources, financing, processes and other business fields.

PREFACE

Dear readers!

It is my pleasure to present You with a collection of papers from the 3rd annual International Scientific Conference of Business Economics, Management and Marketing ISCOBEMM 2018 organized by the Department of Corporate Economy of the Faculty of Economics and Administration of Masaryk University and held in Prušánky - Nechory, Czech Republic.

The third conference proved both the growth potential from the previous two years and the viability of the conference idea.

The topic of the third conference was "Modern trends in corporate management - the world of opportunities." The broad topic was covered by concrete topic papers of Finance and Economic Analysis, Human Resource Management, Marketing, Innovation, Business and Management and Social Issues of Today's Business including gender roles, family business, and cultural diversity and price fairness.

Participants from numerous universities from the Czech Republic, Poland, Slovak Republic, Hungary, Croatia, and Austria were accompanied by researchers from more distant places like Macau or Colombia. These proceedings present their latest findings. I hope you will find them as inspirational as direct attendants of the conference.

This year venue was located in the picturesque village of Prušánky-Nechory, located in the heart of significant wine region of the Czech Republic. The schedule of the conference itself continued in the scheme of the previous ones and confirmed the right settings of such a venue. Therefore, we will hold the conference in Prušánky-Nechory again. We are looking forward to even greater audience sharing their knowledge and research in the future.

Petr Suchánek
Head of the Department of Corporate Economy

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Evolving Organizational Capabilities through Organizational Design: Influence of Strategy, Structure and Organizational Processes

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Abstract: *Achieving competitive advantage challenges organizations to shift their focus to its internal strengths, acquiring and using its resources to develop organizational capabilities. However, not just to possess valuable, rare, unique resources that are difficult to imitate, but also to be organized and designed in a way that enables the full potential of these resources to be exploited and lead to creation of superior organizational capabilities. Organizational design serves as a powerful driver in recognizing and developing capabilities, especially through its strategy, structure and organizational processes. This paper analyzes theoretical framework on the relation between presented variables of organizational design and operational and dynamic capabilities, and tests it empirically on a sample of 121 organizations. Results of the empirical research indicate a strong connection and role played by strategy, structure and organizational processes in developing both forms of organizational capabilities. The paper contributes to current research by providing evidence that it is possible to purposefully design organizational elements to match organizational resources with its goals, that is, to enable the development of both operational and dynamic capabilities.*

Keywords: *organizational design, strategy, structure, process, organizational capabilities*

JEL codes: *L22; L 25; M19*

Introduction

Modern approaches to strategy and competitive advantage emphasizes the importance of internal resources and capabilities as opposed to the traditional approach that saw competitive advantage determined solely by market positioning and organizational decisions related to the environment and industry in which organizations operate. In modern business conditions organizations are turning towards internal organizational strengths and creation of organizational capabilities, that is to the specific forms of coordination and use of existing organizational resources within defined organizational framework and environmental conditions.

Development and evolution of organizational capabilities however is not uniform and easy. Many factors influence and mutually intervene in this process. Still, the evolution itself begins within organization and its organizational design framework. Theoretical relationship between organizational design and organizational capabilities has been recognized in the literature (e.g. Lawler, 2001; Miller et al., 2002; Erdil et al., 2010; Sako and Chondrakis, 2017). Development of both forms of capabilities, operational and dynamic capabilities, is considered to be in large the result of the top management abilities, but also results from the impact of organizational processes, structure and strategy that were created to ensure execution of organizational activities. Although recognized, concrete researches related to the interaction between these variables are missing. As some others emphasize (e.g. Montealegre, 2002; Newbert, 2007; Abell et al., 2008; Phong Tuan and Yoshi, 2009) additional studies are needed that will address and take into account the context of the organization itself and study micro mechanism through which capabilities are developed. This paper addresses this research gap by analyzing the process of organizational capabilities evolution by exploring the role of organizational design in that process, more specifically the role of strategy, structure and processes in the development of operational and dynamic capabilities.

1 Characteristics and role of organizational capabilities

Beside traditional material resources that include land, capital and work, literature recognizes and emphasizes the importance of other material and non material resources and capabilities in creation of above average economic rents (Ticha, 2010). This resource based view, as one of the major approaches in strategic management, emphasizes type, size and nature of resources and

capabilities as important determinants of organizational profitability (Amit and Schoemaker, 1993). Organizations are considered to have a unique set of resources and capabilities, and ownership over these resources, along with the benefits that organizations can achieve with their transformation, determines differences among organizations (Amit and Schoemaker, 1993; Peteraf, 1993; Barney and Clark, 2007). However, the key is not just in possession of valuable, rare, unique resources that are difficult to imitate, but also to be organized in a way that full potential of these resources is reached and leads to creation of superior organizational capabilities.

Organizational capabilities, as a special form of resource, are characterized by dynamic mechanisms that enable organizations to acquire, develop and implement other resources to achieve superior efficiency (Lado and Wilson, 1994). They represent organizational ability for coordination and usage of resources, tangible and intangible, in order to carry out the specific task or activity for organization to achieve desired goals (Grant, 1991; Amit and Schoemaker, 1993), but also to create and sustain superior performance. Hesselbein and Goldsmith (2009) consider capabilities presents something that organization is doing well and how it manages its activities to gain value. Ulrich and Smallwood (2004) consider them as the organizational DNA, while Dosi et al. (2000) suggest they can be understood as organizational "know-how" that enables organization to perform and upgrade its existing activities.

Research has shown that there is a significant connection between organizational resources, capabilities, organizational system and effectiveness (Raduan et al., 2009), but also among organizational capabilities and competitive advantage (Phong Tuan and Yoshi, 2010). Organizational capabilities are therefore considered a critical success factor and main source for the creation and development of sustainable competitive advantage.

Each organization develops its own configuration of resources that is incorporated in the reality of its competitive market, previous paths of development, as well as potentials and requirements of its environment (Erdil et al., 2010). Therefore, it is impossible to list all potential capabilities that can be a source of advantage, as they can be found in every single activity that is performed by organization and along multiple dimension of an activity (Collis, 1994). Nevertheless, researchers agree capabilities can be distinguish regarding their role in organization and differentiate among operational capabilities (also called "zero - level" or "functional" capabilities) and dynamic capabilities ("higher level" capabilities). Operational capabilities are focused on the configuration, coordination, integration and use of existing organizational resources. They reflect ability to perform basic everyday functional organizational activities allowing organizations to perform in the short run (Collis, 1994; Winter, 2003; Flynn et al., 2010). As such they are usually classified further through a standard functional classification of capabilities i.e. marketing capabilities, production capabilities, information technology capabilities etc. Several researchers (e.g. Dutta et al., 205; Song et al., 2005) indicate capabilities related to customers, manufacturing and technological capabilities and complementarities among them are the most significant drivers of performance. Therefore, this paper orients on the production, marketing and technological capabilities, as the three key operational capabilities. Their short overview is presented in table 1.

Table 1 Characteristics of different operational capabilities

Capability	Characteristics
Production capability	aimed at efficiency of production process, cost minimization, higher quality and product superiority; involves activities oriented towards products and services
Marketing capability	includes knowledge on customers and competitors, integration of marketing activities, skills in market segmentation, efficiency in price system and promotion
Technological capability	activities regarding exploration and exploitation of technology; enables technological expertise

Source: Bergek et al., 2008; Acar and Zehir, 2009; Kuivalainen et al., 2010.

Dynamic capabilities, are more long term oriented, trying to adapt, reconfigure, extend or modify existing internal resources and operational capabilities in order to bring the organization into line with the requirements of a changing environment (Teece et al., 1997; Winter, 2003). Therefore, dynamic capabilities can be evaluated as an evolutionary process that includes seek (variation), selection (evaluation) and routinization (retention) (Zollo and Winter 2002). The reason for this is that these capabilities are consisted of information-retrieving activities that unveil the need for change, look at the variation of existing resource, select new ones and implement it. Based on this

characteristics Teece et al. (1997) and Pavlou and El Sawy (2011) differentiate sensing, learning, integrating and coordinating as basic dynamic capabilities Their characteristics are shown in the table 2.

Table 2 Characteristics of different dynamic capabilities

Capability	Characteristics
Sensing capability	spot, interpret, and pursue opportunities
Learning capability	revamp existing operational capabilities with new knowledge
Integrating capability	embed new knowledge into operational capabilities with collective sense-making
Coordinating capability	deploy tasks, resources, and activities in reconfigured operational capabilities

Source: Pavlou and El Sawy (2011)

As it can be concluded from the above one of the basic characteristic that differentiates between dynamic and operational capabilities is orientation towards change as the dynamic capabilities are those that manage the rate of change in operational capabilities. Furthermore, dynamic capabilities are oriented towards the future, while operational are more related to the competition in the present time.

When it comes to development of both, operational and dynamic capabilities there are certain researchers that attribute their development to luck (e.g. Barney, 1986). However most authors agree that it is possible to consciously act on the development of capabilities, considering that development is a long-lasting, complex process influenced by many organizational variables (Montealegre, 2002). It should be taken into account that capabilities are the result of complex interaction between resources, their coordination and integration through appropriate organizational processes and design.

2 Organizational design and its role in the evolution of organizational capabilities

Organizational design is a creative process for designing and aligning elements of an organization to efficiently and effectively deliver the purpose of an organization and achieve high levels of organizational performance (Hinrichs, 2009). It presents a whole sequence of work that results in an alignment of vision/mission, values/operating principles, strategies, objectives, tactics, systems, structure, people, processes, culture and performance measures in order to deliver the required results in the operating context of the organization (Stanford, 2007).

It has also been recognized that organizational design serves as a powerful driver and initiator in recognizing and developing capabilities: in integrating and coordinating resources, strategies, structures and processes for developing capabilities, expanding them through organization, and directing capabilities to exploit appropriate market opportunities (Miller et al., 2002). Therefore, when it comes to decisions on developing capabilities, organizational elements need to be considered as an integral part of these decisions (Amit and Schoemaker, 1993). This allows organization to be different from others and implement its strategy through development of a company's specific capabilities. As such organizational design results not only in the implementation of strategy but its real contribution for many organizations is development of superior organizational capabilities to (Miller, 2005).

Although organizational capabilities are a result of the overall organizational system (Collis, 1994; Lawler, 2001), researchers emphasize special attention in their development needs to be given to organizational strategy, structure and processes (Ulrich and Lake, 1991; Miller et al., 2002). Capabilities get their primary, conceptual framework, through organizational strategy that defines paths of development, type and characteristics of capabilities. Apart from this, strategy also provides an underlying framework of organizational design defining the division and coordination of activities in the organization, i.e. the structure and processes of the organization through which it ensures and directs the development of capabilities and encourages the desired behavior. At the same time, strategy directs the evolution of capabilities through development of routines that enable the continuous change of existing routines and resources that no longer contribute to the creation of value within the organizatione (Teece, 2007). Along with the strategy, as stated above, organizational structure and processes are of particular importance. The structure itself, that is division of labor within an organization, shapes both current and long-term business development

opportunities and affects the operational and dynamic capabilities (Jacobides, 2006). The way organizations are structured will shape the nature of possible solutions, as well as the breadth of activities and roles that individual organizational units can provide for development of capabilities. The structure operates primarily through the decision on allocation of resources, but also the division of activities and their coordination within the organization. What is more important is that the structure through its structural dimensions of formalization, specialization and centralization facilitates or disables the speed of communication and flow of information within the organization. This is one of the key roles of structure in development of dynamic capabilities as structure, through the flow of information and freedom of decision making, enables decisions are made where the greatest need for change of existing operational capabilities is. While the structure allows for task and resource allocation, business processes enable the coordination of different resources, activities, and routines throughout the organization into unique and organization-specific capabilities. In other words, organizational capabilities are based on the use of organizational processes and their interconnectedness and coordination (Stalk et al., 1992). In doing so, the processes have three key roles, namely: (1) coordination and integration; (2) learning and transferring of new knowledge; and (3) reconfiguration when needed (Teece et al., 1997). While the role of coordination and integration is more related to operational capabilities and hence a more static concept, learning and reconfiguration are more related to dynamics and transformational concepts, and as such are more related to the role of processes in development of dynamic capabilities. In addition to managing their co-ordination and transformation, processes also represent mechanisms through which capabilities are presented on the market. At the same time, only when processes are deeply rooted, when they become a part of everyday business practice and the established way of doing business, continuous contribution of the fundamental roles and tasks of the processes in the creation and development of capabilities is ensured.

3 Methodology

In order to test the proposed theoretical relations between organizational design and capabilities, a research model was designed and tested. The model tests the connection of individual elements of organizational design, namely characteristics and level of development of strategy, structure and processes with both forms of organizational capabilities. Empirical research was done on a sample of large and medium sized organizations in Croatia. Questionnaire was used as a method of survey and was sent to executive directors of 1731 medium and large sized organizations in Croatia (data received from Croatian Chamber of Economy). Response rate was 7% and after excluding several responses that did not satisfy research criteria, a total of 113 questionnaires were analyzed. Most of the organizations in sample were large sized (57,52%), from manufacturing industry and retail (each with 16,8%). According to their ownership structure 18,59% of organizations was in public or mostly public ownership, while 81,42% of them had been in private or mostly private ownership.

Through the questionnaire respondents were asked, by using Likert scale from 1 to 5 (1 - never, 5 - always), to estimate how different statements refer to their organization. First part of the questionnaire measured level of development of different organizational capabilities. Measure for operational capabilities consisted of 21 statement and was based on questionnaire for measuring production capabilities developed by Acar and Zehir (2009) and for marketing and technological capabilities developed by Kuivalainen et al. (2010). Regarding dynamic capabilities, the measure consisted of 21 statement and was developed by Pavlou and El Sawy (2011).

In relation to characteristics of design elements, features that have been theoretically recognized to enable development of capabilities were selected, namely degree of flexibility of organizational structure, success of strategy implementation and maturity of business processes. The degree of flexibility is assessed through the level of centralization, formalization and specialization, the main elements and dimension of organizational structure. Higher level of flexibility implies lower level of centralization, formalization and specialization. Measure of flexibility consisted of 13 statements (3 formalization, 7 centralization, 3 specialization) and was developed by Olson et al. (2005).

Successful implementation of strategy implies a recognition and understanding of strategy and strategic process inside organization. It is characterized with clear definition of responsibilities and powers, employee involvement in strategy development, strategy outline in the operating plan system, implementation of a pilot program prior to implementation, and upgrading and improvement of the strategy if needed during the implementation process. Measure used to assess critical factors of successful strategy implementation consisted of 7 statements and was developed by Andrews et al. (2009).
The maturity of business processes implies the degree of process orientation in organization, i.e. the degree to which business processes are rooted within the organization and contribute to its

overall functioning. It was assessed through three different aspects: existence of process view inside organization, relation of business processes and workplace and process management and system of process measurement. Measure consisted of 11 statements and was developed by McCormack (2001).

All of the measures, except the measure for specialization, showed high internal consistency and Cronbach alpha coefficient above cut value of 0,7 (Feldt and Kim, 2008). Specialization exhibited Cronbach alpha value of ,567, and in spite of several interventions, it was not possible to increase the level of internal consistency so questions related to specialization were excluded from further analysis.

4 Research results

Table 3 present descriptive data on the mean values and standard deviation of analyzed variables.

Table 3 Descriptive analysis of analyzed variables

Variable	N	Mean	Standard deviation
Dynamic capabilities	113	3,4201	,69562
Sensing capability	113	3,6327	,71735
Learning capability	113	3,3965	,77089
Integrating capability	113	3,2655	,78805
Coordinating capability	113	3,3858	,78090
Operational capabilities	113	3,7512	,59210
Production capability	113	3,6792	,78966
Marketing capability	113	4,0147	,55744
Technological capability	113	3,5597	,71047
Formalization	113	3,0295	,88703
Centralization	113	3,0771	,73739
Flexibility of organizational structure	113	3,1742	,53032
Strategy implementation	113	3,3805	,80260
Business process maturity	113	3,4385	,75263

Source: authors calculations

When looking at the mean values results indicate analyzed organization to have significantly developed operational capabilities ($\bar{x}$ = 3.7512) with marketing capabilities being the most developed ones ($\bar{x}$ = 4.0147). Dynamic capabilities are somewhat less developed than operational capabilities ($\bar{x}$ = 3.4201), with sensing capability as the most developed one ($\bar{x}$ = 3.6327). As other forms of dynamic capabilities are a bit less developed, results imply analyzed organizations have recognized the need to seek and observe the environment for new possibilities, monitor and forecast possible changes, but still need to developed internal mechanism and routines to learn, integrate and coordinate new capabilities in the existing organizational framework. When it comes to mean values of variables related to organizational design, results indicate organizations are moderately formalized ($\bar{x}$ =3,0295) and centralized ($\bar{x}$ =3,0771) which leads to moderate flexibility of organizational structure ($\bar{x}$ =3,1742). In addition, mean value for strategy implementation ($\bar{x}$ =3,3805) implies organizations are in average successful in implementation of their strategy, and regarding process maturity results indicate significant process orientation and maturity ($\bar{x}$ =3,4385).

To test the connection between elements of organizational design and capabilities a correlation analysis was done. As table 4 indicates flexibility of organizational structure is connected with operational capabilities. The correlation is negative (r=-0,327, p<0,01), but it should be taken into account that flexibility of organizational structure is measured negatively as decrease in centralization and formalization leads to increase in flexibility. In other words, there is a positive correlation between increase in level of flexibility (decrease in centralization and formalization) and increase in level of production capabilities (r = -0,359, p <0.01), technological capabilities (r = -0.272, p <0.01), but also the level of marketing capabilities, although this correlation is somewhat lower (r = -0.187) and at a significance level of 5%.

Table 4 Results of correlation analysis with regard to operational capabilities

Variable		Production capabilities	Marketing capabilities	Technological capabilities	Operational capabilities
Flexibility of org. structure	Pearson Correlation	-,359**	-,187*	-,272**	-,327**
	Sig. (2-tailed)	,000	,048	,004	,000
Strategy implementation	Pearson Correlation	,418**	,497**	,388**	,497**
	Sig. (2-tailed)	,000	,000	,000	,000
Business process maturity	Pearson Correlation	,593**	,668**	,464**	,659**
	Sig. (2-tailed)	,000	,000	,000	,000

** p<0,01, * p<0,05
Source: authors calculations

Successful strategy implementation is positively connected with operational capabilities (r=0,497, p<0,01), with strongest connection being with marketing capabilities (r=0,497, p<0,01). Business process maturity also shows positive connection with operational capabilities (r=0,659, p<0,01), and the strongest connection being also with marketing capabilities(r=0,668, p<0,01). Reason for this higher connection is probably in fact that processes are the main carriers of activities inside organizations, they integrate and coordinate organizational resources and activities, and also present carriers of value from organization to the market.

As opposed to operational capabilities, as table 5 shows, degree of flexibility of organizational structure is connected to a greater extent with dynamic capabilities (r=-0,454, p<0,01).

Table 5 Results of correlation analysis with regard to dynamic capabilities

Variable		Sensing	Learning	Integrating	Coordinating	Dynamic capabilities
Flexibility of org. structure	Pearson Correlation	-,337**	-,407**	-,463**	-,440**	-,454**
	Sig. (2-tailed)	,000	,000	,000	,000	,000
Strategy implementation	Pearson Correlation	,603**	,553**	,526**	,572**	,618**
	Sig. (2-tailed)	,000	,000	,000	,000	,000
Business process maturity	Pearson Correlation	,712**	,694**	,678**	,695**	,763**
	Sig. (2-tailed)	,000	,000	,000	,000	,000

** p<0,01
Source: authors calculations

The reason for this can be found in nature of dynamic capabilities as they are oriented towards change and constant reconfiguration, and organizational structure that is flexible and easy to change will also enable easier development and performance of dynamic capabilities. The most higher correlation is between flexibility and dynamic capability of integrating (r = -0.463, p <0.01) and coordinating (r = -0.440, p <0.01). In addition, both, successful strategy implementation (r=0,618, p<0,01) and process maturity (r=0,763. P<0,01) show statistically significant positive connection with overall measure of dynamic capabilities and different forms of dynamic capabilities. Based on the presented results that indicate positive connection between strategy implementation, flexibility of organizational structure, business process maturity and both operational and dynamic capabilities, it is possible to conclude that organizational design has an important role in evolution and development of organizational capabilities.

Discussion and conclusion

Organizational design and its element have been recognized to have an important role in the process of developing organizational capabilities. Researchers recognize design elements of strategy, structure and process to have characteristics that can influence development of capabilities and ultimately through them to have an effect on organizational performance. These "hard" organizational variables provide a framework of action, coordination and integration of resources, and direct the behavior of organizational members towards the development of capabilities. To test the proposed theoretical concepts, the goal of this paper was to test the connection among strategy, structure and process and both operational and dynamic organizational capabilities. Basic assumption was that organizations characterized by higher level of flexibility, successful strategy implementation and maturity of business process will also have higher levels of different organizational capabilities. Results of an empirical research provide support for this relation, indicating that it is possible to purposefully design organizational elements to enable the development of both operational and dynamic capabilities.

Organizational design characteristics determine the ability of an organization to effectively utilize existing resources and shape capabilities in a way that responds efficiently to the environment and enables the implementation of a company's strategy. Development of operational and dynamic capabilities is under the influence of top management team decisions and their abilities, but are also the result of the impact of organizational processes, strategies and structures created by organization in order to better manage its activities. Strategy, structure and processes define the underlying framework and basis for developing and shaping capabilities. The strategy, formed on existing resources and their potential for value creation, defines potential organizational capabilities and ways of developing them, while the structure and processes provide basic mechanisms that limit or facilitate development of capabilities. To provide additional insight and mechanism in this relation among design and capabilities, future research should take into consideration more wider number of organizational design elements and their features, such as culture, informal networks etc. Moreover, empirical research should be done on a larger, more heterogeneous sample, and even consider longitudinal analysis to capture the process of development and change in both operational and dynamic capabilities.

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Recruitment through the use of corporate websites and social media – a case study: Association of Public Transport Companies in the Czech Republic

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Abstract: *In recent years, the use of corporate websites and social media to recruit potential job applicants have been playing an important role in HR practises. It is also evident that corporate websites and social media sites are considered as one of the key tools for attracting and selecting job seekers. The study is focused on online recruitment of the companies which are members of Czech Association of Public Transport Companies. Hiring employees at the beginning of 2018 was not easy in the Czech Republic because there was very low unemployment. The driver was among the first position in-demand. The research aim was to determine how the selected companies use the internet for recruitment activities. The paper reports the findings from the survey focused on evaluation of 19 corporate websites and social media sites in 2018. It was also used the Spearman correlation coefficient to determine whether there was a correlation between the level of e-rucruitment and the level of company size and between the level of e-rucruitment and the level of company profit. Findings of the study are useful for an improvement of company's communication and their recruitment process on the Internet and for an increase of the attractiveness of companies for people who are looking for their future employer.*

Keywords: *recruitment, corporate websites, recruitment websites, social media, job seekers*

JEL codes: *M1, M31*

Introduction

The development of the Internet has brought a number of innovations to a variety of human activities (Janouch, 2014), also influencing the development of personnel marketing. The arrival of new generations of workers (Generations Y and Z) has made the use of the Internet a necessity for HR managers. The Internet is currently one of the primary communication channels used in recruiting new employees.

The low unemployment rate in the Czech Republic in 2017 and 2018 has resulted in a lack of employees in almost all industries. In the transportation industry too, recruitment activities have gained in importance and it can be said that the job of a professional driver is among the most difficult to fill. Due to Generation Y joining the labor market and also given the high availability of Internet access in our households, online recruitment represents a new communication channel in the external personnel marketing of companies. The presented study focuses specifically on the use of online tools for the purpose of external personnel marketing in the selected segment of companies. This segment consists of members of the Association of Public Transport Companies in the Czech Republic, i.e., a group of legal entities that provide municipal mass transit services in the Czech Republic. The objective of the study is to analyze the current activities of these companies in the said area and bring forth suggestions that would lead to the development of personnel marketing as well the companies' practical policies.

1 Theoretical background

Corporate recruitment websites (in the Czech Republic also known as career websites) allow companies to provide prospective applicants with both job descriptions and other information about the organization. We argue that the corporate website and the attached recruitment site should be the starting point in attracting new talent, specifically talented Millennials (Egerová, Eger, 2017). The growing significance of corporate websites in the field of talent recruitment has been proved by many surveys (Llopis, Gonzales and Gasco, 2010; Mauer and Cook, 2011; CIPD, 2015, Egerová, 2016). Current company websites and social media give companies a greater opportunity to

provide content that matters to job seekers (Cober, Brown and Levy, 2004). Social media may also play a key role in the recruitment process in terms of branding the organization to potential employees (Sivertzen, Nilsen, Olafsen, 2013). Attracting potential candidates is an important issue in the recruitment process.

At this time, recruitment activities are especially important in the transportation industry. Due to the lack of employees, it is an industry with a high amount of risk involved. Such are the findings of the annual survey by ManpowerGroup (2016), according to which the job of a driver is the third most difficult to fill in the Czech Republic (it came in sixth in 2015) (ManpowerGroup, 2015).

2 Case Study

The conducted study is focused on online recruitment of the companies which are members of Czech Association of Public Transport Companies. The analysis of online recruitment was carried out for the Association of Public Transport Companies in the Czech Republic, i.e., the 19 regular members associated therein. The research uses the method of heuristic evaluation, which is suitable for testing websites. The evaluation was carried out by two independent experts and the analysis of the websites by both experts was conducted in the same time period, i.e., at the beginning of 2018. Other relevant data for the purpose of comparing companies was gained from publicly accessible sources, see further in the article.

Research question: What is the level of online marketing focusing on recruitment in public transport companies in the Czech Republic?

H1: There is a correlation between the size of the company and the quality of its online marketing.

This hypothesis is based on the assumption that large companies have higher-quality HR and marketing departments that deal with the lack of qualified staff, for which they currently make adequate use of online marketing (see also Eger, Egerová, 2017).

H2: There is a correlation between the level of online marketing in public transport companies in the Czech Republic and their financial performance.

We assume that a company with a positive financial performance can invest more resources in marketing and marketing-related HR activities. E.g. evidence about relation between marketing on Internet and performance of some companies in selected areas brings review by Alalwan et al. (2017). For instance, it was found that higher Internet usage increased the impact it would have an organizations in terms of increased revenue, enhances relationships, and reductions in cost and time. (Tajudeen, Jaafar, Ainin (2018).

2.1 Sample of Companies

The Association of Public Transport Companies, established in 1991, is an interest group consisting of legal entities. Its regular members include the 19 largest public transport companies that provide mass transit services in the Czech Republic (The Association of Public Transport Companies in the Czech Republic, 2018). Namely, these companies include public transport companies operating in the cities of Brno, České Budějovice, Děčín, Hradec Králové, Chomutov and Jirkov, Jihlava, Liberec and Jablonec nad Nisou, Mariánské Lázně, Most and Litvínov, Olomouc, Opava, Ostrava, Pardubice, Pilsen, Prague, Teplice, Ústí nad Labem, Zlín-Otrokovice, and Karlovy Vary.

3 Results

3.1 The comparison of public transport companies

The public transport companies' annual reports and financial statements were analyzed, based on which they were compared in terms of their size, i.e., the size of their fleet, the number of employees, and also according to their financial performance. The analysis utilized the latest data available, i.e., those from 2016. In terms of the number of employees, the research looked at data for the years 2015 and 2016 with the objective of comparing the year-on-year changes in the number of staff.

The largest public transport companies are obviously those that provide mass transit services in the largest cities in the Czech Republic, i.e., Prague, Brno, Ostrava and Pilsen. They have the

largest number of vehicles (Table 2) as well as employees (Table 3). Public transport services are provided primarily using buses (all 19 members) and trolleybuses (14 members). Trams are used by 7 members and an underground railroad (Metro) is operated only in Prague.

Table 1 The fleets of public transport companies

Public transport company (city)	**The number of vehicles (as of December 31, 2016)**				
	Trams	Buses	Trolleybuses	Metro	Total
Brno	327	302	57	x	686
České Budějovice	x	83	57	x	140
Děčín	x	194	36	x	230
Hradec Králové	x	91	31	x	122
Chomutov and Jirkov	x	30	16	x	46
Jihlava	x	31	29	x	60
Liberec and Jablonec n. Nisou	67	133	x	x	200
Mariánské Lázně	x	5	8	x	13
Most and Litvínov	49	89	x	x	138
Olomouc	68	77	x	x	145
Opava	x	34	33	x	67
Ostrava	261	288	67	x	616
Pardubice	x	77	57	x	134
Pilsen	114	128	90	x	332
Prague	826	1,179	x	730	3,735
Teplice	x	366	29	x	395
Ústí nad Labem	x	79	77	x	156
Zlín	x	37	57	x	94
Karlovy Vary	x	91	x	x	91

Source: author's own elaboration, 2018; (data on DPMB, DPMCB, DPMD, DPMHK, DPCHJ, DPMJb, DPMLJb, Justice.cz (2018b, c, d, f), DPMOSTb, DPMOb, DPOb, DPMP, PMDPc, DPPb, Arriva, DPMULb, Seznam-autobusu.cz 2018)

The public transport companies were also compared in terms of the number of staff (Table 2). The reason for that is a possible effect on a potential difference between companies when it comes to recruitment activities. The largest increase in the number of staff between 2015 and 2016 was that in the public transport company in Ostrava, followed by Prague, Teplice and Pilsen. The biggest downward trend was seen in the cities of Děčín, followed by Most, Litvínov and Ústí nad Labem.

Table 2 The number of staff in public transport companies

Public transport company (city)	The number of staff		
	2015	2016	Difference
Brno	2,695	2,700	+5
České Budějovice	394	401	+7
Děčín	154	136	-18
Hradec Králové	382	381	-1
Chomutov and Jirkov	150	152	+2
Jihlava	169	172	+3
Liberec and Jablonec n. Nisou	395	396	+1
Mariánské Lázně	29	30	+1
Most and Litvínov	408	400	-8
Olomouc	439	439	0
Opava	183	185	+2
Ostrava	1,901	1,933	+32
Pardubice	397	402	+5
Pilsen	790	816	+26
Prague	10,910	10,936	+26
Teplice	519	547	+28
Ústí nad Labem	469	462	-7
Zlín	325	321	-4
Karlovy Vary	255	250	-5

Source: author's own elaboration, 2018; (data on DPMB, DPMCB, DPMD, DPMHK, DPCHJ, DPMJb, DPMLJb, Justice.cz (2018b, c, d, f), DPMOSTb, DPMOb, DPOb, DPMP, PMDPc, DPPb, Arriva, DPMULb, 2018)

Table 3 shows the financial results after taxes of the individual public transport companies in 2016. As can be seen, not all the companies perform well. Six of them were in the red, specifically the public transport companies in Děčín, Hradec Králové, Chomutov and Jirkov, Liberec and Jablonec n. Nisou, Mariánské Lázně, and Most and Litvínov. Based on this indicator, the best financial performance was that of the Prague Public Transit Company (CZK 1,835,451 thousand), which represents a substantial difference compared to other public transport companies. However, it needs to be said that the primary goal of these companies, often run with a significant participation of the founder, i.e., the municipality, is not to achieve maximum profit, but to ensure the provision of mass transit services.

Table 3 The financial results of the public transport companies

Public transport company (city)	Financial results after taxes in 2016 (in K CZK)
Brno	127,876
České Budějovice	5,843
Děčín	-12,434
Hradec Králové	-15
Chomutov and Jirkov	-1,735
Jihlava	8,100
Liberec and Jablonec n. Nisou	-17,472
Mariánské Lázně	-4,453
Most and Litvínov	-8,171
Olomouc	3,370
Opava	4,947
Ostrava	32,737
Pardubice	1,633
Pilsen	71,821
Prague	1,835,451
Teplice	38,412
Ústí nad Labem	195
Zlín	5,512
Karlovy Vary	3,314

Source: author's own elaboration, 2018; (data on DPMB, DPMCB, DPMD, DPMHK, DPCHJ, DPMJb, DPMLJb, Justice.cz (2018a, e, d), DPMOSTb, DPMOb, DPMP, PMDPc, DPPb, DPMULb, 2018)

3.2 Heuristic evaluation

Heuristic evaluation is one of the most frequently used methods for testing websites. It is based on comparing specific websites using preset usability principles, so-called heuristics. The general principles were laid out by Nielsen (1995), the creator of heuristic evaluation. (Snozová, 2013) It is useful to modify these heuristics according to the specific topic.

The evaluation principles for the chosen topic are based on the research by Egerová, Eger (2017) and also on the theoretical information dealt with in the previous chapters. All heuristics are of an interrogative nature. They include a total of five topics, each containing several questions (listed here are only the basic topics = evaluation areas):

- Evaluation of the company's website
- General information about the organization on its website
- Job vacancies on the website
- Company profiles on selected social media sites
- Activity on a selected job site and at the Labor Office

3.3 Pre-research

The pre-research was carried out in four public transport companies. Its goal was to verify the set heuristics and whether or not they were comprehensible and unambiguous. Also ascertained was how much time the analysis would require (approx. 70 minutes per company). The pre-research results were subsequently consulted by experts, which led to the redesign of this part of the research and the way certain items would be recorded.

3.4 The output of the heuristic evaluation

The heuristic testing was carried out by both experts at the end of February 2018. Using the set methodology, companies received points for each item of the test. Following the data collection stage, the two experts met with the aim of explaining the reasons and clarifying the items in which their evaluation differed. Subsequently, the table with the final evaluation was compiled.

A major part of the differences between the two evaluations was due to the monitoring of job advertisements at the Labor Office. As the search for a job posting on the Labor Office website is set to sensitive, it requires the exact phrase to be typed in for the search to be successful. This fact

is evaluated very critically by the experts, particularly because this employment website targets a wide target group (different age groups, IT skills, etc.).

The experts' evaluation also differed when it came to the item dealing with the contact details of the persons responsible for job advertisements on the websites. While one of the experts evaluated whether there was any contact listed, the other focused on whether the website provided personalized contact details. As personalization increases trustworthiness, the final evaluation included this parameter.

Further differences arose with heuristics related to social media sites. One of the experts was tasked with evaluating only those profiles on social media sites that are linked to the companies' websites (and are part of the methodology). If a company's website did not include a link to its social media profile, the other expert looked for it directly on the social media sites. As presentations of companies on social media are becoming increasingly more popular, it should be the companies' goal to have profiles that can easily be found. A link to a corporate Facebook profile was found on the websites of 13 out of 18 companies, for YouTube it was 8 out of 10 companies, 3 out of 5 for Instagram, and only 1 out of 3 companies for LinkedIn.

Table 4 Overall evaluation

Order	Public transport company (city)	Total No. of points
1	Prague	27
2	Brno	26.5
3	Pilsen	26
4	Ostrava	24
5	České Budějovice	22.5
6	Hradec Králové	20
6	Olomouc	20
7	Ústí nad Labem	19.5
8	Liberec and Jablonec	18
8	Pardubice	18
9	Most and Litvínov	17
10	Karlovy Vary	15.5
11	Mariánské Lázně	13.5
12	Opava	13
13	Teplice	12
14	Jihlava	11.5
15	Chomutov and Jirkov	11
16	Děčín	10.5
16	Zlín	10.5

Source: author's own elaboration, 2018

At the experts' meeting, it was also agreed that the evaluation of the question regarding website design and the contact details listed in job ads would be expanded. In addition to 1 and 0 points (representing yes/no), the option of assigning 0.5 points was added. This was caused by the ambiguity in some companies, where it was difficult to choose between the options yes/no. The overall evaluation includes the points collected in all five areas in which the individual questions were assessed. Table 4 shows the final results listed from the highest to the lowest number of points collected. The maximum number of points, given the methodology used, was 34.

Having received 27 points, The Prague Public Transit Company took first place in the overall evaluation, only 0.5 points ahead of the runner-up, The Brno Public Transit Company. Third and fourth place went to companies providing mass transit services in large cities, i.e., Pilsen (26 points) and Ostrava (24 points). The lowest score, 10.5 points, was that of two public transport companies: those in Děčín and Zlín.

Below is a summary of selected outputs in the individual evaluation areas:

Table 5 Evaluation of the public transport companies' websites

Item	Evaluation of the companies' websites				
	Usability	Up-to-date information	Functional links	Responsiveness	Language versions
Number	13	18	19	11	10

Source: author's own elaboration, 2018

Table 6 Job vacancies on the websites of public transport companies

Item	Job vacancies on the website						
	Career section	Career section easy to find	Job vacancies are up-to-date	Job description for the position advertised	Fringe benefits	Contact for HR Dept.	Possibility to respond to a job ad through the website
Number	18	14	13	15	16	8	5

Source: author's own elaboration, 2018

The career section was present on the websites of all companies with the exception of one, and on 14 of them it was easy to find. On the websites of 13 companies, the job ads were up-to-date. The next three items focused on the contents of the job advertisement, with the job description being available on the websites of 15 companies and information on the fringe benefits on the websites of a total of 16 companies. Eight companies provided personalized contact details of the person responsible, i.e., an employee in the Personnel/HR Department.

Table 7 Company profiles of public transport companies on selected social media sites

Item	Company profiles on selected social media sites			
	Facebook profile	FB profile up-to-date	Job vacancies on FB	YouTube profile
Number	19	14	8	10
Item	YouTube profile up-to-date	Job vacancies on YouTube	Instagram profile	LinkedIn profile
Number	4	2	5	3

Source: author's own elaboration, 2018

The evaluation of utilizing social media sites is shown in Table 7. The public transport sector is most active on Facebook (19 companies). This is also underscored by the fact that Facebook is the most widely used social media site in the Czech Republic. 14 companies have an up-to-date Facebook profile, eight of which use this social media site also to attract new employees. Ten companies from the analyzed sample have a YouTube profile established. Only four of these keep their profiles up-to-date and only two companies use this social media site to present their job vacancies. As expected, this sector does not use Instagram very much, and the career social media site LinkedIn is utilized only by three companies.

The last topic focused on the companies' activity on recruitment websites and at the Labor Office. For the purpose of this research study, only the largest recruitment portal, i.e., Jobs.cz, was analyzed. Most companies (15) advertise their job openings on the Labor Office website, which is free of charge, rather than the paid server Jobs.cz, where there were job advertisements posted by only two public transport companies.

3.5 Evaluating the correlation between online marketing and selected characteristics of the companies

As the top spots in the overall evaluation were taken by companies providing transport services in large cities, it can be inferred that there is a connection between the size of the company and the

quality of its online marketing. Also analyzed was the correlation between the total number of points received for marketing and the company's profitability. Spearman's correlation coefficient was used to ascertain any mutual correlation between the variables (Chráska, 2007).

The size of a company is represented by the number of staff and fleet size indicator. Profitability is expressed using the companies' 2016 financial results after taxes. The range of intervals for companies was set with respect to the data collected. A recommendation for calculating Spearman's coefficient that no more than 4 items can be assigned the same number of points was taken into consideration. In terms of the fleet size indicator, this indicator did not differentiate between different types of vehicles, but only their total number.

Table 8 The correlation between company size and online marketing

Public transport company (city)	**Points for online marketing**	**Rank based on the No. of points for marketing**	**Points for size**	**Rank based on the No. of points for size**	**d**	**d2**
Prague	27	19	10	18	1	1
Brno	26.5	18	10	18	0	0
Pilsen	26	17	8	15.5	1.5	2.25
Ostrava	24	16	10	18	-2	4
České Budějovice	22.5	15	5	11.5	3.5	12.25
Hradec Králové	20	13.5	3	7	6.5	42.25
Olomouc	20	13.5	5	11.5	2	4
Ústí nad Labem	19.5	12	6	14	-2	4
Liberec and Jablonec	18	10.5	5	11.5	-1	1
Pardubice	18	10.5	5	11.5	-1	1
Most and Litvínov	17	9	4	9	0	0
Karlovy Vary	15.5	8	2	5	3	9
Mariánské Lázně	13.5	7	0	1	6	36
Opava	13	6	1	3	3	9
Teplice	12	5	8	15.5	-10.5	110.25
Jihlava	11.5	4	1	3	1	1
Chomutov and Jirkov	11	3	1	3	0	0
Děčín	10.5	1.5	3	7	-5.5	30.25
Zlín	10.5	1.5	3	7	-5.5	30.25
					∑ d2	**297.5**
rs = 0.74						

Source: author's own elaboration, 2018

As is clearly shown in Table 8, Spearman's coefficient of 0.74 represents a fairly high correlation between the quality of online marketing in selected companies and their size. Hypothesis H1 is thus confirmed.

A similar conclusion was made for the financial results after taxes of selected companies. In this case, Spearman's coefficient proved that there is only medium correlation between the variables (rs = 0,48). However, we need to reiterate what has been said before, i.e., that profitability may not be a priority for the owner and founder of a public transport company. Hypothesis H2 is thus only partially confirmed.

Conclusions

This case study documents the use of online communication by public transport companies in the Czech Republic for the purpose of recruitment at a time of a shortage of qualified workers on the labor market. The heuristic evaluation of websites of selected companies and their communication on social media sites has shown the differences in online marketing of these companies. The outputs improve our understanding of the implementation of online marketing for the purpose of brand building by the employer, specifically for recruitment (cf. Eger, Mičík, Řehoř, 2018). They can also be used as a benchmark for improving the quality of online marketing communication for the given purpose. The study has shown a positive correlation between the size of the company, its profitability and the level of its marketing communication in the researched area.

The limitation of this research lies in the fact that it is specifically focused on public transport companies in the context of the Czech Republic in early 2018. It can be compared with a similar study focusing on AutoSAP (Automotive Industry Association) (Egerová, Eger, 2017). Further development as a result of ICT and online marketing advancement as well as labor market requirements can be expected.

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On the Context of Application of Abductive Reasoning for Strategic Cases Solution

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Abstract: *Dealing with methodology for practical use in corporate management is a double-edged issue. A reader who only quickly skims such a paper can easily categorize it as useless philosophy. My paper "On abductive reasoning for strategic cases solution," published last year, attracted the attention of readers who were open to new approaches and did not shrink from contemplating the procedures outlined in it. Encouraged by the praise of my colleagues and participants at the ISCOBEMM conference, I decided to show how deep the rabbit hole goes and developed the strictly methodological approach into a practical application in the form of a case study.*

However, the lack of research into the topic and its significant complexity requires the proposed application of abductive reasoning to strategic cases solution to be put into a certain context. From the beginning, the three methods were meant to be used in the framework of the stakeholder approach, which served as the core for a new methodology of strategic management, enriched by game theory. The aim of this paper, therefore, is to introduce the new methodology of strategic management based on the stakeholder approach with a new structuring of the entrepreneurial environment in accordance with game theory. It also introduces schemes of handling decision-making situations with the solver having access to information typical for corporate practice, in which the proposed abductive reasoning application is ideal to differentiate the cooperative and competitive aspect of the relationship.

Keywords: *Strategic management, stakeholders, game theory, abductive reasoning, pragmatism.*

JEL codes: *B41, D23, D43, D74, D81*

Introduction

A company without a strategy can be seen as a subject vulnerable to the influences of the entrepreneurial environment and the will of the competitors. Not knowing what one wants to achieve means not knowing which way to take to ensure the achievement of a goal. A strategy is thus the main value of each company, which simultaneously also determines all the subordinate values that a company is able to create. Even though the essential importance of strategy is universally accepted, the tools used for strategic management are often very much products of their times.

Using tools like SWOT or the Five Forces analysis in this day and age verges on disregarding the strategist's responsibility for the development of the company and its very survival. The conditions of the entrepreneurial environment have changed so significantly that they are not compatible with these two frequently used tools any more.

It is therefore necessary to create a new methodology, which would encompass the whole entrepreneurial environment (not just a part of it through the five forces) and simultaneously respect the specific conditions of individual companies, for which the relevant forces change depending on a number of various factors, including dynamics in time. At the same time it is desirable to abandon the conditions of certainty which SWOT – with all its factors in the dichotomies of strength-weakness, opportunity-threat – steers the strategist towards. On the contrary, the strategist should have the freedom to use the factors in a flexible and dynamic way, seeing opportunities and threats more like two sides of the same coin. The following text

introduces an approach which meets the requirements mentioned above. First, the stakeholder approach to strategy with a new way of structuring the entrepreneurial environment based on cooperative and competitive relationship with stakeholders and competitors is introduced. Application of game theory to decision-making situations which a strategist might encounter in real life is presented further in the text. To solve these situations, the strategist needs to possess often crucial, but explicitly unavailable, information, which can be obtained by using abductive reasoning.

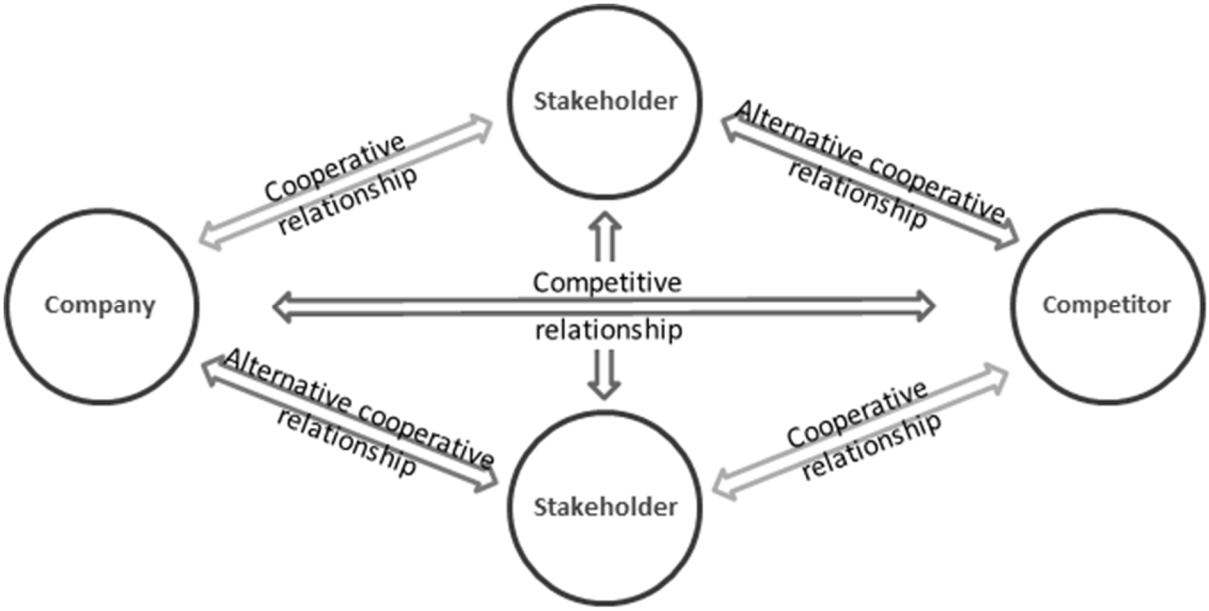
1 Stakeholder approach to strategy

Text Strategy is essentially one long causal chain. The strategy represents the long-term direction and scope of an organization through which an enterprise will benefit from a changing environment by organizing resources and capabilities to meet stakeholder expectations. It is a combination of direction and scope of the organization over a long period of time. This makes organization more advantageous by organizing resources within a changing environment to meet market needs and investor expectations. By devising a strategy, a company allows the – albeit variable, in the context of ever changing requirements – realization of causally connected activities with every sub-step having its own role[1]. (Johnson 2014, p. 4)

"Scientia potestas est" is also true in strategic management. A strategist cannot avoid dealing with strategic cases (whose essence will be delineated later in this paper), which is an activity that is expected to bring knowledge of all events relevant to the strategy; events, which are related to the player of strategic games in the form of individual interest groups – stakeholders (playing mostly cooperative games) and competitors (playing mostly antagonistic games). According to Freeman (2010), the applied stakeholder approach is about any group or individual who can affect or is affected by the achievement of the organization's objectives and the behavior of managers taken in response to these groups and individuals.

It is advisable to substitute this historical wide understanding with current narrow definition given by Blažek et al. (2004, p. 9): "Stakeholders are groups or individuals, who: possess something that the company does not; provide this possession as a stake in 'a game' because they want the company to use it, but at the same time they become dependent on the company operations, while simultaneously having the potential to be taken into account as a significant player by the company (i.e. they are important, indispensable, or threatening for the company)." Strategic management can be seen here as a game played by intelligent players with various interests, which determine the character of individual interactions.

Figure 1 Basic relations in cooperative and competitive relationships



Source: Author, based on Blažek (2016, pp. 50-55)

Shapiro (1989, pp. 125-137) applies game theory to an analysis of natural competitive interactions between competitors in his strategic conflict approach. The main task of a company is to find out

[1] It is, of course, important to also allow for deliberately confusing steps.

how to influence the behaviour and actions of the competition, which in turn allows it to influence the market environment. By influencing the market environment, companies acquire potential for increasing their profit. A company bases its success on creating a privileged position on the market (which is partially in accordance with Porter's Five Forces Model).

Information about competitors is not obtained with the aim of imitation. This is an important point when differentiating individual levels of management. Lampel et al. (2014, p. 16) see operations management and strategic management as the bases of the performance of the company and the primary goal of business; however, they function completely differently. Operational efficiency is about being able to do the same activities better than competitors.

On the other hand, strategic management, which is seen as strategic positioning, means doing activities that are different from competitors', or activities which are similar, but done in a different way. This opinion is in accordance with Drucker's (2015) understanding, and his famous "doing things right as opposed to doing the right things," as well as with the principle of the blue ocean strategy (Kim a Mauborgne 2005), both of which are also based on differentiating the company from the competitors.

Lampel et al. (2014, pp. 17-20) see differentiation as the very essence of competitive strategy. For the customer, this represents a unique mix of received values. In a strategy, therefore, individual activities, which are expected to lead to operational efficiency, are combined into a basis for creating and sustaining a competitive advantage. Competitors can easily imitate one activity (such as technology, a product feature, or sales procedure), but it is more difficult to copy a complex set of interconnected activities. Thus, a strategic position should be built on a system of activities, not on individual ones. These activities can be presented as key core competences – the deciding factors of success creating a competitive advantage, which can be categorized in the following basic groups:

- Excellent skills
- Excellent resources
- Excellent position

The overall strategy of a company can be divided into sub-strategies, or individual activities – Porter (1985, pp. 33-38) proposes using a generic value chain. In the model presented here, an "interlink" in the form of the first level of division according to stakeholders, whose interests need to be considered before creating the sub-strategies, enters this traditional understanding. Division by individual activities in the context of a specific company, such as marketing, human resources or finance, follow as the second level division. The first level division according to stakeholders anticipates the need to restructure the entrepreneurial environment.

Table 1 Entrepreneurial environment in the traditional approach and the stakeholder approach

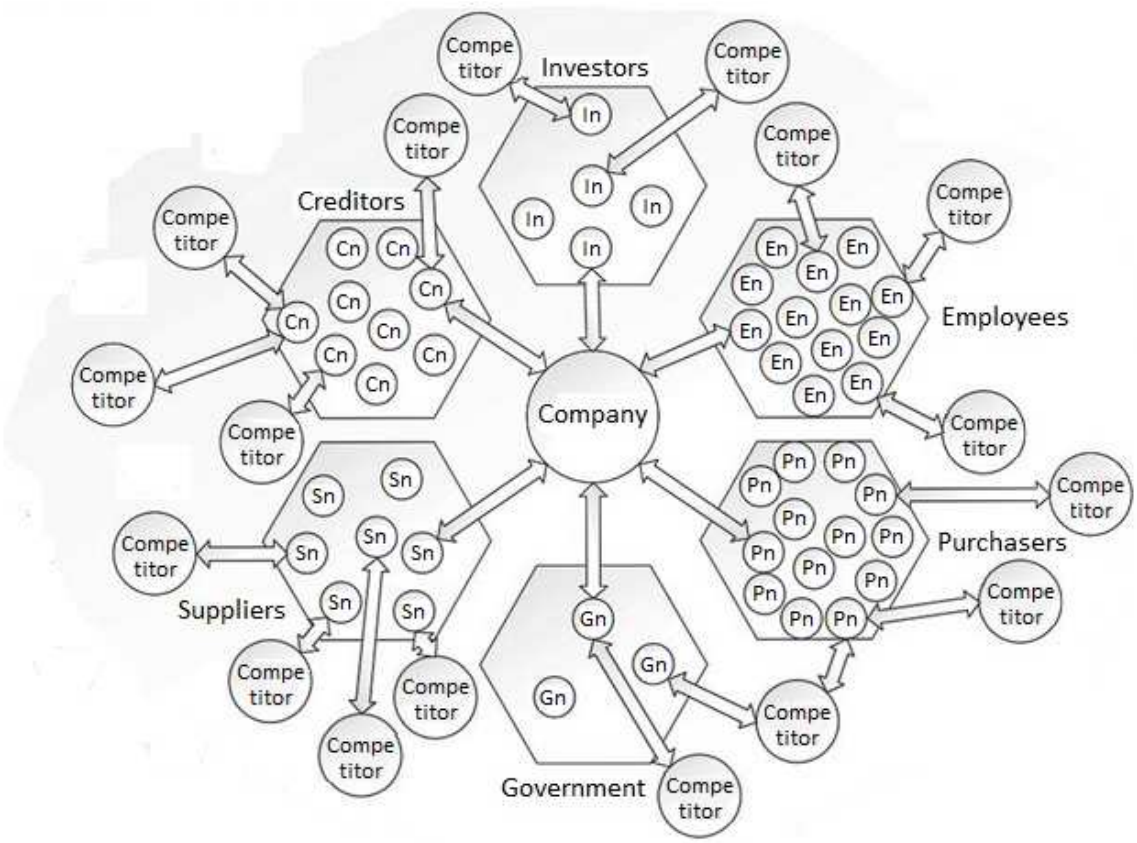
	Traditional approach	**Stakeholder approach**
Environment	Structuring the entrepreneurial environment through levels.	Structuring the entrepreneurial environment through markets.
Competition	Simplified (only on the product and services markets).	Complex (multidimensional according to markets).
Dynamics	Fixed relationships.	Relative roles.
Information	Prevalence of information from the products and services markets.	Careful consideration of information from individual markets based on their significance.

Source: Author, based on Cenek (2016, pp. 108-116)

These main differences between the concept of entrepreneurial environment presented here and the traditional models (especially Porter's Five Forces analysis) anticipate the need to concentrate on individual markets, in whose environments the company has to achieve victory through the quality of relationships it established, which represent its main value.

In the context of the individual markets, game theory can be used to find optimum strategy through player's decisions made in a specific situation, determined by cooperative and competitive relationships. The point is to maximise the payoff function depending on the rules of the game and on the extent to which the subjects are informed. Following this, a company has to create six sub-strategies for six sub-markets of stakeholders (investors, creditors, employees, purchasers, suppliers, government), which are subsequently integrated into the overall strategy of the whole company.

Figure 2 Structuring the entrepreneurial environment into six sub-markets



Source: Author

The success of each strategy and their form depends on the behaviour of the rival company toward the specific stakeholder. Both the stakeholder and the company decide whether and with whom to establish a relationship, attempting to achieve the most beneficial exchange of values. The players look for the most advantageous strategies and play strategic games together.

2 Game theory and optimum strategy

Game theory is concerned with modelling and solving decision-making situations in social systems; this includes all systems where various interests of people, groups of people, or organized systems collide. The nature of social systems excludes, to a certain extent, complete quantification, which is connected with game theory in its purely mathematical application. As prominent Czech developers of game theory Dlouhý and Fiala (2015, p. 5) point out: "*Mathematics clearly and unequivocally determines the conditions and rules of the game, thereby avoiding hidden premises and explaining the limitations of theory. Mathematics on its own is, however, not a sufficient tool. In some cases the analysis of conflict situations teeters at the edge of psychology, cognitive science, biology, or other disciplines. A combination of scientific fields usually brings a new impulse for further development of knowledge, which ensures that game theory remains an interesting and inspiring discipline*."

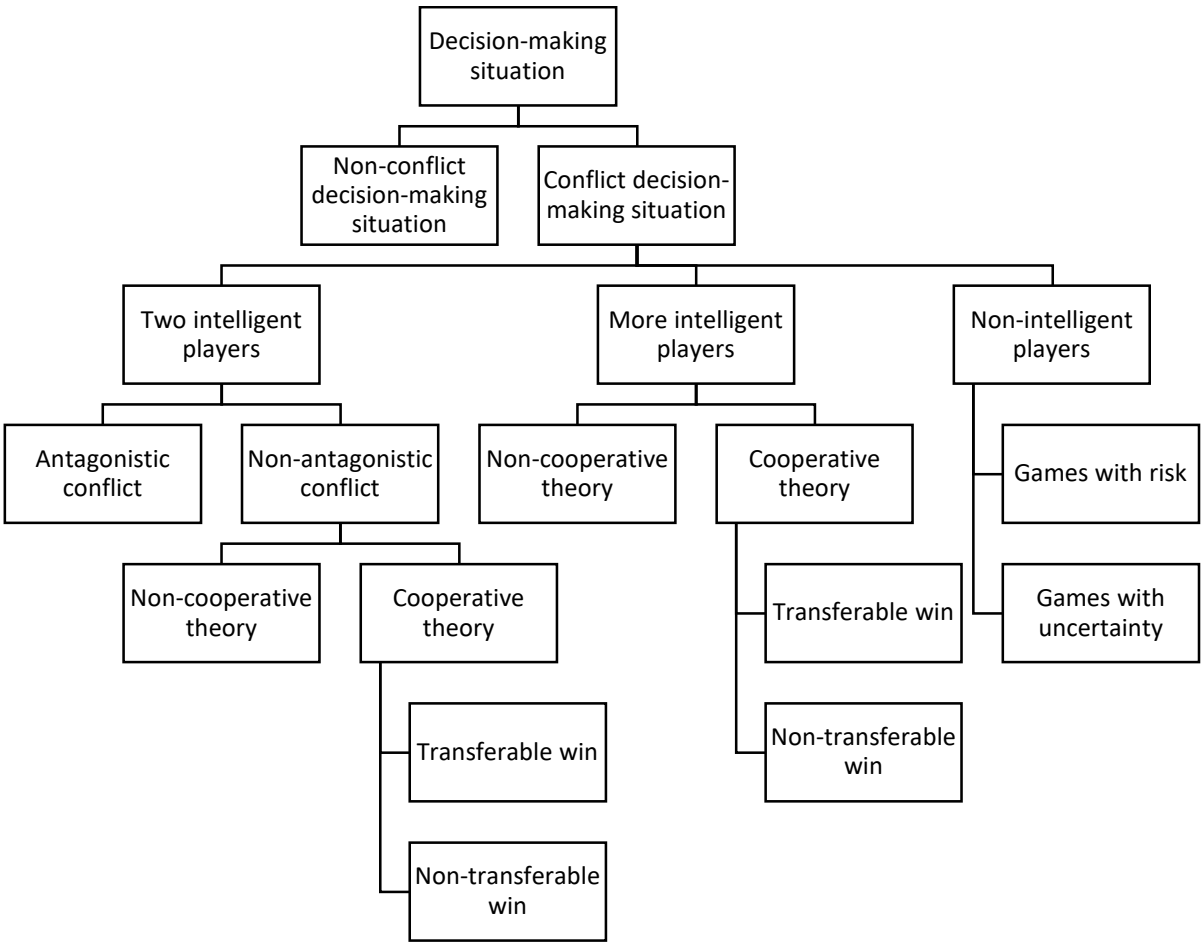
The main terms of game theory include player, game, play of the game, move, personal move, chance move, payoff and strategy (Volek 2010, pp. 2-3). A player is any participant in a decision-making situation. A game is a set of rules and conditions delineating possible alternatives of behaviour, sequence of the choices, and players' gain depending on their choices. In a purely mathematical sense, a game is a mathematical model of a decision-making situation. A play of the game is the realization of the rules and conditions given, i.e. of the game itself.

A move is a moment in a game when the player chooses one alternative from a set of available ones. Every play of the game consists of one move of each player or of a sequence of moves. A personal move relates to a rational player who chooses the one alternative. A chance move happens when a chance mechanism (defined in the rules of the game) determines the choice from the set of alternatives. A payoff is realized at the end of each play and depends on the rules of the

game and each player's choices. Payoffs can take various forms, from financial payoff to a player's subjective feeling of satisfaction. Payoff can be positive (win) or negative (loss). A strategy is the way in which the player decides in a decision-making situation.

A player is trying to find the optimum strategy in the form of the best possible solution from a set of available ones (Alchian 1950, pp. 211-221). "*Game theory studies ways of choosing a strategy (optimum strategy), which allows the participant in the decision-making situation to achieve the best effect – a win*." (Volek 2010, p. 3)

Table 2 Decision-making situations diagram



Source: Author, based on Volek (2010, p. 100)

Designing a strategy from the point of view of game theory anticipates practical application through a decision tree, where the player chooses an optimum strategy in the form of successive decisions (choices from alternatives) that lead to the maximization of the win.

Real corporate conditions are most similar to a finite n-player extensive form game. Real conflict situations demonstrate a dynamic character in the sequence of a higher number of decisions made in a specific order. A strategic game model in a normal form is not suitable to use in this context, as it is not able to cover this dynamic. An extensive form game model, on the other hand, reflects this dynamic and at the same time allows for the influence of chance factors (nature) and for the extent to which the players are informed about the process when determining the outcome of the decision-making situations. In the context of using game theory in corporate strategic management, ensuring that the player is informed is the crucial aspect of acquiring the imaginary bricks to build a sturdy wall of strategy.

3 Information in real corporate practice

Game theory is able to work with various levels of information, which does not have to be only complete. In the context of playing strategic games, information is the key value for potential influence on the whole entrepreneurial environment. However, players do not act in accordance

with the real situation; they act based only on the information they possess. Information can be used in the context of specific conditions as a segmentation criterion to sort:

- Situation as the absolute being = metalevel of reality not available to people (decision-maker knows everything about everything, including knowing itself)
- Complete information situation = 100% certainty = conditions of certainty
- Situation being solved = judgment based on probability = conditions of risk
- Situation not being solved = conditions of uncertainty

Table 3 Division of the levels of available information

SITUATION AS ABSOLUTE BEING	COMPLETE INFORMATION SITUATION	SITUATION BEING SOLVED	SITUATION NOT BEING SOLVED

Source: Author

In a complete information situation, the decision-maker knows everything about the strategic case. Although complete information mostly appears in hypothetical situations, it does not mean that there are no cases approaching complete information in corporate practice. If we take as an example the need to make a decision about purchasing new machinery, then it is possible to analyse the relevant market and, after a comparison based on the given criteria, make a decision in the conditions of certainty (a machine will ensure a certain performance at a certain price and at a certain level of power consumption). Nevertheless, this is not strategic decision-making, but a lower-level decision-making within a certain established and accepted strategy.

Strategic decision-making itself begins in conditions of uncertainty (or in the initial state of a situation not being solved) and the aim of strategic analysis (as a part of strategic management) is to transform these conditions of uncertainty into conditions of risk (outcome in the form of a situation being solved, approaching complete information)[2]. In this respect, it is necessary to differentiate:

- Situation – an individual event, limited by an assigned meaning in the context of the solution
- Situation space – a set of individual situations providing a strategic information value
- Strategic case – a set of chosen situation spaces with strategic significance
- Game space – a set of all situation spaces
- Strategic position – mutual placement of game participants (companies and stakeholders) in the game space from the perspective of space-time determination

For better understanding and a more detailed definition of the individual terms that will be used later, imagine a chessboard on which a company and its competitor are playing a game. They compete using pieces which represent their stakeholders. The squares of the board represent the game space (all the squares with all the possible moves), which comprises situation spaces (individual squares), which in turn comprise sub-situations.

The size of the game space depends on the accepted level of discernment. Similarly, strategic cases have a certain level of discernment, which anticipates the character of the solution and conditions (a very low level of discernment can achieve the conditons of certainty, although the benefit of such simplification for strategic management would be minimal).

The only relative certainty that one can at least partially rely on during the game are its given rules (such as legislation). Not even those, however, are 100% dependable; in an unguarded moment, the opponent can decide to cheat. Opponents do not share information about their moves; on the

[2] Risk can be measured, uncertainty cannot. Changes of outcomes are known for risk, but unknown for uncertainty. Risk is controllable, uncertainty uncontrollable. Probabilities are assigned for risk, not assigned for uncertainty. (Knight 2012)

contrary, they try to keep them secret and to realize misleading moves, while relying on the competitor's attempts to infer moves based on the information shared by necessity. Some moves can then be taken with the aim to deliberately confuse the opponents or to lead them to a wrong conclusion.

Cooperative and competitive character[3] of the relationship are two sides of the same coin, with one being dominant over the other. Competitors essentially harm the company, but their presence on the market can also be desirable (in the case of duopoly, for example) and it can serve as a deterrent against "bigger evil" in the form of new entrants, which would destabilize the established competition. In the case of stakeholders, cooperation also represents just the dominant aspect of the relationship (consider the interest of an employee to receive the highest possible reward for lowest possible amount of work versus the interest of a company to receive as much work as possible for as low a reward as possible).

The application of game theory, and maybe even narrowly focused war strategies in the form of antagonistic conflict, represents a specific case in which, especially in the environment of saturated markets, it is necessary to fight the competitor for relationships (a zero-sum game is played against the competitor, and a non-zero-sum game is played with the stakeholders). However, also in this case it is important to be aware of all the strategically relevant information about the stakeholders.

Conclusions

The entrepreneurial environment does not equal only the purchaser market, as traditional tools for strategic management often state in an attempt at simplification. On the contrary, the growing complexity of the entrepreneurial environment calls for increased complexity of the tools that are used to explain it. The new methodology of strategic management based on stakeholder approach and game theory, which is presented in this paper, possesses this complexity and gives the solver of strategic cases room for development of strategies based on specific games played with stakeholders as well as with competitors.

All this takes place in the environment of individual markets where company's stakeholders operate. The company competes with its rivals for the best relationships, using exchange of values as a means of competition.

The information available to the player is a key factor of success. A game of chess is often used as an analogy (although chess is not a non-zero-sum game) to show that the success of a player depends on anticipating the opponent's moves. It is a perfect situation for the use of abductive reasoning, which will be presented, together with a case study, in a follow-up paper called "On Application of Abductive Reasoning for Strategic Cases Solution."

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[3] A company can strike a "mortal blow" to its rival in one move. For that, however, it needs to gain a stakeholder, who it does not have yet. A cooperative relationship thus determines success in a competitive relationship.

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On Application of Abductive Reasoning for Strategic Cases Solution

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Abstract: *In corporate strategic management, the main value is knowing what, how, and when other players, who compete for a larger market share or better relationships with stakeholders or the company, are planning to do; this means solving strategic cases. The aim of this paper is to propose a procedure for solving strategic cases in the form of systematic rational inference of current and future moves of strategically relevant subjects in the form of a reconstruction of causal chains based on evaluation of facts and experimentation.*

The methodology proposed here is a part of a new method of corporate strategic management using a stakeholder approach based on game theory (which is being developed at the Faculty of Economics and Administration of Masaryk University) and use of abductive reasoning and Charles Sanders Peirce's trichotomy of methods.

Solvers of strategic cases find themselves in situations which need to be clarified, while only possessing partial information from the whole chain of events. It is necessary to widen our knowledge through inference to include an explanation of how the situation happened and a prediction of future events, which provide the desired focus of strategic management on the future.

Keywords: *Strategic management, abductive reasoning, inference, logic, pragmatism.*

JEL codes: *B41, D23, D43, D74, D81*

Introduction

Being able to make the right decision is one of the basic pillars of a successful business. Every company encounters a large number of more or less significant decisions, which determine, to various degrees, further development of the organisation and its success. The decision-making includes everything from the operational level with a relatively high degree of certainty (for example whether to buy this machine or the other one) to the strategic level with a crucial impact on the whole business in the long term.

The amount of available information plays a significant role in decision-making. The more relevant information about the subject of the decision-making is available, the higher the potential for making the correct decision, which would, in the case of strategic management, lead to optimum strategy, i.e. the best possible solution from those available. However, information is not lying on the street somewhere, nor will it just pop out on you on the Internet. It has to be gathered and evaluated systematically, especially in the context of the conditions in which the competitor, as one of the relevant subjects, naturally wants to keep information secret or distort it.

In practice it is not only advisable but completely necessary to solve strategic cases which require our knowledge to be broadened to include facts that are not apparently available. Systematic work with partial facts yields a reconstruction of the whole event and based on that it is possible to create predictions, which allow full focus on what is essential for strategic management – the future.

1 Solving strategic cases

The importance of strategic thinking is often ignored in practice; this can be blamed on archaic tools like SWOT or Porter's Five Forces, which disregard the need to focus on the future (Johnson 2014, p. 4) instead of the past (the output of both tools is a simple description of the past). Moreover, these tools work with the unrealistic idea of analysis based only on desk research and publicly available data, which is a simplification that is unacceptable for anyone who has ever engaged in strategic management in real life.

The aim of solving strategic cases is to secure all information necessary for formulating a strategy with the stakeholder approach (Freeman 2010), which means gathering information that is not directly available about the interests and behaviour of stakeholders and competitors. The strategic case solver enters a situation of apparent chaos and tries to solve a puzzle. To succeed in that, the three methods – induction, abduction, and deduction – are used. Solving strategic cases can be

defined as systematic rational inference of current and future moves of strategically relevant subjects in the form of a reconstruction of the causal chains through evaluation of facts and experimentation.

Table 1 Structures of syllogism in induction, abduction, and deduction

Induction		**Abduction**		**Deduction**	
Case	These marbles come from this bag	Rule	All marbles in this bag are blue	Rule	All marbles in this bag are blue
Conclusion	These marbles are blue	Conclusion	These marbles are blue	Case	These marbles come from this bag
Rule	All marbles in this bag are blue	Case	These marbles come from this bag	Conclusion	These marbles are blue

Source: Author, based on Peirce (1958)

Using induction, a rule is inferred from the facts that were gathered; this rule's role is to clarify the situation. Such a rule is probabilistic and forms the initial premise in the subsequent inference in the form of abduction – accepting a certain hypothesis. The hypothesis should elucidate the situation in the most adequate and simplest way, in compliance with the imperative of simplicity and probability according to logical and empirical criteria (Bonfantini and Proni 1983, p. 128).

Along with the hypothesis, means of verification are also formulated; this is done through an experiment, or by verifying the individual facts through induction. If the examination of the individual cases results in their identity with the hypothesis, the hypothesis is confirmed and obtains the value of certainty, with the conclusion following necessarily, deductively. The whole process can be delineated thus:

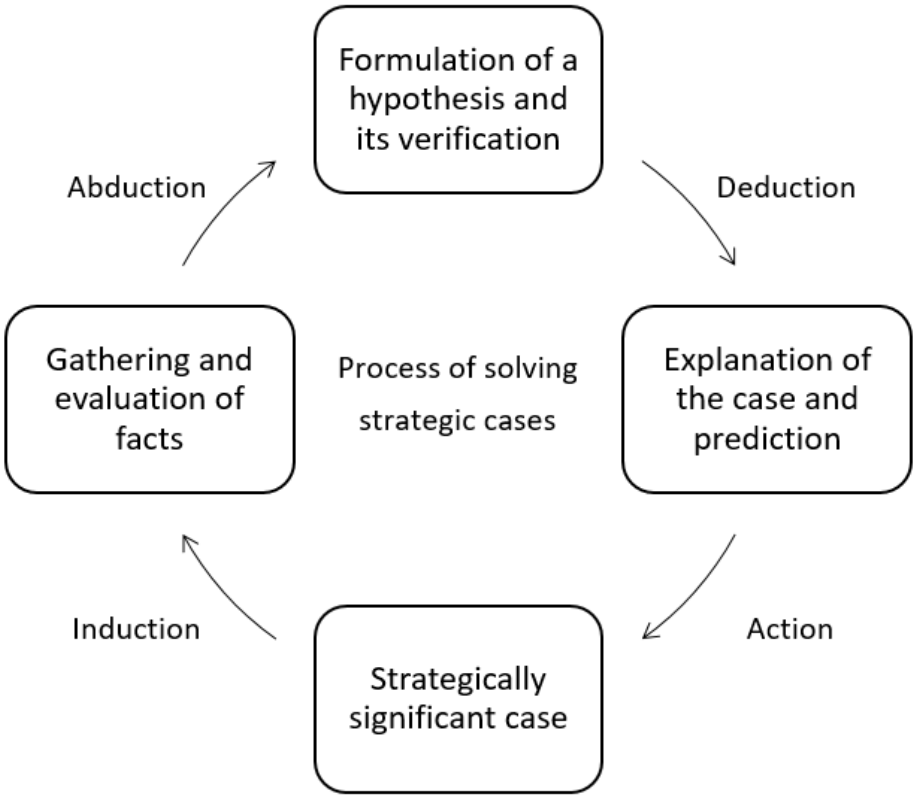
- Initial situation – chaos – puzzle solving.
- Facts are gathered and used to induce a probabilistic rule, whose function is to explain the situation.
    - Induction: Observation, fact/data evaluation.
- The rule obtained through induction introduces a new finding and forms the input of abduction for acceptance of the hypothesis (in the spirit of the imperative of simplicity and probability according to logical and empirical criteria).
    - Abduction: Formulation of a hypothesis that reflects and explains the facts in order to clarify causes and consequences (chain of events).
        - Through abduction, not only are events that already happened explained, but also future events are predicted (causal chain).
- Along with the hypothesis, its verification by experiment or inductive fact verification is established.
- If the hypothesis is confirmed, it obtains the value of certainty and the conclusion follows from the premises necessarily, deductively
    - Deduction: Deducing consequences that necessarily follow from the hypothesis (verified).

This process helps cope with information overload, which the solver has to contend with in current conditions. Mindless gathering of all data that is available, which tends to happen in SWOT analysis, is avoided, and only what was deemed necessary to verify the hypothesis is systematically sought and chosen. "*Sifting through data sometimes seems like sifting through heaps of garbage. Before we gather it, we should be clear about what exactly we want to do with it*." (Pilný 2016)

Solving a strategic case can be compared to a game of chess. Strategists implement their own strategies against the competitors (Shapiro 1989, pp. 125-137), who make their own series of moves to ensure victory (Alchian 1950, s. 211-221). Whether it is a strategy that is dominantly

proactive or reactive, it is always good to know the probable moves of allies[4] and rivals which influence the result and payoff of the game.

Figure 1 The process of solving strategic cases



Source: Author

Since the series of moves is the exact tool that determines the player's payoff, it is in the player's interest to carefully guard this information[5]. To uncover the planned moves, it is necessary to solve cases of strategic significance (related to the planned moves of the allies and rivals in the future). In a systematic understanding of a business, a large amount of information leaks outside the system and enables a reconstruction, from partial facts, of the whole chain of events with a final explanation of the case, and also allows to accept predictions to take the appropriate action.

In business practice, a strategist faces a puzzle to solve. In apparent chaos, a strategic case, for which only a limited number of random facts is available, needs to be solved. Thus, to begin the attempt to solve the case, it is necessary to gather facts that are relevant for the specific case. From these facts, a probabilistic rule, which should explain the situation, is induced. This is achieved by observation and fact (data) evaluation through inductive approach.

The inductively obtained rule introduces a new finding, which in turn becomes the input for the subsequent abduction process. It is abduction that represents the significant benefit of the proposed method, which stems from the work of Charles S. Peirce (e.g. 1957), and conveniently complements the mainstream of basic scientific methods of induction and deduction. Abduction results in the best explanation by formulating a hypothesis which is based on facts, while at the same time elucidating those facts (to clarify the chain of events using the individual facts). This is a process of reasoning in which one premise has the character of certainty and one of probability. The syllogisms leading to the acceptance of a hypothesis have the following structure:

- Rule – probabilistic premise.
- Conclusion – certain premise (ascertained facts).
- Case – application of the rule (probabilistic premise) to a specific case.

[4] As pointed out by Adam Smith in "The theory of moral sentiments," (Czech translation "Teorie mravních citů", 2005), in social systems, the strategist can influence the actions of the stakeholders (the imaginary chess pieces) only to a certain extent, depending on how beneficial the exchange of values is for them.
[5] Stakeholders also play strategic games in terms of their positions.

The probabilistic premise is where the "value" of the strategist becomes apparent in the ability to be in compliance with the laws of nature and to utilize the acquired knowledge and experience. These abilities are the strategist's input into the creation of the rule/premise, which is supposed to elucidate the situation and represents the simplest explanation of the case in the context of the acquired facts.

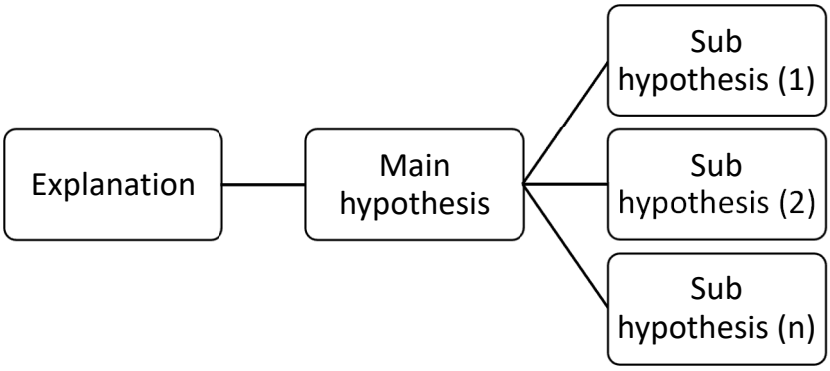
Here we are operating in the area of phenomenological sociology, which is based on the assumption that all acts of social life (including human activity in the context of strategic cases) demonstrate an indexical nature and thus their significance is only understandable in a concrete situational context. Strategic cases are always realized in a certain physical, material, linguistic, and social context, which has to be taken into consideration if information should be valuable and useful, with a pragmatic benefit. Human interaction is thus antithetical to objective understanding, which simplifies the studied behaviour to a non-indexical level of non-contextuality.

In relation to Peirce's guessing instinct, the creation of a probabilistic premise signifies a growing ability of an experienced and knowledgeable strategist to correctly uncover rules which rationalize facts even though they might seem to be improbable. As soon as impossible alternatives are eliminated, the remaining ones have to be true or highly probable[6]. To find a solution, the solver must choose and accept premises that relate to a certain condition which forms the basis of the hypothesis, thus enabling the application to a specific case.

The established rule (probabilistic premise) is linked to a known fact (with a value of certainty) in the form of a conclusion that was identified. The last premise is the application of the rule to a specific case. The outcome of abduction is a hypothesis in the form of a case or, in other words, an estimate of the chain of events, from which only several links – facts – are initially known.

The abduction process to find the best explanation is firmly tied to the subsequent deduction, from which the explanation follows necessarily. Based on the knowledge of the laws of nature (generally speaking) we draw conclusions from the cases. If the conclusion is confirmed, then the hypothesis was correct. Through hypotheses we try to explain the findings and through the main hypothesis (derived from the sub-hypotheses) to elucidate the strategic case that is being solved.

Figure 1 Reasoning in relation to the main hypothesis and sub-hypotheses



Source: Author

Using the established criteria for verification, first the individual sub-hypotheses are tested and it is verified whether individual cases are in agreement with the hypothesis (in case of inductive verification of accordance with facts – generalising from concrete cases). "*Each hypothesis has to be experimentally verifiable*" (Peirce 1958)[7]. After it is verified, the hypothesis ceases to be only a probability and becomes part of the deduction – it obtains the value of a premise that is certain, which means that the solution follows necessarily, deductively.

2 Case Study

It is desirable to illustrate the proposed process of solving strategic cases using a concrete case: one that would be sufficiently brief and at the same time informative. A model case proposed by František Bartes (2012), which focuses on an identical area of interest in creating competitive

[6] Peirce himself points out that abductive reasoning is a part of everyday life for all of us, although it is a skill that is often disregarded and undeveloped.
[7] Experimental verification of hypotheses is carried out in accordance with the context of a strategic case that is unrepeatable in the social sciences.

intelligence as an information basis for corporate strategic management, is used to provide such illustration.

Table 2 Using intelligence as added value to information

	Characteristics	**Example**
Data	Solitary bits and pieces of knowledge	2005: rival company A has 150 employees. 2009: there are only 40 cars in rival's parking lot.
Information	A set of these pieces of knowledge	Connecting these two facts yields the information that rival A is in serious trouble.
Analyses	Extracted information	Analysis of these and other data and information shows that rival A has been significantly increasing performance.
Intelligence	Conclusion which enables a decision to be taken	The rival company will extend its presence on the market and its future position might threaten us.

Source: Author, based on Bartes (2012, p. 36)

The above table summarises Bartes's process from data gathering to obtaining the final conclusion (in the form of intelligence), which enables the strategic decision to be taken. Using the example of the data that the rival company has 150 employees, but there are only 40 cars in the parking lot, the proposed process of abduction can be illustrated thus:

- 150 employees, but 40 cars (a fact obtained inductively)
  - in this case an automobile is a typical means of transport
- ↓Q of cars → ↓Q of employees
  - (rule/premise) = guessing instinct, indexical codes, accordance with laws of nature, knowledge
- ↓Q of cars in company A's parking lot
  - (conclusion = certain and evident fact)
- In company A ↓Q of employees
  - (case, hypothesis in the form of a probabilistic premise with a formulated verification method)

The conflict between 150 employees and 40 cars forms the inductively obtained fact, while a car in the given conditions, with consideration of specific context, represents a typical means of transport. The outcome of induction is used as a certain and evident fact in the form of a conclusion – the second premise of the subsequent abduction. The simplest explanation (rule/premise) arrived at through guessing instinct is a decrease in the number of employees (unknown fact), which has led to the decrease in the number of automobiles in the parking lot (known fact). Connecting the rule and the conclusion thus brings a probable case of the lower number of cars being a consequence of a fall in employee numbers. At the same time a means to verify the hypothesis by indirectly testing the development in employee numbers is accepted, for example:

- Research into the labour market situation regarding recent layoffs or hiring of new employees by the company (the numbers are known for four years back, which offers a lead to predict further development).
  - Publicly available information about the company (annual reports)
  - Labour market information
  - Mystery shopping

The hypothesis bringing the simplest and most straightforward explanation can be easily confirmed in this case by newly obtained findings about actual layoffs (according to information from the labour market and mystery shopping in the form of enquiring about potential employment). The hypothesis is thus confirmed and becomes a fact. The solver can create new sub-hypotheses based on the extended findings, or, <u>if the findings give sufficient ground</u>, proceed to establish the main hypothesis:

- ↓Q of employees → ↑ in performance

    - (rule/premise), guessing instinct, indexical codes (rule valid in the context of the given case and its specific characteristics), accordance with laws of nature, knowledge
- ↓Q of employees in company A
    - (conclusion = certain and evident fact)
- ↑ in performance in company A
    - (case, hypothesis in the form of probabilistic premise)
    - Formulation of the main hypothesis which explains the situation – increase in performance and extension of presence on the market.
- Establishing the means of verification (experiment or induction – verification of individual facts).
    - further sub-facts (subject continues accepting orders, purchases in large volumes from suppliers, etc.)

In accordance with evaluation of further facts obtained inductively, the proven drop in the number of employees (in terms of the verified hypothesis) can lead to the best explanation, which is a rise in the company's performance with the ability to ensure the same or higher performance with a lower need for input resources in the form of mainly the labour force. Again, this reasoning is based on the overlap of guessing instinct, accordance with the laws of nature, indexical codes, and knowledge.

The defined probabilistic premise is followed by the ascertained fact – a decrease in the number of employees in company A – with the subsequent case indicating performance growth, in the form of hypothesis. The verification of the hypothesis consists in assessing the performance of the company in relation to the corresponding characteristics, which follow about the given factor outside the system:

- Testing the ability to accept orders corresponding to a specific necessary employee number.
    - Mystery shopping
- Examination of the amount and nature of supplies purchased from the suppliers.
    - Research on suppliers

If these additional facts are in compliance with the established main hypothesis, then this hypothesis obtains the value of certainty, with the conclusion following deductively. The originally unclear situation, the strategic case, becomes clear.

- Deduction (the solution follows from the premises necessarily):
    - If the hypothesis is confirmed, it obtains the value of certainty and the situation is clarified and follows necessarily.
    - The hypothesis was confirmed – there has been an increase in performance in company A.
    - The situation is clarified.

The clarification of the situation is followed by constructing predictions about further development (deductively), which represents the second main value for corporate strategic management. The solver of the strategic case not only uncovered the causal chain, which leads to the new findings, but also acquired an informational background about the probable moves of the players with regard to future events. If we again imagine the analogy of strategic management with a chess game, then it is clearly evident that such knowledge can be the key to winning the game.

Conclusions

People are naturally inclined towards playing games and searching for conditions approaching certainty. Even in a simple childhood game of marbles, or in pétanque, they learn the mechanisms which increase the probability of a win. Similar algorithm is used in the context of social games, workplace games, and others. The difference is in the higher complexity of the game, which requires a proportionate increase in the complexity of the mechanisms used to achieve success. Corporate strategies are a very complex type of game, depending on the level of sophistication of the participants and the environment. Supplying strategists today with archaic tools like SWOT or

Porter's Five Forces analysis would equate to giving them a knife and sending them to a gunfight. It is necessary to go much further and in a certain sense to a metalevel, with the strategists standing above the horizon of all decisions and events and using this knowledge to their advantage.

They key to acquiring such a metastrategic position is uncovering the moves (and their essence) of allies and rivals in the form of solving strategic cases on the basis of the presented approach according to Peirce's theory of abduction and trichotomy of methods. Their implementation in strategic management proposed in this paper carries the potential of ensuring that the player knows what was, is, and will be, in order to be able to create and implement offensive and reactive strategies supported by information, tending to the characteristics of an optimum strategy. Scientia potestas est.

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The Process Risk Management Using Enhanced Statistical FMEA Method

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Abstract: *The paper examines role of additional risk parameter (Process Instruction Implementation (PII)) implemented into traditional Failure Modes and Effect Analysis (FMEA) methodology within the process risk management. The research was conducted on the case study using predefined risk factors of delivery process in selected large telecommunication company. To analyze the results, the Statistical FMEA were used to calculate responses from multiple respondents. The results show that the respondents state that process instructions have positive impact on process risks in general (however with high standard deviation of responses). SAFMEA-T table shows that the risk factor with highest Risk Priority Number was number* 6. Salesmen send wrong products, followed by 3. SAP system stops working – both categorized as informational risks. The study also shows that the ranking of risk factors does not change significantly when the extended SAFMEA-T table is calculated.

Keywords: *FMEA, SAFMEA, Process Management, Risk management*

JEL codes: *D81,* M19

Introduction

Process management has to face manage various risk to avoid the impact on the business. Therefore, process risk management which handles identification, calculation and prioritization of risk factors plays important role within the company. Using the process risk management, company is able to minimalize the impact of the negative scenarios.

The contribution is using traditional Failure Modes and Effect Analysis (FMEA) to identify importance of defined risk factors within the delivery process. The Risk Priority Number (RPN) is calculated for every risk factor. The contribution also analyses the enhanced FMEA methodology, when the additional parameter – process instruction implementation is implemented.

1 Literature Review

1.1 Business Process Management within supply chain management

Business process management (BPM) is perceived by many authors as vital part of contemporary management practice. BPM can be defined as "concepts, methods and techniques to support the design, administration, configuration, enactment and analysis of business processes." In recent years, information systems play important role in the business process management (Weske, 2012).

Business process management is able, if successfully adopted, to provide company ability to serve the customers more efficiently (Smith & Fingar, 2009). The risk management is important part of business process management.

Cavinato (2004) defines categorization for identifying risks and uncertainties in supply chains management:

- Physical – relating to actual movements of goods
- Financial – relating to cash flows and costs
- Informational – consisting electronic systems, access to information
- Relational – relating to relations between company – supplier - customer
- Innovational – relating to innovation risks

1.2 Failure Modes and Effect Analysis (FMEA)

There are many methods used for detection of accidents and risk analysis. For example, Hazard and operability of Study (HAZOP) or What if method. However, Failure Modes and Effect Analysis (FMEA) is more widely used method. (Kubečková, 2009). The main role of FMEA is to discover and to eliminate potential failures (Liu, 2013). Additionally, the method is used for summarization of risk information which is presented to the management (Stamatis, 2013). The conventional FMEA method is calculated by using three main parameters – Severity (*Sv*), Likehood (*Lk*), and Detection (*Dt*) (Mohsen, 2016). The main outcome of the method is Risk Priority Number index (RPN) which is used for identification of overall risk. It is also used for ranking the risk factors, so management can prioritize between them (Tichý, 2006). All parameters are described on a scale from 0 to 10 where 10 is the highest. That makes RPNmin = 1 and RPNmax = 1000 (Lipol, 2011). It is common that RPN = 125 is considered as a limit for the calculated risk as high (Tichý, 2006). The calculation of RPN index is shown in (1).

$$RPN = Sv * Lk * Dt \qquad (1)$$

The very important fact is that FMEA methodology is very variable, which is due to relativity of RPN index. Other parameters can be implemented into the method –Fear (Fr) or vulnerability (Vr) are the examples of often use. By using the parameter extension FMEA method can more accurately reflect specific conditions of the examined field. The calculation of extended FMEA risk index (RPN_{ex}) is shown in (2) (Tichy, 2006).

$$RPN_{ex} = Sv * Lk * Dt * New\ Param \qquad (2)$$

There are many possible utilizations of FMEA - from the original use in industry quality risk analysis, over project management, to investment risk assessment. The outcomes of the analysis could be in different forms – FMEA table, risk matrix or risk maps. The outcomes can also focus only on selected parameters – like in risk matrix where used parameters *Lk* and *Sv*) (Korecky, Trnkovsky, 2011; Januska, 2015).

In practical situation however, FMEA methodology has its drawbacks (Liu et al., 2012). Mostly recognized limitation is that different combinations of Sv, Lk, Dt can produce the same RPN index therefore some significant information about risk can be lost (Mohamed & Robinson, 2010). Moreover, some authors argue that formula for calculation RPN is questionable, mathematical number RPN is not continuous and it is sensitive to variations in risk factor evaluation (Geum et al., 2011; Liu et al., 2011).

Another major weakness is that FMEA is based on prerequisite that values of parameters are set by experts in consensus. However, this is mostly impracticable in the team of experts. Therefore, the methodology called Statistical FMEA (SAFMEA) was developed to find statistical evaluation of the multiple responses (Tichy, 2006). The process of gathering source data is similar to FMEA methodology and it consists of filling SAFMEA-E form by all participating experts.

The calculation of SAFMEA methodology is as follows. Firstly, in every row *j* (ie. for every risk factor) for every expert *k*, values RPN_{jk}^{E} are calculated as it is shown in (3).

$$RPN_{jk}^{E} = SV_{jk}^{E} * Lk_{jk}^{E} * Dt_{jk}^{E} \qquad (3)$$

For every row *j* there are n_e expert values. After that for every risk factor the arithmetic mean of RPN^E values is calculated (4).

$$mRPN_{j}^{E} = \frac{\sum_k RPN_{jk}^{E}}{n_e} \qquad (4)$$

For $n_e \geq 5$ RPN it is advised to calculate standard deviation of variance.

$$sRPN_{j}^{E} = \left(\frac{1}{n_e - 1} \sum_k \left(RPN_{jk}^{E} - mRPN_{j}^{E}\right)^2\right)^{\frac{1}{2}} \qquad (5)$$

For $n_e \geq 5$ it is also suggested to calculate estimated distribution quantile.

$$qRPN_j^E = mRPN_j^E + sRPN_j^E \qquad (6)$$

The results (risk factors) create summary where all risk factors have their $qRPN_j^E, mRPN_j^E, sRPN_j^E$ calculated. Furthermore, the results can be divided into these overviews:

- Sorted by $mRPN_j^E$
- Sorted by $\max SV_{jk}^E$
- Sorted by $qRPN_j^E$

2 Methodology

The research used in the contribution is focused on the case study in selected large telecommunication corporation. According to the internal analysis, the major risk factors of delivery process were defined. Following Cavinato (2004), these identified factors can be categorized as follows - four risk factors are in informational category, two in relational category and two in financial category. The research follows up on these outcomes by using web-based questionnaire which was used to gather the responses from senior process and product specialists within the company.

The questionnaire was designed to two major goals. Firstly, to identify whether the implementation of process instruction can lead to elimination (or lowering) risks within the process management. Secondly, the respondents were asked to examine every particular risk factor by assigning values to enhanced FMEA parameters. The results were analyzed by using the SAFMEA methodology.

The web-based questionnaire was sent to 13 senior process and product managers within the large telecommunication company, where 10 of them responded (which makes response rate 77%). The research was conducted in summer 2018.

3 Results

The first part of the research was designed to verify whether the process instruction can positively influence (ie. eliminate or lower) process risks. On the scale from 1 (process instructions have crucial impact on lowering risks) to 10 (process instructions have no impact), the respondents in average answered positively (with value 4,1) however the standard deviation is fairly high = 1,76 which means that the respondents have very different view on the influence of process instructions within process risk management.

Interesting results are from partial defined risk factors, which shows the average PII values at 6,3 and standard deviation 2,4. It indicates that in predefined risk factors the process instructions have in average lower impact that it is perceived in general. Moreover, the standard deviation is higher which indicates that the view on the role of process instruction in process risk management is perceived very differently amongst the process & product managers.

The second part of the research was focused on the defined risk factors and by using the traditional and extended FMEA methodology to identify the size of RPN (and its rank). Also, it was analyzed how additional parameter would change the overall RPN and what influence it has in risk factor ranking.

The results of simplified SAFMEA-T table is showed in Table 1. It shows that in traditional FMEA, the factor with highest RPN is 6. Salesmen send wrong products, followed by 3. SAP system stops working. According to Cavinato (2004) these risk factors can be categorized as informational risks. The risk factor with lowest RPN are 8. Carrier cost increase and 7. Costs increase in logistics department – both of these factors can be defined within the financial risk category.

Table 1: SAFMEA-T table reflecting responses from SAFMEA-E forms

Risk factor	$mRPN_j^E$	$mRPN_j^{EX}$	$Rank^E$	$Rank^{EX}$
1. Salesmen send faulty orders	115	511,4	3	6
2. CRM system stops working	89	742,2	6	4
3. SAP system stops working	133	1148,1	2	1
4. Delivery rate drops	112	765,4	4	3
5. Carrier delays orders	108	564	5	5
6. Salesmen send wrong products	191	1090	1	2
7. Costs increase in logistics department	81	377,2	7	7
8. Carrier costs increase	48	230,8	8	8

Source: Author

According to the SAFME methodology, when $n_e \geq 5$ it is recommended to calculate estimated distribution quantile which gives view on index randomness. The result is detailed SAFMEA-T table which is shown in the Table 2. Because of the high values of standard deviation which were identified within the first part of the research, for every risk factor, the coefficient of variation is calculated. It is possible to see that the variability of responses across the process and product managers is very high. As mentioned in the theoretical review, the main prerequisite for FMEA methodology is based on the consensus amongst experts. However, the results show that responses can vary considerably. The results also show that with implementation of fourth parameter, the variability of 5 risk factors increased.

Table 2: Detailed SAFMEA-T table

Risk factor	$mRPN_j^E$	$sRPN_j^E$	$qRPN_j^E$	$mRPN_j^{EX}$	$sRPN_j^{EX}$	$qRPN_j^{EX}$	V^E	V^{EX}
1. Salesmen send faulty orders	115	72	187	511	285	796	62%	56%
2. CRM system stops working	89	48	137	742	472	1214	54%	64%
3. SAP system stops working	133	99	232	1148	1053	2201	75%	92%
4. Delivery rate drops	112	84	196	765	745	1510	75%	97%
5. Carrier delays orders	108	65	172	564	521	1085	60%	92%
6. Salesmen send wrong products	191	210	401	1090	2101	3191	110%	193%
7. Costs increase in logistics department	81	94	176	377	428	806	116%	114%
8. Carrier costs increase	48	53	101	231	222	453	109%	96%

Source: Author

According to FMEA methodology the RPN index has major drawback in its cumulative nature. It combines three (or in case of extended version - four) parameters together. Therefore, there could occur combination of parameters where significant information is lost.

The solution of this drawback can be eliminated by using risk matrix. Risk matrix is showing the risk factors in context of mean value of Severity (Sv) and mean value of Likelihood (Lk). The risk matrix ignores parameters Detection (Dt) and Influence rate of mentor (Me) (Hnilica, 2009). The results shown in Table 3 shows that the risk factors 2. CRM system stops working and 3. SAP system stops working are within the alert zone with highest combination of Likehood and Severity parameters.

Table 3: Risk matrix

Likelihood (*Lk*)	**Severity (*Sv*)**				
	0-1,99	2-3,99	4-5,99	6-7,99	8-10
8-10					
6-7,99			**(6)**		
4-5,99		**(8)**	**(1); (4); (5); (7)**		**(2); (3)**
2-3,99					
0-1,99					

Source: Author

Risk matrix has also some drawback. The most evident is that it ignores the former parameter Detection and new parameter Process instruction implementation. This drawback can be overcome by creating table with partial results or by using the Risk map diagram.

Conclusions and discussion

The business processes have to face different type of risks. From financial, informational, relational to physical. There are many tools and methods how managers are able to identify and mitigate these risks (i.e. HOZOP, What if analysis). However, the widely used method is FMEA. FMEA methodology has significant advantage in its variability. Therefore, it is possible to adapt the methodology for the specific condition of examined case. In this case, the FMEA methodology was enhanced by using new parameter – process instruction implementation. The hypothesis is that process instructions (and its ability to implement to the processes) can have positive impact on the process risks. Thus, the research was conducted on case study of delivery process in the large telecommunication company. The respondents were chosen from senior process & product managers.

The research shows that in average the process instructions are perceived as beneficial for lowering the process risks (average 4,1). The noteworthy result is that the answers have high standard deviation (1,76) which shows quite significant dissent in the view on the role of process instruction in process risk management.

The next part of the research was focused on the chosen risk factors (predefined by company internal analysis). The SAFMEA-T table was created by using the filled SAFMEA-E forms. It shows that the highest perceived risk factor is 6. Salesmen send wrong products, followed by 3. SAP system stops working. Those factors can be categorized as informational risks. On the other hand, the risk factors with lowest perceived risk are 8. Carrier cost increase and 7. Costs increase in logistics department – both of these factors can be defined within the financial risk category. Moreover, it is remarkable that the variability of the responses is very high. It shows that the respondents do not have similar view on the perceived risk factor and it is important to use SAFMEA-type analysis.

The other interesting outcome is that the ranking of the extended SAFMEA-T table does not change significantly. Therefore, the new parameter didn't have significant impact on the risk factor ranking.

Nevertheless FMEA (SAFMEA respectively) are able to bring interesting and useful results which managers can use in their process risk management. The problem is that (at the moment) there are no tools which are provided to gather and calculate SAFMEA indexes for free. The project which is published on the website www.SAFMEA.com has simple goal – to help gather the data from the respondents (even with additional parameter) and to provide outcomes automatically.

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Factors influencing the success in companies in Hungary based on managerial opinions by focus group interviews – Best practices and time management

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Abstract: *The success in business is always a priority in every nation, because the companies are the basis of the economic life, the GDP producers. The fluctuation is very high, there are appearing and disappearing very frequently. However, there are some, who can function for a long time, producing profit and contributing to the local, regional or even national development. What is the 'secret formula', which makes them successful? What could be behind the numbers, tables, and diagrams?*

Our research tries to look behind the scene to find this formula, building on the human factor. We are asking Hungarian managers and entrepreneurs to show us how are they organizing the operational activities, how can they organize their times, which practices are working and what they would like to change. We ask them to formulate the idea of success and to describe the traits that characterizes the successful leaders.

The results of the research will give us the opportunity to draw a "success thinking map", which will contain those directives, managerial company philosophy describer thoughts, managerial habits and technics, which raise or could raise to the front line the most successful companies.

Keywords: *SME, strategic management, best practices, leadership, success*

JEL codes: *M12, M13, L21, L25, L26*

Introduction

Our main goal is the cognition of the micro-, small- and medium sized companies and startups managerial and marketing practices with special focus on some parts of the managerial success thinking - like emotional intelligence, management culture, personality types -, on the control of the strategical key processes – like innovation, branding – and on the focal point of the marketing strategy.

Recently Karda (2009) examined the strategical nature of the managerial activities and Szabó, et all. (2012) the sectors connected to innovation. Varga (2015) in his study drew attention to the contradictions experienced in the SMEs, in the business culture, the lack of informatical knowledge and the cause of untrained managers. From the other part was only tangentially researched the question of managerial success thinking.

Similarly, new and exciting opportunities projects the result from the comparison of the SMEs and startups successes with the corporations/multinational company's results. We are investigating in both databases, hopefully can detect some eventual similarities and differences.

In the present paper, we summarize the results of the pre-research based on Hungarian focus group interviews, highlighting the theme of strategy and company core values. It is a pilot-research with double goal: pretesting the large-scale research questionnaire, as well as assessing the problems appeared in the examined theme among leaders that expects solutions (Berke, 2017). This project was supported by **EFOP-3.6.1-16-2016-00007** „Intelligens szakosodási program a Kaposvári Egyetemen" at the Kaposvár University.

1 Material and methods

In the frame of this pilot research, we organized five focus group interviews in different locations in Hungary, mixed with entrepreneurs and leaders. This way we have a sample of 20 subjects, all of them managers, leaders or entrepreneurs, which presents the basis of this report.

For the compilation of the moderator guide we used different author's materials, drawing on ideas firstly from Epstein (1997); Goleman (1995); Maxwell (2007); Marques and Dhiman (2017); Bennis et al. (2001); Berde and Felföldi (2004); Takács (2017); Allen et al. (2016); Durst et al. (2018); Ensley et al. (2006) and Rothstein and Burke (2010).

The moderator guide contains from the projective research technics: association games, card games and self-evaluation. It is 4 pages spread, from which 2 pages are test pages based on models created by Sinek (2009); Covey (2013) and Kim and Mauborgne (2005).

From the totally 13 big issues – because of the spread – this paper focuses in four. The remained issues are summarized in other papers.

1st group – Kaposvár: 4 persons, a farm leader, a freelancer trainer (who worked for 20 years at a multinational company); the leader of an environmental sustainer company; the executive of an urban development company in project- and financial management and a sales and acquisition manager from a milk producing company, economist, former commercial manager;

2nd group – Budapest: 3 persons, a master hairdresser, who is a successful entrepreneur in the world of fashion and film; a risk manager from a bank with previous multinational experience and an IT entrepreneur came from the bank sphere, now leading his company with 20 employees;

3rd group – Budapest: 2 persons, one of them leads a multinational business in the wellness sector, a logistical center in Hungary and Romania and an executive, the owner and CEO of a telemarketing company with almost 100 employees;

4th group – Zalaegerszeg: 5 persons, a former consultant of an organizational development company, now freelancer entrepreneur in training, business coaching and consulting; a former HR consultant entrepreneur, now HR manager at a multinational company; a sales manager at a furniture producer multinational company; a finance manager at a job outsourcing medium sized company and a middle manager from a mutual savings bank. It is important to note that all of them are business coaches;

5th group – Kaposvár: 6 persons, a leader of a civil organization, who affirms that he is an amateur leader, because has no qualification in the field; an assurance entrepreneur came from the wholesale trading to the financial area; a leader of a newly registered company; an accountant entrepreneur; a project designer company executive, also entrepreneur and an university teacher, who is also an entrepreneur, a trainer.

2 Results and evaluation

2.1 Daily acts and daily good practices of successful leaders

This paper presents the second part of the questionnaire filled by our target group. The first part was about the strategies and strategical thoughts of successful companies with the identified core values. In this part, we are asking about everyday life and actions of the successful leaders and entrepreneurs.

We firstly asked them about what they are doing day by day for their companies to be more efficient in the market. Our goal is to find good practices, good solutions and good ideas, what functioned and could help others in the future.

Regarding the best practices we observed, that there were frequent the **task management systems** supported by modern technics and the continuous, **conscious communication**. We highlighted the answers supposed to be effective or thought provoking:

Some of the good practices: **communication, task management, flexible working time**

"We introduced an online task management system, which evoked the long, protracted discussions and this way everyone knows their daily tasks, moreover, those for the next 10 days and the perspective ones, too. This way, I had time to observe how the communication in the organization is and I realized that within a certain time came the classical annoying situations. In these cases, I ask them to discuss them in a rational way, to function for the goal of the company. This is my perception, and I saw that my colleagues agree with me – in the view of efficiency – that I give them freedom. I am interested in results, not in performances. I formulate this in the way, that can be performances with no results, because, for example a person could work a lot to put the ground from one pit to another, but without any reason. Instead, I introduce as much work in the organization as it is necessary, and the most important is to keep the deadlines. This is my precept…Everyone can reach the server from home, so can work on Sundays, too, the point is that if I say that a work has to be ready on Monday, than it has to be ready on Monday. I give this kind of freedom to everyone and there are some colleagues who lives with and there are others, who thinks that their efficiency depends on the strict working hours, from 8 to 16. I saw the results by **sustaining the theming technically**, **paying attention to communication** and giving them this kind of **freedom** to choose working time. And I think that this brings us results. The name of the software is 'Just Do', made by a company from Kaposvár and can be operated with low costs. Even so, we are now developing our own." (Project office – Local government Company).

"We also have a **task management system** because there are routine tasks, which are managed at daily, monthly, or quarterly level. We have many fields and the attention is dispersed. This is a self-developed software. The individual tasks are relevant, those ones we are the supervising tool to see, if the colleagues introduced some problems or deficiencies, because problems or deficiencies are all the time. If not appears on the list, means that they left out something. The other important thing is to **roam around the area continuously**. Besides weekly I walk around to see **how the employees are**." (Farm – Entrepreneur).

"I have nights when I wake up and reminds me an idea, which I suddenly record on my cellphone. I am lucky, because my daughter is the office manager and she organizes the weekly meetings, where there are discussing the problems and tasks. We also are organizing 10 minutes **brainstorming** for different tasks. Another thing that our employees are from a very large scale, there are very different and we have to solve their problems. We have 3-5 relevant points that has to be in focus. We cannot plan much because the many changes. 60-70% of our work is unplannable." (Food industry – Distribution Centre)

"At this new business I have to make new connections, build networks, so I make address lists each day, collect availabilities, call people, which is my weakness. I don't like to make calls and I still do it." (Social area – NGO)

An extraordinary active and committed middle manager uses **creative tools to raise the efficiency** in the company, **to motivate and develop employees**:

"My life is about keeping the employees at the workplace and to make them ready to work with me because we have that amount of work which has to be done. We can variate a bit, but we have to work. We have weekly group-meetings in which I try to inform them – the lack of information is specific in this kind of organization, so nobody knows anything, and everyone has the feeling that he does not know what is about. This way I talk them about what am I doing, then ask them to tell what are they doing, so we are going around and everyone shares what they are doing and what are the things which needs assistance, this way everyone knows what others are doing. This is regular. We have **informal meetings** too, common meals, where things come up and we can talk about them. These are regulars too, each week in form of breakfast or lunch using the meeting room. Now we are starting some morning yoga classes, ones a month for our colleagues. It is a high demand and seems that we found sources to finance it. We have 'professional days' ones a month. I hear at the University about many free conferences and I send someone from the team to each of them. Then they are sharing to the others what was about. This is the '**knowledge sharing**' part. This day we are organizing also a cake competition, so everyone cooks a cake and usually the guys are winning. Another thing I also do and it works, that the different methodologies, which came up, I organize in form of **workshops**. For example, the Social Photo

Matrix technique, which is about mapping the unconscious, how they are, feel at work. Every colleague has to make a photo about how he feels. Then, at the workshop, we are projecting the pics for 20 seconds and everyone has to associate a thought. Someone collects them, then we try to find out what shows to us about the organization. Another one is the 'dispute workshop', which is a methodology about disputing without hurting the other party. Now we have a regulation change, which makes questionable almost everything what we are doing and the question is about will be life after the change and, if yes, what would we do. For this, we also have a board game. Every month I try to insert something to help them to feel better, because it is hard to work at a multinational company." (Financial institution – Multinational Company)

At starting businesses, the **total commitment** and **dynamism** are very visible:

"I read 2 hours a day and listen 2x speed youtube videos. I deal with the company around 100 hours a week. This works for a while, this is the 100 hours workweek by Elon Musk and it has its results." (Startup Company)

Many leaders highlighted the **importance of personal relationships** in the communication with colleagues:

"For me, it is a daily routine, which is instinctive, that I **call every person by name**. So, I great them as: Hi, Balázs! Moreover, while chatting, I pronounce their name. Because they like to hear it. I don't use their name as a strategy, I want them to know that I am talking to them. I do this in a daily basis. Then I continue with 'How are You?'; 'You look nice!'; 'What a beautiful hairdo!'…So I put a compliment, too, this is my daily routine." (Manufacturing industry – Multinational Company)

"I start the day with a '**What's up**?'. Every morning, passing through the office asking 'What's up'. This releases the tension I think. Recently I started to dance Charleston. While I worked at bank, it was a daily routine that I placed myself in the middle of the space and danced a Charleston, because we were under pressure due to the morning meetings. This is very important; it is not only about morning meeting, starting meeting, closing meeting, weekly meeting, Wednesday or Friday meeting. Sometimes means more a 'What's up', because maybe starts a discussion in the office which in a meeting surely wouldn't came to surface." (Service Industry – Multinational Company)

"I don't have daily routines but I have routine. Moreover, removing the daily word it is easier. For me one routine is the customer visit and the **maintenance of personal relations** in a permanent basis, at least once a month. I try to reach everyone once a month, because it is important. Therefore, it is not enough a call or an email. You have to go out, eat something together and talk a lot, not only about work. Things we are not writing down. This gives the possibility to talk and fix things what are not working. Sometimes we are watching the results at work or at business to see if it is the right direction, or not. If not, then what should be done and how to go back to the right direction. It is need for guidelines and good examples. One has to pull, and has to pull the others. This is a leader task." (Furniture industry – Multinational Company)

2.2 Blue Ocean Strategy – What would you like to change for your company to be more successful?

Kim and Mauborgne (2005) presented the Blue Ocean – market place without competition - Strategy, which refers to the blue ocean as the place of endless opportunities against the red ocean, which is a market place full of stress. The essence of the Blue Ocean business model is to transfer the focus from the competitors to the capturation of new blue oceans. This strategy stimulates to break up with old habits and to include new elements. The strategy is not a theoretical model, it is developed by analyzing the 'best practices'. There are many companies which started to use it, and researchers, who studied them. It was Leavy (2018), who analyzed the process of innovation and it's practical application, or Komulainen and Siltala (2018), who analyzed the twentieth centuries western co-operative customers common success-failure patterns, as well as Denktas-Sakar and Surucu (2018), who studied the augmented reality in the industry, the application possibilities of one element of the Blue Ocean strategy in maritime industry.

One of the analytical tools of the Blue Ocean strategy is 'Blue Ocean Leadership Grid', a methodology of defining the business strategy with the help of four 'simple' questions about what value factors has to be eliminated, reduced, raised or created. This is more a principle, then a methodology, the principle that anyone, who wants to create a Blue Ocean has to consider thoroughly the questions and the answers given (Gyurkó, 2009). This eliminate-reduce-raise and create grid was filled by our interview subjects. We also used the article of Kim and Mauborgne (2014) about Blue Ocean Leadership for our research.

First of all, let us see the number and distribution of answers. Our sample consists of 20 managers, from which only 8 declares that there are activities which they would like to eliminate, 16 said that they have activities which would reduce, all of them wants to raise some and most of them, 18 are ready to create new ones.

1. Figure Blue Ocean Leadership Grid

Would eliminate…

- to do everything by myself
- to be everyone's solution
- the corridor gossip
- administration
- bureaucratic tasks
- first round job-interviews
- travelling
- customer service
- extra working hours

Would spend less time on it…

- administration – (n=4)
- data processing
- not relevant electronic mailing – (n=4)
- travelling – (n=3)
- dealing with not relevant problems
- meticulousness
- answering irrelevant questions
- concrete daily tasks
- long meetings
- multitasking
- time robbers
- outside information
- customer service

Would raise …

- delegation
- marketing efficiency
- process automation
- efficiency of communication
- team dynamics
- number of customers visits
- my own commitment and courage to invest in future
- product portfolio
- the time and occasions to meet customers
- team working
- my free time
- the number of facebook sharing
- conference participations
- teleconferences
- time spent with colleagues
- teleworking
- regular lunch with colleagues
- supervision of expenses
- personal training plan
- professional training
- sales efficiency
- communication by phone or personal
- colleagues decision makings
- training myself and others
- strategical brainstorming
- the requirement of achieving the goals
- efficiency, productivity
- GTD (Getting Things Done)
- establishing relationships
- acquiring
- reading professional literature
- chats and feedbacks with colleagues

Would invest more planning in…

- online marketing
- exploration of technical possibilities
- financial planning – (n=2)
- preparation of strategic decisions
- knowledge upgrade
- market analysis
- working in advance
- discussing the strategical steps
- further elaborating themes
- colleagues selection
- transforming working conditions to make work more creative
- compliance with new regulations
- business line – 4DX system
- the important and urgent; important but not urgent; not important but urgent and not important and not urgent task categorization
- image planning
- promotions, events
- competence enhancement at managerial level
- to train each colleague to search continuously for efficiency raising elements and to use them in their work
- jointly created company vision
- automation potential
- prioritization
- sales
- address list creation

Source: Own data based on the completed test sheets of focus group interviews

We could summarize the received answers in the following way: there are more, who would like to **reduce** the **administration and bureaucracy**, one of them would eliminate them. The other, **to be reduced** activity by more responders was the **unnecessary communication**, to spend less time to unuseful emails, then to reduce the travelling time, both of them justified by efficiency and time management. If we watch the other answers too, we can see that the better exploitation of

the time factor and the raise of efficiency is the goal. The number and the dispersion of the answers given to the question of what they would like to **raise**, by grouping them we could divide them into: **self development, the raise of self-efficiency** (like: reading professional literature, conference participation); **staff development** and **efficiency raising**; **strengthening the teamwork** and **improving working conditions** by the raise of mood and motivation. Only few thought were about concrete activities like marketing and customer acquiring activities. Regarding the activities requiring **more planning** we found activities regarding **strategy**, **long term planning** and activities that are more concrete.

2.3 Strengths and areas for improvement

The next question regarded the daily activities, which leads them to success. Namely, what are their strengths as leaders and what areas should be improved that managers or entrepreneurs to be more successful. These questions includes the internal factors from the SWOT analysis, factors, which depends on the subjects, in this case, leaders. Instead of weaknesses, we asked them the fields to be improved.

We collected the answers in the test paper, and then categorized them in the following table:

2. Figure List of strengths and areas for improvement (N=20)

My strengths as manager…

- can quickly see the process and quickly decide (n=3)
- smile
- continuously train myself (n=2)
- sturdiness (n=3)
- sincerity (n=3)
- decision making capacity (n=2)
- could handle people
- high EQ
- motivational ability (n=2)
- leading by example (n=3)
- perseverance (n=2)
- good visions
- being a „Bulldozer"
- empathy (n=7)
- organizational skills
- logical thinking
- holistic approach
- humor
- efficiency
- enthusiasm
- creativity
- system approach (n=2)
- human-centeredness
- target orientation (n=3)
- data-centeredness
- flexibility
- load capacity
- attentively
- fairness (n=2)
- guiding
- good communicator
- loyal (n=2)
- predictability
- serenity
- prudency in decision making
- practicality
- pragmatic realization
- self-knowledge
- problem-solving ability
- „why not" approach
- openness
- sensibility
- seeing the essence
- wide scale professional knowledge (n=2)
- sense of responsibility
- consistency
- awareness
- reliability
- helpfulness

I would like to improve them to become most successful manager…

- delegation (n=2)
- process automation
- classify myself forward in order of importance
- to learn to rest
- communication (n=3)
- professional knowledge (n=2)
- time management (n=6)
- patience (n=2)
- self-acceptance
- to ask for feedback
- continuous self-training
- confidence
- „tenderness"
- focusing (n=2)
- bureaucracy tolerance
- tolerance toward colleagues who require more leadership
- reducing irritability
- self-development
- training of key persons
- „out of the box" thinking
- consistency
- carrying out ideas
- development of non-existent knowledge
- listening
- purposeful planning

Source: Own data based on the completed test sheets of focus group interviews

If we analyze the **strengths**, we can see that main part of them refers to **human factors**; only two of them mentioned the professional knowledge. The rest was all human factors; they listed a

large scale of **managerial skills** and among them many **emotional intelligence competencies**. Goleman, Boyatzis and Mckee (2002) was searching for years the emotional intelligence, until they built up a skills list containing 27 competencies in four dimensions, which later was reduced to 18. The four dimensions are the self-awareness, self-managing, social awareness and relationship management (Dénes & Berke, 2013). We could highlight from them the empathy and its synonyms as sensibility, helpfulness and human centeredness that are specific almost for all responders. However, we can find also the **strategic vision**, which also appears in many forms and the **motivational traits**. We would highlight the affirmation "why not", beside which it is the openness and flexibility, a very important attribute of a successful leader.

Regarding the **areas which needs improvement** we can observe that significant number of persons mentioned the **time management**, the problematics of time management can be seen also at the previous question, because there was only few activities to eliminate or reduce and a lot of raising or developing activities, which, if it is no time space, it is not feasible. Another flash point is the **delegation skill**, reappears as area for improvement. To be noted the 'out of box' thinking mentioned by a subject, which is the characteristic of a manager with willingness to develop itself, to be able to step out from the frame and to think in an innovative and creative way.

2.4 The concept of successful leader

We also asked them, to summarize in one phrase who is the successful leader in their opinion. According to their answers, successful leader is, who:

- is 51% humanly good and 49% professionally competent;
- Feels as being good. Who humanly and professionally is in his place and who's work and private life is balanced;
- self-identical, harmonic, who knows his environment and it is able to energize it and motivate it to reach the common goals;
- who is authentic and worth to be followed for the common purpose;
- efficient professionally and humanly satisfied;
- self-confident and has a definite value system;
- leading with efficient elements the organization toward the defined goal with profit oriented approach;
- firm, but consistent and has good relation with employees;
- can influence the environment and can reach the planned goal;
- able to change himself, his own ideas and the function of the company;
- team player and can easily recruit the best team members, can motivate them and 'leave them space', to be successful and this way all the team became successful;
- is able to develop proactivity;
- whose employees and colleagues are more successful;
- adapting to a given situation can be a bit "anything";
- feels good in the company while could reach the goals and realizing its plans;
- consciously, effectively advances toward its long-term goal, while its internal motivation remains active.

We can also see the emotional intelligence competences here, too, all of them mentioned that an important trait is the self-awareness and social awareness.

Conclusions

The theme of our research is the theory of success, the identification of success factors and the cognition of the daily routines of the successful managers, leaders and entrepreneurs. In this paper, we were focusing on the operational activities, trying to find out how Hungarian leaders and entrepreneurs could reach and maintain the success.

As result of our qualitative research, even if we did not worked with representative sample, we could conclude, that common trait of the domestic managers and entrepreneurs are the: willingness to develop, commitment, high leveled emotional intelligence, which are paired with high leveled professional knowledge. This way, even is not consciously, but unstoppable there are moving forward to achieve the goals of the organization. It is visible too, that the 'manager sickness' affects many of them, by the poor time management, by losing themselves in

bureaucracy, as well as in the lack of delegation skills. Overall, the pilot research has brought valuable additions that helps the launch of nationwide research.

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Internationalization Process of Born Global Companies

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Abstract: *The paper is focused on the analysis of the internationalization process of the born global companies and the utilized resources needed during the process of their internationalization. The first part is concerned with outlining the essential concepts of globalization and internationalization, with focus on born global companies and their internationalization process. It also brings the background of the utilization of different kinds of resources that are needed throughout the process as well as risks and uncertainties that are present on the international market. The second part is then analyzing the current situation of three case study companies – born globals from three different countries (Slovakia, Germany, Sweden) along with empirical findings and based on the results of their analysis are consequently brought up conclusions towards the case study companies and proposals on further research on the topic.*

Keywords: *internationalization, born globals, cross-case study*

JEL codes: *F23, M13, O32*

Introduction

The theory upon how companies conduct their businesses on the international level has been researched by several authors throughout more than four decades (e.g. Welch & Luostarinen, 1988; Cavusgil et al., 2014; Zahra & George 2002; Coviello & Munro, 1997; Freeman, 2006, etc.).

Born global companies (Born globals, BGs) are companies that are focused on the internationalization in very early stages of their development and their major activities abroad near establishment (European Commission, 2003; Harveston et al., 2000; Andersson, 2009). To manage BGs is nevertheless demanding, mainly because of their special characteristics in size, limited resources, geographical presence and operating on the niche market segments (Madsen et al, 2001; Nordman & Melen, 2008; Freeman et al., 2006).

Concept of BGs is fairly new one (Brennan & Gravey, 2009; Cavusgil et al., 2014) and despite the fact that prior research has been done regarding born global companies and the process of their internationalization, further research is suggested (Brennan & Garvey, 2009). Freeman et al. (2006) identified that these companies do not possess enough financial resources related to economy of scale, but also miss other important resources such as knowledge, which had an impact on their aversion to take risks. Generally, resources have been seen by many authors (e.g. Andrersson & Wictor, 2012; Rasmussen, 2001; Creswell, 2013) as the key driver behind the internationalization process of BGs. This study is thus intended to fill the gap and find out which resources are seen by these companies as the ones that are utilized during their internationalization process.

The main purpose of this paper will be investigation and analysis of the internationalization process of the born global companies. This goal will be fulfilled through a theoretical exposition of the internationalization concept with main focus on the born global companies and the resources utilized during the process. This focus will be further clarified by using empirical data gained by interviewing respondents of three case study companies, each of them having a base in different country (Slovakia, Germany, and Sweden). Having only small number of respondents as well as a small sample is rather a limitation for generalization, however, suitable enough for the purposes. The empirical data are consequently analysed with the use of the cross-case analysis. The research will be of a contribution and intends to shed a light on the internationalization process of born global companies and its understanding.

1 Theoretical framework

Cavusgil et al. (2014:38) describes internationalization as a "systematic increase in international business activities" and European Commission (2003, p. 24) defined, that "BGs are defined as companies that set up their activity targeting a market that is either global by nature or within a niche field that has a very limited potential on domestic market. They often begin exports within first five years of existence".

Indeed, there have been numerous efforts concerned with understanding and explaining internationalization, some of them generally referring to firms as BGs (Rennie, 1993) or international new ventures (Oviatt & McDougall, 2001). Born global companies assume new global approach and begin their international activities either already on the outset of their business-entry or right afterwards (Andersson, 2009). Internationalization process of such companies is difficult to explain by using traditional theories, because they tend to jump stages and are defined as departing from traditional presumptions by making use of the advantages of the global markets (Kaur & Sandhu, 2014).

Increase in globalization has lifted up the conditions for born global companies and enabled them easier implementation of global strategy. Nonetheless, despite the fact that the concept of BG companies is seen as a contradiction to the traditional internationalization models, some of the BGs might have a progressive internationalization process, even though this progress is likely to happen at a fast lane (European Commission, 2003).

Gabrielsson and Pelkonen (2008) mentioned that at very first the concept of BGs was discussed by Rennie (1993), however, different views and definitions on this concept have been created over years researching this field of study. The definitions declare that the born global companies either target a market that is international by nature or concentrated as a niche field. Tabares et al. (2015) pointed out that this trend has been studied under the topic of international entrepreneurship under several terms such as international new ventures, global start-ups, born-global firms or instant internationals. However, BGs became the most accepted term (Cavusgil & Knight, 2009).

It is clearly visible how BGs differ from traditional pattern of companies' internationalization. Despite the fact that BGs likely possess less of financial resources, they tend to have better versatility to adapt to new changes in environments due to its specific features. Eight main characteristics were stressed out by Tanev (2012) found in behaviours of born global companies. BGs tend to have weaker or lack of financial, human and tangible resources, which is in line with prior studies (e.g. Knight & Cavusgil, 2004) and in addition to this, they tend to target with its superior quality products its own niche markets, which is partially confirmed by authors Knight & Cavusgil in their research on BGs (1996). Moreover, it is shown that BGs are likely to take advantage of the entire globalization concept in the world interrelatedness.

The small size of BGs makes them on one side more flexible to adapt to new markets, along with the way of new markets elaboration as well as the globalization of the world and the demand of the collaboration on the foreign markets (Knight & Cavusgil, 1996; Andersson, 2009). The importance for BGs, especially based on their lack or limited resources, is the fact that they often try to gain the significant value-added by entering the market as the very first (Oviat et al., 1995), and hence their usual place of existence are emerging markets (Andersson, 2009). Authors state that this 'first-mover advantage' can be gained by early internationalization of the companies and that the concept of BGs as well as their creation is especially supported by the concept of globalization (Andersson, 2009; Wictor & Andersson, 2012). Gabrielsson et al. (2008) further elaborate upon the opinion that BGs tend to build on a direct learning process from the global markets rather than learning before entering the market itself, which is making them often more dependent and committed to the international market very close to its phase of establishment. This commitment is built on by the entrepreneur with the vision of going global with his company and cannot be derived from the beginning; e.g. knowledge of the foreign market, experience, etc.

This level of commitment is the essential factor that makes the biggest difference between the traditional internationalization process and BGs. Commitments are usually and highly likely to be achieved faster in case of BGs whilst in traditional models it increases incrementally. It can be stated that the concept of born global companies has changed completely the way, in which companies enter the global markets (Gabrielsson et al., 2008). It is obvious that differences exist among industries, however, BGs seem to not care too much about them when making crucial decisions (Andersson & Wictor, 2003). These authors as well claim that BGs usually prefer and choose areas with high-technology know-how. It is further collaborated on the opinion that BGs need to be seen exclusively as an appraisal rather than as a homogenous group (Nordman &

Melen, 2008). To sum it up, each and single one of the born global companies is seen as a single unique case which only adds on the fact that no generalization concerning this concept can be made. Each and every single company seems to act the way according to their own context, by being present on the niche market or the global market by its nature.

Focusing on BGs, the motive for internationalization can be both proactive and reactive – being described as well with push and pull triggers (Cavusgil et al., 2014), and depends naturally on the company's situation. Reactive motive can be for instance a need to serve a market that does not exist in the domestic demand, which at the end of the day, forces these companies to go abroad. On the other hand, we can see a proactive motive when already in the initial strategy of the company lies a motive to explore new market opportunities, as well as a vision of taking company on a higher level. All in all, both proactive but mostly reactive motives are narrowly connected to finding the company's very own niche market, where they can profit from the specialization, which is in line with the previous studies (Madsen & Servais, 1997; Oviatt & McDougall, 1994).

Being in line with following either reactive or proactive approach, demand on the domestic market added on the features of the product will also play a significant role (Cavusgil et al., 2014). The more proactive approach is further leveraged by utilizing and profiting from technological knowledge and above mentioned networking, when going abroad (Freeman et al., 2012). This is in line with Knight (1997), who discussed the fact that BGs tend to be of a culture that motivates international actions. However, the environment is constantly changing and hence the characteristics among BGs tend to differ as well as their internationalization approach and process.

The soul and the fundamental feature in creation of born global company is the entrepreneur himself (Andersson & Wictor, 2003; Wictor & Andersson, 2012; Kaur & Sandhu, 2014) and hence the founders/the managers play crucial role in the process of internationalization (Nordman & Melen, 2008). Madsen & Servais (1997) further explained the connection between the entrepreneur (decision-maker of the company), whilst environment was also seen as a crucial and relevant part during research of BGs. Persinger et al. (2011) in their studies take into consideration as important features of the founder the risk propensity and hence aversion of taking risks, achievement motivation and self-control. Research, however, revealed that it is merely hard to define one role-model of what characteristics the successful entrepreneur of a born global company should have. These individual features, such as for instance, higher level of education, prior experience; tend to additionally even decrease the impact associated with lack of experience within a born global company (Kaur & Sandhu, 2014). Finally, Persinger et al. (2011) discuss as an important issue a proactive personality of the founder which will at the end of the day be essential due to company's presence in a developing market.

There have been several discussions made by authors (Andersson, 2009; Freeman et al., 2006; Johanson & Wiedersheim-Paul, 1975), which stressed out lack in knowledge and resources as a merely crucial factor to the internationalization process. Several authors mentioned in this paper before (e.g. Andersson & Wictor, 2003; Knight & Cavusgil, 2004) discussed that BGs do not usually put emphasis on financial resources, others seem to rather be of an opinion that financial resources present a barrier for BGs (Freeman et al., 2006). The most discusses resources in connection to BGs are knowledge and networks that are gained through experience on the foreign markets (Laanti et al., 2007). This is in line with Freeman (2006) that elaborates upon the opinion that level of being successful in the process of internationalization is usually narrowly connected to the opportunities and availability of resources such as knowledge, networks or financial capital.

On the outline of the born global company, knowledge is important as it, apart from other, creates strategy of the company and lays a path where the company will go in the future perspective (Wictor & Andersson, 2012). The importance of experience is additionally emphasized as a benefit that can be gained through for instance hiring new staff members that can be with the specialized knowledge an extra asset in the internationalization process and further facilitate the adaptation to the new markets (Nordman & Melen, 2008; Wictor & Andersson, 2012).

Financial capital is generally discussed as having a straightforward impact on the development of born global companies (Gabrielsson et al., 2008). A research conducted by authors Gabrielsson et al. (2008) sheds a light on two types of financial contribution that founders of the BGs need to provide. On one hand, it is the amount that is needed for starting up the company and on the other hand, authors described the further investments that are necessary for further expansion and development of the company.

According to the network theorists, the process of internationalization is allowed more rapidly precisely by the help of networks (Coviello & Munro, 1997; Mtigwe, 2006). Regarding networks, born global companies might be able to share resources with their network partners and manage in this manner their deficiencies (Oviatt & McDougall, 1994) and gain the external resources such as

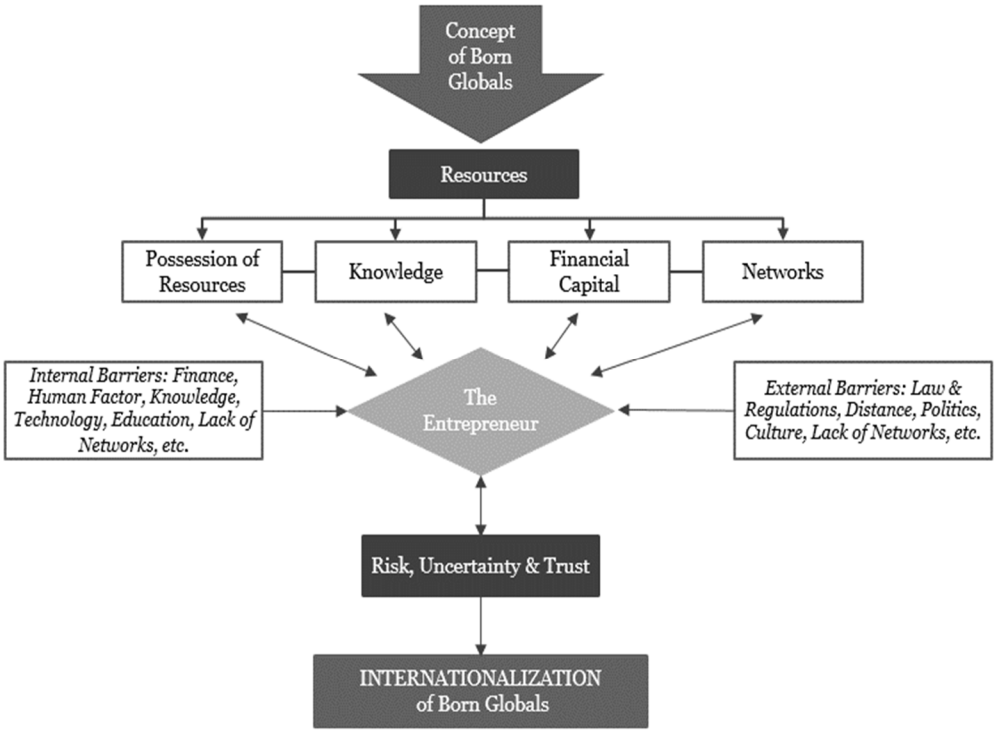
capital, equipment, or other tangible or intangible resources (Li et al., 2012). It is almost impossible for a born global to possess internally all required resources that are necessary for the internationalization process. Coviello and Munro (1997) together with Bell (1995) argue that forming networks might be helpful for born global companies to control and diminish these uncertainties on the market that arise from early internationalization, such as demand uncertainties, competitive uncertainties and exchange rate fluctuation. Furthermore, the personal networks are seen as especially important in the early stages of internationalization (Freeman et al., 2006) and will determine which relations to be utilized and where to interact (Nordman & Melen, 2008).

1 Methodology

1.1 Research Framework

There have been several studies conducted on the topic of BGs, however, none of them were encompassing the full range and were found entirely suitable for the purposes of this study. All of the above mentioned factors, should be in our opinion, researched together, therefore, based on this, we created a framework used in this paper and encompassing the previous research on BGs, which would enable the reader easier understanding and set up a base for further steps conducted in this study.

Figure 1 Research Framework



Source: Authors based on previous theoretical research

1.2 Research Questions

According to the previous literature review the following set of research questions has been stated:

Table 1 Research Questions

RQ1	**What does the internationalization process within a born global look like a why does it take place?**
RQ2	How are resources utilized within the internationalization process of born global in order to overcome barriers on the global market?
RQ3	Which role does the knowledge have for the born global in the process of internationalization?
RQ4	Which role do the networks play in the internationalization process of born global company?
RQ5	How are resources utilized to handle risks and uncertainties, and to increase the trust in the internationalization process of born global?

Source: Authors based on previous theoretical research

1.3 Research design and strategy

The research on this paper is based on cross-sectional qualitative approach. Since we want to expand and deepen the knowledge upon this topic, rather than to draw statistically generalizable outcomes (Saunders et al., 2007; 2009), an explanatory study has been chosen. Three case studies draw from in-depth semi-structured interviews with founders and early managers of BGs, along with research documentations. The interpretative analysis combined with cross-case analysis was chosen as a preferred method to interpret the empirical data in line with Creswell (2007) and Yin (2014). The research is neither intending to statistically generalize the attained findings to the whole population or BGs in general, but rather analyse the specific cases themselves. The generalizability will be however, embedded in the theoretical framework and the comparison between the case companies.

The companies were chosen as purposive representatives of the SMEs and were matching the theoretical characteristics found on a born global company. The interviewees were chosen based on their responsibility, knowledge, previous or current experience in the foreign market entry operations, and thus the respondents were required to possess certain indispensable characteristics and features, in order to provide us with the valuable addition and relevant information about the company's experience in internationalization process. Each interview was recorded and the transcripts were done.

Table 2 Information Concerning the Conducted Interviews

Case	Origin	Year of est.	Industrial Sector	Interviewee position	No. of Empl.	No. of countries	Interview Mode	Interview length
A	Slovakia	2008	Information Technologies	Founder/ CEO/ MD	3	5	Face-to-face	1h 10min
B	Germany	2010	Software Development	Operations manager	7	10	Face-to-face	1h 05min
C	Sweden	2009	Bio-technology	Founder/ MD	8	7	Skype	1h 12min

Source: Authors

2 Empirical Findings

The companies cannot be categorized in the same manner, however, all of them provide world leading solutions and products in their niche field. Many of the participant possess advanced education within the university or have been working and operating in their field for many years. All companies are relatively young (approx. 10 years since their origin) and in addition to this, of a similar size as well – 3 to 8 employees. All participants of my interviews have been either CEO, the founder or the operating manager, having something to do with the internationalization process, which has been one of the prerequisites settled.

2.1 Comparison of the internationalization process

The majority of the companies must have gone international either because having customers on the international market, or that the domestic market was simply too small and too limited for their product, moreover, most of the companies showed personal aspiration to do so as well. Whilst the challenges are rather similar as well, mostly stated were cultural differences, company A seemed to overcome these, however, targeted too many markets in the initial stages.

Table 3 Comparison of the internationalization process

Case	Motives	Challenges	Opportunities
A	A domestic market exists; however, the company was founded to do business on the international market.	Different payment procedures. Targeted too many markets in the initial stages.	Customers are on the international market. The product is provided mainly through the Web.
B	Most of the customers are outside of Germany. Personal aspiration to go abroad.	Cultural differences. Difficult to convince and create a market for this product.	Unique technology and cutting-edge competence.
C	Seen as necessary, Swedish market was too small.	Cultural and language barriers, financial challenges.	Unique product and cutting-edge competence.

Source: Authors

2.2 Comparison of the resources and their importance

To sum up, networks were seen as the most important resource by the majority of interviewed companies and especially personal networks were stressed out as crucial in the early start-up stages, since businesses tend to be created and build upon relations. Respondents stated technical knowledge as the resource they mostly possessed when starting their businesses which helped them regarding outset and skillful workers acquiring. What companies usually lack at this stage, are mostly market competences as well as mentioned limited financial capital. As companies emphasized, different skillsets and resources are needed at different stages.

Table 4 Comparison of the resources and their importance

Case	Most important resource	Networks	Knowledge	Resources seen as limited
A	A combination but mainly personal networks and digital communications	Personal networks, networks developed through conferences.	High technical knowledge of the product and the field of operations.	Some more market competence needed. Limited financial capital.
B	A combination of key people in the company and networks to important contacts.	Mainly personal, but also the company's contacts with distributors were seen as important.	High technological knowledge, lacking in knowledge of industrial sales.	More financial capital and knowledge of industrial sales (on the international level)
C	The cooperation with the University and Incubator. Founders competences.	Networks were seen as important. Personal at the beginning, however became company's ones over time.	Knowledge existing within the company, good access to skilful people from University and Incubator	People with international work experience hard to attract and recruit. More market competences needed.

Source: Authors

2.3 Comparison of factors related to risk, uncertainty and trust

Mostly, the answers from the respondents described international markets being rather opportunities than risks, due to limited domestic markets, more options and advantages outside of the country. Collaborations with clients and partners in other companies was seen as useful in order to overcome the obstacles and risks as well as providing the company with opportunity to establish trust and credibility on the international market.

Table 5 Comparison of factors related to risk, uncertainty and trust

Case	The risk and uncertainty on the international market in comparison with the domestic one	How to mitigate the risks and uncertainties	How to create trust on the international market
A	Company has not seen many risks as it was founded to be on international markets. Uncertainties related to different cultures.	Approach the international markets within a closer psychic distance.	Maintaining relationship with the client, in order to build loyalty and trust.
B	Saw opportunities rather than risk. Uncertainties regarding culture and regulations.	Using local partners and personal expertise.	Using acknowledged experts and their personal networks.
C	Saw the opportunity on the international market. Conservative international market.	Working with local contacts to acquire knowledge regarding their culture.	Needed to convince the market. Used networks and collaborated with other companies to gain trust.

Source: Authors

2 Results and Discussion

The first significant finding is that the case companies were pretty much in line with most of the characteristics described by Tanev (2012). They began doing business on the international market near the inception phase, are in possession of limited resources, willingly took the risk of going international, are operating and targeting the niche market providing unique solution or product, are using advanced technology for communication and are taking advantage of the partners on the market. All in all, one can see a clear pattern in each of the case companies as they significantly specialize in their specific niche field. Moreover, partners were mostly commonly found as important factor in order to establish trust on the market as well as credibility along with the fact that the studied companies consider the international market being an unexplored and interesting opportunity rather than a risk.

RQ1: What does the internationalization process within a born global look like a why does it take place?

The major reason of internationalization by studied case companies was often due to a limited domestic market. Although the reasons for internationalization can be fairly similar, the internationalization process itself differed a little. Despite having entered too many foreign markets at the beginning, Company A managed to get the business in line and keep their operations on-going. Company C and their highly specialized solutions exceeded the Swedish market, hence going international has shown to be a necessity, in order to succeed, which can be nowadays confirmed by their presence for instance on the Asian market; i.e. Japan and China. Company B have had a little harder time to convince the international market. The product they have to offer is a truly niche one with only a few potential customers in comparison to the other two case companies. Moreover, the product is tangible and cannot be seen as a solution, or a special service that other companies provide.

The reason why the process of internationalization took place was explained by all three case study companies as a necessity. The motive of the studied companies was thus not related to the opportunity of finding a niche market that could be leveraged through biggest benefits of its specialization as described by authors Madsen and Servais (1997) as well as Freeman at al. (2006). Despite the fact that profit maximization can be generally interpreted as essential matter for every company, the limited size of the country, highly specialized characteristics of the product or not enough potential customers were more of the reasons mentioned by the case companies for their international business actions. This is consistent with most of the companies as perceiving the foreign markets as an essentiality in order to leverage full potential of their products and services. What is further worth mentioning is that the psychic distance to the market has been stated in previous research done by authors such as Brennan & Garvey (2009) to be less important for BGs. Despite that we can therefore see that case companies studied in this research were well aware of the cultural barriers and that they have found their ways of dealing with some of the existing challenges along the internationalization process. To be a first mover can be a barrier if you are in position of both creating and convincing the market that they actually need your product, which was shown by case of company B in opposite to some mentioned opinions (e.g. Oviatt et al, 2001).

RQ2: How are resources utilized within the internationalization process of born global in order to overcome barriers on the global market?

When collecting the data upon the internationalization process of the case study companies the respondents were mostly mentioning combination of resources that were needed to coexist rather than a single one resource in order to create a running company on the international field. Naturally, resources have different importance when it comes to different stages of company's development and internationalization process. Beforehand, in the theoretical study of this paper, one particular resource has been seen as important by authors Knight & Cavusgil (2009) along with Freeman et al. (2006) and was described as the most important one for expansion of BGs – technological knowledge. It was, however, a resource that was not particularly picked up by the respondents. Nevertheless, we cannot neglect the importance of it as the case study companies are particularly operating in this field, moreover, knowledge itself can be seen here as essential since most of the companies were created around a rather unique and innovative idea. Instead, resources that were being frequently picked up were contacts, partners and relations on the foreign market, which will be in the following subchapters described as the networks.

Empirical findings of this research paper uncovered that the ability to acquire resources on the human side was in numerous cases affected by the fact of limited possession of financial capital. Moreover, the respondents stated that having more financial capital would have helped them to acquire more market as well as sales people and hence become more visible with their products on the international market. This was claimed to speed up the internationalization process and thus having a direct impact on internationalization of the company.

The respondents were throughout the interview process given a space to elaborate and reflect upon the internationalization process. They had a reflection on what could have been done differently to change their position they have on the market today. Several cases stated that the time from inception to the international presence was too long. Other point that was brought up was that the faster placement of the product on the market would facilitate a faster growth as well. Having some previous experience and knowledge from internationalization was seen as a missing asset as well as the human resources, which were overall seen as important, however, difficult to obtain early on in the process due to small size of the company. Gifford (2010) claimed that BGs lack necessary financial capital that is needed to take profit opportunities and that they therefore depend on financial support. Financial resources were frequently mentioned by the interviewees as a big barrier in the process of internationalization and that it even caused the situations, when steps back were required, which had slowed down the internationalization process of the companies. To sum this up, one can claim that the financial capital can be seen as relatively sufficient early on the internationalization process, however, as lacking later on in the process itself.

In connection with the limited financial capital, it was often mentioned that resources existed in limited possession generally, but it was something that was hard to affect and thus was not worth focusing on. It was rather mentioned that it was better to focus on issues that the company can actually affect and adapt to their business actions and idea. Some respondents mentioned the combination of resources that need to exist together but networks were one of the resource that was mentioned as essential to possess in the process of internationalization. Moreover, we recognized that networks were used to a large extent to cope with barriers that were related to the psychic distance.

RQ3: Which role does the knowledge have for the born global in the process of internationalization?

Knowledge in general and especially technological knowledge can be stated to be essential in early on the process of internationalization of the company. Majority of the respondents stated that the core in their organization were the key people and hence the founding team, along with the partnerships that were later established with partners and organizations that could be of a contribution of the knowledge that was missing. In addition, another important resource was the close connection to the University, which presented the knowledge supply to companies, particularly B and C. Knowledge can be moreover seen as something essentially important in the early stages of the internationalization process for the company, in order to be active in a niche field. Nevertheless, when missing on the knowledge factor, networks were used by involving external forces with better competence (or hiring people with missing knowledge – such as international sales, as in case of company A). Worth mentioning is the fact that networks were seen as deriving during the internationalization process, however, the potential for acquiring the new knowledge will be of a greater extent later on, and I therefore claim that to possess the knowledge in early stages on internationalization process must be of a great advantage.

RQ4: Which role do the networks play in the internationalization process of born global company?

Networks, generally speaking, have been brought up by case study companies as the most important resource during the process of internationalization. Personal networks especially related to the founding team were at most seen as especially important in the internationalization process. It was stated that personal networks tend to be transferred into company ones, once the company has established its business operations and the new customers emerge. In case of one company, most of the products were at first sold through the personal network of experts within their particular niche field. This type of network was described as a good source for learning new knowledge from the market. It can be seen that personal networks were seen as principally important, especially in the early stages of the internationalization process. However, the new types of networks more connected to the company's path were seen as important during the process itself, with e.g. resellers, collaboration partners or distributors.

Networks were utmost characterized in relation to creating trust and reducing uncertainties on the international market field. Additionally, respondents furthermore mentioned collaboration with other companies by e.g. using existing reseller and distribution channels, as very important for a small start-up in order to cope with dissimilarities on the international market. Importance of networks has been recognized already in previous research by many authors (e.g. Andersson, 2006; Freeman et al., 2006; Nordman & Melen, 2008). When working with limited resources on the market, such as the case study companies, the fact that the participants used partners, reseller or organizations, can be seen as a very valuable asset. To sum up, networks can be therefore described as a driving force that will help to ensure trust on the market as well as diminish the perceived psychic distance. Based on the findings, we can see that networks play a crucial role in the process of internationalization, especially by establishing trust, mitigating perceived risks and uncertainties – the factors that were related to the psychic distance. To access and leverage the appropriate networks has been seen as very important when having intention of going international.

RQ5: How are resources utilized to handle risks and uncertainties, and to increase the trust in the internationalization process of born global?

The empirical findings have shown that the case study companies did not consider the risk on the international market any bigger that the one being present on the domestic one. Some findings support the possibility of spreading up the risk among different countries whilst other are stressing the opportunity of outweighing the risks perceived. Factors related to risk, uncertainty and trust have been closely interconnected and to a large extent connected to the previously mentioned networks. Companies, thus respondents stated that collaboration and association with other companies and partners is creating trust on the market. This kind of cooperation also builds up win-win situation, increases this level of trust, mitigates risks, what can be al seen as necessary for BGs (Freeman et al., 2006). Level of trust is however something that is likely to either increase over time, however, company needs to build upon these relations. Thus, networks were revealed as essential factor once again. These channels were argued by Gabrielsson and Kirpalani (2008) in their previous research to be important for having significant impact on lowering risk and speeding the process of entering the market. Cooperation with other companies has moreover been perceived as the best source to create trust on the international market and has been mentioned as useful by the respondents. However, it must be taken into consideration that networks need to be built and will most likely develop over time and in this manner increase during the internationalization process. Personal networks or previous experience of the founders is something that is solely important in order to establish trust on the market and to diminish the uncertainties early on in the process of internationalization for born global companies.

Conclusions and Discussion

The main goal of this paper was investigation and analysis of the internationalization process of the born global companies. The purpose was therefore, create an understanding upon how the internationalization process was conducted and moreover, we focused on which resources were seen as most important for the case study companies. The significance of resources has been studied by various authors (e.g. Andersson & Wictor, 2003; Knight & Cavusgil, 2004; Kaur & Sandhu, 2014) and described as a key driver in connection with the internationalization process when it comes to born global companies. The process of internationalization is continuously developing one, which will consequently change over time and it was therefore rather relevant to analyse how these resources have been utilized variously over time.

It is necessary for each company to adapt around resources they have in possession, especially when it comes to small start-ups. At the end of the day, it was not important how many resources the company possessed, but how they utilize them in order to be successful on the international market. The empirical research showed that limited financial capital must not be necessarily seen as a barrier during the initial stages of the internationalization process, but it has been shown as more critical during the developing phase. The lack of finances had the power to slow down the internationalization or for instance caused problems when acquiring new people.

Nonetheless, as most important were considered namely well-developed and functioning networks that were mentioned in terms of increasing opportunities for born global company to internationalize successfully. Networks have been described by authors (e.g. Li et al., 2012; Melen & Nordman, 2007; Freeman et al., 2006) as a source of increased levels of resources and company's profit as well as competitive advantage in the long term. The research showed that networks were mostly formed both on the personal and a company level. They were built on relationships, contacts (both professional and private ones), and trust and were considered by all participants as important during the internationalization process of companies. Early on in the process, mainly personal networks were occurring, however, during the internationalization process they became a part of the company's network. Throughout the process, networks did and will work as a supportive factor in order to mitigate risks and uncertainties on the international market. Moreover, the sufficient networks in terms of resellers and distributors were found as important as they provide companies with knowledge and competence regarding the international market, but these were often seen as missing in the early stages of the internationalization process.

Nevertheless, the process of building and leveraging networks is a time-consuming issue; therefore, it is worth to mention that existing competencies as well as knowledge and technology can be very important during the establishing phase since BGs tend to have rather small networks in the beginning. Furthermore, networks are of a great help when being internationally active, they are a powerful tool and can make the product more visible, ensure credibility and trust in it and mainly in the company that is its inventor. Being in possession of valuable networks can moreover help born global companies with decreasing the perceived psychic distance as well as cultural differences.

In conclusion, there are two important factors that should be noticed to keep in mind when reading this paper. The first one is the fact that different definitions exist as no single one can be superior when it comes to BGs. The whole research on born global companies might be therefore conducted on a wide range of companies, which can be described by specific characteristics, although being defined as BGs. The second factor is in connection to the uniqueness of every born global company. Each case company included in this paper shall be seen in its own context; thus, it is difficult to define some kind of universal theory or definition of the internationalization process that would be suitable in the same way for all the cases. This is in line with Nordman and Melen's work (2008) and their view on born global companies stating that these companies simply cannot be considered for a homogenous group.

Because of the narrow time frame and other objective reasons, the selection and the number of case study companies is limited. Despite the aim to be objective and choose the case-firms that would cope with certain criteria, unavoidably, the case study will be of its own limitation in nature. The choice of cases will be always more or less subjective, and these cases naturally do not represent the whole group needed for generalization.

From various discussions in this paper, there occurred several possibilities to focus for further enquiries in the topic area. Firstly, it would be interesting to repeat the current study with quantitative research design, however, it would probably need a much larger sample of respondents. Secondly, it could be of a great benefit to conduct more research on these companies, as each is of its unique nature and therefore can bring fruitful findings, for instance when researching the internationalization process over longer period of time, rather than a limited situational research.

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Customer Satisfaction and Loyalty towards Companies in the Slovak Republic

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Abstract: In this paper, we focused on evaluating customer satisfaction and loyalty towards companies in the Slovak Republic. The goal of every seller and manufacturer is customer satisfaction. Satisfied customers repeat their purchase, maintain long-term business relationships, and ensure that the companies grow in sales and potential sale profits. In the paper, we focused on the evaluation of research taken in companies in the Slovak Republic in 2016, the importance of evaluating customer satisfaction and loyalty for companies, frequency of the evaluation and the way used for evaluation. Subsequently we examined dependence of customer satisfaction and loyalty to the size of the companies, its structure, focus, industry and time of presence in the sector. The results of the survey can be used to create the right sales strategy in specific companies, and are the means to further attract new customers.

Keywords: customer satisfaction and loyalty, importance, frequency, way of evaluation

JEL codes: *L11*

Introduction

The customer is the most important subject in the business sphere, it is the basis of the success of the service provider focused on providing services. Marketing workers take information and focus on customer satisfaction based on these facts. The utility rate of a product or service is assessed on the basis of the consumer's subjective attitude, personal attitudes, and comparison of expectations with the actual benefits, thus if the customer is satisfied or dissatisfied with the purchase. If the benefits are not high enough, the customers will not repeat their purchase and will switch to a competitive product when re-purchasing. Customer satisfaction depends on the quality of the product or service offered (Jamal, Naser, 2003). Customer satisfaction is defined by Zamazalova as a result of the subjective process, comparing the customer's perception with perceived reality. She indicates the key factors that affect the customer's product satisfaction (quality, functionality, availability etc.), price (level, payment terms, etc.), services (additional product), distribution (location, opening time), image (reputation, security, stability) (Zamazalová, 2008). The customers then evaluate what they received with what they expected to be consistent with their internal set of values. The internal setting of values depends on a number of factors, e.g. previous experience with the purchase.

Customer Satisfaction. Expresses the state in which the customer feels from the use of the purchased product and services and expresses the degree of compliance of the offer with the customer's expectations shown in their behaviour. Customer satisfaction is reflected in its repurchasing. Hrušovská reported ways of customer satisfaction surveys (2012):

- **Questionnaires** - questionnaires, structured questionnaires:
  - Oral - high return and fast feedback, personal contact, are costly;
  - Written - postal, fax, e-mail - risk return, waiting time, lower costs.
- **Consumer testing** - response to a specific product or service - impression test, test of experience, comparative test.
- **Observation** - tracking behaviour and response to a particular situation - time-consuming method (use of monitoring technology), pushing clients.
- **Customer rating system** - Criteria and Supplier Rating.
- **Evaluations by independent organizations** - industry reports, magazines, offices.

Customer loyalty. Customer loyalty can be defined as a certain way of customer behaviour that is shown in long-term relationship to the enterprise, and also by spreading positive references about the enterprise in their environment. It follows that a loyal customer not only repeatedly buys the enterprise products, but also tolerates shortcomings and defends the company in every circumstance. Customer loyalty is the way the customer behaves, which is reflected in the market with two consequences: repeated orders and positive reactions to the environment. Loyalty can be manifested in a number of ways, a loyalty to the brand, to the firm, to the goods or services themselves. The main factors of customer loyalty in a competitive environment, according to Urdzikova (2005) are: pleasure, total customer satisfaction, supplier's position on the market, supplier and customer interdependence, customer inertia and convenience. Oliver defined customer loyalty as the consumer's willingness to buy a product from the same manufacturer regardless of external factors (Oliver, 2010). There is no direct link to express that customer loyalty is increasing with the increasing satisfaction. However, customer satisfaction is reflected in their loyalty (Fornell, 1992). We can include Customer Satisfaction Indicators, Customer Satisfaction Index, Customer Loyalty Index, Volume of Complaints and Claims to Volume, Average Response Time to a claim, and Customer Value (Nenadál, 2008).
The subject of the article is measuring the satisfaction and loyalty of customers with the quality of enterprise products in the Slovak Republic. The aim of the article is to find out the level of customer satisfaction and loyalty and the number of complaints with the quality of production. The partial objective of the article is to find out the dependence of satisfaction, loyalty and the number of complaints on the specific factors affecting the market. From the customer's point of view, quality can be defined as the quality perceived by the consumer's decision about the overall excellence or superiority of the product (Zeithaml, 1988). The research of the main categories of marketing performance measures and their preference for businesses in Slovakia in the evaluation of their marketing success took place after many researches carried out in this area by Ambler (2003), Suchánek (2015). Ambler in his research confirmed that there is a positive and very significant relationship between customer orientation and the importance of consumer behaviour measures (coefficient = 0.45) and between customer orientation and the importance of measures on the consumer environment. Suchánek in his research reviewed product customization in relation to customer satisfaction, then product satisfaction, quality, cost, claims, traditions, product customization, and product breadth. Depending on the customer's expectation of the way and forms of fulfilment of customer’s wishes. Research showed that businesses are overstating customer satisfaction in all directions, giving them the wrong picture of customer satisfaction, less satisfying customers, and making them less efficient (Suchánek, Králová, 2015). It is very important for businesses to find out exactly if their customers are satisfied and whether they really perceive customer satisfaction and the idea of companies about customer satisfaction.

1 Methodology

These trends have become the basis for formulating the main goal, partial goals and scientific hypotheses. The main objective of the contribution is to define satisfaction and loyalty, to point out their importance for the enterprise and to present the results of the survey conducted in enterprises in the Slovak Republic 2016, how important is the measure of satisfaction and loyalty to the enterprise, what is the frequency of the measurement of the indicators, whether companies monitor these indicators and how they are evaluated. The survey was conducted in Slovak companies in September-December 2016. The sample consisted of a first phase of 500 enterprises and included 286 enterprises in the database. Simple random sampling was used. The sampling units were enterprises. The survey was conducted in the form of classic questionnaires and we used personal interviews with business executives. Partial goals:
- defining customer satisfaction and loyalty indicators,
- presentation of the results of the survey conducted in enterprises in 2016 in the Slovak Republic on detection, significance, frequency of measurement, and a way of assessing satisfaction, loyalty, and complaints.

Following the defined problem and objectives we formulate the following hypotheses:

Hypothesis 1: We assume that there is dependence between finding indicators of customer satisfaction and the size of the enterprise,

Hypothesis 2: We assume that there is dependence between identifying customer loyalty measurement and enterprise size,

Hypothesis 3: We assume that there is dependence between finding the number of customer complaints and the size of the business.

In the application section, in order to verify the theoretical knowledge of satisfaction and loyalty in practice, we conducted a questionnaire survey in the Slovak Republic focused on the state of using the indicators of satisfaction and loyalty in enterprises of the Slovak Republic. The evaluation of the results was carried out by using tools of descriptive statistics, i.e. especially using absolute and relative abilities and averages. We also tested the validity of the zero hypothesis (Pacáková, 2003):

Ho: There is no dependence between qualitative characters A and B, respectively there is no association against an alternative hypothesis:
H1: there is dependence between characters A and B, i.e. association.

The hypothesis is used to test the hypothesis $\aleph^2$ - which has $\aleph^2$ - distribution with (r - 1). (S - 1) degrees of freedom where r is the number of categories of variable A and s is the number of categories of variable B. We conducted the analysis in the PSPP statistical program and we evaluated the data using the Descriptive Statistics Crosstabulation. In decision-making, we used the p - value as the test criterion (the lowest level of significance we rejected Ho), which we compared with α (α = 0.05). If p - value was lower than α, we rejected the zero hypothesis and assumed the hypothesis of character dependency. When examining the answers of the questionnaire survey, we used the method of purpose analysis. For data processing, we used quantitative statistical methods using standardized evaluation procedures (Chi-Square Test and Cramer coefficient).

2 Data

Research data was obtained from business managers via questionnaire. The subject of the research for the purposes of this article was to investigate customer satisfaction, its significance, frequency of satisfaction, and the way of evaluation. The frequency of how regularly companies check customer satisfaction was rarely, annually, quarterly, monthly or more frequently. The way of the satisfaction evaluated was examined on the scale 1 – 4: the comparison of plan / reality, comparison with competition, comparison over time or comparison with other groups. We investigated the same facts for customer loyalty and the number of complaints. In our research, customer satisfaction and loyalty ratings tracked customer awareness, customer branding, customer brand relevance, customer satisfaction, customer brand awareness, customer brand awareness, customer loyalty, and conversion rate. We have identified which of these company indicators are tracked, their importance for the company, the frequency of the survey and the way of evaluation in a particular company in Slovakia.
Of the 286 companies surveyed, we can say that in terms of company size, the largest representative sample is companies with a size of up to 50 employees, representing 51.93 % (148 companies), the second largest group is companies with 50-249 employees 16 % (66 companies) of the total number of companies. In the category of employees from 250-499, the number of companies is 8.07 % (23 companies), in the category of employees from 500 - 999 it is 4.56 % (13 companies), in the category of employees from 1000 - 4999 was 8.77 % (25 companies) in a range from 250 to 499. In the last category of employees, over 4999 were 3.51 % (10 enterprises). We monitored the companies in terms of the number of employees, in terms of the structure of the company, whether the business is without a separate marketing department or with a separate marketing department. We also looked at the focus of the company on the consumer market or on the market of organizations and companies by object of activity, whether it is production of products or provision of services. We also looked at companies from the point of view of the industry in which they operate, in terms of their length of presence in a particular sector and the market orientation of the companies.
The method of data acquisition was a controlled interview with a financial, marketing, executive manager or an employee in another important position. From the survey results we can conclude that companies are aware of the importance of evaluating and measuring marketing performance. For the purposes of this article, we have determined the satisfaction of the customer whether they

are satisfied with the customer satisfaction or not, what is the significance of customer satisfaction in the range of scale 1 to 4. The significance of customer satisfaction can be very high, rather high, rather low or low. We also looked at the frequency of customer satisfaction on a scale 1-4, whether they find satisfaction rarely, regularly, quarterly, monthly and more often. And, finally, we found a way of evaluating on a scale of 1 - 4, namely a plan / fact comparison, a comparison over time, a comparison with a competitor, and a comparison with other units in the group. We also investigated the detection, meaning, frequency, and way of reviewing customer loyalty, and examined the number of customer complaints. Within the framework of the questionnaire, the characteristics of the enterprises were analysed, the size of the company, the sector in which they work, the structure of the company, the focus, the time of the sector and the market orientation. The results of individual variables and factors of satisfaction, loyalty, and the number of customer complaints are shown in table 1.

Table 1 Factors of satisfaction, loyalty, and complaints

Variable	N	Mean	Std Dev	Min.	Max.
Customer Satisfaction	**189**	**1,04**	**0,20**	**1,00**	**2,00**
Satisfaction significance	183	1,30	0,53	1,00	3,00
Frequency of satisfaction	**183**	**2,96**	**0,98**	**1,00**	**4,00**
Satisfaction way of evaluation	183	2,13	0,99	1,00	4,00
Customer loyalty	191	1,28	0,45	1,00	2,00
Loyalty significance	139	1,61	0,73	1,00	4,00
Frequency of loyalty	139	2,51	0,94	1,00	4,00
Loyalty way of evaluation	137	2,04	0,90	1,00	4,00
Detecting complaints	192	1,13	0,33	1,00	2,00
Number of complaints significance	168	1,45	0,64	1,00	4,00
Number of complaints frequency	**168**	**3,20**	**1,02**	**1,00**	**4,00**
Number of complaints way of evaluation	167	2,16	1,05	1,00	4,00

Source: Own research

When surveying the number of companies that check customer satisfaction, customer loyalty and the number of complaints in companies in the Slovak Republic, based on the company results of the questionnaires, we observe that satisfaction is obtained by 95.7 % of the companies, the loyalty by 72.6 % of companies and the number of complaints by 87.4 % of the companies. Most companies detect customer satisfaction with the number of employees up to 50 (41.48 %), 39.26 % of companies with the number of employees up to 50 employees detect number of complaints and 30.52 % of companies having employees up to 50 detect customer loyalty. Small companies up to 50 employees did not detect customer satisfaction in 2.65%, they did not detect loyalty in 13.7% and did not detect complaints in 4.7 % of companies. In determining the significance of customer satisfaction, we can say that 74.72% of companies consider it as very high importance, and no single company has been assigned with a low significance. 52.17 % of companies identified very high importance, and 1.44 % of companies were of low importance. In terms of frequency of satisfaction, the highest percentage was 37.91 % for monthly satisfaction surveys, and the lowest percentage of companies determined that 7.69 % of companies were found to be satisfied with customer satisfaction. When surveying customer loyalty, an annual survey of 48.55 % of companies prevailed, and at least companies determined that customer loyalty was rarely detected by 10.86 % of customers. The evaluation method examined whether companies compared the values obtained with the reality, if they compare over time with a competitor or other units in the group. Research has shown that most companies rate customer satisfaction in time at 34.61 % of enterprises, as well as loyalty. Most companies rate customer loyalty at 47.10 % of businesses. Companies also use the plan to compare 31.86 % with 31.8 % of companies and 28.98 % of companies for loyalty. These figures are also confirmed in table 1, where the averages, the standard deviation, the total set and the minimum and maximum values are calculated. In terms of the number of complaints, the highest percentage was found to be 39.26 % for enterprises up to 50 employees, with the importance of identifying the number of complaints, companies rated 44.27 % of companies, and for 45.03 % of companies it has high importance. With the frequency of the number of complaints, the highest number of enterprises determined a monthly survey of 34.78 %, followed by quarterly surveys, annual, and at least companies found the number of complaints rarely. In the evaluation method, most companies compared 52.67 % of companies in time, fewer companies compared the plan with 23.66 % of companies. These results are confirmed in table 1, where the average customer satisfaction is 1.04 i.e. that they are satisfied with the customer

satisfaction, the average satisfaction rate was 2.96 and the average of the complaints number is 3.2. Subsequently, thanks to the PSPP statistical program, the relationship between the two qualitative characters, or verifying if it is possible to regard them as independent, was realized.

Table 2 Chi-quadrate test results and Cramer coefficient for customer´s satisfaction

Customer´s satisfaction				
Factor/Variable	Value Chi-Square	Df	Asymp.sig. (2sided)/p	Cramer´s V Value
Business size	1,91	5	0,862	0,10
The structure of the business	2,01	3	0,570	0,10
Focus on the business	2,27	5	0,810	0,11
Sector	**22,34**	**9**	**0,008**	**0,36**
Time period in sector	2,06	4	0,725	0,10

Source: Own research

In case of confirmation of their dependence, also an assessment of its intensity. Using the chi-quadrate of the test in the PSPP statistical program, the assumption of the statistically significant dependency between the customer satisfaction survey and the individual surveyed attributes (enterprise size, business structure, focus, industry and time of the sector) was verified, and in case of its confirmation the Cramer coefficient (Cramer's V) was used to measure its intensity. Individual Results the Chi-square of the Independence Test and Cramer's Customer Satisfaction Index coefficient are shown in table 2, the results of the Chi-square of the Independence Test and Cramer's Customer Loyalty Index coefficient are shown in table 3 and the results of the Chi-square of the Independence Test and Cramer's number of complaints Index coefficient are shown in table 4.

Table 3 Chi-quadrate test results and Cramer coefficient for customer loyalty

Customer loyalty				
Factor/Variable	Value Chi-Square	Df	Asymp.sig. (2sided)/p	Cramer´s V Value
Business size	6,26	5	0,282	0,18
The structure of the business	**8,47**	**3**	**0,037**	**0,21**
Focus on the business	4,22	5	0,518	0,15
Sector	11,47	9	0,245	0,25
Time period in sector	5,91	4	0,206	0,18

Source: Own research

Table 4 Chi-quadrate test results and Cramer coefficient for number of complaints

Number of customer´s complaints				
Factor/Variable	Value Chi-Square	Df	Asymp.sig. (2sided)/p	Cramer´s V Value
Business size	6,31	5	0,278	0,18
The structure of the business	2,42	3	0,490	0,11
Focus on the business	2,42	5	0,788	0,11
Sector	**19,13**	**9**	**0,024**	**0,33**
Time period in sector	8,64	4	0,071	0,21

Source: Own research

On the basis of the data obtained from the questionnaires and analysed by the PSPP statistical program, statistically significant dependence was confirmed between:

- using indicators measuring customer satisfaction and the sector in which the company operates,
- using indicators measuring customer loyalty and business structure.
- using indicators measuring the number of complaints from customers and the sector in which the business operates.

The power of dependence are reflected by Cramer coefficient values (table 2, 3, 4), whereas the greatest impact has the dependence of checking customer satisfaction depending on the sector,

and dependence on the number of complaints depending on the sector. Moderate dependence has a variable measurement of loyalty depending on the industry in which the enterprise operates. The impact of other evaluated dependent variables on satisfaction is weak. The results of the survey showed that the established hypotheses were not confirmed. In the first hypothesis of customer satisfaction, dependence is weak. In the second and third hypotheses, the variable loyalty is moderate in dependence, and in the number of complaints the dependence on the size of the company and the time of action in the sector is moderate. Dependence on the company focus and the structure of the company is weak. All tests were performed at a significance level $p > 0.05$.

Discussion

Suchánek (2015) said in his research that the more the overall perceived quality of a product is higher in relation to the total cost, the more effective the enterprise is, i.e. efficient companies achieve a better quality / price ratio than inefficient ones. It can be concluded that it is not enough to introduce the product to the customer, but to persuade that the product has quality on all sides in relation to the price for which it is offered and sold. Our research has shown that statistically significant dependence has been confirmed between: the use of customer satisfaction indicators and the sector in which the company operates, between the use of customer loyalty indicators and business structure indicators and between the use of indicators to measure the number of customer complaints and the sector in which the company operates. With regard to customer satisfaction, companies set very high importance to customer satisfaction, verify customer satisfaction regularly, usually monthly or quarterly, and the method of evaluation is, above all, a comparison over time or eventually with reality. From the point of view of the loyalty indicator, importance to it is usually very high or rather high, 50% of companies do not follow loyalty towards customers. Of those, which pursue it, they do it also monthly or quarterly. The rating method predicts comparison over time. With the number of complaints the importance is usually very high or relatively high, the frequency of checking the number of complains is done on a monthly basis, but 50% did not even mention how often they track the number of complaints. The evaluation method is above all a comparison over time. The above mentioned factors of satisfaction and loyalty influence the overall assessment of marketing performance in companies in Slovakia, which can then result in the development of a marketing strategy for the company and thereby influence the amount of investments in this area.

Conclusions

After a thorough analysis of customer satisfaction and loyalty in businesses in the Slovak Republic, we can say that companies are aware of the importance of evaluating and measuring marketing performance. From the point of view of satisfaction and loyalty from the results obtained, 95.74% of companies are satisfied, compared to customer loyalty, where only 72.6% of companies surveyed customer loyalty. We observe that there are currently more trends in the area of satisfaction and loyalty. Individual organizations choose their own specific approach to measuring and evaluating satisfaction and loyalty. Satisfaction and loyalty ratings are the right choice to capture the real status and create the right strategy in a particular company and the means for long-term sustainable growth of companies and to further attract new customers. The contribution is a good basis for further research in this area.

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Information as a determinant of a decision system

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Abstract: *The purpose of the article is to describe the considerations of measuring information in the aspect of making decisions. In the last two decades an "informational revolution" has been made that opens the era of computer tools supporting decision-making processes (Internet, mobile telephony). This relatively new information environment includes information, users and systems that enable information processing. In the information environment, the value and quality of information should be taken into account. An important place in the consideration of information is the measurement of information in the aspect of decision-making.*

Keywords: *information, information processing, decision-making process, national security*

JEL codes: *F, C, M*

Introduction

Information is one of the most frequently used concepts, and simultaneously there is not any expressly agreed scientific definition. The reason for this state of affairs seems to be the fact that this concept relates to various spheres of reality, therefore, various conceptual structures are used to define and operate in distinct languages. On the other hand, the colloquial understanding of the concept of information does not lead to misunderstandings and is used in everyday language interchangeably with such words as: message, tiding, bit of news, notice, caution, instructing, point, office. While analyzing the literature on the concept of information, one can spot two understandings of this term, objective and subjective resulting from one's shaping and receiving activities, and factual and functional, that is, the state of the environment, objectively distinguishable and act of distinguishing from the environment, whether as an act of perception or also as the action of the subject who creates it in a specific form.
In the last two decades an "informational revolution" has been made that opens the era of computer tools supporting decision-making processes (Internet, mobile telephony). This relatively new information environment includes information, users and systems enabling the processing of information. Users include leaders, decision makers, individuals and organizations. Information systems include materials and systems used to collect, process and disseminate information.

An information environment is a space in which people and systems observe, orientate, make decisions and operate information, and therefore constitute the basic environment of the decision-making process. It consists of three correlated dimensions: physical, informational and cognitive.

1 Quantity and value of information

The value of information will depend on the extent to which it may influence the decisions made by the entity, and thus the change of reality. In connection with the above, we can distinguish several features that will characterize information and determine its usefulness either for the decision maker using them in the decision-making process or through devices in a controlled system. In the literature dealing with the theory of information one can find among others such features defining information as quantity, quality, value or imperfection.

Receiving information means finding out more about the object of interest than you knew about it before receiving the information. So each message can contain a certain amount of information, so different messages can contain different amounts of information about the same object (Ciborowski, 1999). However, two people can not receive the same information. It is possible that they will pick up two separate ones, and their distant resemblance may lead them to consider them the same. However, it should be noted that the same do not mean the same (Dukiewicz, 2016). Differences in these may result from both the subjective reception of information, how to

communicate them, or the forms in which they are received by the recipients. The same messages, containing the same features, parameters, characteristics of a given object, may have a different form and this may decide about a relatively smaller or larger amount of information that they contain.

Many authors of studies in the field of the subject relate the amount of information with the concept of probability. This theory captures information as a "measure of the uncertainty of a certain event (receiving a specific measurement result, a specific message emitted by the source) from a finite set of events of a set of possible events" (Dukiewicz, Spustek, 2016). Developing this encyclopaedic formulation, it can be said that the amount of information contained in a given signal depends on the number of all signals relating to the information we are interested in. The dependence of the amount of information on the size of the set will then be directly proportional, the larger the set of signals, the larger the amount of information because the probability of occurrence of a given sign is lower in a specific context. And vice versa, the lower the uncertainty of the signal, the smaller the amount of information.

Each person interested in acquiring information will seek to obtain excellent information. In fact, however, due to, among other things, imperfections in the flow of information, it will not be possible, which is why in most cases we are dealing with information that is not perfect. The imperfection of information can relate to its three characteristics: adequacy, relevance and accuracy. We can therefore distinguish, characterizing the value of information in terms of its imperfections, inadequate information, out-of-date information and inaccurate information. Inadequate information is what we colloquially call "not on the subject", that is, having data about another feature of the state of the object we are interested in than desired. We will describe the information as out of date if we have received information about the value of the object we are interested in, but regarding the past period. Information is inaccurate when the value of the feature of the object we are interested in is overestimated or underestimated, i.e. it does not correspond to the actual state of things (Forlicz, 2008a).

Information can have a zero value, so it will be useless for its owner when he will not have the means to use it. Information that provides knowledge about a certain state of affairs will be useless if you do not have the possibility to use it in your future activity, so it will not affect the reality shaped by the potential user.

As the authors of "Targeting" note, the value of information depends on the following factors (Forlicz, 2008b):

the quality of information, which depends on its accuracy, the higher the quality of information and the more confident the managers can rely on it when making decisions. At the same time, as the quality of information increases, its cost increases,

therefore, if information, despite its high quality, can not significantly contribute to the ability to make decisions, then it is not worth the additional costs,

up-to-date information that should ensure that the information provided by the information system should reach the right person at the right time, enabling policy makers to take the right action at the right time, which prevents normal delays and missed opportunities,

amount of information - only the right amount of information can ensure that you make the right decisions. Both scarcity and excess of information may result in lowering the effectiveness of decisions made. The manager in the overload of information may overlook information that is the most important or key to achieving the organization's goal at the moment,

the significance of information, which means that the information that reaches the decision-makers should be related to the tasks that they have to perform.

An important place in the consideration of information is the measurement of information and the fundamental question: is it possible, and if so, how to measure information? We know that information can be measured accurately. The unit of information quantity is bit (bit is a piece). It has been assumed that the message, whose probability is p, contains:

(1)

$$k = \log_2 \frac{1}{p} = -\log_2 p$$

For example, if the source emits only one message, the probability of emission is p = 1, i.e. this message carries k = log2 (1) = 0 information bits. This means that the message emission is certain, which at the same time implies a zero value of information in a given message. The situation changes when p = ½, ¼, etc., assuming that the source can transmit n different messages with the probability pi, i = 1, 2, 3, ..., n, then the weighted average amount of information in messages from this source is:

(2)

$$H = \sum_{i=1}^{n} p_i \log_2 \frac{1}{p_i}$$

The size of H is called the information entropy of the information source and comes from Claude E. Shannon, an American mathematician and engineer. Entropy is a weighted average of the amount of information that a single message transmits from an information source. Weights are the probabilities of sending individual messages by a given source of information. The unit of entropy is a bit (hence the base of the logarithm is 2). On the basis of the entropy value for a particular message, one can speak about the probability relation of occurrence of a given event to the amount of information contained in a message about a given event. This means that the less likely the result of a given event is, the more information there is about its occurrence (the more valuable the message is (Kosárová, 2017)).

Among the features that characterize information, among others:

- aggregation (characterized by the level of information synthesis);
- timeliness (determined by confrontation with the real state);
- purposefulness (defined by connection with the overriding objective of the analysis);
- decision-making (determined by determining the impact on the decision-making process);
- unambiguity (determined by the consistency of the facts described);
- communication (brevity and clarity of the message);
- completeness (ensuring the completeness of the description of the facts);
- comparability (convergence of content with other messages);
- truthfulness (determined by the probability of occurrence of the facts described);
- prospectiveness (possibility of using in prognostic models);
- reliability (confirmed by other messages);
- source (defined by unambiguous identification of the source of information);
- the length of the message (defined by the size of the message being the information carrier);
- the probability of occurrence of events to which the information relates.

Most of the above features are included in the stimulant collection. Stimulant - a feature characterizing a given object whose increase in value causes an increase in the value of the assessed object (in contrast to the destimulant - a characteristic for which a drop in value causes an increase in the value of the assessed object).

2 Information conditioning of the decision-making process

Deciding, making decisions is the foundation and foundation of everything that concerns management. Manager, manager, commander, who commands, directs or manages any organization, to fulfill his functions, he must make decisions. And regardless of whether they are simple decisions, or more complicated, with a large significance in their effects, their taking is an indispensable part of anyone who has any resources at their disposal, and therefore every man who owns, at least has his own life at his disposal. However, this part of this study presents the theory of decision in terms of management art.

As you can see, when analyzing the structure of the decision-making process, information plays a very important role in its construction. So the decision maker trying to increase the rationality of decisions should properly organize an information system that will support its model of work. Therefore, it is very important in the decision-making process to adapt information to the needs of this process. Complaints of commanders on various types of irregularities related to the information system, as well as the results of empirical research on this problem, draw attention to the imperfections of information in the organization in the context of its usefulness for specific decision-making processes. Thus, there are specific relations between information, decisions and the company's management system.

Analyzing these relationships, we can distinguish seven variables, each of which remains in a specific relationship. These are: goals, works, decision problems, decisions, reports processing procedure data.

It can be assumed that these variables define the organization's management system with the following: decision-making problems and decisions are elements of the decision-making subsystem; reports, procedures and data are elements of the information subsystem.

To avoid distortions between information, decisions and the management system, it is necessary to include in the research and design of each system the dependencies between its objectives and tasks and between the decision-making system and the information system. Thus, in order to adjust information, decisions and management system to one another, it is necessary to conduct systematic research.

Their effect should be an information and decision system that secures the efficient implementation of the objectives and tasks of a specific system (Mazur, 1970).

From the point of view of the needs of the organization, three types of information can be distinguished: information to help in making decisions, information providing adequate communication, between the manager and subordinates and information that is to meet the other needs of their users. Such information is called *decision-making information* and concerns decision-making processes and the management of human teams. Based on them, decision-makers can determine what should be done in specific conditions to prevent the deterioration of the existing state or to weaken the dynamics of achieving the opponent's goals.

From the point of view of the organization's needs, the information can be divided into information on the entire organizational structure, orientation information, and information on the conditions and results of their own work and position in the organizational structure, information that designs and corrects behaviors (Oulehlová et al., 2015).

For the needs of the management process, information is obtained through the implementation of the information cycle, which is closely related to the management system, the given organizational structure, the decision-making center and hierarchical relations and creates an information system. The information cycle consists of four stages: targeting, gathering, processing, dissemination. For didactic purposes, it can be assumed that the stages of the information cycle follow each other sequentially. Information needs are determined on the basis of the knowledge of decision areas (interests) affecting the achievement of the intended goal.

3 Information struggle

Just like other problems, the information struggle is considered as a scientific problem being of interest to many theoreticians. Information fight is an integral part of the whole system of armed struggle, therefore it can not be considered in isolation from other factors conditioning the course and end result of the fight. What is more, the goal of the information fight, conducted together with other fights, always results from the character and purpose of the fought fight. These goals are achieved through the adoption of specific methods of purposeful action, the choice of which depends on the current state of reality. We acquire knowledge about it through obtaining information, and these in turn reach us through information and control systems. The structures of information and control systems are conditioned by the needs of the decision-making process and are designed to fulfill three basic functions: data acquisition about the opponent, collecting data about your own fighting potential and his situation and managing his own fighting potential. The informational fight can not be limited to obtaining information that secures the implementation of its own decision-making process, it must also influence the decisions made by the opposite party, so as to strengthen one's own actions and weaken the effects of the opponent's actions. Information disruption and information defense are used for this purpose. The second sub-segment of the informational fight that is disruption will focus on the implementation of two functions preventing or hindering the acquisition of data and the physical destruction of its technical elements. The entire information disruption will be directed at creating a false image of the reality of the opponent, so that the decisions made by him aim at non-existent or irrelevant objects of action. In order to ensure the effectiveness of information disruption, it must be implemented with equal consistency and consistency of objectives at all levels of activity, and therefore strategic, operational and tactical.

Therefore, the undertakings of the scope of information disruption at the lower levels of activities in the framework of the armed struggle should be a confirmation and a logical sequence of false information, passed on to the opponent at higher levels of managing the activities (Penc, 2001).

As part of the information defense, as the third element of the information fight, one should focus on creating conditions to prevent the acquisition of important information about their own potential and conditions affecting the reality of the fight, important from the point of view of conducting actions by the opposite party. Comprehensive information defense will refer to three main areas that should be taken into account when organizing and planning information defense. These are the evaluation of the battlefield environment, anti-discrimination and counterintelligence projects, radio-electronic defense and communication security. The whole of these undertakings will be directed at information disrupting the data acquisition path, in order to prevent the opponent from achieving his goals, and thus to prevent disturbances of his own purposeful actions. Information defense can be carried out in various ways and with the use of various tools.

The main purpose of introducing information entropy in the data acquisition path can be achieved both through the use of broadly understood simulation and the physical destruction of the enemy's reconnaissance elements (Pikner, Galatík, 2015).

Outrunning and precision decide on the victory in the fight, so the main goal of the information fight will be to provide the possibility of faster response from the opponent, faster action of the opponent and more precise destruction of its elements of the combat group, selected according to priorities enabling destructive influence on its resources, which have the most important significance for the possibility of continuing the fight.

Conclusions

Information can have a zero value, so it will be useless for its owner when he will not have the means to use it. Information that provides knowledge about a certain state of affairs will be useless if you do not have the possibility to use it in your future activity, so it will not affect the reality shaped by the potential user.

The value of information depends on the following factors:

The quality of information, which depends on its accuracy, the higher the quality of information and the more confident the managers can rely on it when making decisions. At the same time, as the quality of information increases, its cost increases.

Therefore, if information, despite its high quality, can not to significantly contribute to the ability to make decisions, it is not worth the additional costs.

Up-to-date information that should ensure that the information provided by the information system should reach the right person at the right time, enabling policy makers to take the right action at the right time, which prevents normal delays and missed opportunities.

Amount of information - only the right amount of information can ensure that you make the right decisions. Both scarcity and excess of information may result in lowering the effectiveness of decisions made. The manager in the overload of information may overlook information that is the most important or key to achieving the organization's goal at the moment.

The significance of information, which means that the information that reaches the decision-makers should be related to the tasks that they have to perform.

Anyone interested in acquiring information will seek to obtain excellent information. In fact, however, due to, among other things, imperfections in the flow of information, it will not be possible, which is why in most cases we are dealing with information that is not perfect.

On the basis of the entropy value for a particular message, one can speak about the probability relation of occurrence of a given event to the amount of information contained in a message about a given event. This means that the less likely the result of a given event is, the more information there is about its occurrence the more valuable the message is.

When analyzing the structure of the decision-making process, information plays a very important role in its construction. Thus, the decision-maker trying to increase the rationality of the decisions made should properly organize an information system that will support his work model.

To avoid distortions between information, decisions and the management system, it is necessary to include in the research and design of each system the dependencies between its objectives and tasks and between the decision-making system and information system.

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Trends in Gender Economic Equality and Empowerment: The Case of the Czech Republic

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Abstract: *The paper aims to investigate progress of gender-based disparities in the context of the Czech Republic, over the period 2006 - 2017. The analysis is conducted using data from The Global Gender Gap Reports published annually by the World Economic Forum. Particular attention is paid to the Economic Participation and Opportunity subindex of the Gender Gap Index (GGI). Furthermore, trends and scores of individual indicators addressing this subindex, namely Labour Force Participation, Wage Equality for Similar Work, Estimated Earned Income and Ability of Women to Rise to Positions of Leadership over the period 2006-2017 are analyzed and discussed. The findings indicate that despite a minor improvement in the Czech Republic's rating in the Economic Participation and Opportunities subindex over the period 2006-2017, the overall the gap between women and men in this subindex remains significant. Moreover, the results indicate that the lower score in the subindex is directly connected to the country's worse performance in the Wage Equality for Similar Work, Estimated Earned Income and Ability of Women to Rise to Positions of Leadership indicators. On the other hand, our analysis reveals that the Czech Republic ranks higher in gender parity in relation to the Labour Force Participation indicator. The study thus contributes to better understanding of how the Czech Republic progress towards gender parity with a special emphasis on the economic aspects and of the related challenges.*

Keywords: *gender equality, gender gap index, economic participation, pay gap*

JEL codes: *J16, J31, M1*

Introduction

In the past several decades we have witnessed a growing interest in gender inequality among politicians, professionals and academics. Gender inequality is a multidimensional and complex phenomenon encompassing social, political and economic dimensions. It is expressed in attitudes, beliefs, behaviours and policies that reflect an equal valuing and provision of opportunities for both men and women (Lopez-Claro & Zahidy, 2005). Gender equality is a value for entire societies as well one of the fundamental values of the European Union. Equal opportunities between women and men contribute to stability both at the social and economic level, contributes to enhancing competitiveness of the economy and a better economic performance (Sawicka Janina, & Łagoda, 2015; Government strategy for equality in the Czech Republic, 2014). Moreover, the literature has reached a general consensus on the positive impact of gender equality on economic growth (Kabeer, 2015, Jütting et al, 2008). It has become evident that gender inequality reduces economic growth (Klasen & Lamanna, 2009). Greater gender equality also enables countries to benefit from the female human capital, which in turn supports overall economic growth. Preventing women from being *fully integrated* leads to loses in skills and ideas that are critical for addressing current global challenges (Hausmann, Tyson, & Zahidi, 2017).

Empirical evidence indicates that a noted progress across a wide range of economic, social, and political areas has been achieved in the area of women empowerment and equality. The world has moved closer towards achieving gender equality (Stotsky et al, 2016). In comparison with past decades women enjoy more civil, political, cultural, social and economic rights and opportunities,

are better represented in decision-making positions and may benefit from better educational and labour opportunities (Akchurin & Lee, 2013).

Despite the positive progress in some areas and long-term intense efforts of various stakeholders, the global gender gap persists in numerous countries, in particular in developing countries (Cuberes & Teigniger, 2012). Needless to say, the level of women's empowerment in developed countries also vary (Bozzano, 2012). According to the World Economic Forum (WEF), the global gender gap widened for the first time in 2017 since 2006 when the first Global Gender Gap Report was published (Hausmann, Tyson, & Zahidi, 2017). In the economic area women are still paid less than their male counterparts, face segregation in occupation and are overrepresented in low-paying jobs and industries such as teaching and nursing. They are also underrepresented in senior positions while being often confronted with a "glass ceiling" (OECD, 2012)

Gender equality has been actively discussed in the Czech Republic. Despite the inclusion of gender equality in a number of policy documents and initiatives updated annually, gender equality has not been fully achieved yet (Government strategy for equality in the Czech Republic, 2014). In the annual report of the World Economic Forum Global Gender Gap Index on equality of women and men the Czech Republic dropped in the overall ranking from the 76th place in 2016 to the 88th in 2017. It placed 92nd in the Economic Participation and Opportunity area, (shared) the 1st place both in the Educational Attainment and in the Health and Survival areas and the 91st place in the Political Empowerment area. The Czech Republic has thus fully closed the gap between women in health outcomes and mean and in the educational attainment. However, the gaps between women and men both economic participation and political empowerment remain wide and need to be thoroughly addressed by the Czech Government (Hausmann, Tyson, & Zahidi, 2017).

The purpose of the paper is to provide an impartial view of the Czech Republic's performance in gender equality with a special emphasis on the economic area. The aim of this paper is to examine the development of workplace gender-based disparities in the Czech Republic over the period 2006 - 2017. The paper uses gender inequality data from The Global Gender Gap Reports published annually by the WEF. We pay particular attention to Economic Participation and Opportunity sub-index of the Gender Gap Index (GGI).

1 Measuring gender equality

Before examining any progress made in implementation of gender equality policies it is crucial to consider the overall progress in gender equality. Addressing the issue in a comprehensive manner enables policymakers, governments, organizations and general public to better understand and promote gender equality. Furthermore, the analysis can serve as a basis for designing effective actions with the aim of reducing gender gaps. There exist several statistical indices to measure gender equality. The first widely used index to analyse women's development issues was the old Gender-related Development Index (GDI) introduced by the United Nations Development Program (UNDP) in 1995. The index employed three subindexes with several variables reflecting educational attainment, health status and income. In the same year, the UNDP introduced the Gender Empowerment Measure (GEM) which focuses in particular on women's opportunities in three key areas - political participation and decision-making power; economic participation and decision-making power; and power over economic resources (Stotsky et al, 2016). Although the GDI and GEM attracted increased attention to gender equality in human development, both indexes faced criticism for their methodological and conceptual limitations (Dijkstra & Hanmer (2011). In response to those criticisms, the UNDP in 2014introduced a revised GDI. The UNDP also developed another tool to measure gender inequality - the Gender Inequality Index (GII) which measures inequality between men and women in the following dimensions: health, participation in society and the labour market (Savicka & Lagoda, 2015). Another tool, the Gender Equality Index (GEI), was developed by the International Institute of Social Studies at Erasmus University in the Netherlands and was first published in 2010. The GEI measures inequality in the following three dimensions: education, economic participation and empowerment comprising of 21 indicators (Plantenga et al. 2009, Stotsky et al, 2016). As the presented paper focuses on the economic

dimension of inequality of the population of women and in the context of the Czech Republic, the Global Gender Gap Index (GGGI) was selected to analyse trends in economic participation.

1.1 Global Gender Gap Index

The Global Gender Gap Index (GGGI) was first introduced by the WEF in 2006 to measure the size of the gap between women and men. The GGGI also provides country ranking that allows for comparisons across nations and regions. It is important to note that the GGGI does not measure gender-based gaps at the country level. It is independent from the level of development of individual countries (Hausmann, Tyson, & Zahidi, 2016). Furthermore, it does not relate to country specific indicators such as specific policies, rights, culture or customs. The methodology of the calculation of the GGGI has not been modified since 2006 and thus provides a suitable basis for a time-series analysis (Hausmann, Tyson, & Zahidi, 2017). The index is comprised of four equally weighted subindexes including: Economic Participation and Opportunity; Educational Attainment; Health and Survival; and Political Empowerment. The highest possible score for of all subindexes is 1 (parity) and the lowest is 0 (imparity). To calculate the overall GGGI score an unweighted average of each subindex score is used. The overall GGGI score is ranging between 1 (equality) and 0 (inequality) (Hausmann, Tyson, & Zahidi 2017).

In this paper we focus on economic participation and opportunities that reflect the labour force participation gap. This subindex is captured by measuring several indicators such as the difference between women and men in labour force participation rates, the remuneration gap such as wage inequality between women and men for similar work, estimated female-male earned income and advancement of women and men captured through the ratio of women to men among legislators, senior officials and managers, and the ratio of women to men among technical and professional workers (Barns &, Preston, 2010). Each of those indicators has the same relative impact on the chosen subindex for which similar to the GGGI the highest possible score is 1 (equality) and the lowest possible score is 0 (inequality). For the purpose of the analysis we selected the following indicators: Labour Force Participation, Wage Equality for Similar Work, Estimated Earned Income and Ability of Women to Raise to Positions of Leadership on the basis their relevance to the workplace.

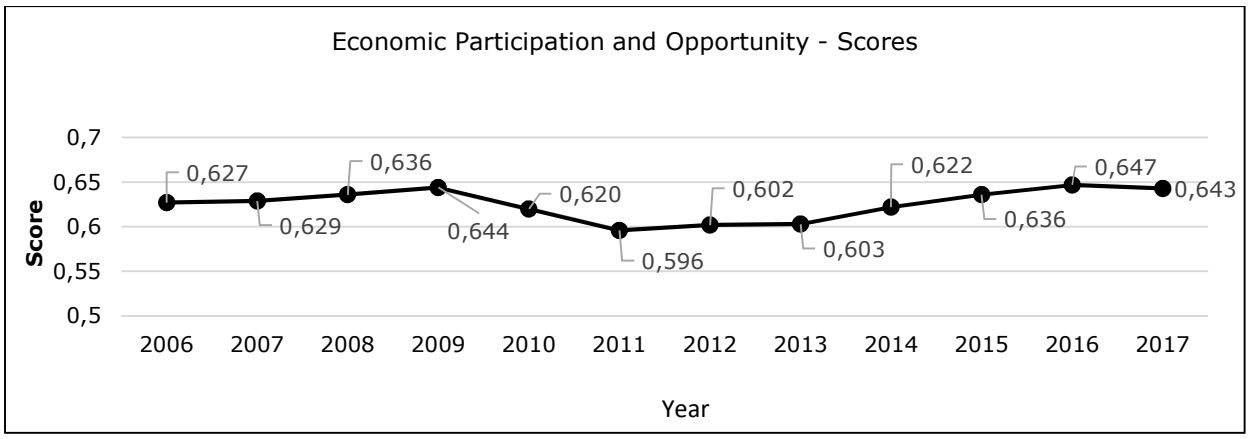
2 Results

In this section we present trends and scores of the analysed Economic Participation and Opportunity Subindex and of individual indicators related to the Subindex, namely Labour Force Participation, Wage Equality for Similar Work, Estimated Earned Income and Ability of Women to Rise to Positions of Leadership over the period 2006-2017.

2.1 Economic Participation and Opportunity

Figure 1 displays changes in the Economic Participation and Opportunity Subindex between the period 2006-2017. According to the results, the gap between women and men in Economic Participation and Opportunities recorded a slight improvement over the period 2006-2017. The results indicate an increase in parity over the years 2006 – 2009, with its peak in 2009 when the score reached the value of 0.644. Nevertheless, in the following years 2010 – 2015 the gender gap had began to widen. In 2015, the gender gap remained at the same level as in 2008. The following year the situation slightly improved with the gender gap score at 0.647. In 2017, the gender gap increased and the Economic Participation and Opportunity gap reached 0,643. In other words, only 65 % of the Economic Participation and Opportunity gap has been closed to this day. On the global level, in 2017 the Czech Republic scored above the world average (0.585). At the same time the gap between women and men in this Subindex remains wide. This situation may be attributed mainly to wide gender gap in the following three indicators: Wage Equality for Similar Work, Estimated Earned Income and Ability of Women to Rise to Positions of Leadership.

Figure 1 Economic Participation and Opportunity over the period 2006-2017 (Scores)

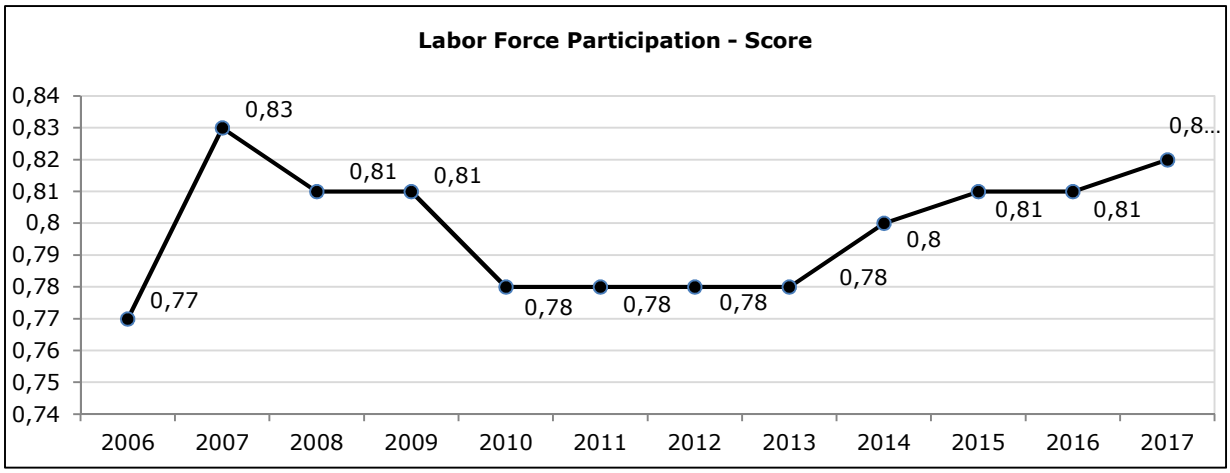


Source: Own processing based on Global Gender Gap Report data (2006-2017)

2.2 Labour Force Participation

Figure 2 shows the increase of parity between 2006 – 2009 with its peak in 2008. In that year the gender gap reached the value of 0.83, representing approximately a gender gap of 17 %. Nevertheless, in the following years 2010 - 2013 there was a slight decrease of parity. The gender gap widened between that period. In particular, the gender gap was at 0.78 thus indicating a need to close a 22 % gap. The assumed cause was the great recession during which the employment rate was influenced in an especially negative manner. Since 2014 until 2017 the gender gap has narrowed and reached scores from 0.8 to 0.82 in 2017. The economy began to recover while the labour market conditions continued to improve. According to the OECD (2017) the employment rate in the Czech Republic increased more rapidly in 2017 than the OECD average. Based on the 2017 WEF Gender Gap Index data, the Czech Republic ranked 65 out of 144 countries and a score which is above the average global score (0.667 in 2017). In total the results indicate that the Czech Republic has closed so far more than 80% of its gender gap on this indicator and it is heading towards greater gender parity in the area of Labour Force Participation.

Figure 2 Labour Force Participation over the Period 2006-2017 (Scores)



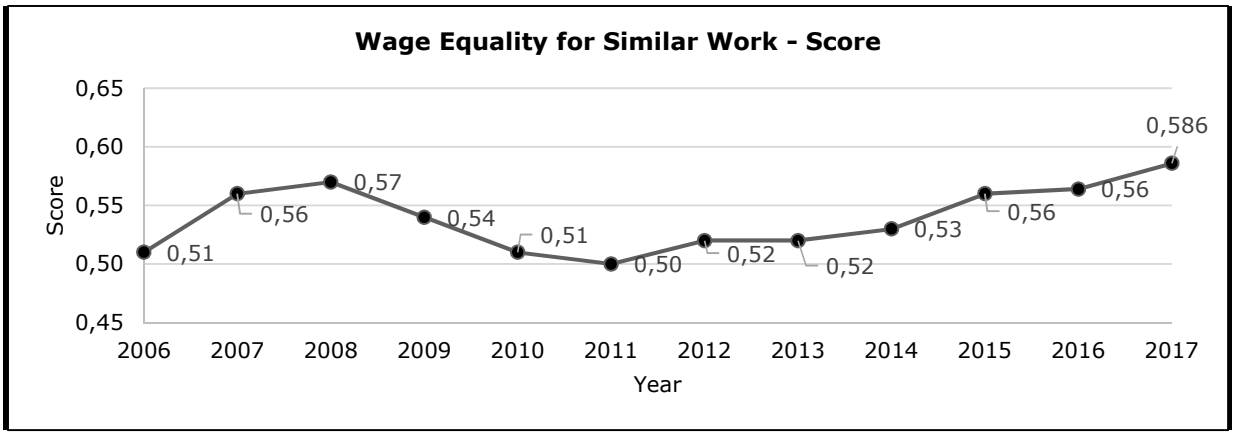
Source: Own processing based on Global Gender Gap Report data (2006-2017)

2.3 Wage Equality for Similar Work

As shown in Figure 3 the gender gap for this indicator remained relatively stable between 2006 and 2017 with the scores ranging from 0.51 – 0.59. The figures indicate an increase in parity over the years 2006–2008 with its peak in 2008 when it reached the value of 0.57. Nevertheless, over the next period 2009–2016 the gender gap increased from 0,54 in 2009 to 0,56 in 2016. In 2017, it slightly decreased. Staying at 58.0 % suggests that 42 % remain to be closed. Although the Czech Republic has progressed towards wage equality and moved globally from the 110th place in 2016 to

the 97th place in 2017, the score for this indicator 0.59 in 2017 still remains below the world average (0.634 in 2017) (Hausmann, Tyson, & Zahidi, 2017). Thus, tackling the Wage Equality gender gap should be prioritised in the Czech Republic.

Figure 3 Wage Equality for Similar Work over the Period 2006-2017 (Scores)

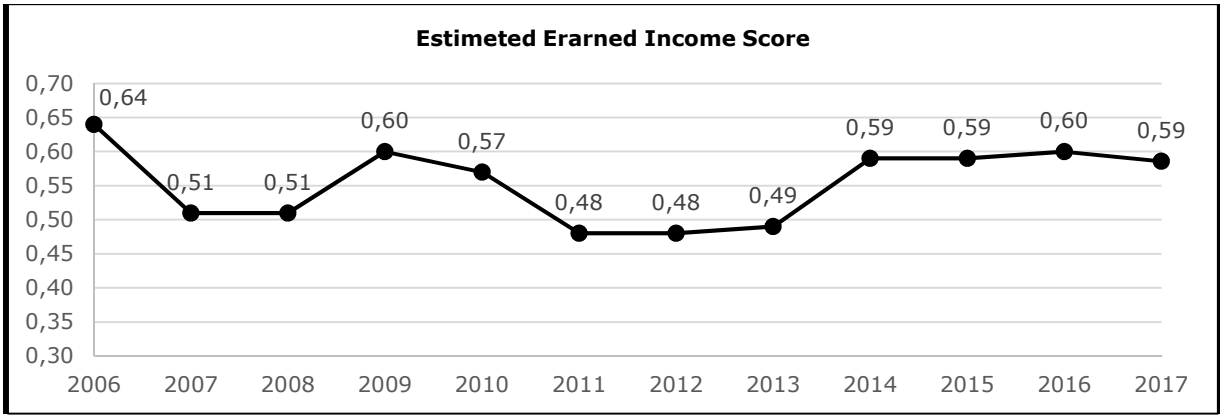


Source: Own processing based on Global Gender Gap Report data (2006-2017)

2.4 Estimated Earned Income

Figure 4 displays the scores for the indicator Estimated Earned Income. The results indicate that the inequality in this area narrowed slightly between 2006–2017. In 2006, the gender gap was at its lowest level and achieved a score of 0.64. In other words, the gender gap stood at 64 % and 36 % of the gender gap remained to be closed. In the following seven years, except for the years 2009 and 2010, the gender gap widened reaching scores 0.51 in 2007 to 0,49 in 2013. Since 2014, the Estimated Earned Income gender gap began to stabilise with the scores ranging from 0.59 to 0.60, leaving 40 % of the gender gap to be closed. In 2017, the Czech Republic ranked 79th out of 144 countries with a score of 0.59 slightly above the average world score of 0.509 in 2017 (Global Gender Gap Report, 2017). Overall, the data highlights the fact that despite a limited progress in closing the Estimated Earned Income gap, it remains wide in the Czech Republic.

Figure 4 Estimated Earned Income over the Period 2006-2017 (Scores)



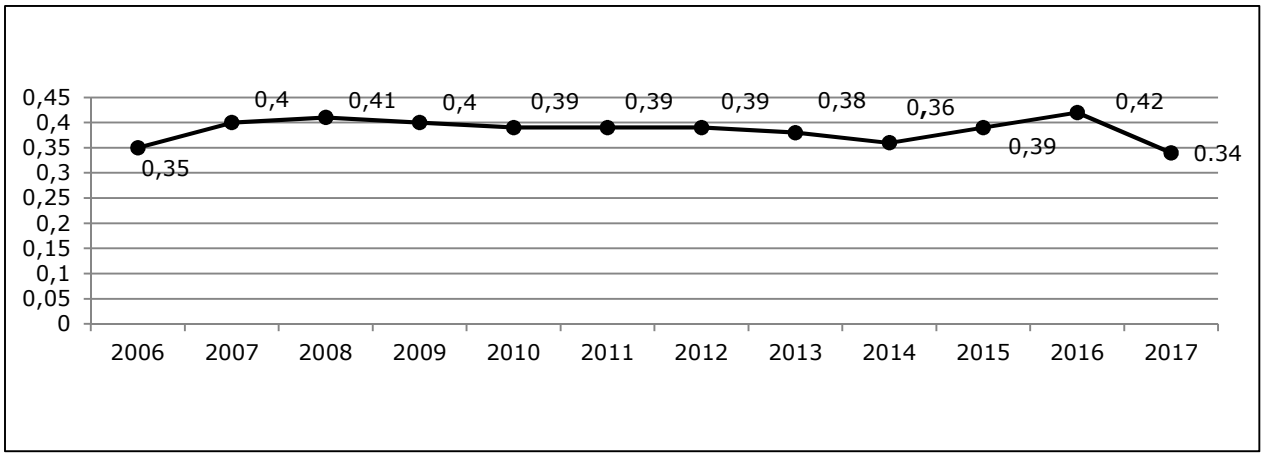
Source: Source: Own processing based on Global Gender Gap Report data (2006-2017)

2.5 Ability of Women to Rise to Position of Leadership

The overall results in Figure 5 show growth of parity between 2006-2009 and a slight decrease to 0.39 in the years 2010–2012. During the following years 2013 and 2014 the gender gap widened. In 2015, it remained reached the level of 0.39 as in 2010-2012. It rose again in 2016 to 0.42 yet fell to 0.34, even below the level of 2006, in 2017. The Ability of Women to Rise to Position of Leadership gender gap remains more than 66 %. Based on the 2017 WEF Gender Gap Index data, the Czech Republic ranked 88th out of 144 countries and scored slightly above the average score of

0.320. The data reveals that women in the Czech Republic are not provided with the same opportunities to rise to managerial positions as men and the progress in this area has been limited.

Figure 5 Ability of Women to Rise to Position of Leadership the Period 2006-2017 (Scores)



Source: Own processing based on Global Gender Gap Report data (2006-2017)

Discussion and Conclusion

This paper deals with trends in Gender Economic Equality and Empowerment. For the purpose of our analysis the following indicators: were selected Labor Force Participation, Wage Equality for Similar Work, Estimated Earned Income and Ability of Women to Raise to Positions of Leadership on the basis their relevance to the workplace.

Overall, the gap between women and men in the Economic Participation and Opportunities subindex over the period 2006-2017 slightly improved. The analysed results show that the Czech Republic has closed 65 % of the gap in this subindex and thus scored above the world average of 58.5% (Global Gender Gap Report, 2017). Nevertheless, the gap between women and men in the subindex remains wide. A lower Economic Participation and Opportunity subindex score has been caused mainly due to a worse performance in the following three indicators: Wage Equality for Similar Work, Estimated Earned Income and Ability of Women to Rise to Positions of Leadership. On the other hand, the data reveals that the Czech Republic records higher gender parity in the Labor Force participation indicator with more than 80 % of the gender gap closed and scoring well above the world average of 66.7% (Global gender Gap Report, 2017). Parity of women and men in the labour market participation indicates a positive trend. What remains to be determined is the influence of the historically low unemployment rate in the Czech Republic on the indicator's results.

Despite a slight progress in the Wage Equality for Similar Work indicator, the achieved score of 0.59 in 2017 indicates that the Czech Republic still ranks below the world average of 0.634 in 2017 (Hausmann, Tyson, & Zahidi, 2017). The gender gap for this indicator still remains wide. According to the data of the Czech Statistical Office (CSO, 2017) a gender gap exists in nearly every occupation in the Czech Republic.

The results of the indicator Estimated Earned Income show that disparity between women and men narrowed slightly between 2006–2017. Nonetheless, the Estimated Earned Income gender gap remains wide. The data indicate that the Czech Republic has up to this date closed only 40 % of this indicator's gap. According to the Czech Statistical Office (CSO, 2017) the average gross monthly earnings in 2016 for women amounted to 25 283 Czech crowns (CZK) while 32 134 (CZK) and for men. We suppose that this gap can be explained mainly due to a sectoral gender segregation on the labor market. It is apparent that women are more represented in relatively low paid sectors such as medical and social care, education, accommodation, catering and restaurant services. Men are more often represented in sectors such as building industry, mining, tree-cutting, shipping and storing and information technologies. Distribution of women and men in the particular sectors reflects to a certain extent gender stereotypes in the society (European Union, 2017). The

results on the Ability of Women to Rise to Position of Leadership index clearly indicate that women in the Czech Republic are under-represented in senior positions and are not provided with the same opportunity as men at managerial positions.

Overall, the study contributes to better understanding of the country's progress towards gender parity with a special emphasis on the economic aspects and of the related challenges.

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Employee Identification with the Organization's Value Orientation

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Abstract: *Organizational identity and the subsequent identification with the organization are abstract constructs that touch upon the consequences, but also the causes of specific manifestations of social interaction with the environment. Values are the very thing based on which standards and criteria that stand for the selection and evaluation of specific individuals, events or procedures are constructed. This paper demonstrates that there is a relationship between the value ladder of members of the organization and the organization's value orientation. It also suggests that the level of identification with the organization, unlike the position of the individual in the organization, is an important factor in exploring the organization's own value orientation as well as its relation to the value orientation of its members. A multistep scale questionnaire based on the Schwartz Value Survey and his Portrait Value Questionnaire was used as the data gathering instrument. The data obtained from the questionnaire survey were statistically evaluated using multiple linear regression analyses. The way in which members of the organization arrange the value ladder provides a possible perspective for viewing the psychological link between the individual and the organization. We believe that this knowledge could be used when recruiting suitable staff, compatible with the organization in a long-term perspective.*

Keywords: *organizational identification, value orientation, recruiting, Schwartz Value Survey, HR management*

Introduction

Exploring the concept of organizational identity and the degree of identification with the organization in terms of the value orientation of its members helps to capture the essence of not only why people become members of organizations but also why they voluntarily leave them, why they approach work in a certain way and what predestines the quality of relationships with other members of the organization (Falvey, 2018). Organizations' demand for skilled workers is steadily increasing and, at the time of economic peaking, it is more than ever necessary for them to reflect the needs of employees and their view of the organization. The development of a so much desirable deep bond with the organization is not easily attainable for employers considering the current situation in the labor market. Identification with the organization is not a conscious process, but it reflects, to a great extent, mutual interactions based on the degree of similarity or difference between the individual and the organization and their potential as well as real compatibility.

Currently, research of values and value structures is shifting towards management and the related fields (Křeménková, 2015). In terms of change management in organizations, according to Fuchs and Edwards (2012), management in times of organizational change often focuses only on profitability or efficiency factors without considering the impact of the change on the current processes also in relation to the level of identification of their employees. Where employees feel united with the organization, they show positive behavior towards changes. The degree of identification with the organization is also affected, among other things, by the compatibility of values, goals and beliefs between the individual and the organization and the features and capabilities of the individual. Whether some of the organizational preferences of individuals are more closely related to a higher tendency towards identification with the organization was a question dealt with, in the Czech environment, by Balgová et al. (2017). Fuchs (2012) summarizes the current theoretical knowledge showing that a high degree of identification with the organization has a positive impact on the level of workplace collaboration, client-oriented behavior, decision-making processes, internal motivation, sharing of information, reduction of tendencies towards employee turnover; it increases work satisfaction and improves collaborative processes in virtual teams, creativity, social support in stressful times, production performance or citizenship behavior. Other general theoretical resources related to the processes of identification are also elaborated by Ashforth (2016) or Ashforth, Harrison and Corley (2008).

Therefore, the degree of identification with the organization is one of the key instruments, which might positively influence the organization's effectiveness. But in order for an individual to identify with the organization, they have to find a meaning in what they do in the organization and their work there must be of deeper significance for their identity. How individuals perceive and define themselves is partly influenced by what they do and believe in. This individual set-up of their selves can be influenced by changes coming from the outside, and also by the values and beliefs embedded in the organizational culture (Ravasi & Schultz, 2006).

According to Edwards (2007), there is a psychological link between the individual and the organization through which the individual experiences a deep, self-defining affective and cognitive bond with the organization as a social entity. In terms of personality psychology, the subjective affection and evaluation of the others is related to the system of needs, values and ideals of the individual. According to Schwartz (2012), the values have been the central concept of the branches of science dealing with the relationships between social entities. Values have been and still are used to characterize cultural groups, societies and individuals, and to explain the bases of motivation to determine opinions and behaviors. According to Výrost and Slaměník (2008), values direct activities of the individual from the psychological point of view. Different psychological schools offer different definitions and classifications of values, but all of them agree that values are one of the central motives of human behavior and that value neutrality does not exist. Values fulfill the mediating function in the interaction of an individual with their social environment (Cakirpaloglu, 2004).

According to Johnson and Jackson (2009), the mutual compatibility of the individual and the organization is of great importance, especially in terms of the identity and values that are relatively stable over time and influence attitudes, judgments and behavior of individuals. Expressing organizational values is an important part of the socialization process, adaptation to a new job and the role in an organization. Values mediate information about expectations and formal and informal rules while linking individuals to wider organizational contexts. Organizational values indicate to its members what is important to the organization. If the values of the organization are not in line with the motivation of its employees, they will only have very little influence on their attitudes and behavior. This congruence between the employees' identity and organizational values predetermines employee loyalty, and the degree of devotion is a key factor affecting the future turnover.

The incompatibility of value systems is one of the factors that can cause conflicts in the organization. Values in an organization express the group's demands for desirable behavior, and if these requirements are fundamentally inconsistent with the value ladder of the individual, the relationship between the individual and the organization is unlikely to be considered harmonious and fruitful from the long-term perspective (Výrost & Slaměník, 2008). And while devotion to the organization can be explained based on economic and social exchange between the individual and the organization, identification with the organization includes elements connected to personal identity and self-defining (van Knippenberg & Sleebos, 2006; Hogg & Terry, 2000). Membership in groups that are important for individuals in terms of personal significance and self-definition help increase their self-esteem and positive self-concept (Fuchs, 2012). The more unique and irreplaceable the organization for its member, the more they are able to identify with it, because it fulfills their need for uniqueness. If the organization embodies the values needed to achieve this goal, there is a strong degree of loyalty, job satisfaction, engagement and commitment to the group through which members replace or enhance their individual preferences and goals to encompass those embodied by the organization (Jones & Volpe, 2011).

Falvey (2018), however, showed that the relationship between the value ladder of members of the organization and organizational values is not so unambiguous. The aim of this paper is to build on the partial results presented in Falvey (2018) and to analyze them further considering other possible factors. Specifically, we want to verify in this paper whether there is a relationship between the value ladder of the individual members of the organization and their perception of the organization's value orientation and, if so, to what extent this relationship is influenced by the degree of their identification with the organization and the position the individual occupies in the organization.

1 Methodology and Data

The data were obtained using a questionnaire based on the Schwartz Portrait Value Questionnaire (PVQ) and the Schwartz Value Survey (SVS) (Schwartz, 2012). Schwartz, in his theory of values, distinguishes ten basic personal values that are universal for all individuals across cultures, which suggests that human motivation of behavior is based on a universal arrangement. The survey focused on the value orientation of the research sample in the parent company of an originally Czech organization, whose subsidiaries are engaged in investment in real estate, energy, health, financial services and telecommunications. The questionnaire was sent to the respondents via the organization's internal email system in spring 2018. A total of 91 employees of the parent company were contacted, 46 (50.5%) of which filled in the questionnaire. The values were judged by 2-3 items on the six-point scale (1 – it is absolutely not me, 2 – it is very unlike me, 3 – it is rather unlike me, 4 – it is rather like me, 5 – it is very much like me, 6 – it is definitely me). Our questionnaire included those items from the original PVQ and SVS questionnaires that were applicable to both individuals and organizations.

Unlike Falvey (2018), a double correction of the data obtained was performed. In the first case, all responses were converted into comparable values according to Schwatz's (2012) recommendations by subtracting the average value calculated through all the respondents' answers from the answer to each question (item) (see Table 1). The second correction was performed separately for the individual values and values of the organization by subtracting the average value calculated over all respondents' personal value responses from the answer to each question (item) relating to personal values and by subtracting the average value calculated over all respondents' answers concerning organizational values from the answer to each question (item) regarding organizational values (see Table 2). The differences in the individual alignment of the total response intensity within the scale should be compensated by both corrections, but each emphasizes different aspect of the evaluation. The first correction preserves the diametrical evaluation of individual values and organization's values, and the overview of values in Table 1 implies that the organizational values are considered on average at the top of the six-point scale compared to the individual values averaged at the bottom of the scale. The second correction takes account of relative fluctuations within the evaluation, and although it, in our opinion, better reflects the fact that each individual in the organization is identified with such things that best reflect their own perception of themselves, the survey does not address other contexts regarding individual satisfaction of social needs realized outside the organization that would explain these fluctuations in full and, therefore, we continue to work with the data after the Schwarz correction.

Table 1 and Table 2 show that the first three places for individual values are Security, Power and Conformity, the last place is occupied by Benevolence. The respondents' responses on the other hand indicate that Achievement, Power and Hedonism are in the forefront of the organization's value orientation while Universalism is overlooked. More detailed descriptive statistics structured according to the demographic characteristics of respondents (position of the worker, how long they work in the organization) can be found in Falvey (2018). In addition, a graphical scale of identification with an organization modified according to Bergami and Bagozzi (2000) assigned with numerical values (0 - zero identification to 4 - complete identification) for further statistical processing was applied. The average rate of respondents' identification with the organization was 2.87 (with standard deviation 0.96), which corresponds to 71.7% of the scale range.

Table 1 Means (with standard deviations) for individual and organization values before and after correction – taking the average of all answers into account

	Individual		**Organization**	
Value	**before**	**after**	**before**	**after**
Self-Direction	2.616 (0.889)	-0.956 (0.847)	4.580 (0.862)	1.008 (0.829)
Stimulation	2.616 (0.789)	-0.956 (0.694)	4.580 (0.815)	1.008 (0.843)
Hedonism	2.511 (1.030)	-1.061 (0.937)	4.772 (0.794)	1.200 (0.795)
Achievement	2.529 (0.736)	-1.043 (0.655)	5.123 (0.768)	1.551 (0.736)
Power	2.638 (0.860)	-0.934 (0.781)	4.913 (0.748)	1.341 (0.705)
Security	2.870 (0.859)	-0.702 (0.872)	4.337 (0.817)	0.765 (0.751)
Conformity	2.630 (0.922)	-0.941 (0.924)	4.293 (0.952)	0.722 (0.858)
Tradition	2.478 (1.130)	-1.094 (1.083)	4.326 (0.908)	0.754 (0.824)
Benevolence	2.312 (0.928)	-1.260 (0.903)	4.551 (0.796)	0.979 (0.721)
Universalism	2.478 (0.902)	-1.094 (0.866)	4.167 (0.968)	0.595 (0.887)

Source: own processing

Table 2 Means (with standard deviations) for individual and organization values before and after correction – taking the average of answers related to individual values and to organizational values separately into account

Value	Individual before	after	Organization before	after
Self-Direction	2.616 (0.889)	0.057 (0.529)	4.580 (0.862)	-0.005 (0.440)
Stimulation	2.616 (0.789)	0.057 (0.538)	4.580 (0.815)	-0.005 (0.626)
Hedonism	2.511 (1.030)	-0.048 (0.902)	4.772 (0.794)	0.187 (0.790)
Achievement	2.529 (0.736)	-0.030 (0.552)	5.123 (0.768)	0.539 (0.391)
Power	2.638 (0.860)	0.078 (0.572)	4.913 (0.748)	0.329 (0.362)
Security	2.870 (0.859)	0.310 (0.752)	4.337 (0.817)	-0.247 (0.668)
Conformity	2.630 (0.922)	0.071 (0.690)	4.293 (0.952)	-0.291 (0.595)
Tradition	2.478 (1.130)	-0.081 (0.729)	4.326 (0.908)	-0.258 (0.592)
Benevolence	2.312 (0.928)	-0.248 (0.515)	4.551 (0.796)	-0.034 (0.340)
Universalism	2.478 (0.902)	-0.081 (0.498)	4.167 (0.968)	-0.418 (0.615)

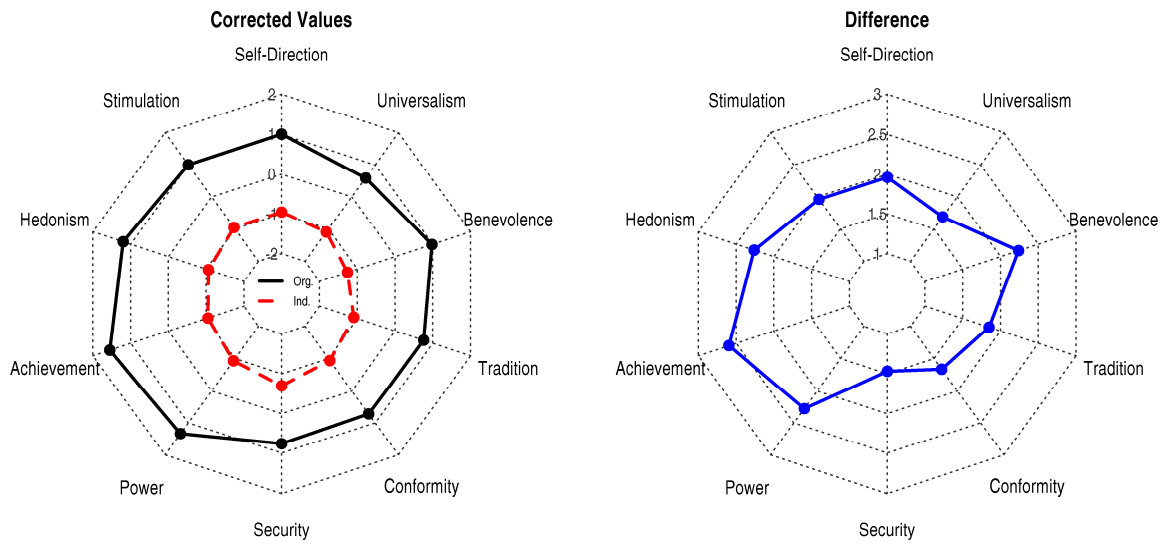
Source: own processing

To verify the dependence between the perceived organizational values and the personal values of its members, the degree of their identification and their position in the organization, a multiple regression analysis was chosen. The value of the organization's value was the explained variable (response) Y. The values of the individual (predictor x1 - IValue), the identification degree with the organization (predictor x2 - Identif) and the position of the manager or the ordinary employee (predictor x3 - Position) expressed by 0-1 value (0 – ordinary employee, 1 – manager) were the explanatory independent variables (predictors).

3 Results, Discussions and Limitations

First, a correlation analysis was made between the mean values of the individual and the organization shown in Table 1. The correlation coefficient (regardless of correction) was -0.083 with 95% confidence interval: (-0.677, 0.577). This result corresponds to the spider graph on the right in Figure 1, where there is no apparent alignment between the values of the individual and the organization. Subsequently, a detailed regression analysis was carried out over individual respondents' answers for each value separately.

Figure 1 Spider graphs for individual and organization's values after correction



Source: own processing

Based on the assumption that the degree of identification and the position occupied by a member in the organization can influence the relationship between the value of the organization and the value of the individual, we first worked with the two-interaction model (IValue * Identif, IValue * Position). Statistically insignificant interactions were subsequently excluded. By applying this principle, an interaction between the value of an individual and that individual's position in the organization (IValue * Position) was excluded in all models. For Stimulation and Universalism, the model with one interaction between the value of the individual and the degree of individual identification was used as the final model, for the other eight values the final model applied was the model without interactions. The results of the analysis are shown in Table 3, with statistically significant results at 5% significance being highlighted in bold.

Table 3 Regression analysis results for each considered value: Estimates for effects, related 95% confidence intervals and p-values

Value	IValue	Identif	Position	IValue*Identif
Self-Direction	**-0.758** **(-0.962, -0.554)** **p < 0.001**	-0.027 (-0.213, 0.159) p = 0.773	0.193 (-0.144, 0.530) p = 0.254	---
Stimulation	**-1.500** **(-2.285, -0.715)** **p < 0.001**	0.215 (-0.090, 0.521) p = 0.163	0.102 (-0.333, 0.537) p = 0.637	**0.306** **(0.036, 0.575)** **p = 0.027**
Hedonism	**-0.347** **(-0.589, -0.105)** **p = 0.006**	0.102 (-0.144, 0.347) p = 0.408	-0.058 (-0.539, 0.422) p = 0.808	---
Achievement	**-0.525** **(-0.787, -0.264)** **p < 0.001**	**0.311** **(0.123, 0.498)** **p = 0.002**	0.028 (-0.322, 0.378) p = 0.872	---
Power	**-0.526** **(-0.742, -0.309)** **p < 0.001**	**0.204** **(0.028, 0.379)** **p = 0.024**	-0.047 (-0.383, 0.289) p = 0.777	---
Security	**-0.518** **(-0.727, -0.309)** **p < 0.001**	0.165 (-0.034, 0.364) p = 0.103	0.075 (-0.311, 0.460) p = 0.698	---
Conformity	**-0.556** **(-0.797, -0.316)** **p < 0.001**	0.014 (-0.228, 0.257) p = 0.907	-0.036 (-0.489, 0.417) p = 0.874	---
Tradition	**-0.345** **(-0.584, -0.107)** **p = 0.006**	-0.047 (-0.326, 0.233) p = 0.739	0.017 (-0.474, 0.508) p = 0.944	---
Benevolence	**-0.525** **(-0.698, -0.352)** **p < 0.001**	0.159 (-0.010, 0.329) P = 0.064	0.042 (-0.258, 0.342) p = 0.779	---
Universalism	-0.090 (-0.568, 0.388) p = 0.706	-0.031 (-0.282, 0.220) p = 0.806	0.076 (-0.317, 0.468) p = 0.698	**-0.217** **(-0.383, -0.050)** **p = 0.012**

Note: The symbol --- denotes a statistically insignificant interaction which was omitted in the final model

Source: own processing

Although no significant relationship has been identified by calculating the correlation between the average personal values of the organization's employees and the perceived value orientation of the organization (see Figure 1 and remember r = -0.08), for all individual values the relationship between the value of the organization and the corresponding value of individuals (for Universalism, however, only in interaction with the level of identification) was confirmed at 5% significance level (see the first and the last column in Table 3). In all cases, this relationship is decreasing, i.e. the more the individual identifies with the given value, the less they perceive it in the organization, and vice versa. The question remains how to interpret this ascending tendency to the complementarity of values - whether as more or less intentional or, to a certain extent, as unconscious separation of personal life from work life, or as the realization of the principle of the attraction of opposite qualities.

The discrepancy consisting in the fact that there is an alignment between individual values of the organization's members and the organization, but in evaluating the organization as a whole no correlation with the value orientation of the individuals was proven, can be explained by the fact that the evaluation of the organization manifests certain inconsistency based on the members' expectations or disappointments. Organizational identity, or more precisely, what the members of the organization think the organization is (Gioia, Schultz, & Corley, 2000; Dutton, Dukerich, & Harquail, 1994), refers to how members of the organization interpret the manifestations and behavior of the organization. And these manifestations should be in line with what they think makes sense within the frame of the organization's business, but also what they would expect from the organization on an individual level in relation to themselves as the members of the organization.

In an organization that, by doing its business, pursues to succeed in a fierce and competitive investment industry, the highest importance was given to the values of Achievement and Power. In the first place, the organization is seen by its employees as a competent and ambitious company achieving objective accomplishment and social prestige. On the contrary, the least importance was attributed to the value of Universalism characterized by the pursuit of social justice, tolerance and understanding. And even though according to Schwartz (2012) the values of Benevolence, Universalism and Self-direction are generally seen as the most important, it is also true that in a particular environment the manifestations of behavior preventing smooth functioning of the group are degraded and it is preferred to behave in a socially desirable manner to support group goals and harmonious coexistence within the group. The core of the Schwartz's theory suggests that values form a circular structure that captures dynamic relationships between the ten values. There is a conflict between some of the values, while others are mutually compatible. Each value is defined by a specific determining motivation. In this circular structure, the values of Power and Achievement are placed opposite the value of Universalism (see Figure 1). This arrangement symbolizes the maximum antagonism in the value motivation that exists between these values and it confirms what has been revealed by the research in the surveyed organization. The results presented in Table 3 demonstrate that the degree of identification has, adjusted for the influence of the two remaining explanatory variables (ceteris paribus principle), a statistically positive effect on the alignment of the values of Power and Achievement in individuals and the organization, whereas in the value of Universalism the increasing degree of individual identification with the organization increases the rate of decrease of the alignment between the organization's value and the value of the individual. However, this value antagonism within the organization should be confirmed by further research. Will it be the case that in an organization doing business for example in the healthcare sector the greatest importance will be given, let's say, to the values of Security and Conformity, while the least importance will be attributed to the value that is antagonistic to them, i.e. Hedonism? Therefore, further research should show whether the proven link between the value ladder of the organization's members and the organizational values really exists, in what specific manner it is manifested, and what is the role of objects of the organization and its business activities in the given industry.

Another question dealt with in the research was whether, and to what extent, the relationship between the value ladder of the organization's members and the organizational value orientation is influenced by the position of a manager or an ordinary employee. This variable was based on the theoretical knowledge that especially those members who are responsible for decisions that move the organization strategically help to build the organizational identity significantly. Particularly, decisions on a strategic level create the image of "what or who the organization is". And this concept of identity is then communicated both internally and externally (Gioia et al., 2000). However, it was found by means of the regression analysis that the position occupied by an individual in the organization is not statistically significant for the perception of the organization's values. Moreover, the position of the organization's member does not significantly affect the relationship between the perceived value of the organization and the value of the individual. The question is whether, based on the findings of this study, it can be stated that managing members of an organization can be considered as bearers of the organizational identity, even if they only manifest external conformity and calculated or selective identification with the organization, or would such statement be a mere simplification.

Another limitation of this pilot study is the fact that it was attended by 50.5% of the members of the organization, their inclusion in the study was conditioned by their willingness to participate in it and it is, therefore, necessary to take into account that non-participation in the study could be due to the reluctance associated with the low level of identification with the organization, or a significantly different value setting of certain individuals, which may have distorted the presented

results. Also, the fact that the respondents responded under the influence of the momentary emotional setting or other individual factors that could not be detected under the given conditions could have been projected into a single questionnaire survey (Fuchs, 2012). Therefore, also these facts should be consciously incorporated into longer-term and more comprehensive research related to the subject matter in question.

Conclusions

Our study shows that there is a relationship between the value ladder of the organization's members and the organization's value orientation. However, further research should specify this link more precisely and further categorize it by mapping the value orientation of organizations of all sizes and their members across industries. It was also found that the level of identification of members with the organization, unlike the position of the individual in the organization, is an important factor in exploring the organization's own value orientation as well as its relation to the value orientation of its members. Further research could also outline what other factors influence the perceived value orientation of the organization, and whether these potential factors influence the value ladder of individuals within the frame of their activities in the organization, and how and to what extent it is possible to work with these factors in accordance with such findings. We believe that this aspect can also lead to answers to questions about strategic thinking within organizations in the context of more conscious and efficient work with human resources.

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In-house Prediction Markets and their Extension in Czech Republic

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Abstract: *Electronic virtual markets can serve as an alternative tool for gathering information that is spread among numerous experts. Information is basic element of decision support system as part of enterprise information system. These in-house prediction markets can be important part of business management. The contribution presents the results of research on the use of predication markets in enterprises and awareness of their potential in Czech Republic. These results are compared with the results of the global survey by McKinsey. The survey within the Czech Republic was carried out twice with a period of 4 years and the results of these surveys were compared.*

Keywords: *virtual electronic market, prediction market, Web 2.0, decision support system.*

JEL codes: *D79, C53*

Introduction

Prediction markets (PM) belong among the alternative tools for collecting information spread among numerous experts. These markets are used for the evaluation of the success rate of the assigned forecasts - predictions and as speculative markets simulate the activity of a stock exchange at which such titles are traded that are related to forecasting a particular event or those related to a value of an estimated parameter. The value of titles is given by the extent of confidence of the sellers and buyers in a given event or a value of a parameter. The current market price can be interpreted as an estimate (forecast) of the probability of an event or an estimated value of parameters. Prediction markets use mechanisms of classic stock markets on the basis of the information shared by the individual participants of the market by means of the price of shares.

The contribution presents the results of research of prediction markets extensions in enterprises and awareness of their potential in Czech Republic. The aim of the research was to find out the state of use of predictive markets in the Czech Republic, together with mapping the awareness of predictive markets as one of the supporting tools applicable in various areas of the organization's activities. The target group was not only employees of companies of all sizes, but also employees of other institutions and organizations of state administration and self-government as well as other respondents without any relation to any enterprises. The research was based on McKinsey's extensive McKinsey research (Bughin , Manyika, & Miller, 2008), which explores the use of Web 2.0 technology and benefits from its use in 1,700 companies across the world. McKinsey's research has been focused on utilization in 3 main areas: inside the company, outside the company in relationships to its customers and outside the company in relationships with its suppliers, partners and experts.

The research was performed twice in the range of 4 years and the results of the two studies were compared between each other. The level of change in the areas studied was further tested.

1 Literature review

PMs were applied for the first time in the form of the political stock exchange to forecast the results of the 1988 U.S. presidential election launched as Iowa Electronic Market (IEM) (Forsythe, Nelson, Neumann, & Wright, 1992). The principles of prediction markets are also described in an article of R. Hanson (Hanson, 1992).

The most famous example of PM is Iowa Electronic Markets (Forsythe, Nelson, Neumann, & Wright, 1994), (Forsythe, Rietz, & Ross, 1999). Since 1988 this market has forecast the American presidential election results more accurately than traditional polls in 75% of cases (Surowiecki, 2004).

Pennock (Pennock, 2004) describes the principle of the dynamic pari-mutuel markets in his contributions, Hanson (Hanson, 2003), (Hanson, 2007) presents the idea of combinatorial information markets. The summarizing monograph "Information markets: A new way of making

decisions" by Hahn and Tetlock (Eds.) (Hahn & Tetlock, 2006) provides an excellent guide to the issues of prediction markets.

The idea of using predictive markets such as Decision Support System (DSS), components of the enterprise information system and its knowledge management, has begun to emerge over the past 5-6 years. However, this idea is nothing new and more literature can be found in the literature describing specific applications in enterprises (Skiera & Spann, 2011), (Snowberg, Wolfers, & Zitzewitz, 2013), (Decker, Welpe, & Ankenbrand, 2011).

Chen and Plott (Chen & Plott, 2002) describe the use of PM in Hewlett Packard Corporation, where 20-30 employees of the company in marketing and finance estimated the future development of monthly sales of corporate products in dollars, in the quantity of products sold for 3 months in advance.

Another company that opens for its employees an in-house predictive market is Intel. The company says its PM is at least as accurate as the official forecast and even 20% more accurate (Hopman, 2007).

Google has also set up a predictive market for its employees. Employees traded in the artificial currency market "Goobles". Predictive content was the estimate of the new product introduction date, new office opening dates, and more. This in-house market tended to be optimistic, rising in the days when Google's share price rose on the official financial market (Cowgill, Wolfers, & Zitzewitz, 2009).

The author of this article is not aware of the fact there has been any article published dealing with the use of in-house prediction markets in enterprises in Czech Republic and awareness of predictive markets as a part of decision support system. This article introduces the research of in-house prediction markets extension in Czech companies.

2 Methodology and data

Research has focused only on part of McKinsey's research (Bughin , Manyika, & Miller, 2008), namely mapping awareness of selected Web 2.0 technologies, especially on predictive markets, about their applications, and the main areas of their use in organizations in the Czech Republic. Therefore, the research did not primarily investigate the added value and profit generated by the use of these tools. In addition to predictive markets, other selected tools, such as Social Networking, Video Sharing, or Peer-2-peer Networks (P2P for relative comparison with predictive market outcomes) have been included.

The questionnaire consists of 6 questions, 3 of which refer to the profile of the respondent company with regard to the number of employees and the type of activity, respectively, the respondent's position in the company, and 3 questions are examined using a prescribed range of possible responses to the use of the Web 2.0 technologies surveyed, area of use, and frequency of use. All three of these questions offer one of the possible negative answers in case the company does not use the tool (technology) at all. In the basic question of own use, the scale allows to distinguish the cases when the technology is not used in the respondent's company, but the respondent knows the tool and knows what it is or does not know about what technology is involved.

The questionnaire was implemented as an online research using the development tools of the web server vyplnto.cz (Demčák, 2014). On this server, the questionnaire was filled in by the respondents (Gangur, 2014) for 3 weeks (2014) and 2 weeks (2018) in which respondents were approached after the comments were made in the pilot operation. The questionnaire has following structure:

Questionnaire Using Web 2.0 tools

The survey is used to determine the use of Web 2.0 tools by the organization's management. It is intended primarily for management members, but can be filled by other employees of the organization. Completing the survey will take 5 minutes of your time. The results of the survey will be the basis for a research article in this field. Thank you for your willingness and time to complete this poll.

1. Specify the size of your organization:
   - 1-9 employees
   - 10-99 employees
   - 100-499 employees
   - 500 and more employee
2. Characterize your organization:
   - Services
   - Manufacturing
   - Non-production
   - Autonomy
   - State Administration
3. Specify your position in the organization:
   - director
   - management of the organization
   - leader
   - IT specialist
   - robotic employee

The following 3 questions always use a different scale for each of the following list of Web 2.0 tools

video sharing, blog, peer-to-peer networks, social networks, wiki, rating, tagging, prediction markets.

For each question, only the scale corresponding to the question is always given.

4. For each of the following Web 2.0 tools, check out just one statement that most closely matches the situation in your organization. For each sub-question, please choose the answer to the given scale:
   - We use
   - We do not use it, but I know what's going on
   - I'm not sure what it is

5. Where do you use the tools the most?

Just check one of the options on the following scale that most closely matches the situation in your organization

   - Internal communication
   - Communication with customers
   - Communication with business partners
   - For other purposes
   - We do not use it

6. How often do you use the tools? Just check one of the options

For each sub-question, please choose the answer to the given scale:

   - Daily
   - 1-3 times a week
   - 1-3 times a month
   - Less than once a month
   - Never

Potential survey participants were approached randomly by e-mail with a brief explanation of the purpose of the research, a link to an on-line questionnaire and a request to fill it out. The return on this approach is very low (1-3%). In both surveys companies were randomly selected from a database of companies and institutions to select the same number in groups by size with respect to the number of employees. Thus, databases of companies with 1-9 employees, 10-49 employees,

50-99 employees, 100-499 employees and more than 500 employees were used. 500 companies were randomly selected from each group.

Consequently we focus on analyze of PM awareness and its change between 2014 and 2018 years. These tests confirm or not the hypothesis of dependency between year of survey (2014, 2018) and number of positive and negative answers according to PM awareness. We assume the answers *We use* and *We do not use it, but I know what's going on* as positive and answer *I'm not sure what it is* as negative. If we prove alternative hypothesis i.e. dependency between year of surveys and the number of positive and negative answers, it is possible to state the change of PM awareness is statistically significant. We use two methods for this test.

First we use equality of relative frequency test. We assume two samples of answers (2014 and 2018 survey) and we compare relative frequencies of positive answers in both samples. We apply test of homogeneity of two samples with binomial distribution. We have relative frequency *p* of positive answers. We check assumptions of test i.e. $n > \frac{1}{p(1-p)}$, where *n* is number of respondents in sample. Then we test hypothesis $H_0: \pi_1 = \pi_2$ against alternative hypothesis $H_1: \pi_1 < \pi_2$, where π_1 resp. π_2 is probability of positive answers in 2014 sample resp. 2018 sample. Finally we calculate statistic of test *T(X,Y)* and consequently *p-value* according to standard normal distribution of test statistic.

$$T(X,Y) = \frac{(p_1-p_2)-(\pi_1-\pi_2)}{\sqrt{\frac{p_1(1-p_1)}{n_1}+\frac{p_2(1-p_2)}{n_2}}} \qquad (1)$$

As second method we use contingency dichotomic table and odds ratio (OR). We perform test OR = 1 using interval estimate of OR.

$$< OR \cdot e^{-\sqrt{\frac{1}{a}+\frac{1}{b}+\frac{1}{c}+\frac{1}{d}}u_{1-\frac{\alpha}{2}}};\ OR \cdot e^{\sqrt{\frac{1}{a}+\frac{1}{b}+\frac{1}{c}+\frac{1}{d}}u_{1-\frac{\alpha}{2}}} > \qquad (2)$$

where *a* is number of negative answers in 2014 survey, *b* is number positive answers in 2014 survey, *c* is number of negative answers in 2018 survey and finally *d* is number of positive questions in 2018 survey. We use $u_{1-\alpha/2}$ as 1-α/2 quantile of standard normal distribution and by this way we construct 100(1-α)% interval estimate of odds ratio. If the value 1 belongs to this interval it is not possible to reject hypothesis about independency between year of surveys and number of positive and negative answers. It means we can't say the change of PM awareness is statistically significant.

3 Results

The results of McKinsey research (Bughin , Manyika, & Miller, 2008) were used to compare the results. As a basic starting point, the percentage of organizations according to total number of surveyed subjects, using predictive markets for their activities in all three areas was considered. According to McKinsey, 10% of the organizations use predictive markets, 22% rating, 22% tagging and 23% P2P. The prediction markets are on the last position.

3.1 Results from 2014

In our own research in year 2014, 85 questionnaires were completed. If we focus only on organizations, a total of 68 respondents working in the organization answered the question whether they use one of the Web 2.0 tools presented in their work. With regard to the focus of the survey, especially on the use of predictive markets and the very low number of positive responses to the question of the use of predictive markets among 68 respondents from organizations, all 85 questionnaires were finally analyzed. Among all respondents, the level of awareness of predictive markets was examined in particular.

Table 1 Use of Web 2.0 tools in organizations (2014)

n=85	I'm not sure what it is	I do not use but i know what's going on	I'm using
Social Networks	2 (2.35%)	37 (43.53%)	46 (54.12%)
Wiki	16 (18.82%)	34 (40.00%)	35 (41.18%)
Video Sharing	24 (28.24 %)	41 (48.24 %)	35 (41.18%)
Peer-to-peer	33 (38.82%)	39 (45.88%)	13 (15.29%)
Blog	5 (5.88%)	68 (80.00%)	12 (14.12%)
Rating	31 (36.47%)	46 (54.12%)	8 (9.41%)
Tagging	43 (50.59 %)	34 (40.00 %)	8 (9.41 %)
Prediction markets	59 (69.41%)	24 (28.24%)	2 (2.35%)

Source: own

The survey results are recorded in the table 1 as the absolute and relative frequency of choosing one of the three options for each instrument sorted according to the frequency of use from the tool that uses the largest number of respondents to the tool with the least use.

In the table there are interesting results, especially in the last one and the first column that examines the use or respondents' awareness of these tools. Out of the 85 respondents who completed the whole questionnaire, only 2 answered positively about the question of the use of predictive markets in their organization. In one case, they use this tool to communicate with the customer, in the other for other purposes. Compared to other tools, this is the least used tool with 2.35 %, which ended up with the sporadic tagging and rating so far.

Equally the comparison with respect to the level of awareness or information about the tools is interesting. In this order, predictive markets are the least known tool. Almost 70% of respondents have no idea what it is or what the predictive markets can be used for.

These results correspond to the results of McKinsey's global research on the use of predictive markets. In both surveys, predictive markets are the least used tools. In contrast to the world-wide challenge, which uses about 10% of the organizations addressed, the situation in the Czech Republic is even more pronounced to the detriment of the PM in view of the survey.

The results of the questionnaire survey are also linked to the search results of the electronic resources currently in November 2014. The keywords "predictive market", "predictive markets" were inserted into the search engine so that only results in the Czech language were found. The Google search engine (http://google.cz) found, in addition to links to the author's work, 3 links (Kearon, 2007), (Stuchlík, 2008a) and (Stuchlík, 2008b). The first one is a translation of John Kearon's article, so original articles from the Czech author are only the last two. The search engine Seznam.cz (http://seznam.cz) found the article (Stuchlík, 2008b) only in the predictive markets.

In the field of scientific articles, only Czechs T. Cahlik, A. Geršl and M. Hlaváček in (Cahlik, Gersl, Hlavacek, & al., 2003) and (Hlavacek, Gersl, Cahlik, & al., 2002) have dealt with the topic of predictive markets by Czech authors in which they show the classic use of predictive markets for prediction of election results in Czech the advantages and disadvantages of using PM, and comparison with the results of classical pre-election surveys. Neither of these contributions deals with the use of PM as part of the decision support system in enterprises.

3.2 Results from 2018

In research in year 2018, 59 questionnaires were completed. 52 respondents work in the organization. The number of respondents that use prediction markets in work is as low as in previous research in 2014. The survey results are recorded in the table 2 as the absolute and relative frequency of choosing one of the three options for each instrument sorted according to the frequency of use from the tool that uses the largest number of respondents to the tool with the least use.

The order of the tools with respect to the number of respondents using the tools at work has not changed more or less. Only the blog is used by lower number of respondents according to new research.

Table 2 Use of Web 2.0 tools in organizations (2018)

n=59	I'm not sure what it is	I do not use but i know what's going on	I'm using
Social Networks	0 (0.00%)	29 (49.15%)	30 (50.85%)
Wiki	10 (16.95%)	24 (40.68%)	25 (42.37%)
Video Sharing	17 (28.81 %)	31 (52.54 %)	11 (18.64%)
Peer-to-peer	17 (28.81%)	31 (52.54%)	11 (18.64%)
Rating	22 (37.29%)	30 (50.85%)	7 (11.86%)
Tagging	28 (47.46 %)	25 (42.37 %)	6 (10.17 %)
Blog	1 (1.69%)	54 (91.53%)	4 (6.78%)
Prediction markets	37 (62.71%)	20 (33.90%)	2 (3.39%)

Source: own

Also in this table there are interesting results, especially in the last one and the first column that examines the use or respondents' awareness of these tools. Out of the 59 respondents only 2 answered positively about the question of the use of predictive markets in their organization. This is similar to the outcome of the previous research. Compared to other tools, this is the least used tool with 3.39 %, which ended up with the sporadic tagging and blog so far.

In new research we also focus on the comparison with respect to the level of awareness or information about the tools. In this order, predictive markets remain the least known tool. However, the awareness of their existence is increasing slightly. With respect to the results of new research almost 63% of respondents have no idea what it is or what the predictive markets can be used for.

In the following analysis of the change in the level of awareness between two surveys first we use test of homogeneity of two samples with binomial distribution. We check the assumptions of test with respect to samples size and relative frequencies $p_1 = 0{,}305882$ and $p_2 = 0{,}372881$.

$$n_1 = 85 > \frac{9}{0{,}3059(1-0{,}3059)} = 42{,}39 \qquad n_2 = 59 > \frac{9}{0{,}3729(1-0{,}3729)} = 38{,}49$$

Test assumptions are met and we can apply test. Test statistic *T(X,Y)*= -0,83351 and *p-value* = 0,202279. The null hypothesis can't be rejected at confidence level α = 0,05 and therefore alternative hypothesis is not accepted at this confidence level. It means the change of awareness is not statistically significant and the PM awareness according to 2018 survey doesn't increase significantly in comparison to 2014 survey.

Consequently we use analysis in contingency dichotomic table.

Table 3 Contingency table of PM awareness

	Awareness	
Year	No	Yes
2014	a = 59	b = 26
2018	c = 37	d = 22

Source: own

We test the relationship between the year of research and the number of negative and positive answers and by this way we analyze the significance of change. With the respect to the decreasing number of "No" answers between years 2014 and 2018 we test whether the increase in awareness of PM is statistically significant.

OR = (59 x 22) / (37 x 26) = 1,349272

The OR value can be interpreted as ratio of increasing of PM awareness. Consequently, we perform an OR = 1 equality test with the help of interval estimate. We construct interval according to prescription (2) and 95% interval estimate.

$$OR \in < 0{,}67; 2{,}72 >$$

The value 1 belongs to interval and it means the hypothesis OR=1 can't be rejected. We can't say the change of awareness between year 2014 and 2018 is statistically significant.

Both tests showed the change of PM awareness between years 2014 and 2018 is not statistically significant.

As in 2014, electronic resources were researched in 2018. By the same way as in year 2014 the keywords "predictive market", "predictive markets" were inserted into the Google search engine and Seznam.cz engine so that only results in the Czech language were found. In addition to links to the author's work and 3 links from previous search a lot of new links were found. Directly using PM in corporate practice deals is presented in (Čihák & Pavlica , 2014), the use of PM for trading with cryptocurrency is described in (Trump, 2017), further use of PM, for example, in betting offices is introduced in (Pavlica M. , 2018) or in exploring the future trends of the Czech population in (Vynikal, 2017). The project Ideapoly of Idea Markets is very promising (Idea Markets, Ideapoly, 2018). **This** software facilitates the in-house sharing and collaboration of innovative ideas in companies and other organizations. These examples show a slight increase in awareness of prediction markets and their use in the Czech Republic.

Conclusions

Two surveys were conducted in the years 2014 and 2018 using the same questionnaire and randomly selected respondents. We focused mainly on the use of the predictive market in the enterprise and the level of awareness of their existence and use. The results of both researches are consistent with the results of McKinsey's worldwide research. Predictive markets have proven not only as the least used tools but also as the least known tools. Compared to the world the use and awareness of predictive markets is even smaller in the Czech Republic.

In the following, we analyzed the level of change of awareness about the existence of predictive markets in the Czech Republic by analyzing the dichotomic contingency table. The numbers of positive and negative answers showed the possible slight increasing of awareness between years 2014 and 2018. The test rejects this hypothesis and it doesn't prove the significant change of PM awareness.

Subsequent research on Czech web resources showed a slight increase in the number of sources dealing with predictive markets, especially in the last two years. In most cases, there are several repeating authors and several companies. This is not a wider expansion in the use of prediction markets. Moreover, the companies that use prediction markets work more with the variant of these markets i.e. idea markets.

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Factors and consequences of occupational segregation

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Abstract: Globally, gender differences in occupational distribution still exist between men and women. Many occupations are sex-segregated, that is, generally considered as either masculine or feminine. This article reviews the gender gap in occupation, factors that lead to an occupational segregation-the tendency of men and women to work in different occupations and its consequences Accordingly, Social norms, discrimination, educational attainment, difference in endowments and difference in occupational preference between male and female contribute to occupational segregation and consequently leads to pay gap between genders, job dissatisfaction, turnover and stereotype. Globally, women face discrimination and devaluation at work. Compared to men, women are concentrated in less paid and part-time jobs with less promotion opportunities. Gender pay gap is the most significant effect of occupational segregation. Gender sorting into different occupations and industries widen the pay gap that has a drastic effect on the overall economy of a country. Gender stereotypes can prevent women from being hired and promoted into traditionally male-dominated occupations. Raising women employment to man level and closing the gender gap in occupation can have a higher impact on GDP and poverty reduction.

Keywords, Occupational segregation, Gender stereotype, Pay gap, Workforce, Gender gap

JEL codes: J0, J2, J3, J7

Introduction

Have you ever wonder why some occupations are either dominated by female or male? Think of a nursing job or a driving job. what gender pops up in your mind? Probably an image of a person who hold the job came to your mind. Occupational stereotypes research revealed that the images of occupations that people form in their mind are actually the images of people who hold the jobs. In other words, what we know about jobs, has more to do with what we know about people in those jobs than the tasks the jobs actually involve (Gottfredson, 1981; O'Dowd & Beardslee, 1960). The other important question is -why do people associate gender with the type of the job? The more the job is dominated by one gender, the higher the tendency to associate the job with the gender. Some occupations are highly likely to be dominated by one gender or the other for different reasons. Whether the reason is the different in terms of job preferences between male and female or discrimination in hiring, either way occupational segregation by sex is formed. Women are highly underrepresented in high status and well-paid jobs. The jobs that women are dominating are usually less-paid and require low skill. The big question is why women are relatively seen in low-status jobs while male dominate the high-status jobs? This can have different explanations which will be discussed in the second section. Occupational segregation by sex is a common phenomenon across the globe. Although the degree and magnitude differ from one country to another, segregations are observed in different countries regardless of the wealth and economic power of a country. Even developed countries are facing uneven distribution of female and male in different jobs that has a great impact on economic growth. Although gender diversity in organizations has been proven to have a positive outcome. (see Page (2007) for further reference) yet many jobs are not integrated. Women and men bring different knowledge, experiences, cognitive styles, values, preferences and behaviors into an organization that influences the development of an organization, financial capacity, innovation, CSR, etc. Thus, if the gender gap in occupation and workforce distribution is closed, it could benefit the organization and a country at large.

This study examines the reason why occupations are segregated by gender and its consequences.
It is structured in two sections. Section one will be literature review on occupational segregation and gender gap in occupation. The second section will be discussion on factors of occupational segregation, consequence of occupational segregation and the importance of closing the gender gap in occupation.

1 Occupational segregation by sex

Occupational segregation by sex refers to the tendency of men and women to work in different occupations Blau and Liu (2013). It can also be referred as unequal distribution of men and women among different jobs Campos et al. (2011). Occupational segregation is a widespread phenomenon in most countries including developed countries. Latin America, the Caribbean, and North Africa make up the highest range followed by developed countries. In the developed countries, Scandinavian countries hold the highest range and Southern Europe, Japan, the United States and Canada hold the lowest range. Surprisingly segregation is less in Asian and sub-Saharan countries Anker (1998).

When discussing "segregation", it should be understood that it does not necessarily mean full segregation, rather it is a relative concept. It can have different degrees in different occupations and jobs Hesmondhalgh & Baker (2015).

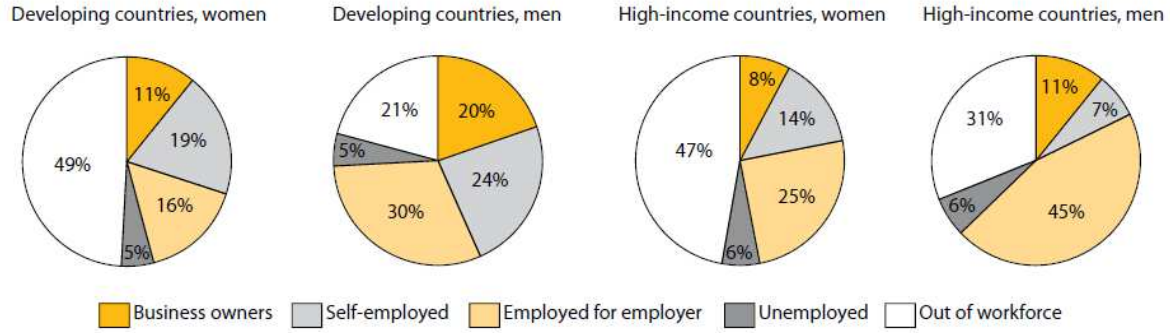
Despite the ever-increasing women participation in the workforce, women are still underrepresented in predominantly male occupations. Higher positions in business organizations are mainly occupied by men. In the US only 15% of the corporate boards of Fortune-500 companies are women Catalyst (2010). The situation is similar in other parts of the world. For instance, in Europe. (see The European Commission, (2011) for further reference). Surprisingly the gender gap in the possession of a top level of organizations are not only due to a difference in education, experience, and skills between the two genders but also due to gender bias in evaluation and stereotypes that women face at an organization level Heilman (2012).

In most societies, some occupations are considered as either masculine or feminine. Despite the significant cultural difference across the globe, occupational segregation by sex seems to be a common culture in all countries. - although it is with some degree of difference. For example, in North America and Europe jobs such as primary school teaching and nursing, are regarded as feminine Bradley (1989), while mining and driving are jobs associated with men (masculine).

Gender gap in occupation

Important differences exist between the participation in the labor market and working situation of men and women in different countries. Even having entered the 21st century, these differences are still significant. Compared to women, male participation in the labor market is higher, their jobs are better-paid, they work more hours per day, and engage in more reputed jobs Reskin (2005).

Figure 1 Occupational gender gap in developing countries



Source: Analysis by Leora Klapper of Gallup World Poll data for 2011, population-weighted country averages.

In Africa, labor force participation is extremely gender-specific. On a study conducted in 15 African countries, on average in the region, the labor force participation rate for men is 78.3 percent and for women is 61.0 percent. There were also large differences across countries, with the female participation rates ranging from below 40 percent in Ethiopia, Kenya, Malawi, and Uganda, to 80 percent and higher in Burkina Faso, Burundi, The Gambia, Ghana, Guinea, and Sierra Leone World Bank (2007). In Sub-Saharan Africa there is a significant difference in productive employment between the genders. Employment ration in the region accounts 53 percent for women and 70 percent for men. Uganda, Mauritania, Ethiopia, Mozambique, and Kenya, made up the lowest female employment ratio below 33 percent. Ethiopia has 23 percentage of a gender gap in employment World Bank (2007).

Globally women are more economically disadvantaged and less likely to be economically active than men. Participation in productive employment is significantly lower for women in the aforementioned countries. The employment ratio accounted about 53 percent for women, compared to nearly 70 percent for men. The lowest female employment ratios (below 33 percent) were found in Ethiopia, Kenya, Malawi, Mauritania, Mozambique, and Uganda. In these countries, the gender gap in employment was also very large, ranging from 23 percentage points in Kenya to 42 percentage points in Ethiopia World Bank (2007). Worldwide, women earn less than men. Findings from 83 countries show that women in paid work earn on average between 10 and 30 percent less than men UN women (2013) The pay gap is higher in the Middle East and North Africa, although it also persists in high-income OECD countries Boris (2007).

2 Discussion

2.1 Factors of occupational segregation by sex

2.1.1 Occupational sex labels: Some occupations are labeled as either masculine or feminine. For example, social works are labeled as feminine and technical works are labeled as masculine. Such labeling of occupations by gender could influence the employer's perception about the appropriate gender for the work and worker's perception about the appropriate and acceptable work for them. The dominance of one gender in a job may affect the employer's decision in hiring the non-dominating gender Reskin (1993).

2.1.2 Social norms: Norms underestimate women's potential and dictate the way women should spend their time and the works they should do. Women are frequently disadvantaged by gender stereotypes and they face bias in hiring World Bank (2012). In the Middle East and North Africa, social norms restrict women from participating in the workforce. Women are primarily responsible for, child-rearing, caring for elderly and other domestic activities. Astonishingly nearly four in 10 people worldwide, agree that, when jobs are scarce, men should have more privileges to jobs than women. Ellis, et al. (2007). Therefore, because women don't have full job opportunities as men, one shouldn't wonder why there exist the unequal distribution of men and women in jobs

2.1.3 Supply-side orientations:/ Difference in preference of occupations by sex: Supply-side orientations explain that women and men may have different choices of occupations, their interest could be directed toward a different field, they may be hired for different jobs, and they may leave a particular job at differing rates Wright et al. (2014). These differences between men and women may contribute to an imbalance in the distribution of the workforce across occupations. (e.g. Wharton (2012). The difference between male and female choices of occupational field can be the result of the way both sexes are raised as a child, their childhood fantasy, educational aspirations, social norms, external influence and personal interest (Jacobs 1989). Due to gender essentialism, workers may select occupations that they feel they belong in for the characteristics they suit in England (2010). In other words, women select occupations populated by women because they prefer to work with women and the same applies to men. Essentialism drives women toward jobs traditionally dominated by women, such as nursing, teaching and social work, while men prefer to stay in male-dominated fields.

Worker attributes and biological variations also account for gender difference in occupational paths and occupational decisions Browne (2006); Kanazawa (2005). Male and female have psychological differences that may lead them to different occupational paths. Their personality, interest, and ability have an influence on their career aspiration and development Browne (2006). Since women are more communal than men, they tend to prefer jobs that allow them more social contact. Because women have a dual role as a caregiver and provider, they deliberately choose jobs that are less stressing Glass (1990), more flexible Carlson et al. (2011); Goldberg & Hill (2007), Gabriel & Schmitz (2007) and jobs that accords them a greater burden of child care, family responsibilities and domestic work (e.g. Friedman & Marshall, 2004 and Saxbe et al. (2011)) Pressured by both economic and family responsibilities, women satisfy the former by choosing 'women-friendly' jobs in order to accommodate the latter Petit and Hook (2009). Women select occupations that are shorter working hours and a flexible work schedule that allow them to maintain the lifestyle they value. Most women, prioritize a balanced work-family life, therefore select occupations that allow a better combination of the two roles Gash (2008).

2.1.4 Education and endowments: Unequal access to education is another reason why male outnumbers in some professions which is another face of occupational segregation. Evidence shows that in 2010–2012 female in 15 developing countries, mainly in Africa have less access to education than male Simavi et al. (2010). The educational streams that young girls and boys

choose today affect the type of occupation they would join in their later life. Too often girls and boys follow different educational fields that underlie occupational segregation when they grow up. Why male and female children differ in their choice of an educational stream need to be discussed. First parents and educators play a significant role in instilling aspiration of education. The way they perceive each genders potential affects how they shape the academic path of the children. Evidence shows that parents and teachers are likely to perceive that girls are not good for math-oriented educations. According to Correll (2001), the conception that girls are not qualified for STEM and the stereotype that these fields are not as important for girls as they are for boys in the future career has resulted in a differentiation in choices of fields and career interests of children. Children who grow up internalizing STEM as masculine fields will be influenced to shape their choices of filed based on this stereotype. This stereotype will, in turn, leads to the classification of fields as either masculine or feminine Ridgeway (2011) and occupational segregation. Even among college students both female and male study sex-typed courses of study that are a reflection of their childhood ambitions. Consequently, occupational gender segregation across professional fields remains strong, Charles and Bradley (2009), Ku (2011). Moreover, the toys that children play with influence the occupation they choose in their adult life. Girls play with dolls that involve activities like hairdressing while boys play with trucks that involve technical actions. When they grow up they would tend to fulfill their childhood dream by perusing a study of a field that is provoked by their childhood activity. As a result, gender segregation by study majors persist and continues to have effect on the distribution of male and female in occupations.

2.1.5 Lack of fit model and stereotype

Theory of vocational choice argues that people deliberately may not consider doing jobs that do not match their gender or socio-economic background Gottfredson's (1981). For example, we barely see men secretaries. Men may see it as disregarding to work a secretarial job for a female boss. Such stereotypes of occupations may lead to sex-segregation. Even if individuals win their ego and decide to work in a job that supposedly doesn't match their gender, yet they may face a social penalty. To skip from the social penalty, individuals will stick to the social norms and gendered-job traditions. Lack of fit-model -the incongruence between the expected attributes required in a position with the attributes ascribed to the job holder affects the decision of the employer whether to hire the individual and the decision of the employee whether to peruse the job facing the stereotype. For example. Women are expected to be soft, caring and communal, while men are considered as assertive, bold, strong and aggressive. Thus, an employer may not consider hiring women for a position that is attributed to power and strength because these characters don't fit women's personality.

2.1.6 Demand side of occupational segregation /Employer discrimination

Demand-side explanation holds the theory that employers deliberately discriminate against workers on the ground of gender that lay a foundation to classify women and men into sex-typed jobs. Petersen and Saporta (2004). This kind of employer's act is influenced by the traditional occupational roles. Ridgeway and England (2007). As a result, woman face discrimination in hiring and promotion that consequently put women and men in different jobs and leads to a wide occupational segregation Tomaskovic-Devey and Stainback (2012). Gender stereotypes close opportunity doors for women from being hired and promoted into particular occupational roles (e.g. Eagly & Karau, 2002; Heilman, et.al 2004).

Employers discrimination can be of different types. "intentional discrimination' is where the employer deliberately contributes to the concentration of either women or men in one job. Another discrimination is where employer unconsciously assign workers to a job with or without the influence of stereotypes (e.g. Ridgeway 2011). "Statistical discrimination" – is where employers hire based on the expectations or assumptions about how workers in both genders would perform if they are hired Pager and Karafin (2009). For example, employer assumption that if a woman is hired, she would take maternal leaves or will take more day offs than man does because of the dual role woman has as a mother and a provider. Employers decision of hiring and action can also be influenced by their own gender and related experience Cohen (2013). Positions of authority dominated by men, offer fewer opportunities for women to integrate into these positions. Women are denied the access to rewarding positions by employers. They are pushed towards low-quality jobs, their work is devaluated and not acknowledged due to their low status and inferior position in the society Findlay et al. (2009); Reskin and Maroto (2011). Managers allocate better jobs to men with the perception that men are preferred employees. Reskin and Roos (1990). Thus, integrating

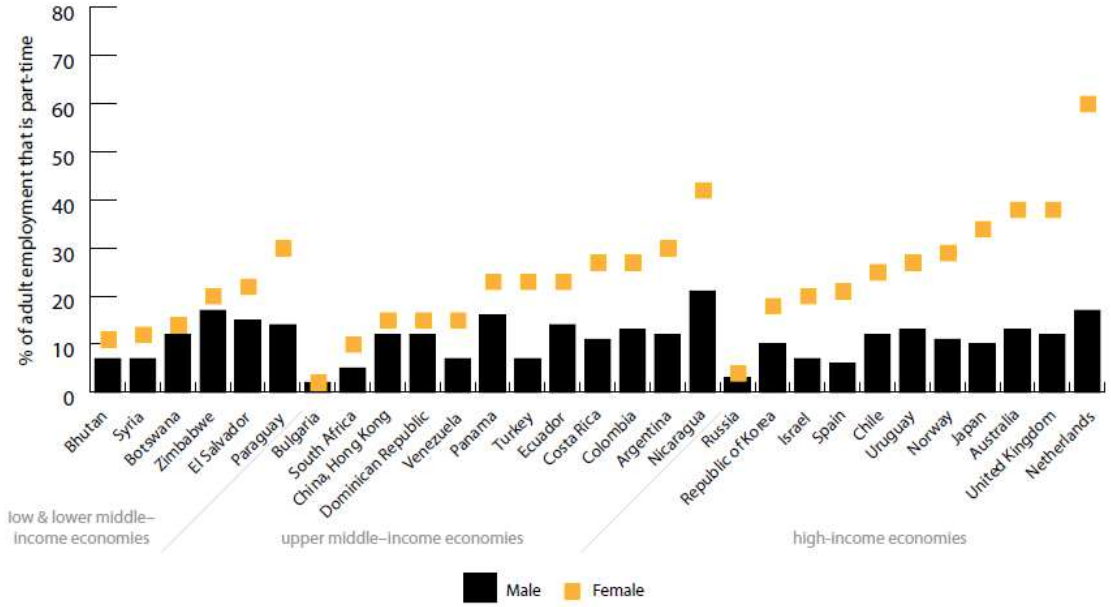
managerial jobs, allow access for women to desegregate jobs (Cohen et.al 2009; Reskin and McBrier 2000).

2.2 Consequence of occupational segregation

Occupational segregation has a variety of consequences, including job dissatisfaction, stress and employee turnover Reskin et al (1999) that would also affect the organization negatively.
The ratio of each gender in each job has an influence on who applies for the job, who gains it Cohen et al. (1998), and who maintains it. For example, there is a common belief that women are the better care giver than men, thus male nurses have fewer acceptances in the society as nursing is perceived as women's job. The common stereotype that man doesn't belong to nursing job and is not good enough to care for patients than women would make male nurses feel that they lose dignity by doing women's job. Second women counterparts may make male nurses uncomfortable at work, mock at male nurses' performance and boost that they are the one who is good at nursing. Third customers would believe that male cannot provide the best nursing. All these pressures will finally result in job dissatisfaction of male nurses. The same effect is true on women workers in a male dominated job. Further more jobs dominated by a single gender may have a connotation that the jobs are only open for the overrepresented gender but not for the other gender. This would limit the opportunities of promotion for the gender that is underrepresented in the job. Women are more vulnerable to the consequences of occupational segregation than men. Occupational segregation imposes inequality and a negative effect on the way men perceive women, women view themselves and the society view women. This affects women's income and status. Anker (1998) As a result, jobs where women are concentrated are overlooked for wage rises and are underestimated Barnett et al. (2000).Work segregation by sex limits the confidence, talent, freedom, productivity and recognition of workers in their job. Hesmondhalgh & Baker (2015). When an individual has a set of talents that would make him/her well suited to thrive in a particular occupation, but that occupation is opposite sex-typed, then this makes it much more likely that the individual will not pursue that occupation. When occupations are sorted by gender, workers find it hard to match their talent to the occupation, thus limiting their potential from being used and flourished. Hesmondhalgh, & Baker (2015).

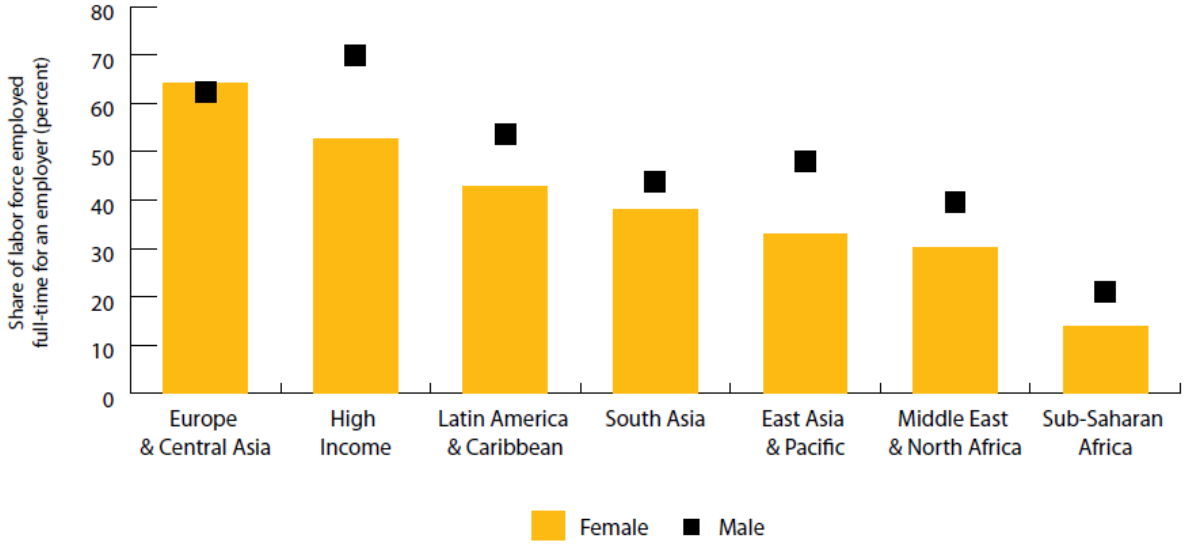
The most significant effect of occupational segregation is its impact on the gender wage gap Shauman (2006); Levanon et al. (2009) and Blau et al. (2010) It accounts for a high percentage of the wage difference between genders Bayard et al. (2003); Tomaskovic-Devey (1993). Gender earning gaps can have "explained factors" where the wage gaps are due to differences in educational attainment, years of experience, occupational choice, working hours, different negotiating skills of men and women Boll (2016) and other observable attributes among human capital variables. Firm characteristics and size also add up to the differences between men and women earnings. Firms with more than 50 employees have a higher share of female workers than smaller firms and the payment level in large firms somehow have a balanced pay than smaller firms Boll (2016) However even after controlling the "explained factors "that usually explain the gender pay gap, differences in wage still remain between the genders which leaves a part of the observed gap unexplained. This unobserved gap is due to "unexplained factors "often interpreted as "discrimination" in the job market. Arbache (2010) Women are more subject to both the explained and unexplained gender pay gaps than men. A significant part of the gender gap is due to the fact that women are underrepresented in industries with high pay levels. Women are concentrated in education, health and social work activities with low pay. While men are over-represented in industries with a rewarding economy. The gender pay gap is even exasperated by other factors including hours of work. As part-time-jobs have considerably lower hourly wages women earn lesser than men. Another factor contributing to the gender pay gap is the employment contracts. Temporary employment is associated with low earnings where women are frequently employed in. Boll (2016).

Figure 2 Percentage of part-time job by gender



Source: UN statistics Division 2013

Figure 2 Percentage of full-time jobs by gender



Source: Analysis of Gallup World Poll data for 2012, population-weighted country-averages

Occupations with high concentrations of women are paid less Cohen (2013) and Hesmondhalg (2015). The pay gap is also observed in jobs with balanced distribution of women and men.Studies revealed that women are significantly disadvantaged in earnings. For example, studies in Africa point out that the ratio of women to men's earnings was estimated to range from 40 percent in Kenya (Kabubo 2003), 80 percent in Botswana Siphambe and Thokweng (2001), and 90 percent in Burkina Faso. Moreover, Rimmer (1991) and Lee & Miller (2004) claimed that women's relative earnings would fall rather than rise even if they had the same occupational distribution as men

Figure 4 Gender pay gap in EU countries in 2010 in %

Country	Unadjusted gap	Explained gap	Unexplained gap (adj.)	Country	Unadjusted gap	Explained gap	Unexplained gap (adj.)
Belgium	8.5	2.8	5.8	Latvia	7.4	-3.2	10.6
Bulgaria	8.6	1.1	7.3	Lithuania	5.8	-8.1	13.9
Croatia	5.7	-6.0	11.7	Netherlands	15.2	7.2	8.0
Czech Republic	16.5	3.4	13.1	Norway	14.3	7.6	6.7
Estonia	25.1	10.2	14.9	Poland	3.6	-7.8	11.4
Finland	20.7	9.4	11.4	Portugal	11.4	-0.9	12.3
France	13.5	4.8	8.7	Romania	7.1	0.8	6.2
Germany	22.2	14.5	7.7	Slovakia	16.6	2.2	14.4
Greece	13.1	5.5	7.6	Spain	17.4	5.4	12.0
Hungary	8.4	0.5	7.9	Sweden	14.0	6.3	7.7
Italy	4.5	-6.2	10.7	UK	20.3	6.0	14.3
				Total	*15.3*	*4.4*	*10.9*

Sources: SES (2010), HWWI (2015).

Source: SES (2010), HWWI (2015)

2.3 Benefit of closing the gender gap in occupation

Closing occupational gender gap can bring gains for disadvantaged groups especially for women, their families, communities and country at large. Equal opportunities of jobs for women and men boost collective development, enhance shared prosperity and can end poverty Boris (2007). Boosting female employment to male levels could increase the nation's GDP. For example, studies show that the increase in GDP could be by 9 percent in Japan, 10 percent in South Africa, 12 percent in the United Arab Emirates and 34 percent in Egypt, Aguirre et al. (2012). Yet nearly 50% of women's productive potential globally is unutilized, compared to 22 % of men's. ILO (2010).

Conclusion

This study confirms that occupational segregation still persists in different countries. Whether the degree of the factors differs from one country to another, women and men continue to be sorted into occupations that are sex-typed. Unless due attention is given by policymakers, occupational segregation is extensive and enduring that has a huge effect on the economy. The factors that contribute to occupational segregation can have different dimensions including discrimination, stereotype, social norms, educational attainment, a difference in occupation preference between male and female and glass ceilings. The consequences could range from job dissatisfaction to employee turnover. Although occupational segregation and gender inequality are separate phenomena, they are closely linked. Gender inequality can be the cause and consequence of occupational segregation. it is a major part of the work world challenge. Reducing gender gaps in the global job can yield big benefit for individuals, organizations and a nation at large. The payoffs can be in terms of poverty reduction, enhanced business, and higher productivity. More research is needed to study which factors contribute more to occupational gender segregation between supply-side orientation and demand-side orientation. The most obvious and well-studied effect of occupational segregation is a gap in labor force participation rates and a gap in earnings between male and female workers. These have a direct effect on economic opportunities. Although occupational segregation can affect both female and male worker's, the consequence is severe in women. Given that women contribution is marginalized in occupation, their work is unrecognized and devaluated, they are less-paid and are denied promotion. Gender-sensitive policies need to be effective to protect women in the world of work. Well-implemented laws may help close the gender

gap in occupations fostering changes in the distribution of women and male in the workforce. Knowledge and skills of women and male need to be collectively utilized for a better outcome.

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Digital exclusion as a barrier to online shopping by older people in Poland

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Abstract: *Technological development, including the popularization of the Internet, has resulted in the transfer of many activities to the digital space. Currently, access to the Internet is not only a facilitation, but also a necessary condition for full participation in social, cultural and professional life. Older people, i.e., those after the age of 65, use new technologies to a lesser extent than young people do. Digital exclusion of older people in the face of an increasing number of seniors in the population may in the future be a serious social problem, and, in addition, a loss of a large market for suppliers of goods and services.*

The purpose of the article is to indicate the reasons for both the lack of interest and the lack of use of an online sales channel by people over 65 years of age.

Focus studies showed the growing role of soft factors in the e-purchase exclusion of older people. At present, in Poland, lack of access to a computer or the Internet is not a basic barrier to making purchases over the Internet by seniors. The most frequently indicated reasons for not choosing to make purchases through this sales channel were the lack of the ability to make a transaction, being used to the traditional form of shopping, security concerns, and distrust shown to sellers.

Keywords: *digital exclusion, older people, online shopping*

JEL codes: *O30, D91, D63*

Introduction

The development of communication and information technologies (ICT) and the widespread use of them in various areas of social and economic activity leads to a significant improvement in the comfort of society in many countries. However, this development is related to certain threats (Kos-Łabędowicz, 2016), which can significantly affect seniors - older members of society. Dynamic changes connected with the use of modern technologies can significantly contribute to the 'exclusion' of seniors from many areas of their normal activity conducted so far (for instance, purchasing tickets, arranging appointments with a doctor, making payments). Digital exclusion, based on the lack of use or low use of digital technologies, may also be one of the reasons for social exclusion of seniors. Studies that have been carried out so far confirm that, with the increasing age of customers, the reluctance to use services requiring the use of new technologies increases (Polasik, Huterska, & Meler, 2018). Older people are reluctant to use modern technologies in their daily lives, and relatively rarely use the Internet as a convenient channel for shopping.

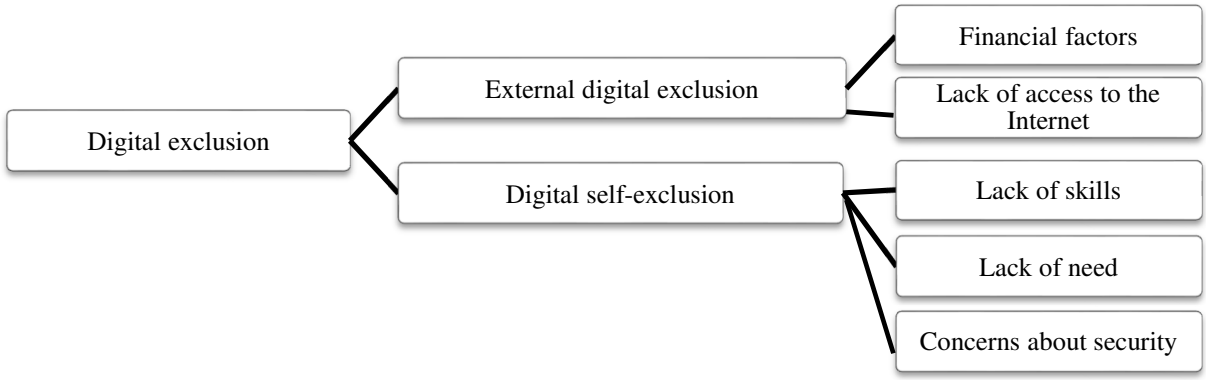
This study attempts to identify factors that make older people (*i.e.*, those aged 65+) resign from online shopping. This behaviour of seniors is in essence one of the manifestations of digital exclusion.

1 Digital exclusion – selected theoretical aspects

The term digital divide refers to the gaps in access to information and communication technology (ICT) - threatens the ICT 'have-nots', whether individuals, groups or entire countries (OECD, 2018). However, the concept of digital exclusion is related not only to the difference between people who have physical access to digital and information technologies and those who do not have this access, but also to the skills and resources needed for their effective use (Stawicka, 2015). Access to the Internet is nowadays not only a facilitation, but sometimes a necessary condition for full participation in social, cultural, and professional life (Stawicka, 2015). Technological development, including the popularisation of the Internet, has transferred many forms of social life to the digital space (Stawicka, 2015). Individuals find it increasingly difficult to function fully in the social space without using this tool. As a result, part of society remains - for various reasons - on the margins of these changes, which leads to the emergence of the phenomenon of digital exclusion (Stawicka, 2015). Therefore, it is both a part of, and due to the growing importance of information and communication technologies in various spheres of life, a potential cause of social exclusion. Social exclusion is defined as the lack or limitation of the possibility of participating, influencing and using basic public institutions and markets, which should be accessible to everyone, especially to the poor (The Ministry, 2004). Social exclusion is a multidimensional phenomenon and means the inability to participate in economic, political and social life as a result of lack of access to resources, goods and institutions, limitation of social rights and deprivation of needs. It is indicated by the European Commission as a serious problem and limiting the possibility of economic growth (Council, 2004, Huterski, Huterska, & Polasik, 2018).

Digital exclusions relate both to the lack of physical access to digital and information technologies, and to the lack of skills or knowledge allowing the use of modern technologies. In the context of the causes of digital exclusion, it is possible to distinguish the following two main types of it: external digital exclusion and digital self-exclusion (Chart 1).

Chart 1. Types of digital exclusion

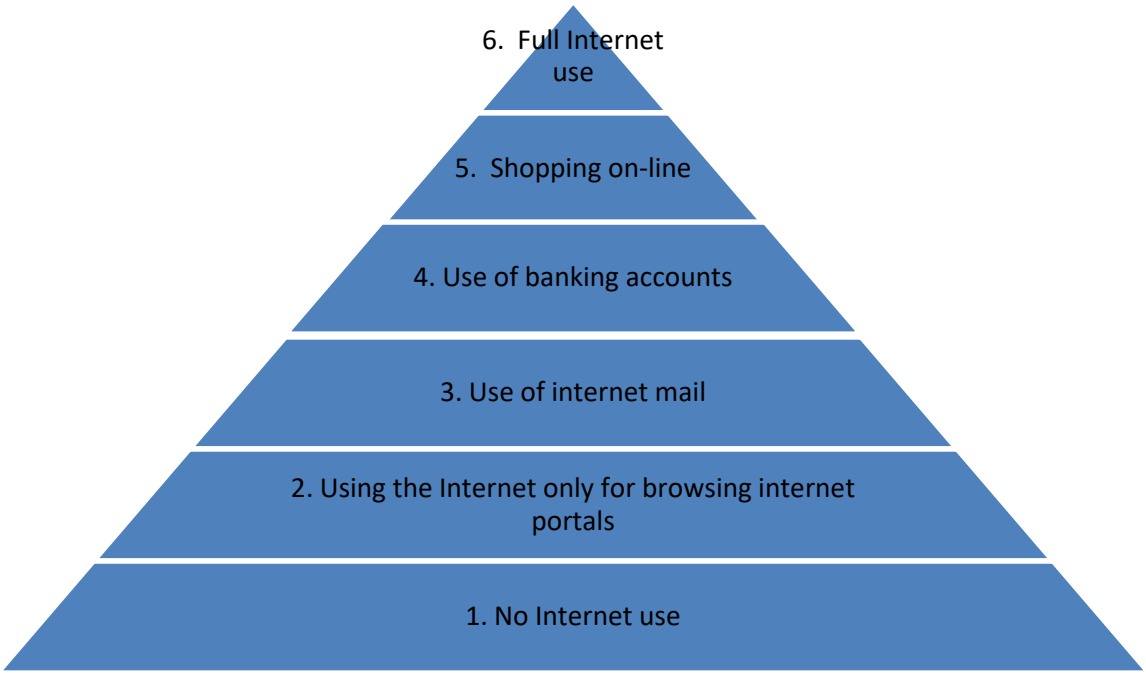


Source: own study

External digital exclusion is caused by the so-called hard barriers such as lack of access to the Internet, for example, due to poor infrastructure development, lack of use due to financial constraints. Digital self-exclusion is, however, caused by the lack of knowledge and skills enabling the use of services provided via the Internet.

When considering the phenomenon of digital exclusion in the context of the frequency of the use of the Internet (Brandtzæg, Heim, & Karahasanović, 2011) or the way it is used in, it is possible to distinguish its different levels. Based on D. Maison's 'funnel' indicator of payment inclusion (Maison, 2017), the authors of this paper propose a digital inclusion model. Digital inclusion is the opposite of digital exclusion. The proposed model illustrates six levels of Internet use (see Chart 2). The full digital exclusion is marked in the model as the lowest level of digital inclusion and, in fact, equals the lack of Internet use. The next steps that depict the decreasing level of digital exclusion are related to the growing use of the Internet. Full digital inclusion means taking full advantage of the possibilities offered by the network.

Chart.2 Levels of digital inclusion

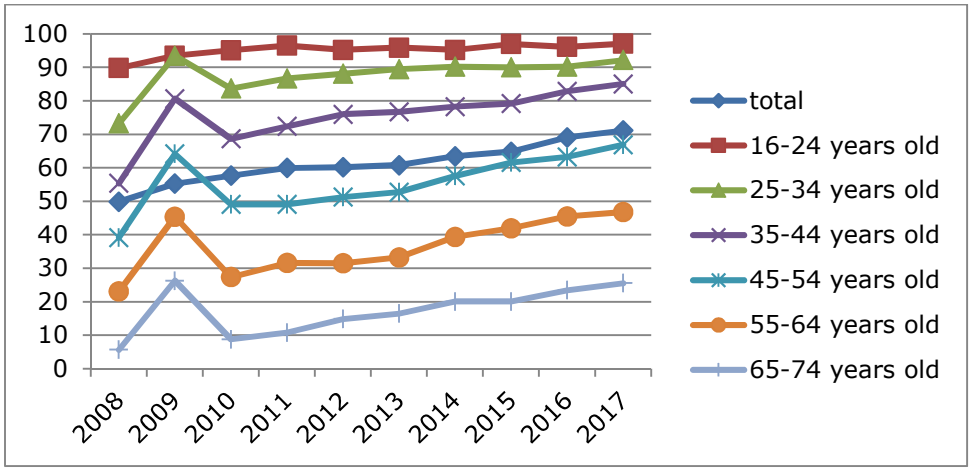


Source: own study

In the last decade there has been a very intense development of computerization of society in Poland. In 2017, 81.9% of households had access to the Internet, while in 2008 the percentage was only 47.6%. The percentage of people using the Internet at home regularly increased from 40.4% in 2008 to 74.8% in 2017. Similar to other developed countries, the spread of the Internet in Poland highlights the increase in the importance of soft barriers in digital exclusion. This is especially important for people aged over 65. The research shows that in the case of seniors we have a lack of preparation for using the Internet. Older people need basic knowledge and skills that would allow them to 'feel better in the e-space' (Wilczyńska, 2014). Other research shows that similar dependence can also be found in other countries, including highly developed ones (Anderson, Perrin, & Jiang, 2018, Friemel, 2016, Brandtzæg, Heim, & Karahasanović, 2011).

Research conducted by Poland's Central Statistical Office (GUS) indicates the existence of very large disproportions in the use of the Internet by young people and seniors in Poland (Graph 1).

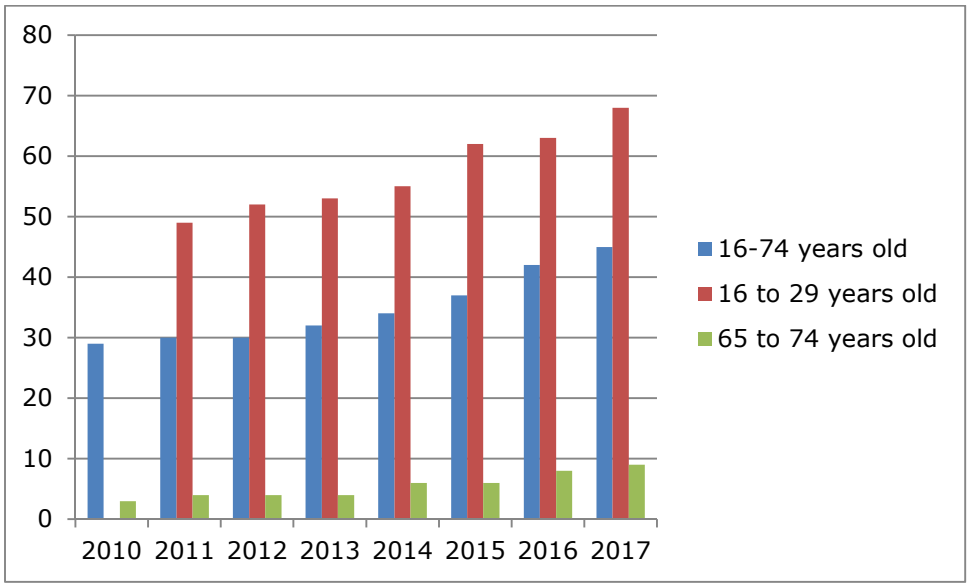
Graph 1. People using the Internet at home



Source: Own study based on GUS data, Information society in Poland. Results of statistical surveys conducted in the time periods 2008-2012, 2013-2017.

This points to a significant threat of digital exclusion of people aged over 65. The situation is similar when shopping online. The share of people aged over 65 buying online is definitely lower than the share of people from other age groups (Graph 2).

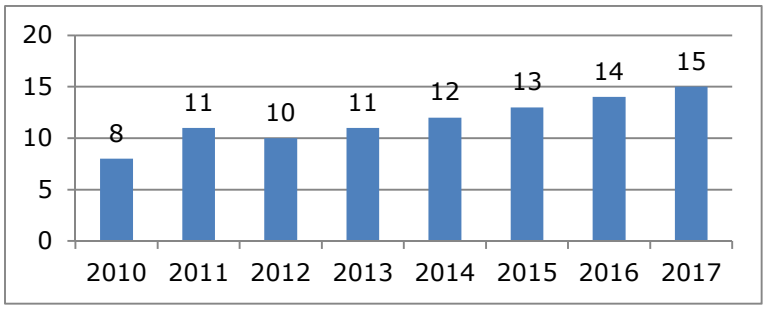
Graph 2. Internet purchases by individuals in Poland



Source: Eurostat

Resignation of seniors from shopping online is an unfavourable phenomenon for companies. With changes in the demographic structure of Polish society, involving an increase in the share of older people in the population (the aging population) (Escher, 2014) may result in the loss of a potentially large group of customers by the sellers.

Graph 3. Value of e-commerce sales as a percentage of turnover in Poland



Source: Eurostat

2 Methodology

A focus group interview method was used in the research aimed at identifying barriers to the development of online shopping by older people (seniors) (Barbour, 2007). It was assumed that the participants of the study will be people aged 65+, who alone or together with their spouses, (possibly their partners) run a household, *i.e.* they usually do their own shopping, but had never shopped online. The research sample was selected in a targeted manner to ensure the diversity of seniors according to their age, sex, place of residence (city or village). All respondents had at least secondary education and a similar economic situation, which they described as average. In total, three focus group interviews were conducted, in which the size of the studied groups ranged from six to seven persons[8]. The survey was conducted in the time period May-June 2018 and covered two major cities: Warsaw and Toruń, and a smaller one - Gniezno. The choice of the cities to be

[8] In the further part of the work - when presenting the results of the study, individual respondents were marked with symbols, where the first letter refers to the city in which the study was conducted (W - Warsaw, T- Toruń, G - Gniezno), the second part - the number is the respondent's identification number attributed by researchers at the analysis stage.

covered by the study was deliberate. The interviews were conducted in natural conditions - private homes. In each case, it was the home of one of the study participants. The time of individual interviews ranged from 60 to 80 minutes. The research tool was a partially structured scenario that allowed the moderator to react freely and to conduct discussions so as to learn as much as possible about the factors discouraging research participants from shopping online.

3 Research outcome

Participants in the study exchanged many factors that discourage them from purchasing products via the Internet. In each group mentioned by the respondents, the factor limiting mail order shopping was the lack of confidence in online stores [W1, W4, W7, T2, T4, G1, G4 G5]. It was difficult for the respondents to determine what was the direct cause of distrust. Some of the respondents expressed doubts about whether they were actually dealing with an honest seller: '(...) I am afraid that I will pay and they will not send me the things for which I will pay them, and I do not have too much money, I cannot risk' [W4]; '(...) I'm not sure that I will get a full-featured product [W1]'; '(...) apparently you can pay, but I have concerns, I prefer face-to-face contacts during shopping, [T2]'; '(...) I do not shop in that way, I feel some fear' [G1]. Some people had negative opinions about shopping online because they heard from their friends or read in newspapers or magazines about cases of fraud and abuse occurring when ordering online: '(...) in newspapers you can often read about cheating on the Internet' [T4]; 'I once read that someone had ordered something expensive on the Internet, I do not even remember what, and the package had never reached him; moreover, the product was expensive and the money was not refunded [W1]; '(...) my daughter orders a lot on the Internet, on the Allegro site and it happened to her that she ordered from a dishonest seller, eventually she gave up, because it was not expensive, maybe it was some toy for her grandson, the seller kept saying that he had sent the order but the postal service failed to provide it' [G4].

When discussing the lack of trust in online stores, the respondents were also asked whether they would start buying via the Internet if they had confidence in the sellers and that they would receive exactly the product they wanted to buy. However, the opinions of the respondents were mostly negative. One of the participants of the study admitted that he would not buy anyway because he did not have a computer or any other device with internet access '(...) I do not have a computer and the Internet, because I would have to pay for it; in general, I do not even need it' [W5]. Other participants of the study admitted that they had a computer and access to the Internet, but they could not handle it to the extent that would allow the purchase of products, they could not, for example, search for interesting offers: '(...) too much of everything, I am not able to look for things that I need; I do not know which are good, I would rather go to a traditional store [T3]', '(...) I have a computer at home, because my children bought me one and I contact them through Skype; sometimes I read some news, but I cannot do anything else in the computer; unfortunately, I do not get it [G2]'. Some of the respondents did attempt to make an online purchase in the past, but encountered some problems along the way. Thus, they pointed to further factors that discouraged seniors from shopping online, namely the need to register and log in, and to have an e-mail account. In the opinion of the respondents, this process is difficult, time-consuming and requires providing too many personal details: '(...) I do not want to do it and I do not know if I could set up an account, I prefer a regular store [W3]'; '(...) I cannot do it, my son used to show me that and he even opened an account for me, but I do not even remember the password' [T6]; '(...) I cannot buy on the Internet, I did not learn that, my granddaughter used to show me one time, but she pressed something so fast that I did not manage to remember it' [T5]; '(...) my daughter has an account, she will search for something quickly and order (...) I only receive parcels' [W2]. In addition, long, written in too small print on the website and often unclear to seniors online store regulations that must be accepted are also a factor limiting interest in this form of buying products: '(...) it is too difficult, I do not understand it, I am afraid of these long contracts' ; [T1]; '(...) I tried to buy something I remember, but they told me to accept something, there was a lot of reading and I got scared that I would agree and I would have problems' [W6].

The interviews show that the majority of seniors, however, do not attempt to raise their low (as judged by them) computer and digital competences, '(...) I cannot handle computers, only the young use them skillfully; I do not undertake it because I cannot do it' [T1]; '(...) I do not know how to handle it; I would have to set up an e-mail account, have a password, and I cannot do it' [G3]. '(...) my daughter once set up an account for me, in fact even twice, I wrote down the instruction and I lost it' [G2]; They also explain that they do not feel the need to use the computer and the Internet in their everyday life, including shopping: '(...) I feel like paying the fees and shopping as always. I prefer to go to the post office, drive to the store by bicycle' [T1]; '(...) I do not need the Internet to shop, I prefer to go out to the store, dress well, I will always meet my neighbors there' [T3].

Only one interviewer pointed to a certain advantage of ordering products via the Internet, namely the lack of the necessity to wait in queues in shops and bring heavy shopping home (the main aspect was the purchase of food products). The respondent stated: '(...) I have problems with walking; doing the shopping is very difficult or me, I do not want to constantly ask someone for help, I would rather cope with shopping by myself' [W6]. Other respondents were skeptical, claiming that they find in-store shopping less troublesome if compared with ordering from the Internet. Another factor that discourages older people from shopping online is the payment method. Most often when shopping, you must pay for products before delivery via online banking. This requires not only trust in the entity offering the products, but also holding and servicing a bank account, and with this many seniors also have a problem: '(...) I would have to set up a bank account, and I prefer money that I keep in my wallet [G3]; '(…) I do not have a bank account; the postman brings me pension, I do not have enough money to save' [T5]. Some respondents were aware of the fact that you could pay the supplier for the products purchased when collecting them, but they also knew that there was usually a higher fee for this service. As they claim, this is also a factor discouraging them from shopping online.

Conclusions

The focus studies carried out indicated the important role of the so-called soft factors (*i.e.* those that are not related to physical access to the Internet) in taking a decision to resign from buying via the Internet by people over 65 years of age. This is confirmed by research on access to and use of the Internet by the Polish society, conducted cyclically by the Central Statistical Office. The most often indicated reasons for the resignation from independent purchases through this sales channel by the persons participating in the research were their inability to use the computer, set up an e-mail account, make an order, or finalize the purchase by making an online payment. This points to the need for seniors' education both in the basic skills related to using the Internet, such as using a web browser or email account, as well as the principles of maintaining security on the Internet. In Poland, lectures on financial education and online safety are presented for the elderly people at the Universities of the Third Age. This activity is actively supported by the Modern Business Management Program, which was initiated by the The Polish Bank Association and the Credit Information Bureau. However, the research carried out shows that such educational activities should also be conducted at the local government level. In addition to the factors related to the lack of knowledge or skills to make purchases in e-commerce, psychological barriers are particularly important in the case of seniors. They are connected with being tied to the traditional form of shopping, being anxious when making internet transactions, the desire to directly contact the seller or the need to leave the house and have contact with other people, even if this contact is superficial and accidental as when shopping at a traditional store.

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Social Media Influencer Marketing in Context of Event Marketing Strategy

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Abstract: *The popularity of the influencer marketing has grown significantly and many companies are still unsure how to use the influence of social media celebrities to create effective marketing campaigns and how to improve brand awareness via social media. This article proposes and explores the social media influencer marketing in order to develop an understanding as to how content brand strategy through event. Marketing campaign can be integrated within existing brand and product marketing strategy. The article examines the event marketing tools, formats and how marketers integrate it into marketing strategies. Additionally, the article provides new types of social insights, as well as measuring their effectiveness in a specific event marketing campaign. In particular, the final report focusses on measuring and mapping influencers´ impact, to identify dominant techniques based on the specific event marketing campaigns. It was found that the impact of social media and influencer marketing in context of brand strategy is significant. The findings indicate that the primary objectives of influencer marketing are driving the brand awareness and reaching new audiences.*

Keywords: *content marketing, customer insight, event marketing, influencer marketing, social media*

JEL codes: *M31, M37, O31, O35*

Introduction

Social media are collection of digital platforms and their growing popularity have rapidly changed the way people communicate and leads companies to create online communication strategies via online and social media communication mix. In 2017, content marketing continued to influence and become more sophisticated in the level of strategy being used. Content marketing is one of the leading marketing technique in marketing communication creates customer relationship based on creating and sharing content in online, mainly in social media. The trend of last year is a massive shift to video marketing, personalization in content marketing and marketing automation within the campaigns. Companies invest more effort into communicating with consumers through online social networking. Online social networking sites provide social graphs and the content of marketing communication must be customized. The development of digital technologies has led to that a majority of the world population are active on social media. Marketing managers are looking for the most effective strategy with the lowest cost and it has resulted into the new marketing strategy using celebrities. Influencer marketing focuses on using key leaders to drive a brand's message to the larger market and is in comparison with the previous strategies a new phenomenon of last years.

The aim of this research is to provide deeper understanding of how we can communicate brand and later product through creative and interactive brand event marketing strategy. The research has two parts. Firstly, the article demonstrates the main principals of the social event marketing campaign. It is usual that this type of event marketing has its online and offline part. Campaign consists of two main parts, social media campaign and festival event. Secondly, this research analyses the effect of the selected influencer on the firms´ customers via event marketing messages. In addition, a literature review and analysis of secondary data are based on publishing on or before January 2018. Finally, implications for further academic research and marketing practice are discussed.

1 Literature review

Brands thus social media can obtain more brand loyalty and trust consumers. Social media has become more important for branding. (Kaplan and Haenlein, 2011) note that social media offer the

opportunity for individuals and businesses to capitalize on people's networks, and a rich digital space for the exchange of electronic word of mouth.

Brands are focused on storytelling. There could be created brand community with a specific interest. In this setting, brand managers can create interactive digital advertising campaign based on virtual brand communities on social media. Social media-based brand communities are playing an important role in enhancing the overall trust relationship, value offering, sociality, knowledge and information sharing between customers and firms (Potgieter and Naidoo, 2017). Rosenthal and Brito (2017) show the importance of having celebrities among fans in order to foster social interactions and legitimate social practices on brand pages. Pop et. all (2018) define that the high level of internationalization gives the event high quality, value and prestige.

An influencer is regarded as a person who has built up a lot of followers on a social media platform such as Instagram, and companies are today widely using these people as a marketing tool to reach out to their target audience in an effective way. This person has the ability to change the customers´ behavior or purchase decisions. On the social media, influencer has a specific target audience by producing specific content on specific topics. According Harvey and Sanchez (2018), one of the biggest sources of sales leads now is so-called content marketing or inbound marketing, this would have certainly been part of PR. Native advertising is created to look like organic content around it but requires payment to achieve greater reach. Rowley (2008) defined that the customer's experience of digital content is influenced by all stakeholders in the value chain as well as requiring the customer to participate in learning and co-creation of the experience. In 2018, we could say that brands and influencers are more transparent about their partnerships, a lot of influencers created Instagram posts, YouTube videos and other content promoting products, traditional combination of blogging, emailing and video sharing has the most important position in the marketing blogging strategy. Copeland and Moor (2018) introduced The Community Digital Storytelling as a means for addressing the specific content to the community. There are five stages to this method: preparation, storytelling, story digitization, digital story sense-making and digital story sharing. Additionally, they identify four trust dimensions as being imperative foundations in implementing community digital media interventions for the common good: legitimacy, authenticity, synergy, and commons.

These trends bring a new STDC concept created in 2017 by Google company. We could say that the framework for Influencer marketing could have five main steps. You must define your online target audience. It means segmentation, targeting and positioning process. It is important to do in the context of online marketing and social media. After targeting your target audience, target customer, you must understand your target client, it means how they discover, evaluate, decide and buy products and sevices. It means See-Thing-Do-Care Process creation and to understand all steps. Secondly, you must discover the right influencers, it means to find the influencers who produce and share content that can impact your target audience and after it your buyer´s decision making. Next step is to start building a relationship with simple actions, it means follow, share and link actions, build the trust, plan initiatives and work together with your influencer. Finally, the most important is to keep track of the relationship you are building and transfer it to creative events (visits, introductions or leads).

Marketers of nowadays face the fact that modern brand communication has changed significantly and the main goal is to communicate with the customers through their emotions. "For the purpose of this paper, event-marketing is defined as the interactive communication of brand values by staging marketing events as three dimensional brand-related hyper realities in which consumers are actively involved on a behavior level and which would result in their emotional attachment to the brand." (Wohlfeil and Whelan 2006) In other words, events must be interactive brand-related action connected with the customer experience. It is important to note, that in these days we can define event marketing as a product, service or brand promotion through influencers. There are a lot of new formats of event marketing like online conferences, webinars or virtual events. In general, according Pope (1998), event marketing can help companies achieve marketing and media objectives (e.g. brand positioning, increasing sales, generating visibility) or corporate objectives (e.g. corporate image, community involvement or increasing public awareness).

2 Methodology

The data is based on the panel data, which covers a period from 2017 to June 2018. It will focus on the event marketing strategy of two different companies in the context of social media. The methodologies used in this paper are the analysis, synthesis, comparison in time and comparison

of the marketing strategy of two different companies. The conclusion sums up the findings and discusses them. Case studies providing a deeper insight into a modern event marketing developing and implementing a creative event-marketing strategy using influencers.

3 Event Marketing Strategy in Context of Influencer Marketing

Events will be described according Šindler (2003) methodology, where it is important to define six main event marketing strategy dimensions: object (company brand, product or service); key event marketing message; target groups; length and intensity of event marketing strategy; event mechanism; event goals. In this paper is for each event described: **object** (company brand, product or service); **target group**; **customer´s insight**; **length of event marketing strategy**; **budget**; **campaign goals**. These six dimensions and event background will be described in both Case Studies and finally compared. The first part is Case Study where is event marketing connected with product communication strategy. In the second part, there is a Case Study where is event marketing connected with brand communication strategy.

3.1 French Market Festival

The **object** of the first Case Study is the product event designed for the Jan Becher Pernod Ricard company. This event marketing campaign mechanism is that the campaign is divided into three main parts, influencers, sponsors and B2C firm own communication. The first part is created by influencers and their Facebook, Youtube and Instagram profiles. The second part is created by sponsor firms and the last one is the main company online marketing campaign. The marketing of alcohol producers is the new challenge for marketing department, in part because of the young generation and their use of new online technologies where is not possible to measure the age of customer.

The **event background** could be connected with the brand and the position of the brand in the portfolio and with the situation on the market. The product portfolio of this company is very extensive, it imports both wines (sparkling, silent) and hard alcohol, and it is one of the leading importers of alcohol in the Czech Republic. In portfolio are following type of brands: Global Inons (e.g. Absolut Vodka), Strategic Premium Spirits Brands (e.g. Ballantine´s), Strategic Prestige Spirits and Champagne Brands (e.g. G.H. Mumm), Key Local Brands (e.g. Becherovka Original) and Priority Premium Wine Brands. The event is designed for luxury G.H.Mumm champagne brand.

Although Czech Republic has the highest beer consumption per capita in the world, 150 liters annually, wine is increasing in popularity as well. In 2018, the Czech wine market is forecast to have a volume of 308.3 million liters, an increase of 26.1% since 2013. The imported silent wines make up 67% of the sales and more than half of them dominate the domestic wines. Most wines are imported from Italy, Spain, Hungary and France. Jan Becher Pernod Ricard distributes two champagne brands to the Czech Republic. One of these is the Mumm (1099 Kč/0,75l) and the other is the Champagne House Perrier Jouet (1450 Kč/0,75l). According AWSR Reports (2017), the sales of the Mumm brand has risen 4 times and the sales of Perrier Jouet 2,3 times. For more see in table below.

Table 1 Champagne Sales in the Czech Republic (2012 – 2016, in ths of litters)

Champagne Type	2012	2013	2014	2015	2016
Moët & Chandon	61	81	90	101	107
Veuve Clicquot	22	23	24	24	26
Mumm	3	3	5	9	12
Perrier - Jouët	3	3	4	5	7
Dom Perignon	3	4	5	6	6
Ruinart	1	2	3	4	4

Source: Own processing (IWSR Report, 2012 - 2016)

Depending on the marketing goals, the communication strategy of the G.H.Mumm brand in the Czech Republic is defined by increasing brand awareness and image, thereby increasing sales and gaining a higher market share. "Jan Becher Pernod Ricard company is committed to creating log-term value a lasting partnership with all its stakeholders." Marketing communication attempts to create the G.H.Mum's champagne as a lifestyle, using mainly influences. Pernod Ricard (2017)

Target groups of individual events is defined directly for each event. To event marketing plan, it's important to determine event marketing budget for the campaigns in 2018. There is an estimation of average sales (16,000 Mumm bottles with the price CZK 1099), it means the total revenue CZK 17,584,000 for the Mumm brand. After taxation, the income is CZK 13,610,560. (Jan Becher Pernod Ricard, 2017) We will assume that 30% of the sales revenue could be allocated for the marketing purposes and after it 25% of the marketing costs for event marketing budget for 2018, it could be approximately CZK 1,000,000. There are approximately 10 events per year.

The Mumm concept is typical product-oriented short term event, usually parties for invited guests and partners. **Target group** for this event are all B2B partners and customers of the Aureole – Fusion Restaurant. The location of the restaurant is very attractive due to the popularity of the restaurant between "Golden Kids", the upper middle class young people aged 18-30 who have higher

CODE rooftop G.H. was held July 15, 2017. The restaurant was in the Mumm design, the guests were welcomed with a glass of Mumm Cordon Rouge and a special promotional price was created during the evening. **Customer´s insight** is to drink champaigne during the dinner. **Campaign message** is within eating the delicious food, it is needed to drink the luxury vine - champagne, the Mumm. **The Event Marketing budget** is CZK 320,000 Mumm Event (estimate). Costs for the Social Media Campaign included cost CZK 40,000 for 2 influencers. **The event marketing goals** for this one event is to create experiences and raise customers´ emotions, to strengthen relationships with partners and to offer other experiences. In the table below you can see Mumm´s and competition events.

The official Social Communication mix and promotion was done through CODE production on their Facebook profile. There had been created Facebook event campaign. According to facebook, event visited 229 people and 515 customers said that the event is interesting for them and 20% shared the information. The next part of the campaign was cooperation with two influencers, such as Nikol Trojan and Šárka Peková. They were invited to attend the party to ensure media promotion on their Instagram profiles.

Table 2 Social Media Mix via Influencers, Guests and Partners´Profiles (07/2017)

Followers	**Facebook**	**Instagram**	**Youtube**
Influencer - Nikol Trojanová	38 207	72 100	142 920
Influencer – Šárka Peková	5 519	18 800	4 430
SPECIAL GUEST - Dj´S MARTIN ROTH	33 388	2 740	148 311
Partner - Code Production	4 100	581	76 731
Partner - Aureole - Fusion Restaurant & Lounge	4 181	1 895	6 323

Source: Own processing (FB, Instagram, Youtube profiles, Followers 07/2017)

In correspondence with the campaign goals (Instagram campaign), the post, which was added by Nikol on her Instagram profile had 3,122 responses. The rest posts (second influencer, guest and partners) had 1, 985 responses. The same photo was shared by the official Mumm Instagram profile, and the response to this profile was only 73 responses, despite the fact that the Mumm Instagram profile was being promoted. The results of the campaign promoted by influencer and partners via Instagram had 5, 107 responses. Additionally, this case study provides the results, as well as measuring of the effectiveness in a specific event marketing campaign. In particular, the final report focusses on measuring and mapping influencers´ impact on Instagram, to identify the dominant influencers´, guest and partners´ impact on the event marketing campaign results.

3.2. Ynspirology Event

The second Case Study is online and offline project held in the end of 2017. The **object** of the second Case Study is the brand event, Ynspirology Festival. **Event background** - event is consisted of three parts – Ynspirology Series, Ynspirology Festival and Ynspirology Awards and organized by JAD Productions s.r.o., is one of the most successful creative event agency in the Czech Republic and Central Europe. The Ynspirology Series is an original YouTube channel about inspiration, TV shows, event production, travel, life of Czech stars and the goal of this channel is to bring quality content on YouTube that will be inspiring. Ynspirology Festival is a two-day event (festival) full of inspiration, the **target group** of Inspirology is "Y-generation", including people born in 1986-2000. This is a generation of questions and questioning. They listen to similar music,

have the same interests and goals, recognize similar living values - freedom and new opportunities. **The main campaign message** is to inspire Y-generation. Client insight is to be inspired by news, new things and trends. Visitors can try out over 30 different interactive disciplines in 4 zones (Spirit, Fit, Digi and Girl Zone). The Ynspirology Awards is a competition and ceremony of the most inspirational celebrities, brands, online creators, music artists and social responsibility projects. Categories are online influencers, music makers, and social benefits. There are a lot of influencers in the event marketing plan.

Table 3 Social Media Mix via Influencers´ Profiles (03/2017)

Zone	Followers -	Facebook	Instagram	Youtube
SPIRIT	Majk Spirit, Lukáš Zachara, Andy Coconut,Anna Pálková, Michal Škapa, Yemi A.D., Adam Mišík, Pavel Adventurer	34 145	142 920	127 736
GIRLS	Dara Rolins, Anna Šulc, Gabriela Hecl, Angeé Svobodová, Sabina Rojková	388 900	1 156 100	567 438
DIGI	Jakub House, Xlab Crew	1 000	243 110	780 929
FIT	Tomáš Taran, Vojta Urban, Radovan Bryan	4 100	23 954	50 474
SPONZORS	ŠKODA AUTO, TV NOVA, EXCELENT, BUBBLEOLOGY, COCA-COLA, And Others…	961 500	198 045	193 126
SPIRIT	Majk Spirit, Lukáš Zachara, Andy Coconut,Anna Pálková, Michal Škapa, Yemi A.D., Adam Mišík, Pavel Adventurer	34 145	142 920	127 736

Source: Own processing (FB, Instagram, Youtube profiles, Followers - 03/2017)

Campaign goals and results – expected attendance is 3,000 visitors in two days, the event is held at the Metropole Zličín shopping center and visitors needed tickets (basic for CZK 350, VIP ticket is still 700 CZK per day). In fact, the festival was visited by 1187 visitors on the first day, 1364 people on the second day, KPI's were met at 85%. The second result is the amount of hashtags. The **total budget** spent for Social Media (Facebook and Instagram) was CZK 31,000. And the planned costs on influencers is not known. But at least, we can expect that sponsors usually pay influencers and other event costs. In table below, we can see the contribution of the event marketing campaign (from 25 March 2017 to 30 June 2017).

Table 4 Generic Social Media Results (03 - 07/2017)

Channel	Posts	Reach	Impressions	Engagement
Hashtag #ynspirologyfestival	2 776	-	-	-
Facebook	55	883 200	1 015 600	64 500
Instagram + Instastories	179	2 706 000	3 111 400	471 200
Youtube	4	168 300	213 260	1 339
Sum	3 014	3 757 500	4 340 260	537 039

Source: Generic Results (FB, Instagram, Youtube profiles, 03 - 07/2017)

Table 5 Sponsor Social Media Results (03 - 07/2017)

Channel	Posts	Reach	Impressions	Engagement
Facebook	11	316 600	364 100	14 300
Instagram + Instastories	17	537 700	618 400	105 600
Youtube	2	2 367 830	2 770 100	1 713
Sum	30	3 472 830	4 040 800	107 313

Source: Sponsor Results (FB, Instagram, Youtube profiles, 03 - 07/2017)

These two tables document that the brand promotion through influencers is successful. Social Media and their reach enables companies to build their campaigns and promote their brand strengthen, regardless of the campaign budget.

Conclusions

In the extent of theoretical implication of this study, there were applied the proposes and explores the social media influencer marketing in order to develop an understanding as to how content brand strategy could be promoted through event marketing strategy. This research strengthens the understanding of relationship between effectiveness of social media influencers event marketing content and brand or product marketing strategy. Using influencers were found a positive impact on consumers' intention via social media. Customers are more interested in it and they are able to share remarkable information and notify each other about new products, services and about other news. The platforms, where were found better results and customer activity about observed event results ,were Facebook, Instagram, and YouTube, it could be assumed influencers´ blogs and Twitter as well. The additional benefit for the brand is that customers used social media are able to communicate directly with the company as well. Brand Storytelling via event or festival can catch consumers' interest and attention and build customers´ insights. Stories must have clear message and must be communicated with a content. Influencers´ posts with story content raise more positive emotions, and these stories are often less critically analyzed by our target audience. Therefore, marketers should pay attention on selecting an appropriate social media influencer to increase consumer attitude as well as influence interest in brand.

In this research, the data should primarily be based on a larger data set to explore Social Media Influencer Marketing in Context of Event Marketing Strategy and produce highly extensive results. The event marketing backgrounds were also a restricting factor because only companies web pages, annual reports and Social Media profiles were analysed. Future studies should expand to a wider range of data set and target consumers, and potentially other generation cohorts to achieve a set of more credible findings. In addition, respondents' questionnaire could be done based on their prior purchasing experiences. Future research can consider wider range of brand or social media influencers.

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The Socially Responsible Behaviour of Family Firms: A Scoping Review

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Abstract: *Corporate social responsibility has been receiving ever-greater attention since the start of the millennium, but there has been far less, albeit increasing attention focusing on research into family firms. However, it would appear that little is known about the connections between these two areas. Therefore, the objective of this article is to determine the state of research into the socially responsible behaviour of family firms, and on the basis of this, identify possible areas for future research. In order to achieve this objective we chose a scoping review using Arksey and O'Malley's framework. The results of the scoping review show that more research should be focused on this area. Suitable areas for further research include the socially responsible behaviour of large family firms or specific types of family firms, the socially responsible behaviour of family firms in Central and Eastern Europe and the influence of culture on their socially responsible behaviour. A qualitative approach was judged to be the most suitable.*

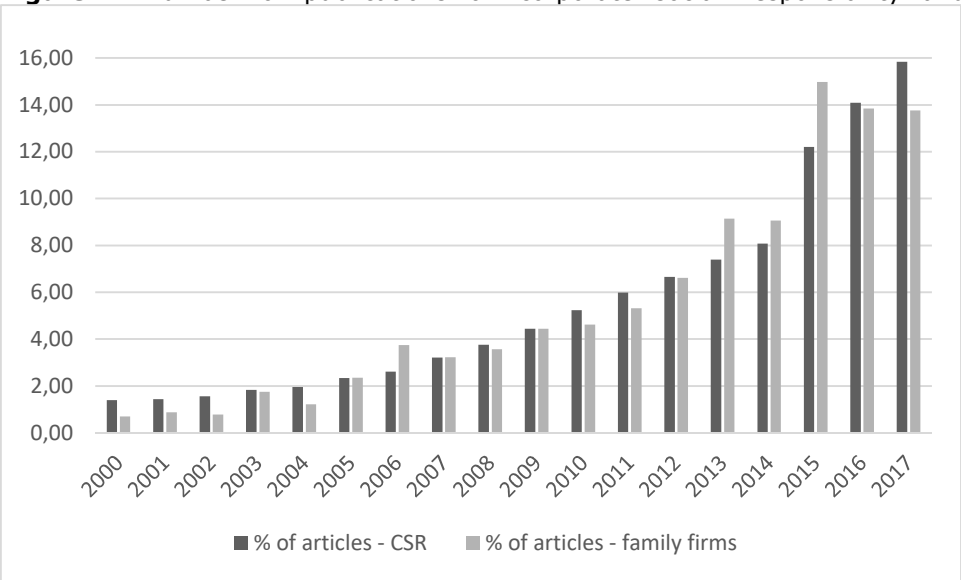
Keywords: *corporate social responsibility, family firms, scoping review, Arksey and O'Malley's framework, Web of Science*

JEL codes: *D22, M14*

Introduction

Over the course of the first two decades of this century, corporate social responsibility (CSR) became a relatively well-known concept. Nevertheless, it has continued to enjoy great attention from researchers, as is documented in Figure 1. There has been far less research, albeit growing, which focuses on the behaviour of family firms and its characteristics. During the period under observation there were 42,978 articles published on CSR in the Web of Science database, but only 1,148 on family firms. This is quite surprising given the fact that family firms play such an important role in national economies.

Figure 1 Number of publications on corporate social responsibility and family firms (%)



Source: The author, based on data from the Web of Science ('WoS', 2018)

Some research (Amann, Jaussaud, & Martinez, 2012; Bergamaschi & Randerson, 2016; Caputo, Veltri, & Venturelli, 2017) indicates that even though today there is a relatively broad understanding of the concept of CSR, few people know about the socially responsible behaviour of family firms. Therefore, the objective of this article is to determine the state of research into the

socially responsible behaviour of family firms, and on the basis of this, identify possible areas for future research. A scoping review was used to achieve this objective.

A scoping review is one of the most recent methods for carrying out a literature review. Occasionally it is unfairly presented as a less rigorous version of a systematic review (Peterson, Pearce, Ferguson, & Langford, 2017; Pham et al., 2014). However, the difference between them lies in the purpose of the literature review. The purpose of a scoping review is to chart the existing evidence on a theme (Peters et al., 2015), whereas the purpose of a systematic review is to synthesize the evidence (Peters et al., 2015). This has several consequences. When carrying out a scoping review, unlike a systematic review the review questions are broader in scope (Arksey & O'Malley, 2005). Also unlike a systematic review, a scoping review contains various study designs, but the quality of which is not assessed (Arksey & O'Malley, 2005; Levac, Colquhoun, & O'Brien, 2010).

1 Methodology

Arksey and O'Malley's framework was selected to carry out the scoping review. This consists of five steps: the identification of the review questions, the identification of the relevant studies, study selections, charting the data and collating, summarizing and reporting the results (Arksey & O'Malley, 2005). The first three will be dealt with in this chapter and steps four and five will form the Results chapter.

In line with their recommendations, the review question was formulated broadly and then concretized in order to provide both general information about the studies included in the review and specific information for the particular study (Arksey & O'Malley, 2005). The review question was therefore: What is known from the existing literature about the socially responsible behaviour of family firms? Its concretization is shown in Table 1. The findings discovered from these areas will be presented in the Results chapter.

Table 1 Refining the review question

General information	Specific information
Author(s)	Study population
Countries of origin	Sample size
Year of publication	Methodology
Research areas	Recommendations for future research
Source title	
Founding agencies	

Source: The author

In order to carry out the scoping review, the Web of Science (WoS) database was chosen. It was chosen because, due to its historical development, academics still consider it to be the main database for searching for publications, even though Google Scolar and Scopus now surpass it in many aspects (Chadegani et al., 2013; Harzing & Alakangas, 2016). The searches were only for articles in academic journals, including emerging sources in English. In order to ascertain the relevance for the given area, the synonyms below were searched only in the article titles.

The next step was the formulation of the key words for the search. The following approach was used in the search for a synonym for the term family firm. The term family firm was used when searching the WoS. For unambiguous relevance to the theme, this term was only searched in the article titles. Afterwards, 20 articles were randomly chosen from the list. From these, the author went through the literature list and used the article titles to identify synonyms for the expression family firm. These were family business, family enterprise and family company. As these synonyms appeared in both singular and plural forms, the Boolean operators was used for the search in the WoS in the form: " family firm* " OR " family business* " OR " family enterprise* " OR " family compan* ".

Synonyms for the term corporate social responsibility were identified in a different way as CSR is used very differently in the literature. This is due both to regional characteristics (e.g., the term CSR is used more in Europe, while corporate citizenship is used in the USA), and whether the author was part of a specific group and time (academics tend to use the term CSR, while

sustainability is used more in practice), and the central direction of the research (i.e. social responsibility or environmental responsibility). To maximize the number of synonyms, a relevant article in Forbes magazine was eventually chosen which provided the following synonyms (Epstein-Reeves, 2011): corporate responsibility, sustainability, sustainable development, corporate accountability, creating shared value, citizenship. To these synonyms the author added environmental responsibility, social responsibility and the abbreviations of the main concepts, i.e. CSR and CSV. Due to the fact that some of the expressions also often appeared as adjectives, their search listings were chosen as: " corporate responsib* " OR " social* responsib* " OR " environmental* responsib* " OR CSR OR sustainab* OR " corporate accountab* " OR " creating shared value " OR CSV OR citizenship.

After applying these terms, 37 articles were found in the WoS. After studying the title and the abstract, the author assessed their relevancy to the review question. The only ones which were selected were those which were related to the general concept of CSR or to its individual parts according to the triple bottom line. On the other hand, articles were disregarded which only focused partially on CSR, such as CSR disclosure or philanthropy. Consequently, the author disregarded 8 articles. Another 5 articles were discarded after they had been read. Therefore, only 20 articles were part of the scoping review.

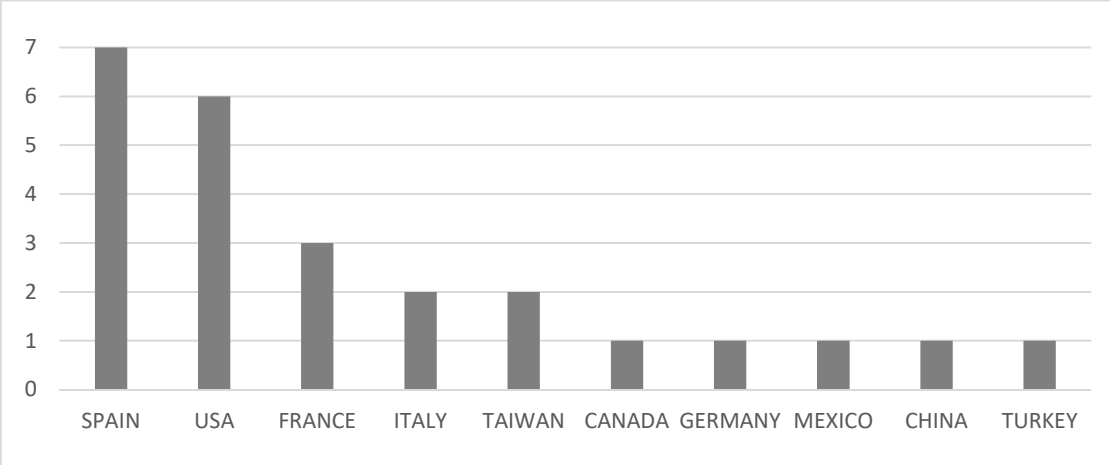
2 Results

This part will present the results of the scoping review. The list of articles analysed is given in the Appendix. As the review question is divided into two parts, this chapter will also be divided into two subchapters. The first will present general information relating to the review question and the second will present specific information relating to the studies.

2.1 General information

The results of the review scoping did not show that any author focused on the link between CSR and family firms significantly more than others. Only in one case (Hernandez-Perlines) did the author appear in two articles. Figure 2 shows the countries where the authors of the articles work. The number does not reach 20 as in the majority of cases the articles are written by a group of authors. From Figure 2 it is clear that the majority of authors comes from Spain (7) and the USA (6).

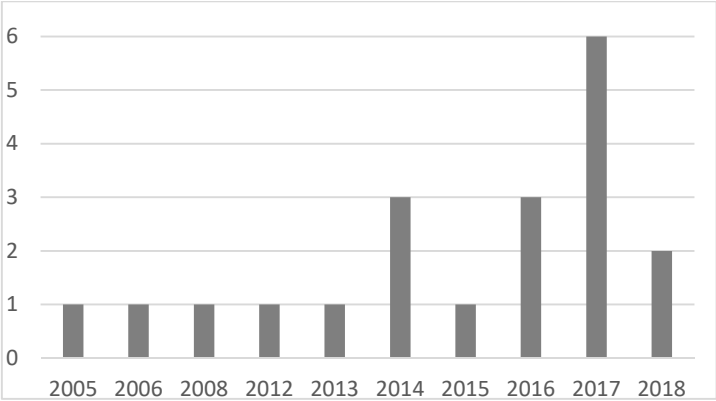
Figure 2 The number of authors writing about CSR in family firms from individual countries



Source: The author, based on data from the Web of Science ('WoS', 2018)

The data from the WoS shows that articles on CSR in family firms only began to appear from 2005. The greatest increase can be seen in the years 2014, 2016 and 2017 – see Figure 3. Even so, the number of articles is significantly limited. On the other hand, they are quite regularly cited. Overall, the articles had been cited 521 times and 488 times without self-citations. By far the most regularly cited article was by Dyer and Whetten from 2005 with 246 citations. Based on the data it is, therefore, possible to conclude that although the amount of research linking socially responsibility with family firms is limited, it is potentially interesting.

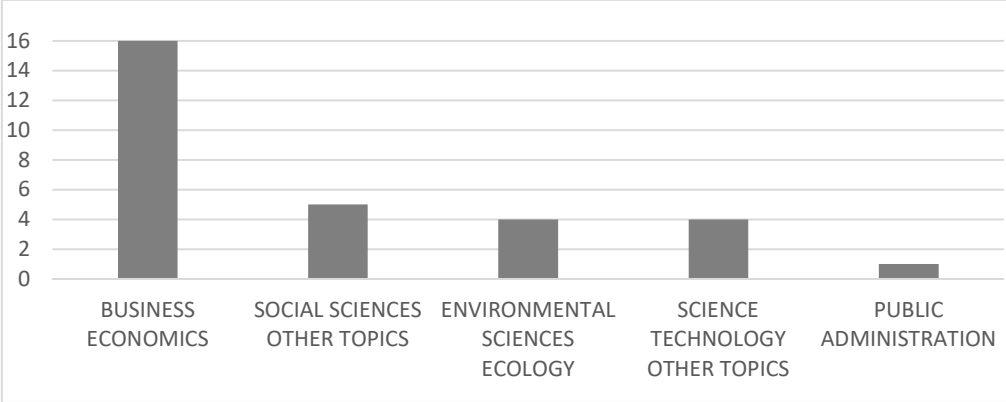
Figure 3 The number of articles on corporate social responsibility in family firms



Source: The author, based on data from the Web of Science ('WoS', 2018)

Figure 4 shows the research areas into which the articles are categorized. Again the number does not reach 20 as the articles are often categorized into several areas. However, from Figure 4 it is obvious that the articles were most often categorized into business economics.

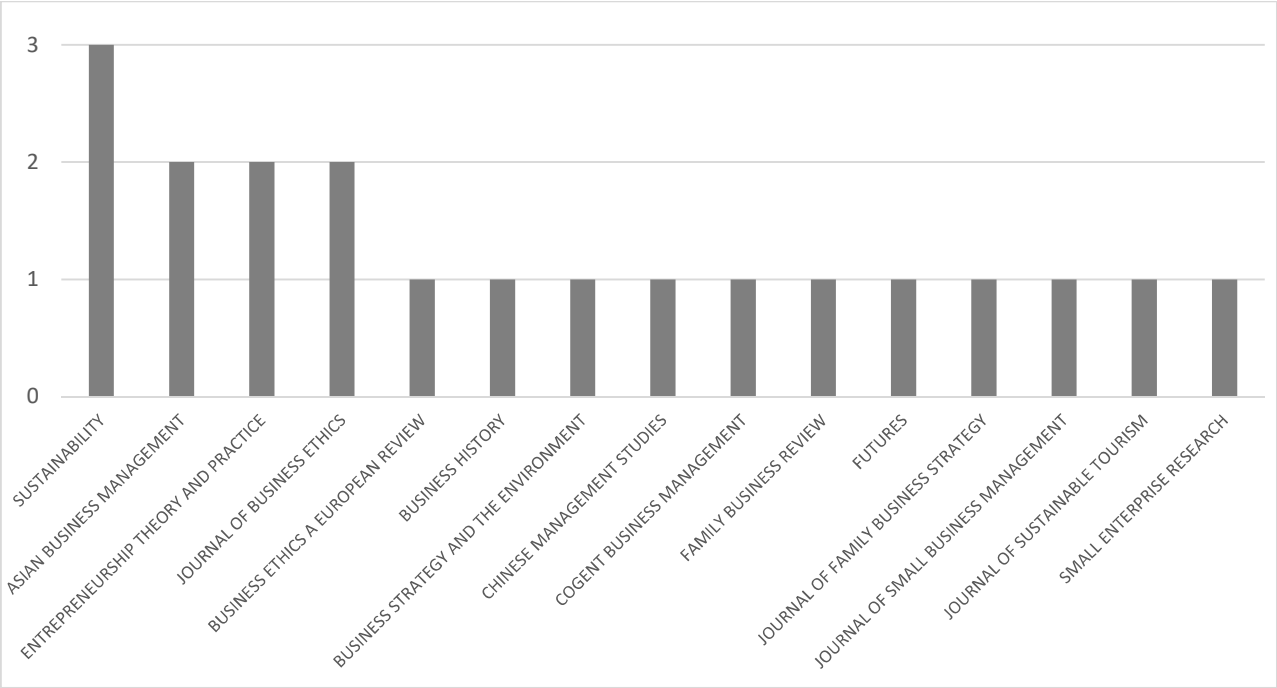
Figure 4 The number of publications for individual research areas



Source: The author, based on data from the Web of Science ('WoS', 2018)

Figure 5 shows the journals containing articles dealing with CSR in family firms. From the data it emerges that the articles are not concentrated in specific journals. The largest number (3) are to be found in the journal Sustainability (2017 impact factor 2.075) – all of which are from 2017, naturally from different issues. Two of them are based on a quantitative approach and one on a qualitative. The journals Asian Business & Management (2017 impact factor 1.179), Entrepreneurship Theory and Practice (2017 impact factor 5.321), Journal of Business Ethics (2017 impact factor 2.917) each contains two articles. The articles, however, were published in different years.

Figure 5 The number of publications for individual journals



Source: The author, based on data from the Web of Science ('WoS', 2018)

The last item examined as part of the general information was whether the research had been financially supported by an agency. The data from WoS shows that in 11 cases out of 20 the research had been supported. In four cases this had been by the ministry (different focuses) and three studies were supported by a university.

2.1 Specific information

This section presents the results of the scoping review relating to the specific information within the articles (the list is shown in the Appendix). Firstly, there will be presented the findings on the study population followed by the sample size and the methodology used. The final part of this chapter focuses on recommendations for further research formulated in the articles under analysis.

Table 2 Study population

Type of firms	Number	Sector	Number
Non-family and family	7	Diverse	10
Only family	11	One	7
		N/A	1
Definition of family firm		**Size**	
Narrative	3	Diverse	9
According some institution	5	Small	4
With %	6	Large	1
N/A	4	N/A	4
Number of generations		**Country/region**	
Diverse	5	Europe	1
Only 1	2	Western Europe	7
2 or more	1	Western Europe+USA+Canada	1
N/A	10	USA	3
		Mexico	1
		Turkey	1
		Asia	4

Source: The author, based on the articles shown in the Appendix. The sum for each category is 18 as 2 articles were not empirical studies but so-called traditional reviews. N/A means that the information was not provided (although it often entered the model of the given study as a variable, its specific value was not given)

The results of the scoping review show that (see Table 2) there is a slightly higher number of articles which only research the CSR of family firms. For their definition the author most often used the definition of an institution or a certain percentage of the ownership. However, there is no agreement among authors concerning its level – this ranges from 5-80%. In terms of the sector, the studies were very similar – 10 of them included firms from different industries and 7 of them only had one. In the majority of cases the studies included firms which were at different stages of passing on the firm to further generations and different sizes of firms. There was surprisingly little attention focused on the CSR of large family firms. The results also show that the research focuses mainly on companies from Western Europe, Asia and the USA. It is, therefore, likely that there is room for research examining the socially responsible behaviour of large family firms, second-generation firms and family firms from Central and Eastern Europe.

Table 3 Main research methods

Main method	No. of articles
Analysis of panal data	8
Questionnaire	6
Case study	3
Traditional review	2
In-depth interview	1

Source: The author, based on the articles listed in the Appendix

The analyses also reveal that in the majority of cases the authors chose a quantitative approach to investigate the socially responsible behaviour of family firms – see Table 3. The most commonly used method was an analysis of panel data. The period under observation ranged from 2 to 10 years. The average number of firms studied was 239 (the smallest sample was 73 firms and the largest was 598). The questionnaire was the second most commonly used method. In these studies the average number of firms was 174 (the smallest sample was 73 firms and the largest was 351). If non-family firms had been studied as well as family firms, family firms would have made up roughly a third of the sample. Only 3 case studies were found. Two were so-called single-case studies (another one was also longitudinal, 7 years), one had been constructed as a multi-case study (12 firms). Only 2 review papers were discovered and in both cases were "traditional reviews". Therefore, it would be appropriate for future research to select a qualitative approach to the issue under research – either in the form of a case study or an in-depth interview.

To a large extent the recommendations for further research formulated in the articles replicate what has been presented above. Alongside focusing on second-generation firms, the authors also recommend examining highly innovative young family firms and family firms run by women. In addition to the above, there are often recommendations for carrying out research in several countries in order to discover what influence the culture of the given country (including religion) has on the socially responsible behaviour of family firms. Another recommended theme is the identification of the influence of CSR on the performance of the family firm and the relationships within the family. The authors also recommend carrying out more longitudinal research.

Conclusions

Since the start of the new millennium, research into various aspects of corporate social responsibility and the specific behaviour of family firms has significantly increased. The objective of this article, therefore, was to discover how much research has focused on their interconnection, i.e. on discovering the socially responsible behaviour of family firms and what research approaches authors have chosen. To discover this objective, a scoping review based on Arksey and O'Malley's framework was chosen. Recommendations for future research were formulated on the basis of the paper's findings.

The results showed that although there has not been very much research into this theme, it has been relatively frequently cited. Further research would benefit (in the sense of being original) from being qualitative in nature. There is also more room for carrying out more systematic reviews (either through scoping or systematic reviews), as there were only a few review papers amongst the analysed sample of articles.

The analyses also helped to identify several suitable themes for further research. So far there has been little focus on the socially responsible behaviour of large family firms or specific types of family firms (e.g. second-generation firms, young innovative firms, firms run by women). There has also been little research carried out into the socially responsible behaviour of family firms in Central and Eastern Europe or the influence of culture on their socially responsible behaviour.

There are, however, several limitations to this research. The first of these is the fact that the search for relevant articles was only carried out using one database – namely the Web of Science. The second is that the search was conducted using only the key words in the title of the article. Changes to the above would certainly increase the number of articles, which would expand our findings further. The third research limitation is the choice of the scooping review itself when it is used to identify research gaps. It does not assess the quality of the studies, which is why the conclusions concerning existence gaps could be rather distorted. The final limitation is that the coding was only carried out by the author of this article, which could increase its subjectivity.

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Appendix – list of articles analysed

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Business performance and its relationship to customer satisfaction and enterprise quality management

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Abstract: *Paper presents results of the preliminary analysis of the data from survey aimed at finding if low-financially performing enterprises manage non-financial performance and quality of products differently in comparison to high-financially performing enterprises in the context or product returns management. Several variables were involved to question various aspects of non-financial performance and quality management. Financial performance was evaluated indirectly through the combined score of the four variables (sales, revenue growth, costs and profit) measuring financial situation of enterprises in the last year and compared with the competition rated by the respondents. Only 92 questionnaires were used for the analysis, for this reason the findings cannot be generalized. Median of financial performance was used to divide enterprises into two independent samples. Mann Whitney U test was applied to identify differences between two groups of enterprises. Results show that all non-financial performance indicators stand behind the difference between low and high financially performing enterprises together with existence of the formal quality policy, Total Quality Management philosophy implementation, customer satisfaction being priority, use of more methods and tools for customer satisfaction tracking, continuous monitoring of customer satisfaction and product improvements and innovations based on the information form dissatisfied customer represent the specific features of quality management for the purpose to minimize product returns and leading to better financial performance.*

Keywords: *financial and nonfinancial performance, quality management, customer satisfaction, product returns*

JEL codes: *L15, L25, L60*

Introduction

Business performance can be considered as a multidimensional construct (Neely, Wilson, 1992), which can be understood, defined and measured differently. Generally, performance can be defined according to Drucker (1992) as the final test of any organization. This test must also have its economic dimension, which can more specifically be defined as the ability of the enterprise to value the capital invested (Hindls et al., 2003). However, several questions arise when measuring performance. Should performance be measured objectively or subjectively? Should financial or non-financial indicators be used and from what areas should these indicators be used?

Quality management and customer satisfaction are two areas which are often related to superior enterprise performance when effectively adopted (Nair, 2006). However, quality management is a very broad domain interrelated on many other management processes, which during both the experience from practice and the theoretical development have become the specific fields of study. Two of them are recognized for highly interdependent with quality management – namely knowledge and innovation management (Linderman et al., 2004; Molina et al., 2007; Hung et al., 2010; Kim et al., 2012). These organizational management processes create basis for producing products that customers want and expect and so they lead to product returns reduction (Bose, 2004; den Ouden et al., 2006; Mollenkopf et a.l, 2011).

The article is focused on the enterprise performance and its relation to customer satisfaction and quality management. The aim of the article is to identify non-financial performance measures and quality management and customer satisfaction practices that distinguish between financially high and financially low performing enterprises in the context of product returns management. Thus, financial performance is the basis for distinguishing between enterprises, in which other (non-financial) indicators of various practices are subsequently searched for, which could be part of a complex performance evaluation when enterprises are conscious to cope with product returns

(Eccles, Pyburn, 1992; Suwignjo et al., 2000). The partial objective of the article is to find non-financial indicators that could be incorporated into a more comprehensive multidimensional performance indicator - research model.

1 Literature review and model

When measuring performance (whether subjectively or objectively), it is first necessary to determine which category or categories of performance the measurement will be targeted to and furthermore to specify the indicators, respectively. a set of indicators that will be used for this measurement. Brah et al. (2002) summarize the different performance categories - organizational, corporate, business, operating, production, supply, financial, etc. In our research, we focus on business performance. Given the large number of heterogeneous (above all, non-financial) indicators (Parida et al., 2015), it is difficult to select the right indicators, respectively. it is necessary to select indicators regarding the subject and the aim of the research.

In terms of subjective measurement of financial performance (whether in the context of enterprise development or in comparison with competitors) the most frequently used financial measures are sales and sales growth (Chiou, Droge, 2015) and costs and profitability (Delgado-García et al., 2012).

Among the non-financial performance measurement indicators (again subjectively evaluated), indicators based on the Balanced Scorecard (see Kaplan, Norton, 1996) were included and those which appear in several other studies (Ittner, Larcker, 1998, Stivers et al., 1998). Indicators related to the customer perspective (specifically customer satisfaction, product quality and value), learning and growth perspective (specifically enterprise innovativeness and knowledge capital). The knowledge capital was included also based on recommendations from existing empirical research because of its importance for innovation and impact on business performance (e.g. Morgan, Vorhies, 2001, Chen et al., 2005, Subramaniam, Youndt, 2005, Maditinos et al., 2011, Phusavat et al., 2011, Inkinen, 2015). The volume of reverse flows (product returns and information) has been added with respect to the subject of the research - the reverse flows are largely associated with customer dissatisfaction and their existence and management is closely related to performance (Evans, 2004, Abdel-Maksoud et al., 2005, Abdel-Maksoud et al., 2008; Karim et al., 2008).

The subjectively evaluated performance indicators (both financial and non-financial) were surveyed through a questionnaire. The questionnaire contained 10 closed-ended questions (see Appendix), focused on assessing the performance of an enterprise compared to competitors. Questions were rated on scale 1 (significantly lower performance) to 7 (significantly higher performance).

Customer satisfaction is, on the one hand, a non-financial performance indicator; on the other hand, it is a separate factor characterized by 7 individual closed questions - statements - that are rated on scale 1 (fully disagree) to 7 (I fully agree).

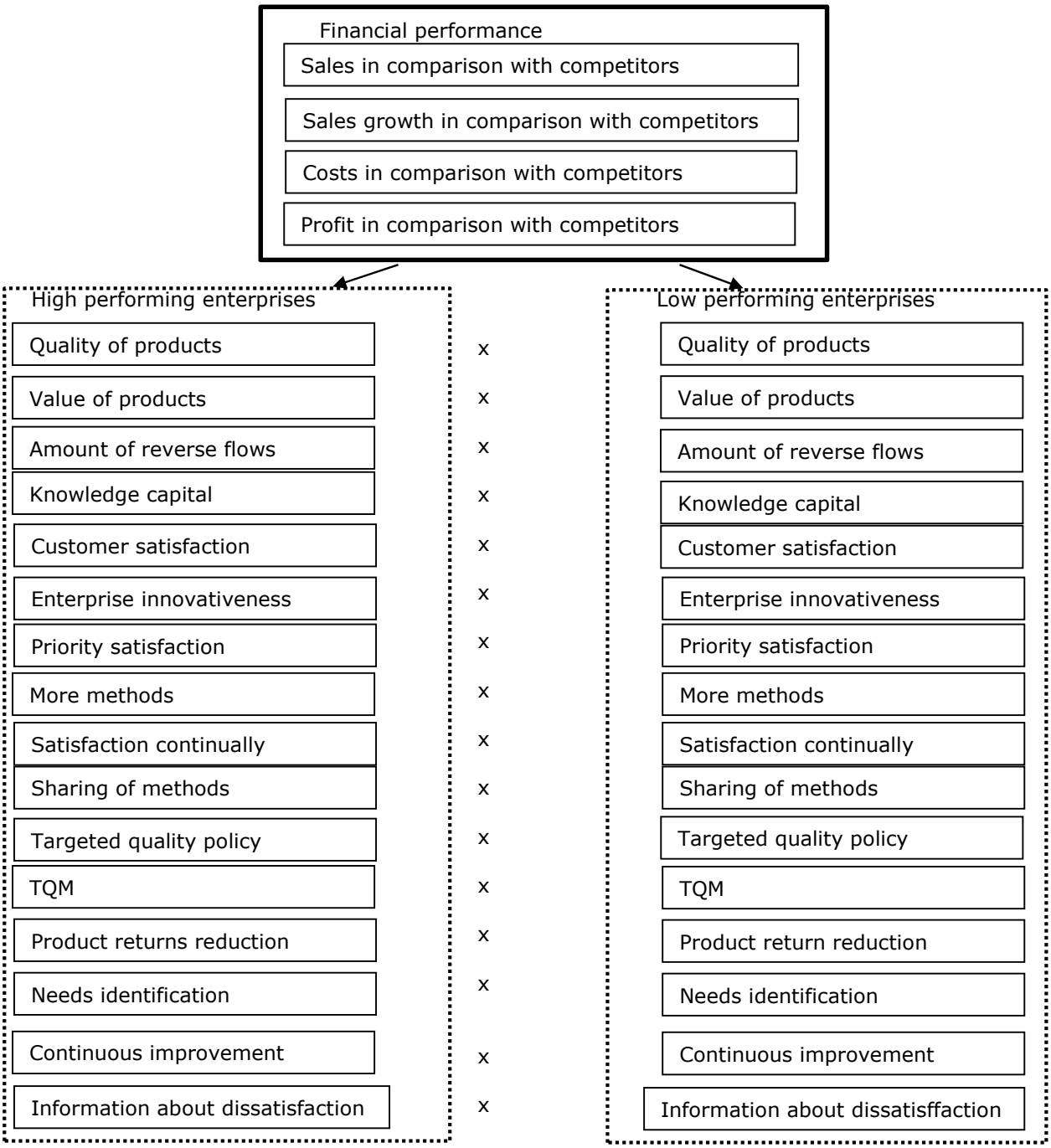
These questions are focused on: 1. the priority of customer satisfaction for the enterprise (Priority Satisfaction), 2. the number of methods and tools used to determine Customer Satisfaction (Multiple Methods), 3. frequency of Customer Satisfaction inquiry (Continuous Satisfaction), 4. use of Methods and Tools for Customer Satisfaction in practice by more departments across the enterprise (Sharing of Methods), 5. Quality policy focused on customer satisfaction (Targeted Policies), 6. reaching customer satisfaction by identifying needs and desires at product design stage (Needs identification), 7. the importance of information about customer dissatisfaction for improvement or innovation (Information about dissatisfaction) (Badri et al., 1995; Quazi et al., 1998; Samson, Terziovski, 1999; Zhang, 2000; Narver et al., 2004, Fuentes et al. 2006, May-Plumlee, Little, 2006, Fundin, Elg, 2010).

Quality management is measured by 3 closed questions – statements - that are rated on scale 1 (fully disagree) to 7 (I fully agree). These questions are focused on the compliance of quality management with the TQM philosophy (TQM) (Badri et al., 1995, Dilber et al., 2005), the focus on quality control on product returns reduction (Powell (1995), Fuentes et al., 1999, Fotopoulos, Tsomas, 2009) and continuous improvement of quality management (Continuing improvement) (Porter, Parker 1993, Jung, Wang, 2006, Fotopoulos, Tsomas, 2009).

1.1 Model Specification

The constructed model is based on the financial performance variables used to distinguish between financially high and low performing enterprises and considers also the non-financial performance variables. The model incorporates quality management and customer satisfaction practices for both groups of enterprises divided by their financial performance. The model is shown in Figure 1.

Figure 1 Model of quality and customer satisfaction management in the context of performance measures



Source: authors

The model shown in Figure 1 also indicates research methodology. Financial performance measures (subjective) served to distinguish between financially high and low performing enterprises. Subsequently, the pairwise comparison method (individually) examined the differences between selected non-financial performance variables, quality management and customer satisfaction measures for a group of financially high y and a group of low performing enterprises.

2 Data and methods

Survey was used to gather needed data and has been realized in March, April and May of 2018. Respondents from 99 Czech enterprises answered the questions, however only 92 questionnaires were used for the analysis of performance. Respondents are CEOs or functional managers responsible for the area of quality, product, production and/or logistics management. 48% of

enterprises belong to the small ones, 21% to the middle-sized and the rest to large. Enterprises were chosen purposively – all of them deal with product returns regardless of tangibility of product. Sample is very diverse in terms of industry categorization – most of the enterprises belong to engineering (11%), food production (8%) and construction (7%).

The statistical significance of the differences was measured using Mann-Whitney U tests (as data are not normally distributed) and for better visualization also t-tests, where the level of significance was set at a p-value of 0.1 (in some cases 0.05). This level has been set with respect to fewer enterprises in the research sample and it is not contrary to the standard level used in other researches (Schumm et al. 2013).

3 Results

The first step of the research was to determine the financial performance of individual enterprises and then to divide them into low and high performing. In line with the above methodology and literature, financial performance was subjectively assessed by the managers who were asked to evaluate four financial performance variables (compared to competitors) in 2018. 92 enterprises were divided by median into two groups of high performing (over median) and low performing (under median) enterprises. The median was 4,375 (on a seven-point scale), so it is clear that the results of the subjective evaluation of managers were skewed to the right, as managers tended to slightly overestimate financial results.

After the breakdown of enterprises into high and low financially performing group, the analysis of differences in the selected variables was followed. The first question was focused on the measures of non-financial performance of enterprises compared to competitors. The results are summarized in Table 1.

Table 1 Measures of the nonfinancial performance in comparison with competitors for low and high financially performing enterprises

	enterprises	**N**	**Mean**	**Mean Rank**	**MWU**	**p**
Quality of products	Low performing	45	4,96	36,57		
	High performing	44	5,75	53,63		
	Total	89			610,500	0.001
Value of products (quality/price ratio)	Low performing	45	4,87	38,71		
	High performing	46	5,52	53,13		
	Total	91			707,000	0.007
Amount of reverse flows	Low performing	44	3,14	34,93		
	High performing	44	4,18	54,07		
	Total	88			547,000	0.000
Knowledge capital	Low performing	45	4,13	33,92		
	High performing	42	5,21	54,80		
	Total	87			491,500	0.000
Customer satisfaction	Low performing	46	5,28	39,96		
	High performing	46	5,85	53,04		
	Total	92			757,000	0.011
Enterprise innovativeness	Low performing	46	4,70	41,67		
	High performing	46	5,28	51,33		
	Total	92			836,000	0,076

Source: authors

From the results (statistically significant at the level of p = 0.05, except for innovativeness, where the statistical significance is only p = 0.1), it follows that with all six non-financial indicators analyzed, financially high performing enterprises perform better also with the nonfinancial

measures of performance in comparison to the financially low performing enterprises. The most significant differences are in the knowledge capital and the amount of reverse flows, with reverse flows showing that financially high performing companies have a higher amount of these flows, while the smallest difference is in the enterprise's innovativeness. It can be summed up that the financially better performing enterprises (in comparison with competitors) can be better performing also in non-financial indicators of performance. The findings related to reverse flows must be explained with the help of comments given by some respondents. They highly value especially the amount of information flows that flow backwards to them from customers.

The second question was focused on the degree of consensus with statements focused on selected quality management practices and customer satisfaction measures. The results are summarized in Table 2.

Table 2 Measures of quality management and customer satisfaction for low and high financially performing enterprises

	Enterprises	N	Mean	Mean Rank	MWU	p
Priority satisfaction	Low performing	46	6,28	40,32	773,500	0.008
	High performing	46	6,67	52,68		
	Total	92				
More methods	Low performing	46	4,59	40,02	760,000	0.018
	High performing	46	5,35	52,98		
	Total	92				
Satisfaction continually	Low performing	46	5,20	41,11	810,000	0.046
	High performing	46	5,65	51,89		
	Total	92				
Sharing of methods	Low performing	46	4,15	42,27	863,500	0.168
	High performing	45	4,69	49,81		
	Total	91				
Targeted quality policy	Low performing	46	4,30	41,11	810,000	0.049
	High performing	46	5,22	51,89		
	Total	92				
Total Quality Management	Low performing	46	3,63	40,42	778,500	0.027
	High performing	46	4,57	52,58		
	Total	92				
Product returns reduction	Low performing	46	4,15	43,64	926,500	0.297
	High performing	46	4,54	49,36		
	Total	92				
Needs identification	Low performing	46	4,78	43,53	921,500	0.277
	High performing	46	5,09	49,47		
	Total	92				
Continuous improvement	Low performing	46	5,35	40,86	798,500	0.051
	High performing	45	5,91	51,26		
	Total	91				
Information about dissatisfaction	Low performing	46	4,93	38,88	707,500	0.005
	High performing	46	5,85	54,12		
	Total	92				

Source: authors

In the case of finding a degree of consensus on statements that focused on quality management practices and customer satisfaction measures, the differences between financially high performing and financially low performing enterprises are not as big as with the previous question, except for two areas – relative big differences have been found with the practice of using information about customer dissatisfaction to improve or to innovate product and with customer satisfaction monitoring as a management priority. Statistically significant differences between the groups of enterprises surveyed were not found in the opinion on customer satisfaction methods and tools that are applied within more departments and function, with quality management targeting to reduce product returns, and with the use of different methods for identifying customers 'needs to ensure their satisfaction at the product design stage. However, also in case of these three practices respondents from financially high performing enterprises agree more with positive statements.

Of the statistically significant differences between the two groups of enterprises surveyed, the greatest difference is in practice of understanding the customer dissatisfaction as primarily an important input for product improvement or innovation. On the contrary, the smallest difference was in the degree of consensus with quality management focus on continuous improvement

Conclusions

The results show that the subjective evaluation of the performance of the enterprise is problematic for the Czech Republic. In contrast to foreign research, where the results confirm the comparability of the performance evaluation both in a subjective and objective way (Wall et al., 2004, Dawes, 1999), the subjective evaluation of performance in the Czech Republic is overestimated, which is necessary to take into account in further work with such performance (Suchánek, Klapalová, 2017). In the case of this research, the authors had to make similar corrections to the performance assessment as in previous research in the year 2017 and to shift the performance limit more to the right.

However, considering the other results achieved, it is also clear that the absolute values of financial performance (sales, sales growth, cost and profitability) and how they are measured (compared to competitors) are basically correct. Obviously, respondents (business managers) have awareness of these variables as well as of their competitors 'performance (Chiou, Droge, 2015). However, it has to be stressed that examining the correctness of the results of subjective performance measurement will only be possible in further research, where these results will be compared with objective measurements of indicators based on accounting data.

Research also confirms the findings of other studies (Ittner et al., 1997, Sviters et al., 1998, Atkinson, Brander Brown, 2001, Abdel-Maksoud et al., 2005, Škrinjar et al., 2008, Upadhaya et al., 2014, Vij, Bedi, 2016, Baird, 2017) on the significance of non-financial performance indicators, although in our research indirectly. Statistically significant differences between financially high and low performing enterprises were found for all six indicators surveyed, specifically product quality, reverse flows (especially information), knowledge capital, customer satisfaction, and enterprise innovativeness. This demonstrates the validity of the existence of a multidimensional performance construct, such as the Balanced Scorecard, developed by Kaplan and Norton (2007) among all.

The combination of financial and non-financial performance indicators also supports the finding of greater tightness of the relationship between these variables in the contrast with the relationship between financial variables and measures of customer satisfaction and quality management. From the results it can be deduced that the indicators from the area of customer satisfaction and quality management influence the financial measures of the enterprise performance, though the research confirms this indirectly. This claim is supported by the results of other studies (Anderson et al., 1997; Fornell, 1992; Rust, Keiningham, 1994; Rust et al., 1995).

Research has several limitations, especially related to very small sample, which does not enable more sophisticated statistical analysis of dependencies and of causalities. Article thus presents only very simple findings of very complex area of research interest.

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Appendix

Measures

Assessment of the last year enterprise performance in comparison with competitors (financial measures)

sales	significantly lower (1 – 7) significantly higher
Sales growth	significantly lower (1 – 7) significantly higher
costs	significantly lower (1 – 7) significantly higher
profit	significantly lower (1 – 7) significantly higher

Assessment of the last year enterprise performance in comparison with competitors (financial measures)

Quality of products	significantly lower (1 – 7) significantly higher
Value of products (quality/price ratio)	significantly lower (1 – 7) significantly higher
Amount of reverse flows	significantly lower (1 – 7) significantly higher
Knowledge capital	significantly lower (1 – 7) significantly higher
Customer satisfaction	significantly lower (1 – 7) significantly higher
Enterprise innovativeness	significantly lower (1 – 7) significantly higher

Customer satisfaction

Customer satisfaction is the top priority for us (Priority satisfaction)	Fully disagree	1	2	3	4	5	6	7	Fully agree
We use multiple methods and tools to determine customer satisfaction (More methods)	Fully disagree	1	2	3	4	5	6	7	Fully agree
We continually monitor customer satisfaction (Satisfaction continually)	Fully disagree	1	2	3	4	5	6	7	Fully agree
Methods and tools for determining customer satisfaction are used in the work of several departments, departments or positions (Sharing of methods)	Fully disagree	1	2	3	4	5	6	7	Fully agree
We have a developed quality policy that focuses on customer satisfaction (Targeted quality policy)	Fully disagree	1	2	3	4	5	6	7	Fully agree
To ensure customer satisfaction, we use different methods to identify their needs and wants at the product design stage (Needs identification)	Fully disagree	1	2	3	4	5	6	7	Fully agree
Information about customer dissatisfaction is primarily an important input for product improvement or innovation (Information about dissatisfaction)	Fully disagree	1	2	3	4	5	6	7	Fully agree

Quality management

Quality management in our enterprise is realized in accordance with the Total Quality Management philosophy (TQM)	Fully disagree	1	2	3	4	5	6	7	Fully agree
Quality management is aimed at reducing product returns (Product returns reduction)	Fully disagree	1	2	3	4	5	6	7	Fully agree
Quality management is focused on continuous improvement (Continuous improvement)	Fully disagree	1	2	3	4	5	6	7	Fully agree

Where does the Czech Republic export to?

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Abstract: *This scoping review examines the current situation of the Czech export market and its prospects for the future. Firstly, it looks at the Czech Republic's traditional partners, who are mainly its neighbouring countries, and highlights the main Czech export activities. It then focuses on perspective destinations from the perspective of the growing volume of trade in recent years, as well as from the perspective of the current dynamic development of local economies. The CzechTrade agency plays a key role in promoting Czech exports and is active abroad in its search for business opportunities and in helping new and existing Czech exporters in establishing themselves in new markets. The Free Trade Agreement is another important tool for supporting Czech exports, and Czech exporters have been able to utilize its many advantages.*

Keywords: *Czech export, foreign markets, foreign trade, CzechTrade agency, Free Trade Agreement*

JEL codes: *F13, F14, F23, M16*

Introduction

In 2017 the Czech Republic supplied goods and services worth 180.2 billion dollars worldwide, which represents approximately 1.1% of global exports. This amounts to a year-on-year increase of 11.1%. From a continental perspective, 88.6% of Czech exports went to European countries. A smaller amount was exported to Asia (6.6%), North America (2.7%) and Africa (0.9%). It is logical that Czech exporters prioritize the European markets which they know well and which are geographically close. Below is given an overview of the Czech Republic's 15 most important trade partners which were the destination of 82.8% of Czech exports (Worldstopexports.com, 2018):

- Germany: 58.8 mld. USD (32.6% of total exports)
- Slovakia: 14 mld. USD (7.7%)
- Poland: 10.8 mld. USD (6%)
- France: 9.2 mld. USD (5.1%)
- United Kingdom: 8.8 mld. USD (4.9%)
- Austria: 7.9 mld. USD (4.4%)
- Italy: 7.3 mld. USD (4%)
- Netherlands: 5.3 mld. USD (2.9%)
- Hungary: 5.2 mld. USD (2.9%)
- Spain: 5.1 mld. USD (2.8%)
- Belgium: 4.1 mld. USD (2.3%)
- United States: 3.7 mld. USD (2%)
- Russia: 3.5 mld. USD (2%)
- Sweden: 2.8 mld. USD (1.6%)
- Switzerland: 2.6 mld. USD (1.4%)

It would be unrealistic to expect any country linked to international trade to have a positive trade balance with all of its trading partners. In 2017 the Czech Republic had the highest trade deficits with these countries (Worldstopexports.com, 2018):

- China: -9.5 mld. USD
- Poland: -3.8 mld. USD
- Netherlands: -3.3 mld. USD
- South Korea: -2.3 mld. USD
- Ireland: -1.3 mld. USD
- Hong Kong: -1.1 mld. USD

These negative values in cash flows clearly show the competitive disadvantages that the Czech Republic has with the above-mentioned countries, but it also represents a great opportunity for the Czech Republic to expand its strategies specifically for individual countries, thereby strengthening its overall position in international trade.

The following 10 groups of products represent 75.4% of the overall value of Czech exports and there is also given the percentage share which each export category represents in terms of the Czech Republic's overall exports (Worldstopexports.com, 2018):

- Vehicles: 38.2 mld. USD (21.2% of total exports)
- Machinery including computers: 33.8 mld. USD (18.8%)
- Electrical machinery and equipment: 30.6 mld. USD (17%)
- Articles of iron or steel: 6.7 mld. USD (3.7%)
- Plastics and plastic articles: 6.4 mld. USD (3.6%)
- Furniture, bedding, lighting, signs, prefab buildings: 5.4 mld. USD (3%)
- Rubber and rubber articles: 3.9 mld. USD (2.2%)
- Iron and steel: 3.8 mld. USD (2.1%)
- Optical, technical and medical apparatus: 3.7 mld. USD (2%)
- Mineral fuels including oil: 3.3 mld. USD (1.9%)

1 Germany

Germany is the dominant partner in Czech international trade. Since joining the European Union, the volume of Czech-German trade has more than doubled. This positive trend is mainly due to Czech exports as almost one third of all of Czech exports go to Germany, albeit that Czech products do not remain exclusively in the market there. The industrial level and ability of German firms to operate in international markets is shown through the re-exports to other countries, where Germany acts as a kind of intermediary through which Czech products are sent on to the rest of the world. The most important region is Bavaria, where the Czech Republic exports twice as much as it does to the whole of France or Great Britain.

The key sector in trade is the automobile industry. Almost 60% of Czech exports are made up from machines and electro-technological products or motor vehicles. The Czech Republic is a major supplier to the German car industry and in 2017 it was the number one foreign supplier to the German automobile industry. The Czech Republic's Škoda Auto has a 9% share in the German market, which means that every eleventh car purchased in Germany is a Škoda. Due to the use of innovative technology, there has not only been an upturn in the value of Czech exports in the automobile industry, but also in optical and photographic equipment, which has risen sharply in recent years. In addition to industry, machinery, electro-technology and energy, there has also been a rise in Germany's demand for advisory services, nanotechnologies, biotechnologies and medicines. A significant volume of the export trade is also taken up by iron and steel, plastics and related products, and rubber and related products.

A relatively new trend is Czech companies investing in Germany; for example, ČEZ is very active there and has purchased companies dealing in solar panels and electricity storage, as well as those focusing on the production of electricity using hydrogen technologies, not to mention other innovative firms. (BusinessInfo.cz, 2018)

2 The Visegrád Four

Over recent years the economies of the Visegrád have grown faster than the large West European economies, while also recording very low levels of unemployment, resulting in consumer appetite

to spend more. The whole region continues to benefit from money from various European Union grant programmes. The contributions which the V4 countries make to the coffers of the EU are much smaller than the contributions from the structural funds which flow back into these countries. It is estimated that in the first ten years of its membership of the EU the Czech Republic received 400 billion crowns more than it paid in.

The Visegrád group represents more than 12% of the EU's population and the strong performance of their economies is linked to efforts by some political leaders to exert greater influence in the future operation of the EU. At present the Czech Republic is faring the best with a per capita gross domestic product of 84% of the average of the 19 countries of the Eurozone. Slovakia is at 73%, Poland 66% and Hungary 65%. (Bičík, 2018)

Western Europe is one of the most important export markets for the Visegrád countries. 84% of the Czech Republic's exports go to EU countries and Germany is its most important trading partner with one-third of Czech exports. On the other hand, the Visegrád group is one of the largest trading partners for Germany, and with an overall turnover of more than 250 billion euros, is greater than the volume of trade between Germany and China.

Historically **Slovakia** has had the most interlinked market with the Czech Republic. It is the second largest export market for Czech products and services. The most important Czech exports include automobiles and parts and equipment for motor vehicles. In terms of the exchange of services, the Czech Republic has a positive balance with Slovakia in transport services, financial services and in construction work. A large number of Czech companies operate in Slovakia – Energetický a průmyslový holding, Agrofert Holding, Hamé, Škoda JS, Tatra Kopřivnice and ČEZ. The areas in which these companies operate are amongst some of the most long-term in terms of export or investment opportunities – the production of automobiles and car parts, the transport industry, infrastructure, energy, agriculture and the food industry.

The Czech Republic's trade with **Poland** continues to grow year-on-year, albeit with a negative trade balance at the moment. The Czech Republic mainly exports cars and vehicles for personal transport, parts and equipment for motor vehicles, semi-finished iron and steel products, equipment for automated data processing, telecommunications equipment, metal products, fats and vegetable oil, paper, cardboard, hydrocarbon, etc. The largest Czech investment in Poland was the acquisition of two electricity companies by ČEZ. Other significant investors include Energetický a průmyslový holding, Penta Investments, Kofola, Třinecké železárny, Bohemia Group and Zentiva.

Czech exports to **Hungary** have been growing over the long term and exceed Hungarian imports. The most important exports from the Czech Republic to Hungary are cars, electrical equipment and appliances, industrial machines, metal products, iron and steel, and telecommunications equipment. The most important Czech companies operating in Hungary include Škoda Holding, ČEZ, Ravak, AAA Auto and Agrofert. In terms of long-term investment, the most important sectors are the automobile industry, construction – especially the construction and reconstruction of blocks of flats – energy, ecology and the health sector.

3 Perspective destinations

At present the **United States** is the largest market for Czech exporters outside of the European market. The largest share of Czech exports to the USA is made up from turbo and turboprop engines, engineering products and tyres. Small and medium-sized businesses are becoming increasingly active in exporting as the American market pays for quality, innovation and specific goods or services, but is more difficult in terms of logistics and prompt deliveries. At the same time, it is a stable market with enormous consumer and industry demand, although the competitive environment there is very tough and companies have to deal with uncompromising regulations. Prominent Czech companies already operating in the American market include Česká zbrojovka, Mitas (part of the Czech Rubber Group), Brano Group, United Hydrogen Group and the KKCG investment group. A fairly significant part of Czech exports consists of services – telecommunications, IT services and financial services. Czech technological start-ups are very interested in the American market as success in this market means global success. (Zenkner, 2017)

India is one of the Czech Republic's biggest trading partners in Asia. Rapid and constant economic growth with more than one billion customers makes for an interesting challenge for Czech exporters. Current Czech exports to India mainly consist of high value products, automotive components, machine tools, equipment and parts for the energy industry, telecommunications equipment, photographic materials, paper and luxury glass. However, to acquire orders in the complex Indian market requires institutional support for mutual trade, otherwise the chances of market success are minimal and any possible implementation could take several years. The size and variety of the country offer business opportunities in many different areas. Through trading with Indian partners it is possible to enter into smaller markets in South Asia. Companies already operating in the Indian market include Škoda Auto, GHH-Bonatrans (bicycle manufacture and axles for trains) and Chemoprojekt. (Uljačenková, 2018)

Singapore is the gateway to the entire region of Southeast Asia. For ten years, trade between the Czech Republic and Singapore has been on the rise, with a negative balance at the moment. Due to a limited amount of space, Singapore has to import most of the goods for its own consumption. In addition to consumer goods, there is also a great opportunity for exports in science and research. Singapore has one of the most open economies with a liberal customs regime, attracting numerous exporters which in turn generates significant competition in the market. (Zavadil and Hustolesová, 2018)

Despite the imposition of sanctions, Czech companies in **Russia** have seen a slight rise in trade, and over the last year the export value has increased by 9.3%. In addition to the traditional area of engineering, one of the strategic sectors is agriculture, which has become an interesting area in terms of profitability. This is understandable as Russia's response to EU and USA sanctions was to issue a raft of retaliatory measures which mainly targeted food importers to the country, because Russia relies on being self-sufficient in food and it provides farmers with a wide range of opportunities to gain state subsidies. This situation is advantageous for foreign suppliers of technology, genetic material, seed corn and innovative products for agriculture. Attention should not only be focused on Moscow and the surrounding area, but also on the other regions which differ significantly in terms of geography, history and culture, which results in different approaches towards trade. (Petrášová, 2018)

The importance of the **countries of the Balkan peninsula** has also increased in terms of trade and over the past ten years the volume of Czech exports to the 11 Balkan countries has risen by 50%. This volume will undoubtedly increase as the individual countries become more integrated within the European Union. The Balkan countries differ significantly in terms of their size, population, average earnings, levels of industrialization and culture. The main export items from the Czech Republic to the Balkans include cars and car parts, medical and health materials, detergents and cleaners, toys, electrical parts, cables and cigarettes. The most important financially are the exports of Czech buses, small hydroelectric power plants and mining technology. Some of the Czech companies operating in the Balkans include Energo-Pro (turbines), Kofola, Czechoslovak Group, the engineering firm ZK Termochem, Korado radiator manufacturers and Rudolf Jelínek. (Plevák, 2018)

Small and medium-sized Czech businesses often choose difficult routes for their exports, taking their products to countries outside of the EU region. As they are able to achieve relatively good added value it pays for them to do so, even with relatively smaller volumes of exports. Another reason for this step is the diversification of the dependency risk on nearby markets. In connection to the financing of small and medium-sized businesses, the Czech Export Bank concluded 100 contracts worth 552 billon CZK in 2017, which is the largest amount in the bank's history, and more than half (54%) of the contracts were to finance exports to non-European countries. In terms of trade, many of these countries are among those with the highest risk (e.g. Cuba, Kyrgyzstan, Peru, etc.). The overall rate of growth in 2017 for the development of Czech small and medium-sized businesses' exports to non-European countries was from - 0.1% to + 5.3%, almost reaching the same export level as to the countries of the EU (+5.8%). Naturally, the opening of distant markets is much more difficult for smaller companies, which is why it is important for them to receive state support in the form of marketing and financial tools. (BusinessInfo.cz, 2018)

4 The CzechTrade agency

CzechTrade is one of the most important promoters of Czech exporters and for more than 20 years has been trying to ease Czech companies' entry into foreign markets worldwide. The agency charges for its services though the cost is subsidised by the Czech state as part of encouraging exports. The busiest of all CzechTrade's 50 international offices is the Dusseldorf branch. It deals with the largest number of commissions (approximately one every day) and has the most clients, who, thanks to its support, have been successful in their business contacts with their German partners.

Since the start of 2018 CzechTrade clients have had the possibility to use its unique Directory of Exporters which aims to help with companies' marketing abroad. It is an official online database of Czech export companies, providing entrepreneurs with a free presentation of their profile and products in seven languages. The service is designed as an accompanying online resource for companies which use the international services of the CzechTrade offices. (Štičková, 2018)

For example, in the Balkan countries the five offices of CzechTrade are ready to help with a business's successful start-up and they provide information about the particular foreign market in terms of legislation, export conditions, payment ethics, business habits, competition, costs, distribution channels and presentation opportunities in the given region. They are even able to provide Czech entrepreneurs with tips concerning business partners or help them to set up a branch in the local market.

There is an office of CzechTrade to help Czech companies establish themselves in the complex Singapore market. It provides on-site practical assistance in the search for potential business partners, arranges meetings and helps in establishing a company in Singapore. It is possible to arrange for the provisional use of an administrative setup in a fully equipped office for up to 90 days until the Czech firm establishes a company in Singapore and finds its own offices, while an employee of the agency will provide professional assistance in the process of establishing a branch within the country.

5 Free Trade Agreement

With a mandate from the member states of the EU, the European Commission gradually negotiated bilateral agreements on free trade (FTA – Free Trade Agreement) with a number of so-called third countries, and encourages exporters from the EU to take advantage of the reduced tariffs contained in these agreements. In the individual agreements it distinguishes the products which the reduced rates apply to, while at the same time the composition of the exports from the individual EU member states is different.

The average percentage of exports subject to reduced tariffs accounts for 60% of all exports to 17 partner countries of the FTA, and more than 70% in the case of the Czech Republic, Slovakia, Croatia and Portugal, which shows that for these countries the FTA really is "tailor-made". In a minimum of 15 categories from a total of 21 relating to reduced tariffs there was a level of usage of above 80% by only five member states and the Czech Republic came first in 18 categories followed by Slovakia (16 categories), and Bulgaria, Croatia and Poland (all 15 categories). (Macek, 2018)

The greatest percentage of Czech exports which were subject to reduced tariffs were in the following categories: means of transport, machinery and plastic and rubber products. On the other hand, the lowest percentage utilizing the right to reduced tariffs in the Czech Republic were works of art, precious stones and precious metals. In the case of the Czech Republic, the overall savings from tariffs as a result of the free trade agreements was 352 million EUR (approx. 9.04 billion CZK), while the loss from customs duties totalled 53.7 million EUR (approx. 1.38 billion CZK). The fact that the Czech Republic has the highest losses in duties from the export of those products which often also have the highest level of use of preference (transportation, plastic and rubber products) demonstrates that in a high value export even a small shift in the level of use of preference can reflect significantly on the level of savings from the duty rates. (Macek, 2018)

Conclusions

The Czech Republic is an exporting country which exports mainly industrial goods. Its most important partners are its neighbouring countries and the other members of the European Union. One of the advantages of EU membership for an export-orientated country is not only the freedom to trade freely in a single market with half a billion customers, but also the opportunity to penetrate into markets outside of the EU due to the joint trade policy of this economic powerhouse. As it is important for our country to be able to export with the minimum of complications, Czech companies are able to utilize more than 30 trade agreements on free trade through the FTA, which is an excellent opportunity for a country which has an 80% share of export in its GDP, and where the rule states that the more open the foreign markets are, the more likely the domestic economy is to be successful (Pavlíček, 2017). The European Union and the Czech Republic itself have become wealthy from foreign trade because they attempt to make use of the advantages which this free trade offers. The advantages lie not only in the removal of most tariffs, but also other non-tariff trade obstacles (e.g. the recognition of product certification and preventing discrimination in accessing public commissions in the given country).

As was shown in chapter 3, small and medium-sized businesses are becoming more successful in their activities outside of Europe. It can be assumed, therefore, that even the traditional Czech exporters will no longer be satisfied with the European region and will want to access more distant, lucrative markets. Naturally, business conditions differ significantly from country to country, and there might be problems such as language barriers or complex legislation. However, these and other problems can be addressed by representatives of the CzechTrade offices abroad, who understand the specific markets and can find reliable business partners for the company, organise introductory meetings and verify the interest of future customers in the products. Their services save companies time and money and provide them with important information about the markets which would otherwise be difficult to acquire.

An interesting opportunity for confident Czech firms aiming for the Asian markets is collaboration with business partners in India or Singapore, where they will meet with strong competition and thus discover the extent to which their products are competitive in the most advanced countries, as is the case when entering the market in the USA. Czech exporters also have an outstanding opportunity in agricultural production in Russia, including plants and livestock, processing, storage, transport and logistics of agricultural and food-industry products. There are also opportunities there for companies focusing on energy, engineering, IT and advisory services. In the future, the countries of the Balkan peninsula offer the promise of significant development in trade activity as a result of the increased living standards of its population. A very dynamic trend can be observed in Czech exports to China and Sweden, which have grown year-on-year by almost 20%, to Poland (a growth of 16%) and to Austria (a growth of 15.6%). The fastest growing export categories are optical, technological and medical equipment, with a year-on-year growth of 23.4%, followed by iron and steel (a growth of 22.3%) and plastics and plastic products (a growth of 17%) (BusinessInfo.cz, 2018). In conclusion, it can be stated that the Czech export market is thriving, its volume grows each year (by more than 5% in 2017) and it goes hand in hand with the country's growth in GDP. In the future, the biggest problem for Czech companies will not be an absence of competitive goods or services, but rather a lack of production capacity caused by the lack of appropriately trained workers and increasing wages, as well as the strengthening of the Czech currency.

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The use of financial and non-financial information from general purpose financial reports by tax advisers in Poland

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Abstract: *General purpose financial statements play an important role as an indispensable source of information when making business decisions by stakeholders, in particular by management. The article presents the results of a survey conducted in the first quarters of 2017 and 2018 among Polish tax advisers providing legal services in business units classified as large business entities.*

The purpose of the article is to indicate the scope of financial and non-financial information used by specific stakeholders - tax advisers in the decision making process, in particular tax decisions. The research methods used in the article are the analysis of national and international legal regulations concerning financial statements and survey research, carried out among users of financial reports - financial advisers providing legal and tax services for companies.

Keywords: *financial reporting, financial statements, tax advisers, IFRS*

JEL codes: *G28, H25, K34, M40*

Introduction

Financial reports have been used in Polish economic practice since the beginning of the 20th century, however, their structure and the scope of information presented there have changed and have been adjusted to the economic requirements and changing legal conditions (Voss, Prewysz-Kwinto 2017, p. 237). The entity's annual report contains a structured presentation of the financial standing of the business entity and the transactions carried out by them (Turyna 2003, p. 113).

The purpose of financial statements in the light of International Accounting Standards is to provide information on the financial position, financial performance and cash flows of an entity that is useful to a wide range of stakeholders when making business decisions. In addition, the report also presents the results of using the company's resources by its management (IASB 2013, p. 8).

Depending on their application, two forms of financial statements can be distinguished: general purpose reports and special purpose ones. General purpose reports are addressed to many groups of stakeholders, internal and external (IASB 2013, p. 2). It is assumed that they are interested in the real, actual economic situation of the company and its achievements, and on the basis of general-purpose reports can make judgments about the past, current and future income potential and management effectiveness (Grant Thornton 2014, pp. 25-27) . Due to the high degree of aggregation of the information contained, these reports are supplemented with additional documents, the scope of which is specified in the standards and legal regulations of individual countries (AICPA 2016, p. 794).

In the light of international regulations, general purpose reports are designed to meet the needs of users who are unable to require the entity to prepare reports tailored to their specific information needs (Deloitte 2016, p. B45). Special purpose reports are used, for example, to present financial

data for listed companies (prospectuses), reporting for tax purposes, as well as in the case of abnormally short reporting periods.

The functions of financial statements have been specified in the literature. The informative function for the presentation of financial data expressed in terms of value providing the basis for economic assessment was considered to be the basic one. In addition, the trust and control function was distinguished (management board report on the performance of its activities), the function of securing the rights of certain stakeholder groups (security of receivables) and the function of expressing the balance sheet result and tax base (Remlein 1996). This classification is not the only solution presented in the literature, according to another division one can also distinguish the following functions:

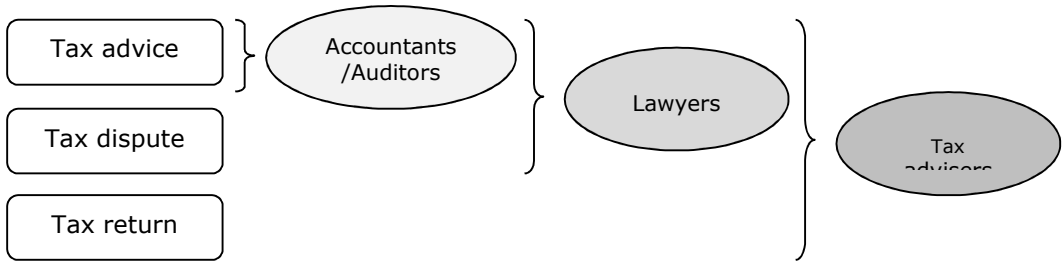
- informative - allowing to determine the actual status of the financial position and financial results, and at the same time constitutes the basis for planning and making decisions,
- control - allowing to assess the implementation of the intentions and activities of the unit and its management board,
- documentary - constituting a reliable source of documents describing business transactions,
- analytical - allows interested parties to make an economic and financial analysis of the business entity.

The list and hierarchy of these functions is perceived differently by different groups of users of financial information, not only in the distinction between internal stakeholders (shareholders, managers, tax advisors, etc.) and external (customers, suppliers, competitors, etc.), but even inside, seemingly homogeneous groups of users of general-purpose financial statements, such as suppliers of capital for the enterprise (Cascino et al. 2015, p. 3).

The basic financial statements are the source of information by which the management of the unit provides information to various user groups (Krasodomska 2013, p. 40) and must comply with legal and quasi-legal requirements, e.g. guidelines of non-governmental organizations and the stock exchange (Glynn, Perrin and Murphy 2003, p. 67). These reports are also a means of communication between entities and their external environment.

Research carried out by Daske et al. (2008, p. 3) proved that properly constructed International Financial Reporting Standards (IFRS) reports go hand-in-hand with changes in market liquidity and capital cost and Tobin's q ratio (as the ratio of the market value of the company to the value of its assets or the costs of renewing its real capital). At the same time, Kvaal and Nobes (2010, p.184) prove that the practical application of IFRS in individual countries is diverse, especially because the national practices developed prior to the adoption of IFRS are widely used to the extent allowed by IFRS. Tax harmonization on an international scale is very limited, with the exception of selected aspects of VAT and excise tax in the European Union countries. As a result, tax issues can further significantly affect the differences in the use of IFRS in individual countries. Tax advisors are a specific group of users of general-purpose financial statements. On the one hand, they have ethical requirements on both their relations with clients and their own state (Cash et al., 2007, p. 52). On the other hand, however, tax advisors are a professional group that should use information included in financial statements very intensively and in various ways (Gutman 2012, p. 463 and see Figure 1).

Figure 1 Role of intermediaries in tax services



Source: Roxan, I., Kamath, S. and de Groen, W.P. (2017). *Rules on independence and responsibility regarding auditing, tax advice, accountancy, account certification services and legal services*. PANA Committee, European Parliament, 2 May 2017, p. 3.

The importance of usability of such reports is reflected in numerous publications, such as, for example, in Chapter 1 of the IFRS Standards Conceptual Framework for Financial Reporting, entitled "The objective of the general purpose financial reporting", recently (March 2018) updated by the International Accounting Standards Board.

As indicated above, both the design and content of general-purpose financial statements, as well as the way they are used by tax advisors, may have significant economic, legal and ethical consequences. The special position of tax advisors among the company's stakeholders makes this professional group an important subject of empirical research. Poland belongs to the group of post-socialist countries that have undergone the transformation of the economic system, which makes it all the more interesting subject of analysis.

1 Methodology

In the first quarters of 2017 and 2018 a survey was conducted among 60 tax advisers dealing with legal and tax servicing of economic entities statistically classified as large business units operating in the Kuyavian-Pomeranian and Pomeranian Voivodships in Poland. The advisers covered by the study work for companies that prepare financial statements for large business entities and do not apply any simplifications. The same tax advisers participated in both editions of the survey.

2 Data and results

The respondents were asked whether the information contained in the financial report is used by them to make decisions. The information included in the report was used in 2018 by 98% of respondents, and a year earlier by 95% of advisors (Table 1).

Table 1. The use of information contained in financial statements by tax advisors

	2017	2018
Number	34	35
Percentage	56. 7	58.3

Source: own study based on the results of the survey

Then, the respondents were asked to indicate the most frequently used elements of the financial statements. Respondents in both 2017 and in 2018 indicated that they most often use information contained in the balance sheet and profit and loss account. Almost 75% of respondents do not use the information contained in the cash flow statement, and a small percentage of respondents indicated the use of additional information (less than 10% of the respondents - see Table 2).

Table 2. The most frequently used elements of the financial statements

	Bilans		Rachunek zysków i strat		Rachunek przepływów pieniężnych	
	2017	2018	2017	2018	2017	2018
Number	50	52	51	52	15	17
Percentage	83.3	86.7	85.0	86.7	25.0	28.3

Source: own study based on the results of the survey

Further questions addressed to the respondents concerned the understanding of the information and data contained in the report. The respondents were asked whether the information contained in the balance sheet is understandable and sufficient for them to make decisions. In 2017 and 2018, 53% of respondents considered the information included in the balance sheet understandable. However, nearly half of respondents believe that the information provided is not always clear and understandable, which may be affected by the frequency of changes in the content and method of valuation of individual balance sheet items. According to 60% of respondents in 2018, the scope of information contained in the balance sheet was sufficient to make decisions, in 2017 this percentage was slightly lower and amounted to 57% (Table 3). It is

worth noting that in the audited period there were changes in Polish legal regulations in the presentation of information in the balance sheet and the transfer from liabilities to assets was made: due payments for capital and own shares.

Table 3. The balance sheet - use of information

	Understandable		Sufficient for making decisions	
	2017	2018	2017	2018
Number	32	32	34	36
Percentage	53.3	53.3	56. 7	60.0

Source: own study based on the results of the survey

Respondents were also asked whether the information contained in the profit and loss account is understandable and sufficient for them to make decisions. In 2017, 55% of respondents considered the information included in the profit and loss account as understandable, and a year later the situation looked similar and it was 56% of respondents. According to 57% of respondents in 2017, the scope of information contained in the profit and loss account was sufficient, in 2018 it was 59%. Similarly to the balance sheet, both the understanding of financial information and its use in the decision-making process are similar (Table 4).

Table 4. The profit and loss account - use of information

	Understandable		Sufficient for making decisions	
	2017	2018	2017	2018
Number	33	34	34	35
Percentage	55.00	56.67	56.67	58.33

Source: own study based on the results of the survey

In the next question, respondents were asked if the information contained in the cash flow statement is understandable and sufficient for them to make decisions. In 2017, 26% of respondents considered the information included in the cash flow statement as understandable, but a year later this percentage was 25%. In the opinion of less than 17% in 2017 and 15% of those surveyed in 2018, the scope of information contained in the cash flow statement was sufficient to make decisions. The results obtained seem consistent with the responses described on the basis of the data contained in Table 2. In making decisions, the respondents use the cash flow statement less often, because the majority of respondents do not consider the information contained therein as understandable for them. This may result from the possibility of using two variants of the cash flow statement and from the fact that it is an element of financial statements used in business practice for a much shorter period (the time of entry into the statement) than the balance sheet or profit and loss account. Moreover, this is part of the report which, according to the requirements of the Accounting Act, does not have to be prepared by all business entities (Table 5).

Table 5. The cash flow statement - use of information

	Understandable		Sufficient for making decisions	
	2017	2018	2017	2018
Number	16	15	10	9
Percentage	26.7	25.0	16.7	15.0

Source: own study based on the results of the survey

Tax advisors were also asked to answer the question whether they use financial statements to assess the financial standing of contractors. In 2017, 40% of respondents used financial statements to assess the financial condition of contractors, in 2018 this percentage increased slightly and stood at 44% (Table 6). This result may indicate increased interest in non-financial indicators. The reason for this may be the introduction of international and national regulations to the obligation to include non-financial information, such as a description of an individual business model, or even identifying risk areas and methods of preventing them, to the financial statements.

Table 6. The use of financial statements in assessing the financial standing of contractors

	2017	2018
Number	24	26
Percentage	40.0	43.3

Source: own study based on the results of the survey

Then the respondents were asked about what they are guided by when selecting contractors and what information they check in the financial statements about them. The most frequently mentioned information concerned depreciation methods, the size of debt and the intention to continue operations. The least frequently used information concerned the audit of reports by statutory auditors. However, it is worth noting that all of the information areas listed by the respondents have gained importance and in 2018 were indicated by a higher percentage of respondents in relation to 2017 (Table 7).

Table 7. The use of information contained in reports when selecting a contractor

	Valuation methods		Depreciation methods		Continuation of activities statement		Information about audit of financial statements		Amount of the debt	
	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018
Number	24	31	39	41	24	31	9	18	35	40
Percentage	40.0	51. 7	65.0	68.3	40.0	51.7	15.0	30.0	58.3	66.7

Source: own study based on the results of the survey

Respondents were also asked about non-financial information presented by business units. The respondents were asked to answer whether the information on the preparation of a corporate social responsibility report is important to them. Most respondents do not attach importance to this element of the report. In 2017, 15% of respondents considered this information to be significant, but a year later only one in five respondents (22%) considered this information to be important when making decisions, as presented in Table 8.

Table 8. The use of information on corporate social responsibility

	2017	2018
Number	9	13
Percentage	15.0	21.7

Source: own study based on the results of the survey

Another question was also related to non-financial information and concerned the use of information on ethical standards contained in codes of ethics, in particular in those regarding business ethics and professional ethics in accounting. In the opinion of respondents, ethics in business and financial reporting play a greater role than information on corporate social responsibility. The significance of such information in 2017 was indicated by 35% of respondents, but in 2018 this percentage increased to 49% (Table 9).

Table 9. Compliance with ethical principles as an important element of non-financial information

	2017	2018
Number	21	29
Percentage	35.0	48.3

Source: own study based on the results of the survey

Respondents who pointed to compliance with ethical principles as an important element of non-financial information were asked to indicate why the standards and principles of ethics in their opinion are significant. The answers provided indicate that compliance with ethical standards and informing stakeholders about such activities inspires trust, limits the risks associated with cooperation between contractors and certifies professionalism. The respondents also recognize that compliance with ethical standards allows building relationships with contractors and confirms the application of good practices. The results are presented in Figure 2.

Figure 2. The influence of ethical principles on selected areas of cooperation with contractors (number of respondents)

Source: own study based on the results of the survey

The presented results of the survey prove that users are interested in financial and non-financial information presented in the field of general financial reporting. However, not all information included in financial statements is equally popular among respondents, despite the fact that they can be a valuable source of information for making decisions.

Conclusions

Financial statements are an inseparable element of the functioning of business entities, due to the information that they contain. They are used both by internal and external stakeholders and allow to assess the situation of the business unit and the results of activities carried out by the management of the unit. When assessing the results of operations and analysing data, we most often look from the point of view of financial and accounting services responsible for preparing reports in accordance with the rules, and auditors involved in auditing reports and assessing their compliance with legal requirements and accounting policy. Taking into account the needs and capabilities of other users, it becomes apparent which financial and non-financial information is the most common area of their interest.

In the light of the Accounting Act and other legal acts (e.g. the Penal Code, the Civil Code and the Commercial Companies Code), tax advisers are responsible for the credibility, reliability and timeliness of their activities. This should lead them to the optimization of the use of information available in financial reporting. Based on the results of the surveys presented in the article, it can be stated that among various pieces of financial information obtained from general-purpose financial statements, those most often used by tax advisors are included in the balance sheet and profit and loss account. In the opinion of the respondents examined, they also provide the most understandable information for them. In the area of non-financial information, respondents consider the information that concerns ethical standards to be important, because it allows building correct relations in business and limits the risk related to the conducted activity.

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Attracting Millennials with Social Media and Recruitment Websites

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Abstract: *In recent years, there is increasing evidence that employers need to place greater emphasis on communication with talented young people. Jobseekers usually have only basic information and vague knowledge and experience about a job and organizational characteristics in the early stage of the recruitment process. Nowadays, prospective applicants search for information about future employers by using their recruitment websites and social media. The study identifies whether Czech university business students use social media and recruitment websites to choose their potential employers. The study also investigates whether using social media and recruitment websites for employer research is gender dependent. The paper concludes with theoretical and practical implications, followed by directions for future research and its limitations.*

Keywords: *Recruitment Websites, Social Media, Millennials*

JEL codes: *M1, M3, D83*

Introduction

In the past, when an organization sought to fill a vacant position, all it had to do was post a job advertisement and wait to hear from prospective employees. Back then, companies focused primarily on choosing employees for a particular job rather than attracting employees (Verma & Ahmad, 2016). Currently, considering the need for talented employees, a company must constantly build up its image if it wants to attract and gain qualified staff and thus win the struggle for talent (Wayne & Casper, 2012; Egerová et al, 2015). As mentioned in a publication by Michaels, Handfield-Jones & Axelrod (2001), while before 2000 companies selected their employees, these days employees choose their employers. This is due to the fact that at this time there is a high and ever growing demand for educated and talented employees, while the supply of such staff is limited (SSC, 2016).

Many companies are now aware that attracting the right employees who will help their organization to succeed requires as much effort as developing a product or managing a project (Kaliprasad, 2006; Arachchige & Roberston, 2011). Generation Y was brought up during the Internet boom, and the Internet has become a natural environment for them. That is why the Internet is where it's important to create the image of an attractive employer, as it is where prospective employees from this generation can be found.

The Internet has revolutionised the way in which people can learn about companies and apply for a job. It is obvious that mainly Millennials often evaluate prospective employers using the Internet before applying for a job, as they want to make sure they choose their employer well before making it part of their professional life (Jobvite, 2016; Deloitte, 2016). Organizations that cannot adapt to the trend of online communication will probably not succeed in attracting talented employees from Generation Y. In recent years, mainly the recruitment websites of organizations and social media sites have been gaining in popularity due to their ability to build a strong brand for the employer (Sivertzen, Nilsen & Olafsen, 2013; Baum & Kabst, 2014). Another typical characteristic of these two online tools is their ability to mediate a large amount of information about an organization for prospective employees (Allen, Mahto & Otondo, 2007). This can be used by employers to communicate corporate culture, the fringe benefits provided, the organization's CSR activities and other information that increases the organization's attractiveness in the eyes of Millennials. As shown by a number of studies (e.g., Williamson et al., 2010; Ehrhart, Mayer & Ziegert, 2012; Kissel & Büttgen, 2015; Sivertzen, Nilsen, Olafsen, 2013; Kaur et al., 2015; Davison, Maraist & Bing, 2011; Minchington, 2014), recruitment websites and social media sites play a significant role in attracting prospective employees, increase the employer's attractiveness, and thus support the recruitment process.

Successful recruitment through online tools depends mainly on three variables (Williamson, Cable & Aldrich, 2003; Dineen et al., 2007; Goldberg & Allen, 2008; Lyons & Marler, 2011; Allen et al., 2013):

- the objective features of the jobs available and the organization (e.g., information about job opportunities and basic information about the employer),
- the subjective features (e.g., the effect of the recruitment websites and social media sites on the perception of the organization's image, or the overlap between the values of the prospective employee with those of the organization),
- the way the company communicates and how it can be contacted (e.g., how well organized the recruitment website is, and its aesthetic features that affect the user's interaction with the website).

From the point of view of the prospective employee, the early stage of the recruitment process is mainly about gaining information about the employer and getting an idea of what it would be like to work for the particular organization. In this stage, the goal is to narrow down the prospective job opportunities to just a few, and subsequently select the right one (Barber et al., 1994; Williamson, Cable & Aldrich, 2003).

This process is clearly affected by the objective features, such as the information about the job vacancies and the organization; however, an even bigger effect is that of the subjective judgement regarding the employer's corporate culture, values and beliefs, and their perception by the prospective employee (Allen et al., 2013). Recruitment websites are often poorly organized and make it difficult for users to orient themselves within them. If a prospective employee cannot find specific information, he or she works only with incomplete information found about the employer (Turban, 2001). The format in which such information is presented seems equally important as the quantity and quality of the information itself (Highhouse et al., 1999). To ensure a better format of presentation, companies can use recruitment websites, as they provide a wide range of options of how to present information (Abdinnour-Helm, Chaparro & Farmer, 2005).

From the point of view of the prospective employer, the first stage of the recruitment process can be viewed as a form of persuasive communication with the purpose of convincing prospective employees to apply for a job in the particular organization (Allen, Scotter & Otondo, 2004). Using the Internet, it is possible to communicate a virtually unlimited amount of information to prospective employees, and this information can be provided in various formats, such as text, audio, video, or through interactive links (Cober et al., 2000; 2003; 2004).

Lately, social media and companies' recruitment websites have been the most popular and most widely used online tools to communicate with prospective employees, and as has already been said, their typical quality is the ability to mediate a large amount of information about the organization for its prospective employees. The research described in this paper was carried out in order to ascertain whether Czech Millennials also utilize social media sites and recruitment websites to gain information about their prospective employer and to what extent these online tools and the information contained therein are important for them.

Methodology

The presented research focuses on how young people (members of Generation Y), business students in their final year at university, use recruitment websites and company social media to gain information about their future employer. The Internet offers the opportunity to communicate the employer brand to potential candidates, to maintain effective interactions with potential applicants, and to successfully attract young people.

The research question (**RQ**) of this paper is:

To what extent do business students use recruitment websites and company social media to gain information about their future employer?

To address the above-mentioned research question, the following hypotheses were developed and tested in this study. The hypotheses have been postulated according to the basic principles of hypothesis formulation, i.e., the null hypothesis (H_0) was formulated in a negative fashion (what is to be proved is not valid), and the alternative hypothesis (H_A) was formulated as the nullity of H_0 (Hebák et al, 2007). Below are the statistical hypotheses related to the empirical research presented. The independent variables are usually represented by the cohort of respondents

(demographic factor) or a part thereof; the dependent variables are represented by the target group's responses related to the attributes in question.

Hypothesis 1: H_0: Respondents (business students) that follow information about job offers on organizations' social media profiles do not find organizations' profiles on social media sites important.

Hypothesis 1: H_A: Respondents (business students) that follow information about job offers on organizations' social media profiles find organizations' profiles on social media sites important.

Hypothesis 2: H_0: Respondents (business students) that follow information about job offers on recruitment websites do not find organizations' recruitment websites important.

Hypothesis 2: H_A: Respondents (business students) that follow information about job offers on recruitment websites find organizations' recruitment websites important.

Hypothesis 3: H_0: Respondents (business students) that find organizations' social media important do not find the expression of the key organizational values important.

Hypothesis 3: H_A: Respondents (business students) that find organizations' social media important find the expression of the key organizational values important.

Hypothesis 4: H_0: Respondents (business students) that find organizations' recruitment websites important do not find the expression of the key organizational values important.

Hypothesis 4: H_A: Respondents (business students) that find the organization´s recruitment websites important find the expression of the key organizational values important.

Hypothesis 5: H_0: There is no difference between men and women in the assessment of the importance of an organization´s profiles on social media.

Hypothesis 5: H_A: There is a difference between men and women in the assessment of the importance of an organization´s profiles on social media.

Hypothesis 6: H_0: There is no difference between men and women in the assessment of the importance of an organization´s recruitment websites that offer job opportunities.

Hypothesis 6: H_A: There is a difference between men and women in the assessment of the importance of an organization´s recruitment websites that offer job opportunities.

Variables in H1-H5 are displayed in Pivot Tables and then the Chi-Square Independence Test is used to compare whether the counts of the actual data for each unique combination of factors of the two variables are significantly different than the counts that would be expected if the attributes were totally independent of each other (Gray, 2009). To test hypotheses H5 and H6, non-parametric Mann-Whitney U Test (a test of equal distributions) was used.

Research on the use of recruitment websites and social media sites by Millennials

The sample

The sample consisted of 181 final-year students from the Faculty of Economics, University of West Bohemia in Pilsen, (139 women and 42 men). The students were from 21 to 24 years old and 79 percent of them had already worked part time during their studies. All the students had completed a short internship as a part of their study program. All respondents belonged to the so-called Generation Y. Millennials are a very heterogeneous cohort in terms of age, opinions, values, knowledge, etc. There are also cultural, social and political factors, that must be taken into account. Since the sample consisted of the respondents with the relatively same demographics and education, there was an assumption of a sample homogeneity in terms of social media and recruitment websites use in job search (same perception of social media and recruitment websites in job search between men and women). This assumption was tested in the study.

Data were collected during classes between 13.2.2017 – 14.4.2017 by a self-administered questionnaire with items focused on students' use of company recruitment websites and company social media to gain information about a prospective employer. The self-administered questionnaire was chosen as in instrument in this study because it had already been employed in a study by Sivertzen, Nilsen & Olafsen (2013) that also focused on employer research. Respondents must evaluate each item in this part of questionnaire via a five-option Likert scale (1 = not important at

all, 5 = very important). The piloting process of the questionnaire was performed on five students in order to check and adjust the understanding of the translated items and scale.

Research results

Table 1 shows the results of the respondents' responses to the statement in the questionnaire about their use of social media sites and recruitment websites in their job search. In case of social media sites, respondents gave their answer on their general use of social media sites for job search, i.e. on any social media site that respondents use – Facebook, LinkedIn, Twitter, YouTube, etc.).

Table 1 Results: company social media and recruitment websites

Statement	1	2	3	4	5	Mean	SD
I follow information about job offers on organizations' social media profiles.	9	59	34	71	8	3.05	1.04
I follow information about job offers on organizations' recruitment websites.	16	62	44	57	2	2.82	1.01
I find organizations' profiles on social media important.	23	44	63	47	4	2.81	1.03
I find recruitment websites that offer job opportunities important.	4	19	50	94	14	3.53	0.86
Expression of the key organization values (on both recruitment websites and social media) is important to me.	6	25	60	81	9	3.34	0.89

Source: Own, 2017

As seen in Table 1, 62 % of respondents (items 3-5 in the first row) follow information about job offers on organizations' social media profiles and 37 % of Millennials (items 1-2 in the third row) do not find organizations' profiles on social media important. The table also clearly shows that 57 % of respondents (items 3-5 in the second row) follow information about job offers on the organizations' recruitment websites, and only 13 % of respondents (items 1-2 in the fourth row) do not find recruitment websites that offer job opportunities important. Based on these data, the majority of respondents follow information about job offers on both the organizations' social media profiles and recruitment websites.

In order to verify or disprove the validity of hypotheses H1-H4, the independence of the variables in question was tested by using the χ^2 test of independence in a contingency table. To determine the strength of the correlation between the variables, and given the nature of the data obtained, Cramer's contingency coefficient ϕ_c was used (Řezánková, 2011):

$$\phi_c = \sqrt{\frac{\chi^2}{N(k-1)}}, \qquad (1)$$

where χ^2 is represented by the value of the test statistic of Pearson's chi-squared test, N is the size of the sample used in the test, and *k* is the value of the lower number of categories in both variables tested. Cramer's contingency coefficient takes the values <0; 1>, while the coefficient value of 0.5 represents a very strong dependence (Řezánková, 2011, Agresti, 2013).

The following pages contain contingency tables 2–5 and the testing of the postulated hypotheses. If a correlation between the variables is established, the strength of this correlation is measured using Cramer's contingency coefficient.

Table 2 Social media and their perceived importance

I follow information about job offers on organizations' social media profiles.	I find social media important.					
	1	2	3	4	5	Total
1	4	1	3	1	0	9
2	9	20	17	13	0	59
3	5	5	14	9	1	34
4	5	17	27	20	2	71
5	0	1	2	4	1	8
Total	23	44	63	47	4	181

Source: Own, 2017

In testing H1: H_0, the value of the test criterion χ^2 = 24.934. This value is lower than the critical value $\chi^2_{0.05}(16) = 26.296$ and for this reason the null hypothesis H1: H_0 is not disproved: **Millennials who follow information on organizations' social media sites do not find social media important.** The test of this hypothesis did not confirm the correlation between the variables in question.

Table 3 Recruitment websites and their perceived importance

I follow information about job offers on organizations' recruitment websites.	I find recruitment websites important.					
	1	2	3	4	5	Total
1	3	3	5	3	2	16
2	1	9	20	16	3	50
3	0	1	18	20	1	40
4	0	3	8	47	12	70
5	0	0	0	6	0	6
Total	4	16	51	92	18	181

Source: Own, 2017

In testing H2: H_0, the value of the test criterion χ^2 = 69.211. This value is higher than the critical value $\chi^2_{0.05}(16) = 26.296$, and for this reason H2: H_0 is rejected and the alternative hypothesis H2: H_A is valid: **Millennials who follow information on the recruitment websites of organizations find recruitment websites important.** The test of this hypothesis confirmed a correlation between the variables in question. Cramer's coefficient reached the value of 0.309, which signifies a strong correlation.

Table 4 Importance of social media and communication of organizational values

I find social media important.	Communication of organizational values is important to me.					
	1	2	3	4	5	Total
1	3	6	5	8	1	23
2	1	13	15	15	0	44
3	1	3	31	25	2	63
4	1	3	7	33	4	47
5	0	0	2	0	2	4
Total	6	25	60	81	9	181

Source: Own, 2017

In testing H3: H_0, the value of the test criterion χ^2 = 65.459. This value is higher than the critical value $\chi^2_{0.05}(16) = 26.296$, and that is why the hypothesis H3: H_0 is rejected and the alternative hypothesis H3: H_A is valid: **Millennials who find social media important find the expression of the key organizational values important.** The test of this hypothesis confirmed a correlation between the variables in question. Cramer's coefficient reached the value of 0.3, which means a strong correlation.

Table 5 Importance of recruitment websites and communication of organizational values

I find recruitment websites important.	Communication of organizational values is important to me.					
	1	2	3	4	5	Total
1	1	2	1	0	0	4
2	4	3	7	5	0	19
3	0	7	20	18	0	45
4	1	12	29	48	7	97
5	0	0	3	11	2	16
Total	6	24	60	82	9	181

Source: Own, 2017

In testing H4: H_0, the value of the test criterion χ^2 = 49.204. This value is higher than the critical value $\chi^2_{0.05}(16) = 26.296$, and that is why the hypothesis H4: H_0 is rejected and the alternative hypothesis H4: H_A is valid: **Millennials who find organizations' recruitment websites important find the expression of the key organizational values important.** The test of this hypothesis confirmed the correlation between the variables in question. Cramer's coefficient reached the value of 0.261, which indicates a medium correlation.

To test the hypotheses H5 and H6, given the nature of the data obtained, the Mann-Whitney test was used. The test statistic for the use of this method is calculated as follows (Hendl, 2009):

$$U = n_1 n_2 \frac{n_1(n_1+1)}{2} - R_1 \; or \; U' = n_1 n_2 \frac{n_2(n_2+1)}{2} - R_2 \,, \qquad (2)$$

where *R* represents the sum of **ranks** in the first and second cohort respectively, and:

$$U + U' = n_1 n_2. \qquad (3)$$

The results of the test statistic for the application of this test were U=2,614 and 2,395.5 for H5 and H6 respectively. With the number n > 20, the critical values of the Mann-Whitney U test can be replaced with the critical values of the standard normal distribution. Based on the results for H5 (Z-Score = 1.023, p-value = 0.307 < 0.05) and H6 (Z-Score = -1.757, p-value = 0.078 < 0.05), the null hypotheses are not rejected: **H5: H_0: There is no difference between men and women in the assessment of the importance of recruitment websites** and **H6: H_0: There is no difference between men and women in the assessment of the importance of social media.**

The following and final table (Table 6) shows the responses to the research questions and hypotheses formulated at the beginning of this chapter.

Table 6 The results of the formulated research questions and hypotheses

		Value	Result
RQ	To what extent do business students use recruitment websites and company social media to gain information about their future employer?		
RA	62 % of respondents follow information about job offers on the organization's social media profiles. 57 % of respondents follow information about job offers on organizations' recruitment websites		
H1	H_0: Millennials who follow information on organizations' recruitment websites do not find recruitment websites important.	ϕ_c = 0.309	Rejected
H2	H_0: Millennials who follow information on organizations' social media sites do not find social media important.		Accepted
H3	H_0: Millennials who find organizations' recruitment websites important do not find the communication of organizational values important.	ϕ_c = 0.261	Rejected
H4	H_0: Millennials who find social media important do not find the communication of organizational values important.	ϕ_c = 0.3	Rejected
H5	H_0: There is no difference between men and women in the assessment of the importance of recruitment websites.		Accepted
H6	H_0: There is no difference between men and women in the assessment of the importance of social media.		Accepted

Source: Own, 2017

Conclusions and limitations

This research provides answers to how Millennials use recruitment websites and social media to obtain information about their prospective employer. It found that the majority of Millennials follow information about job vacancies on both organizations' recruitment websites and on their social media sites (**RQ**). Millennials who follow information on recruitment websites find recruitment websites important, while Millennials who follow information about job vacancies on social media do not find social media important (**H1** and **H2**). These findings can be explained in the sense that Millennials view recruitment websites more as a professional source of information, and consider social media sites as an informal source of information (Zhao & Rosson, 2009). Moreover, the finding about the "unimportance" of social media does not support the conclusions of the authors Sivertzen, Nielsen & Olafsen (2013). It would therefore be suitable to examine social media and recruitment websites in terms of their perceived formality/informality and their comparison in an inter-cultural context. However, as Millennials follow both social media sites and recruitment sites, the suitable strategy for gaining information seems to be the combined use of both online tools. It was further discovered that Millennials find the communication of organizational values important on both organizations' recruitment websites as well as social media sites (**H3** and **H4**). This finding supports the results of research studies conducted by world-renowned organizations dealing with Millennials (PwC, 2013; CBRE, 2016; Manpower, 2016; Deloitte, 2016), and also the conclusions of a number of authors (e.g., Sivertzen, Nilsen & Olafsen, 2013; Smith, 2011; Williamson et al., 2010). The final finding in this research was the fact that there is no difference between men and

women in terms of their assessment of the importance of recruitment websites and social media (**H5** and **H6**). The perception of the importance of online tools is not gender dependent in Generation Y.

This research has its limitations. The respondents in this research were selected from senior students from a single faculty at one university. This fact reduces the ability to generalize the results to all Millennials in the Czech Republic, or even all Millennials at universities. On the other hand, the limitation of this research provides an opportunity to specify the results in collaboration with researchers from other universities who deal with the same topic.

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The sustainability of family firms during an economic crisis

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***Abstract**: This paper presents the results from research into the survival of family and non-family firms. The research used the Competitiveness of Czech firms matrix from 2009. The study looked at firms which were able to survive the economic crisis and observed their characteristics. The results indicated that family firms survived the economic crisis at a higher rate than non-family firms, and also that some of the non-family firms became family firms. The results open up new areas of research concerning the source of family-firm resilience during a crisis.*

Key words: Family firm, crisis, surviving, sustainability, trust, risk aversion

Introduction

In recent years family firms have been attracting ever greater attention. The entrepreneurial environment has undergone several fundamental macroeconomic changes which have had positive as well as negative effects on companies. Companies have had to deal with these changes in their own way. Not all of them were able to overcome the so-called economic crisis which hit in 2009. A large number of companies suffered as a result of the crisis and had to fundamentally change their operations, if not close completely. Now that we are ten years on after the crisis we can take a retrospective look at how the crisis specifically affected Czech companies and what the characteristics are of those firms which survived. The crisis affected companies in many areas, though this paper focuses on how the crisis affected companies which were observed as part of the research "The Competitiveness of the Czech Economy" carried out from 2006-2015. In 2009, as part of this group, 90 family firms were identified and 337 non-family firms. The research was carried out from 2006 to 2015. In the introduction to the study family firms were identified from the database of companies from the manufacturing industry in the Czech Republic based on fulfilling criteria for the definition of a family business. Specifically, the family firm had to fulfil the condition of having a minimum of two family members who were involved in the direct management of the firm and at the same time work in the family firm (Odehnalová, 2008; according to Lukeš, Nový et al., 2005; Sten, 2007). Due to the fact that the companies developed over time and many of the firms dealt with the economic crisis in their own way meant that the research focused on whether and how the structure of the family and non-family firms changed over the ten years from when the first research was carried out. We were specifically interested in whether family or non-family firms were more likely to survive the crisis.

1 Theoretical background

Based on the given definition, it was possible to use a literature search to identify the characteristics of family and non-family firms which relate to the specific subject of research, which is the ability of the company to survive the crisis period. Siakas and Vlachakis (2013) argued that during an economic crisis family firms are much better at adapting than non-family firms and, therefore, their ability to survive is better. Nevertheless, apart from a number of competitive advantages, it is also possible to find disadvantages which tend to prevent family firms from surviving.

Arguments for survival

The research dealing with the differences between family and non-family firms identified the following characteristics of family firms as a significant competitive advantage. Kets de Vries (1993) showed that one advantage of a family-controlled firm is greater resilience in hard times. This was also shown in later research by Miller and Le Breton-Miller (2005) in their book "Managing for the Long Run", where they emphasized the benefits resulting from the continuity in investing in the company and its offerings, sustaining a vibrant community culture, building long-term relationships with stakeholders, and courageous commanding leadership that would renew the firm even in the face of challenges. Other authors have also focused on the resilience of family firms (Arregle, Hitt, Sirmon, & Very, 2007; James, 1999), mentioning the family character of the company as the source of a long-term, socially responsible way of maintaining a good relationship

with stakeholders. This is evidently associated with risk aversion and trust. The trust shown in family firms strengthens the shareholders' faith in maintaining their commitment to the family firms. The closer the environment in the family firm, the better the long-term perspectives the family firm has (Sundaramurthy, 2008). The strength of these mutual relationships can then motivate individuals to accept greater responsibility for their actions, which in this case is their work in the family firm. Awareness of the "ownership" of the firm brings with it certain rights and responsibilities (Koiranen, 2006). It is this responsibility for the firm which the founder feels, in particular towards his family, which motivates the founder to prioritise the long-term effective running of the firm.

Arguments against survival

However, there are also characteristics which to an extent prevent family firms from surviving successfully. For example, Kets de Vries (1993) showed there was a difficulty in accessing capital, while Jaskiewicz et al. (2013) pointed out that entitlement nepotism could result in the collapse of the firm due to management incompetence. Amongst the problems which family firms faced, Lee (2006) included the issue of the succession and the balance between financing and efficiency. These characteristics, therefore, can become a source of conflict which significantly affects the family firm's ability to adapt to change, which can be aggravated by circumstances in a time of crisis.

2 Methodology and sampling

A research question was formed based on the literature research and the answers helped us to better understand how the groups of companies faced the threats from the external environment.
RQ: Which of these types of companies proved to be more resilient during the period of crisis and therefore survived the crisis in greater numbers?
Hypothesis: Family and non-family firms survive differently.
As part of the "Competitiveness of the Czech Economy" research in 2009 a matrix was identified for companies from the manufacturing industry which were investigated more thoroughly. The information from the database was used in further studies, one of which was research into family firms. In one of part of the database of companies from the manufacturing industry in the Czech Republic family firms were identified based on fulfilling certain criteria for the definition of a family business. Specifically, the family firm had to fulfil the condition of having a minimum of two family members who were involved in the direct management of the firm and at the same time work in the family firm (Odehnalová, 2011; according to Lukeš, Nový et al., 2005; Sten, 2007). From an overall total of 427 companies, 90 were identified as being family firms fulfilling the above definition. The character of the family firm was investigated using the justice.cz database based on the identity of the people's surnames in the statutory bodies of the companies. The same methodology had been used in both 2009 and 2016 in order to compare both groups of companies in different years. A statistical evaluation was carried out using SPSS software.

3 Results

The results showed that during the period 2009-2016 a total of 124 companies did not survive, which represented 29% of the sample. Specifically, 111 non-family firms did not survive, which represents 26% of all the companies and 32.9% of the non-family firms. In contrast, 13 family firms ceased operating, which represents 3% of the overall number of companies and 14.4% of the family firms.

Table 1: Existence of family and nonfamily firms (2009)

RP/NRP 2009 * Existence 2016 Crosstabulation

			Existence 2016		
			no	**yes**	**Total**
RP/NRP 2009	**NRP**	**Count**	111	226	337
		% within RP/NRP 2009	32,9%	67,1%	100,0%
		% within Existence 2016	89,5%	74,6%	78,9%
		% of Total	26,0%	52,9%	78,9%
	RP	**Count**	13	77	90
		% within RP/NRP 2009	14,4%	85,6%	100,0%
		% within Existence 2016	10,5%	25,4%	21,1%
		% of Total	3,0%	18,0%	21,1%
Total		**Count**	124	303	427
		% within RP/NRP 2009	29,0%	71,0%	100,0%
		% within Existence 2016	100,0%	100,0%	100,0%
		% of Total	29,0%	71,0%	100,0%

Source: Author

Table 2: Existence of family and nonfamily firms(2016)

RP/NRP 2009 * Existence 2016 Crosstabulation

			Existence 2016		
			no	**yes**	**Total**
RP/NRP 2009	**NRP**	**Count**	112	207	319
		% within RP/NRP 2016	35,1%	64,9%	100,0%
		% within Existence 2016	90,3%	68,3%	74,7%
		% of Total	26,2%	48,5%	74,7%
	RP	**Count**	12	96	108
		% within RP/NRP 2016	11,1%	88,9%	100,0%
		% within Existence 2016	9,7%	31,7%	25,3%
		% of Total	2,8%	22,5%	25,3%
Total		**Count**	124	303	427
		% within RP/NRP 2016	29,0%	71,0%	100,0%
		% within Existence 2016	100,0%	100,0%	100,0%
		% of Total	29,0%	71,0%	100,0%

Source: Author

Table 3: Number of family and nonfamily firms(2009)

RP/NRP 2009					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	NRP	337	78,9	78,9	78,9
	RP	90	21,1	21,1	100,0
	Total	427	100,0	100,0	

Source: Author

Table 4: Number of family and nonfamily firms(2016)

RP/NRP 2016					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	NRP	319	74,7	74,7	74,7
	RP	108	25,3	25,3	100,0
	Total	427	100,0	100,0	

Source: Author

Table 5: Compare means One way - ANOVA

RP/NRP 2016					
	Sum Squares	ofdf	Mean Square	F	Sig.
Between Groups	4,261	1	4,261	23,696	,000
Within Groups	76,423	425	,180		
Total	80,684	426			

Source: Author

A comparison of the averages of the groups of non-family and non-family firms using F Statistics for conformance variance testing showed that the groups of surviving FF and NFF differed.
One very interesting finding is that from the surviving non-family firms, 18 of them were transferred to family firms, which represents 4.2% of all the companies. The number of family firms thus rose from 90 to 108.

Discussion and conclusion

After coming through the crisis it was shown that some non-family firms became family firms, while only a small number of family firms did not survive the crisis. However, a large number of non-family firms were unable to overcome the crisis. This finding would be an interesting subject for further research into why family firms prove to be more resilient in a crisis. With this research we answered the research question and confirmed our stated hypothesis. There could be several immediate reasons for these findings.
One of the reasons for the transfer to a family firm could be the succession within the companies, when the original company owners' children reach the age when the company, or at least some of its assets, can be transferred to them.
Another reason might be the fact that the owners of the non-family firms tried to protect the company during the crisis and keep it in their hands despite the unfavourable circumstances. If that happened, the companies survived the crisis.
The reasons for the resilience of the family firms in our sample can only be guessed at on the basis of the literary search. Nevertheless, this opens up scope for further research into this issue.

In both cases, naturally, it is possible to infer why one type of company is more resilient during a crisis. It shows that the theoretical assumptions of the authors Miller and Le Breton-Miller (2005), Kets de Vries (1993), Arregle, Hitt, Sirmon, & Very, (2007); James, (1999), who presented arguments for the survival of family firms based on trust, responsibility and efforts towards sustainability with an aversion to risk, actually can lead to the greater resilience of family firms against a negative external environment such as an economic crisis.

Research limitations

Although the study brought interesting results, it has limitations which allow scope for further research. Among the research limitations include a lack of date for studying more closely the reasons for successfully or unsuccessfully dealing with the economic crisis.
Another limitation was the fact that the family character of the company was based solely on identifying surnames, which would exclude companies where the owner had changed their surname. Another obvious limitation was the fact that the company was judged to have closed down only because its identification number no longer existed, which would have excluded companies which had been taken over by another owner.

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The Use of an Apology

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Abstract: *The paper is focused on the topic of apologies in a business context. In a culture of social media and fast spreading information, an adequate public reaction on crises in a firm is necessary and, in some cases, even vital for firms. One of such a reaction is an apology, which can calm the situation, provide some reassurance to stakeholders and prevent a possible escalation of conflicts and further cost risks. The general question of this paper is what apologies contain and how are crafted in a business context. Assumptions about the nature of apologies and its usage are made from speech act theory and theories of argumentation as well as from management theories, especially image, and crises management theory. These assumptions are compared with analyses of selected real examples of apologies made by organizations in last decade. The thesis is that the speech act theory gives a good account what any apology should contain, argumentation theory presents what tools are going to be used in an apology and management theories presents other goals which can be attached to an apology in a business context.*

Keywords: *apology, speech act theory, argumentation, image management, crisis management*

JEL codes: *Z000*

Introduction

"We are sorry." This sentence is probably the most explicit case of apology which you can get. And it is also this sentence which was used as the first line, huge title of the text of the advert issued by Rupert Murdoch (Plunkett, 2011). He apologized for the wrongdoing by his News of the World. In another example, the Tesco advert starts with the line "We apologize" (Champion, 2013). Adverts like these are not unique in the last decade. Many organizations, businesses, and firms issued similar after caught in the public debate about their actions.

Why do firms issue these adverts, texts? In medicine context, apologies made by doctors have a function to present acknowledgment of the harmful situation, sympathy, and regret. Suffering patients and their close ones are looking for recognition of their state. When adequately recognized it might prevent future escalation of their pain and thus the necessity to look for another means how to achieve relief. When the apology is mishandled, it might lead to future conflicts and legal actions made by the suffering party (cf. Vincent, Phillips, & Young 1994; Robbennolt, 2009). In a business context, apologies play similar functions. They are reactions to public outcries regarding the actions of organizations. Acknowledgment of the situation might prevent escalation of the crises, possible future legal action, and prosecution. Apologies are also used to restoring trustworthiness between organization and stakeholders (cf. Stamato, 2008). As a reaction to incidents seen as harmful by stakeholders and an attempt to restore trustworthiness, apologies are connected to crises and image management.

But not all apologies are accepted. E.g., if the apologizer is viewed as insincere, as someone who does not believe in the gravity of the harm, the apology can backfire. It can be seen as the further incompetence of the apologizer to deal with the problem. Apologies, especially made by profitable organizations, has to be handled carefully and precisely. And this is not an easy task when the public outrage is high.

The goal of this article is to present what tools, given by the theoretical background, are used to increase acceptability of an apology.

In the beginning, there is a need to clarify notions apologia and apologies. Although this text is focused on the later, the former cannot be evaded regarding the nature of the material, of real examples. Apologia is "a broad term that means to respond to organizational criticism by offering a vigorous and compelling defense" (Hearit 2006: 4). On the other hand, an apology is an acknowledgment of the guilt and regrets (see part 1.1). Apologia might be done by an apology, but it might also use counteroffensives such as shifting the blame or denial.

In chapter 1, parts 1.1 and 1.2, I will provide a brief overview of apology in speech act theory and the argumentation theory. In part 1.3, I will present some strategies used in apologias in the business context given by theories of crises and image management. In chapter 2 some assumptions regarding presented theories will be introduced. Chapter 3 will focus on analyses of the example of the apology given by Facebook in 2018.

1 Theoretical background

Apologies have a social function which is realized by language in communication between persons. As such, they are studied in the tradition of Speech Act Theory. This theory provides conditions for speech acts to be successful. Including apologies in more complex structures can be analyzed by argumentation theories which provide dialectical and rhetorical tools for describing what, how and why is something used in the given speech. Regarding the context of businesses and given that apologies are usually offered in times of crises. Thee crises and image management theories provide basic guidelines what organizations do and should do regarding their goals.

1.1 Speech Act Theory

Speech acts are those utterances in communication that have a performative function. Austin (1962) distinguished three levels of speech acts: locutionary acts (performance of the utterance and its ostensible meaning), illocutionary acts (propositional content of the utterance and particular illocutionary force), and perlocutionary acts (an effect an addressee by a speaker's utterance).

Austin (1962) define apologies as *behabitives*, illocutionary acts related to attitudes or social behavior (Austin, 1962: 151). Although behabitives are connected to describing or stating of feelings, they are something distinct (Austin, 1962: 159). Searle (2005), on the other hand, viewed apologies more closely connected to psychological states and mark them as *expressives*. Although there are some differences in their approaches, both agreed that apologies are illocutionary acts which are reactions to people's behavior and past or imminent conduct (Austin, 1962: 159) or general state of affairs (Searle, 2005: 15).

As illocutionary acts apologies are not simply true or false. Expressives, from Searle point of view, do not have a direction of fit: "In performing an expressive, the speaker is neither trying to get the world to match the words nor the words to match the world, rather the truth of the expressed proposition is presupposed" (Searle, 2005: 15). Thus, what makes apologies truthful is *the happiness of the performative utterance* (Austin, 1962: 47) regarding *felicity conditions*.

Felicity conditions compose of four elements (Searle, 2005: 44): *a preparatory condition*, *a sincerity condition*, *a propositional content*, and *an essential condition*. Preparatory condition characterizes the act or acts. Sincerity condition defines the necessary psychological state of the speaker. Propositional content describes what act or acts are included in a given statement. Essential condition covers the act itself as what it should be. Follow Searle approach, specific felicity conditions for apologies were put forward by Owen (1983: 117-122) and Ogierman (2009), see Table 1.

Table 1 Ogierman felicity conditions for an apology

Propositional content	Past act A done by S
Preparatory condition	S believes that A is an offence against H
Sincerity condition	S regrets act A
Essential condition	Counts as an apology for act A

Source: Ogierman (2009: 46)

If these felicity conditions and rules are satisfied, thus an apology might be considered as adequately used, as happy, as a true apology. Conversely, if any of conditions and rules cannot be fulfilled thus the presented message cannot be taken as an apology. These conditions are thus considered to be necessary for an apology as a speech act.

1.2 Argumentation theories

A suitable candidate for a description of apologies seems to be the Pragma-dialectical Theory. This theory can be used to analyze both dialectic and rhetoric aspects of the complex communicative situation. Pragma-dialectics is concerned in argumentation as "primarily aimed at resolving a difference of opinion by verbal means" (van Eemeren, Grootendorst, & Snoeck Henkemans, 2002: ix). The standard pragma-dialectical theory of argumentation integrates Searle's approach to speech act theory (van Eemeren & Grootendorst, 2004: 75-80). Thus, it enables to describe speech acts used in an argumentative discourse (van Eemeren, 2010: 40). It distinguishes four stages of *critical discussion* (the confrontation, opening, argumentation, and concluding stages), three main categories of *argument schemes* (argumentation based on a symptomatic relation, a relation of analogy, and a causal relation) and associated *critical questions* (van Eemeren & Grootendorst, 2004).

The extended pragma-dialectical theory incorporates a concept of *strategic maneuvering*, which "refers to the continual efforts made in all moves that are carried out in argumentative discourse to keep the balance between reasonableness and effectiveness" (van Eemeren, 2010: 40). It helps with the rhetorical aims "while complying at the same time with the requirements of resolving differences of opinion in a reasonable way" (van Eemeren, 2010: 42). There are specific dialectical and rhetorical aims for each stage in discussion (see Figure 2.2. in van Eemeren, 2010: 45) and strategic maneuvering can help with any of them in three aspects: *topic selection*, *adaptation to audience*, and *presentational choices* (see Figure 4.2. in van Eemeren, 2010: 97).

Topic selection might be briefly described as selecting between possibilities what is the case. E.g., in a confrontation stage, we might choose what is the point of difference and who has a burden of proof. In an opening stage, it is possible to select reasonable and effective material and procedural starting points. At an argumentation stage, it is all about choosing arguments. And in a concluding stage, we can pick a conclusion similarly as in previous stages.

Regarding the second aspect of strategic maneuvering, the speaker might adjust his speech and arguments to an intended audience. This adaptation can be seen as using starting points which are unproblematically accepted by the audience. E.g., when speaking to a Christian community, the speaker might use arguments from the Bible to persuade the audience in contrast when speaking to atheists.

Adaptation to audience has to be distinguished to presentational choice where the variability of possible presentations of the things such as framing, word choosing and so on is considered. E.g., presentational choices are concerning in wording, selecting words, or ordering of arguments to make them more acceptable and persuasive.

1.3 Apologies in theories of management

Apologies in management theory are connected to the crises and image management. When there is a situation perceived as problematic by stakeholders, thus organization might find itself in a position where an apology is demanded. The perception of the situation by stakeholders and willingness to acknowledge responsibility by organizations are the key characteristics in apologizing. If there is no demand for an apology, apology rarely occurs. The same is true if there is no acceptance of responsibility.

Even though apologies are usually not enough to solve a crisis, they can be used as prevention for further escalation of the situation. Acknowledgment of the responsibility can calm stakeholders and might prevent them to do further action against the organization.

This dealing with a crisis is thus connected to image management. Organizations want to present themselves in a favorable light, as trusted partners. If a public image of the organization is damaged regarding ongoing crises, the messaging of an organization can be the fast a helpful way to restore it. The ways how organizations are reacting to crises in messaging where described by Benoit (1997) who proposed the *Theory of Image Restoration*.

Benoit (1997: 179) theory gives five main strategies and twelve sub-strategies: *denial* (simple denial, shift the blame), *evading of responsibility* (provocation, defeasibility, accident, good intentions), *reducing offensives of event* (bolstering, minimization, differentiation, transcendence, attack accuser, compensation), *corrective action*, and *mortification*. Although all these strategies

might be used in an apologia, only the last strategy, mortification, has as its key characterization apologizing. Thus, not any message which is put forward by an organization and where the word "apology" or some similar is used can be count as an apology. It is necessary to remember that for an apology to be count as apology felicity conditions must be satisfied.

Strategies, as put forward by Benoit, can be combined. Furthermore, it seems to be useful for an organization to use more than one strategy when confronting crises. Also, these strategies might be used as support for each other. E.g., corrective action might stress presented regret and helps for an apology to be accepted. Also, when formulating an apology, an organization might decide to apologize for ignorance instead for an intentional act and justify this by denial.

Other approaches how to look at apologies in business context follow Ervin Goffman work. Goffman describes apology as "a gesture through which an individual splits himself into two parts, the part that is guilty of an offense and the part that dissociates itself from the delict and affirms a belief in the offended rule" (Goffman, 1971: 113). From this point of view, there is a need to express a difference between person offended a rule and apologizing person. The later one should be seen as somehow different as someone who will not make the same thing again. An apology is a social ritual where expression of embarrassment and chagrin, acknowledging of the situation, disavowing, repenting and offering restitution plays a central role.

Goffman works influenced today's approaches to apologies where organizations are taken as social actors. Organizations got a political, economic and legal status and thus they also have a discursive status. They have social personae or social personalities as "the vehicle by which individuals experience an organization" (Hearit, 2006: 11). These personalities are the ones who are splitting. Split in a business context can be displayed as rebranding, distancing from certain previous employees (accused of the causing harmful situation) or re-acknowledging (renewing of one's duties and promises). Furthermore, we might see that apology of the firm is in many cases connected with presenting new attitude, new persons or strategies, which should help as means to regain trust.

2 Theoretical assumption

Speech act theory provides felicity conditions for an apology. Pragma-dialectical theory gives us the concept of strategic maneuvering. Concrete actions used in apologies in businesses context are described in image restoration theory and Goffman approach. By synthesizing these three, it is possible to make some basic theoretical assumption.

Generally, it is possible to presuppose that apologias are provided in the situation of public outcry regarding the actions of the organization. If the apologia contains an apology, its propositional content will be established during the confrontation stage of the appropriate discussion or sub-discussion. Because this is the core of the apology which can make a difference between the liability of the businesses it is most likely that strategic maneuvering will be used. The essential move seems to be the tendency to moderate action in question to make it more favorable to organization positions. This moderation will be done mainly when there is a liability in question or when there is a shift between the demand of the audience for what should be apology given and the apology presented. The central aspect used in these cases going to be the topic selection because it gives an organization possibility to choose an action for which they are going to apologize.

In opening stage actors and material and starting points are going to be established. Regarding the presuppose goal of organizations to prevent further escalation of the situation and regain trust, it can be deduced that businesses are going to be portrayed in a sympathetic light, as rules obedient and customer friendly organizations. Furthermore, the organizations are going to used stressing good intentions in connection with the situation in question and stressing good traits, bolstering, in provided actions.

When the contrast between public demand and presented content of apology by an organization is immense, there are also going to be established positions for support of the propositional content of selected apology. Therefore, it might be expected that strategies of denial or evasion of responsibility are going to be used as added support by the topic selection.

In the argumentation stage, organizations will try to justify their apologies by presenting reasons for its positions. Because successful apologies presuppose satisfying felicity conditions, it is

plausible to expect that these conditions are going to be addressed and this satisfaction will be supported. In connection to the image restoration theory, it can be anticipated that situation will be portrayed as less offensive and that to stressing true regrets and obligation not to do same corrective action are going to be presented.

Finally, in the concluding stage, the point is to present business as apologizing but as less liable as possible. It can be presupposed that in apologia the goal is going to be implicit because explicit statement might be seen as a further offense. On the other hand, the apology if presented will be explicit and highlight.

3 Example

The Mark Zuckerberg / Facebook Add is an excellent example of apologia with an apology. It is timely, there was a public outcry regarding Facebook action, and there is a lot of contextual information which can be useful. I will be shortly described the situation which precedes issuing this ad in part 3.1 and in part 3.2 I will present a brief analysis of the given text.

3.1 Mark Zuckerberg / Facebook Ad

In 2013 the app Thisisyoudrigitalife was developed by Aleksandr Kogan and appeared on Facebook. It promised a psychological test and was taken by 300 000 users. The app harvest data form tested persons but also from Facebook friends of these persons. This doing was permissible regarding the rules at that time. In 2014 new rules were implied. If the app wanted someone data, it needs his or her permission. These rules were not retroactively imposed. Thus, the Kogan app and others can still harvest data from people not directly taken it.

In 2015 in the primary election, these apps were public noticed regarding Ted Cruz campaign. Facebook banned the app and legally pressured delete of data. The firm Cambridge Analytica which managed the data from the Kogan app issued a certificate of erasing. In 2016 Mark Turnbull acknowledge the help of Cambridge Analytica in Donald Trump campaign to Channel 4 news.

In 2018 at March 17 the Guardian and New York Times published articles with Dan Kitwood the employee of Cambridge Analytica who reveal that the data from Kogan app were still used. On March 20 The Federal Trade Commission started an inquiry.

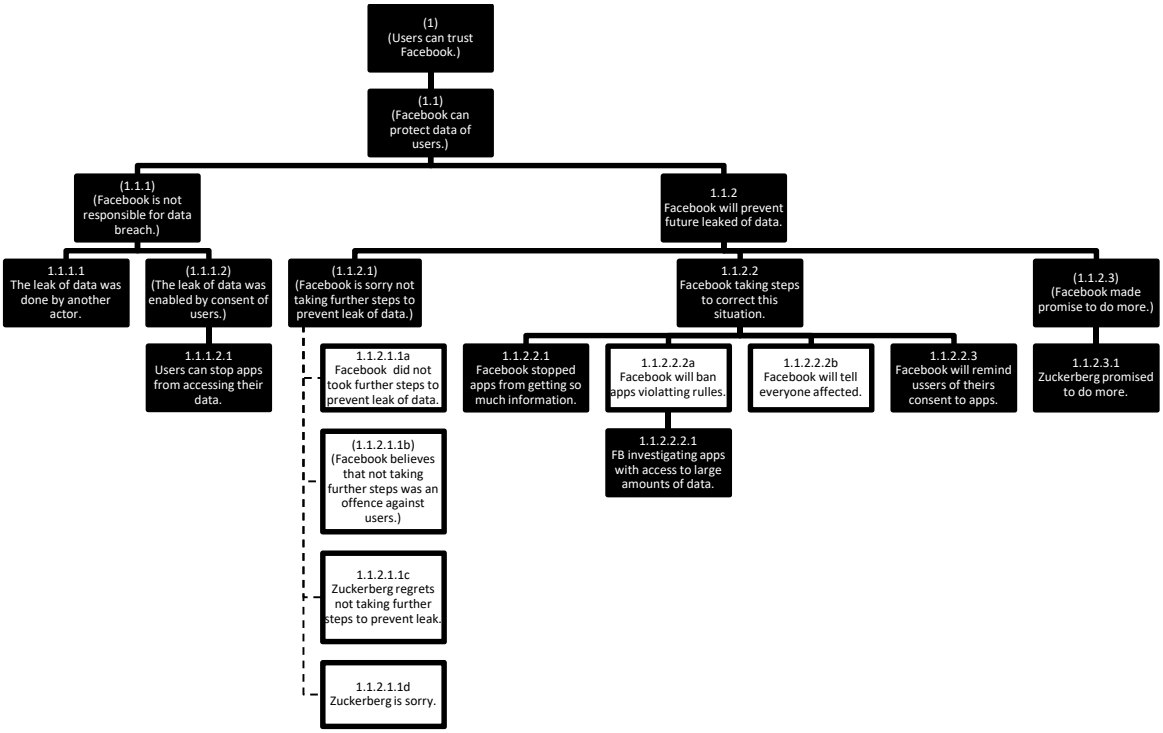
Mark Zuckerberg CEO and founder of Facebook at March 21 released a post: “We have a responsibility to protect your data, and if we can't then we don't deserve to serve you. I've been working to understand exactly what happened and how to make sure this doesn't happen again.” At March 25 a full-page ad in six British (The Observer, The Sunday Times, Mail on Sunday, Sunday Mirror, Sunday Express, Sunday Telegraph) and three American (The New York Times, The Washington Post, The Wall Street Journal) newspapers with an apology by Facebook and Mark Zuckerberg was issued. The text of the ad was as follows (Bennett, 2018):

> We have a responsibility to protect your information. If we can't, we don't deserve it.
>
> You may have heard about a quiz app built by a university researcher that leaked Facebook data of millions of people in 2014. This was a breach of trust, and I'm sorry we didn't do more at the time. We're now taking steps to make sure this doesn't happen again.
>
> We've already stopped apps like this from getting so much information. Now we're limiting the data apps get when you sign in using Facebook.
>
> We're also investigating every single app that had access to large amounts of data before we fixed this. We expect there are others. And when we and them, we will ban them and tell everyone affected.
>
> Finally, we'll remind you which apps you've given access to your information – so you can shut off the ones you don't want anymore.
>
> Thank you for believing in this community. I promise to do better for you.
>
> Mark Zuckerberg

3.2 Analysis

Brief analyses of an ad in the form of a diagram (Figure 1) can reveal some of the connections between the presented statements and helps to understand the complexity of the given apologia. The analyses itself and its description will be mainly focusing on presented assumption. Thus, this will not be comprehensive analyses but rather a presentation of what can be done with this synthetical approach.

Figure 1 Structure of Facebook apologia[9]



Source: author's analysis

The main point of the whole ad was to renew the trust of the users of Facebook. Thus, the conclusion of apologia is the statement of the trustworthiness of Facebook (Figure 1 proposition 1). The conclusion of the apologia is implicit but identifiable regarding the first line of the ad. Direct asking for a trust might not be trustworthy. It is better to present it implicitly using bolstering. That is exactly what happened here and what is also a case of strategic maneuvering by adaptation of audience.

Two main branches of support are presented. The first one can be described as negative demarcation against the presuppose blame. The proposition 1.1.1 is the direct denial that what happened was a breach of data or security. The breach of data would be a severe problem for Facebook, and it actively fights against this term (see Sundby, 2018). Regarding the theory of image restoration, it is appropriate to see it as blame shifting and a case of strategic maneuvering of topical choice in confrontation stage.

The second branch presents the positive approach towards the solution of the situation. The main core of apology is placed here. True apology presupposes that there is the willingness to avoid action in propositional content in future. Therefore, apology supports corrective actions. Further support for this is given by enumeration of concrete activities of Facebook and by the promise made by Zuckerberg.

[9] The standard pragma-dialectical notation is used. Subordinative structures are marked by decimal levels (1, 1.1), multiple arguments by numbers on the same decimal level (1.1, 1.2), coordinative arguments are using letters (1.1a, 1.1b) to point out the connection on the same level and in the diagram are presented in boxes without filling. Implicit premises are in parentheses ((1.1)) (cf. van Eemeren and Grootendorst 2004).

Regarding the presented apology, it might be said that Facebook deliberately chooses the propositional content (see Figure 1 proposition 1.1.2.1). Zuckerberg apologized for "not taking further steps to prevent leak of Facebook users' data" instead for not protecting information, breach of security, possibly influencing the user's votes or something else as this was disused and presented in public debate. Selection of propositional content is a case of topical choice at confrontation stage.

In the opening stage, there are several elements which need to be emphasized. The manner in which the whole ad is written supports assumption about the sympathetic portraying of Facebook and Mark Zuckerberg. E.g., there is the formulation of the conclusion as advice to users (bolstering). Also describing the situation as the breach of trust is a case of presenting good intentions of the organization.

Specific case if variating between "I," Mark Zuckerberg, and "We," Facebook, trying to establish a feeling of community and personal connection. The alternation of Mark Zuckerberg ("I'm sorry…") and Facebook ("We have a responsibility…") can be analyzed as strategic maneuvering of presentational choices. The audience is presented with the message which seems to be both personal and official. Zuckerberg is also one who is apologizing (Figure 1 proposition 1.1.2.1.1d). It might be presupposed that a personal apology from a real person might be more acceptable even though that the person representing the large organization.

The starting points for blame shifting and denial (Figure 1 proposition 1.1.1.1, 1.1.1.2.1) are also established in the opening stage as discussed regarding the first branch of apologia.

In the argumentation stage, the denial is presented by using the shifting of the blame in the first branch (Figure 1 proposition (1.1.1)). In the second branch anticipated corrective actions are presented (e.g., Figure 1 proposition 1.1.2.2). Felicity conditions (Figure 1 propositions 1.1.2.1.1a-d) are explicitly satisfied except preparatory condition (Figure 1 propositions (1.1.2.1.1b)). This condition is implicit. An estimate for this might be seen in an effort not to put forward more negative feelings towards the organization.

Stressing of good traits by bolstering is also presented in the argumentation stage. Hence this is a case of reducing offensive, and it is done by presentational choices (e.g., by stressing of responsibilities in the first line of the ad) and by the topical choice of promise (explicitly in Figure 1 proposition 1.1.2.3.1).

In the concluding stage, the conclusion of apologia is presented as implicit (Figure 1 proposition (1)) and apology is presented explicitly (Figure 1 proposition 1.1.2.1.1d). The main goal of this ad was to renew a trust. But direct asking for a trust might not be trustworthy. It is better to present it implicitly using bolstering. That is exactly what happened here and what is also a case of strategic maneuvering by adaptation of audience. The apology is presented as the apology of Zuckerberg rather than apology of Facebook; this seems to be another case of strategic maneuvering by presentational choices.

Conclusion

The presented paper shows how speech act theory, Pragma-dialectical argumentation theory, and Image Restoration Theory as the instance of crises and image management theory might be used in a description of business public apologias and apologies. Theoretical assumptions (Chapter 2) were verified in analyses of example (Chapter 3). All of them except one correctly predicts what the given apologia will contain. The one assumption which was not entirely successful was connected to stating of felicity conditions. Not all felicity conditions were explicitly addressed in the given an example. The preparatory condition was analyzed as implicit. The possible explanation of this is that organization would not like to renew of the negative feelings towards it.

The study of apologias as reactions to crises in businesses context using argumentation theory seems to be a promising approach which might reveal more information on how the organizations perceive these situations and its stakeholders. It can also provide useful guidance for businesses and other organization on how to present their positions.

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Aspects of a Business Competitive Advantage at Start-ups

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Abstract: *A dilemma of innovations is more and more obvious every day. The ideology of free enterprise and market economy suggest the policy-makers not to touch the mechanisms of competition or business development. It is held that public interventions, such subsidies, low-interests loans or grants, deter the free competition and cause imbalance in the market. At the same time, the needs of the individual enterprises to get support in their pursuit of innovations are acknowledged. The purpose of this article is to report on an inventory of measures employed in order to overcome barriers to innovation in Czech start-ups (SMEs.) The author will examine the impact of such variables as actions for continuous improvement, pressures for cost cutting, aspects of the internal management system, innovativeness, and structures for managing product and process innovation in Czech SMEs.*

Keywords: start-ups, innovation process, factors influencing the innovativeness, support to the innovation process

JEL codes: *M2, M3*

Introduction

Intense competition in the marketplace is forcing organizations to examine the different ways by which they could enhance or retain their competitive advantage. Several organizations have generated sustained cooperative advantage through a continuous stream of incremental overarching, and discontinuous innovation.

Central to the notion of technology as a competitive advantage for nations, firms, and industries is the significant role of small and medium-sized companies as a source of innovation. In the Czech Republic is a great number of measures taken to promote innovation and entrepreneurship. The question remains, if these measures really address those needs that prevail in the enterprises.

In practice, we can come across different start-up definitions. One of the most common criteria is the development phase of a business. It says that a start-up is defined as a new, yet-to-be established business based on an innovative business model and funded by start-up capital. (Hathaway, 2016) Other definitions do not take the development phase into account and define a start-up as an organization designed to seek a business model that is repeatable and scalable (Blank, 2010). An important characteristic of all start-ups is the entrepreneurial spirit and a high degree of risk associated with the uncertainty of the environment.

A start-up is a legal entity that has been established as a business environment to implement a business plan linked to a particular product, idea, **innovation.** It is usually **an innovative company** that seeks to expand its innovation on a mass (usually global) scale. It does not necessarily have to be IT innovation, but technology companies are predominant. The success of a start-up need not be defined by mere survival. Other indicators of success include, for example, the number of job opportunities created, revenue growth, return on investment and its return over a certain period of time, etc. (Schutjens, Wever 2000).

The business model of a successful start-up is based on **innovation**, repeatability and scalability. The word "**innovation**" was first used in the economic context by Joseph A. Schumpeter (1976).

- Innovation consists of successful production, adaptation and use of progress in the economic and social sectors. The innovative business model is looking for new ways to meet customer needs, and/or creates new needs, thereby opening new markets.
- The repeatability of a business model is the ability to apply the main advantages and strengths of an organization in new conditions for further growth and expansion. The repeatability of a business model is based on three basic assumptions: simplicity, certainty and adaptability.
- Scalability is the ability of a business model to work with an increasing volume of inputs.

Commercially viable innovations are becoming the driving force of success on the global market, helping to increase overall productivity of the company. Innovation determines the economic growth of developed and industrialized countries. Innovations have different forms. One of those forms is commodity innovation. Innovation changes the structure of organization and develops its potential. What is more, institutional innovation strengthens market mechanisms as for business, as for technology trading. As a result, new ideas, products and practices penetrate the commercial sphere (Kirchmer, 2017)

Many innovations, despite being original, don't have any market potential.

There are the following types of innovation, each affecting the competitiveness of the organization (Afonichkina, 2012):

Entrepreneurial innovation. Thanks to such innovation the company has an ability to divide into related and unrelated industries, providing an opportunity to strengthen the overall competitiveness of the organization by dividing the different risks across markets and geographic areas.

Technical innovation. Thanks to them the company has the opportunity to improve the technical characteristics of the created goods (services), which in turn will increase its competitiveness compared to analogues.

Production innovation. It allows the organization to switch to a new energy-saving technology, that is more efficient. This innovation generates price and non-price competitive advantages of goods (services). The company can also gain a competitive advantage (and also a disadvantage) in cooperation with suppliers within the value chain. This is due to changes in the required production services.

Market innovations. It allows the organization to get new customers in new markets, increase sales, which results in better application of price competition methods. It also increases the possibility of having a competitive impact on suppliers by increasing the supply of similar services in new markets.

Information innovation. Its purpose is to change the internal environment of the organization to improve the efficiency of internal processes, resulting in a faster response on changes in the environment.

Managerial innovations. It helps to make faster and more accurate decision-making in comparison with competition.

Economic (financial) innovation. Enable more efficient use of company financial resources, increase competitiveness by increasing financial independence (Usoltsev, 2017).

1 Methodology

The contemporary research done in the area of technology and innovation in SMEs (especially in start-ups) can be conveniently grouped into three research streams. The first concerns the definition and overview of technology and innovation in SMEs. Innovation is viewed as the creation, development, and introduction of new products and services, or product and service components, or a new procedure or process doing things to benefit one or more of the stakeholders in an organization. Innovation is based on process needs, changes in industry or market structure, and new knowledge.

The second research stream is concerned with the development of conceptual models and instruments that deal with the assessment and measurement of technology and innovation in start-ups. Several researches have suggested specific models and/or methodologies that describe the role of small firms in the emergence of new technologies, the different business strategies, and ways to control new product development in small technology-based firms.

The third stream, which can be considered to be the culmination of all research done in this area, deals with the assessment and successful implementation of technology and innovation practices at start-ups. Most of the research in this stream illustrates how technology and innovation can help SMEs (start-ups) create a competitive advantage.

Our research consists of five parts:
Part One: **Marketing objectives and R&D expenditures of firms in question**
Part Two: **Identifying the factors influencing innovative actions at firms in question**
Part Three: **Describing several types of support to the innovation process of start-ups**
Part Four: **Discussing the expectations of firms in question for the future**
Part Five: **The internationalization of firms in question**

The questionnaire used for this study was developed by the author of this article and was based on the critical factors proposed by PKMC (2017). PKMC is an Independent Economic Consulting which has been managing by the author of this article since 2000. The questionnaire investigated the following aspects of business:

1. Company profitability
2. Expenditure on R&D - respondents were asked for the following information: proportion of sales spent on R&D; level of change in expenditures in the last three years; and change planned for the next three years.
3. Measures to improve short-term profitability (importance and performance)
4. Measures to ensure long-term wellbeing (importance and satisfaction with response)
5. Sources of innovation in product or service procedures- respondents were asked to consider a recent successful and significant innovation and then to indicate just how important a number of items were as a source of that particular innovation on a four-point scale (unimportant to very important).
6. Sources of innovation in processes and procedures – respondents were asked to consider a recent successful and significant innovation in work processes and procedures of a number of potential sources of that innovation.
7. Drivers for change (organization´s response to current pressures).
8. The organization in general, involving issues such as structure and management, innovation strategy, innovation culture, market approach, etc.
9. Types of support of innovations activities.
10. Expectations of firms in question for the future.
11. Internationalization activities.

Questionnaires were mailed to the executives of SMSs (start-ups) who had completed earlier business surveys. The rate of return where participants had completed earlier surveys was about 32 percent. Only SMEs (contemporary or former start-ups) located in Bohemia and Moravia were included. The sectors of these asked SMEs were manufacturing, transport and services.

A total of 112 completed responses was obtained.

2 Data

As we mentioned above, our research consists of five parts.

Part One: Marketing objectives and R&D expenditures of firms in question
Table 1 provides information on **marketing objectives and R&D expenditures**. As for the size of the firms in question, 65 percent of the respondent firms were small firms – especially start-ups, as they employed fewer than 49 employees and had sales of less than 10 million Euro. The remaining firms were medium-sized enterprises – former start-ups who employed between 50 and 249 people and with sales between 10 and 40 million Euro.

Table 1 Profile of respondent Organizations

Characteristic	Percentage of Responses in the Category
Marketing objectives	
Same products, same markets	34
New products, existing markets	22
Same products, new markets	26
New products, new markets	18
R&D expenditure (over next three years)	
Greatly decreased	5
Decreased	10
No change	21
Increased	56
Greatly increased	8

Source: Own research

There was evidence of increasing innovation in marketing strategy (see Table 1). 40 percent of the firms surveyed identified the introduction of new products as the main thrust of their marketing objectives. 22 percent of the firms (of the total) introduced new products in existing markets, 18 percent of the firms developed new products for new markets. On the other hand, 34percent of the firms were more conservative, focusing the main thrust of their marketing objectives on promoting existing products in existing marketplaces. In terms of R&D expenditure, 64 percent of the respondents planned to increase or greatly increase their spending on R&D during the next three years, 21 percent planned to spend the same amount, while 15 percent planned to spend less on R&D during the next three years.

Part Two: Identifying the factors influencing innovative actions at firms in question
In order to identify the factors influencing innovative actions in the business, the analysis was divided into five sections: (1) actions for continuous improvement; (2) internal management system; (3) pressures for cost cutting; (4) sectorial technological innovativeness; and (5) structures for managing innovation (see Table 2).

Table 2 Description of the factors influencing the innovativeness

Factor	Description	Concrete measures
Factor 1	Actions for continuous improvement	Improved staff competence, team approach, learning organization, improved quality of product/service, shared vision, design to meet market need, high innovation profile.
Factor 2	Internal Management System	Performance measurement for managers, targets for performance improvement, support for creative people, manager responsible for innovation.
Factor 3	Pressures for Cost Cutting	Importance of waste reduction, reduction of staff numbers.
Factor 4	Sectorial Technological Innovativeness	Products include high tech, high tech processes, R&D dependence for innovation, high impact of information technology on product.
Factor 5	Structures for Managing Innovation	Technology portfolio analysis, board promotion of innovative behavior.

Source: Own research

Dealing with the dilemma of innovations, the lack of knowledge on the characteristics of innovation process is apparent: no one is willing to take the risk of not supporting the innovation process and possibly end up with having lower rates of economic growth, employment and the welfare of small firms.

There are three "areas" for innovation that appear in a different light when discussing during research about promotion of innovative activity: the start-ups, SMEs and the large companies. As we concentrated on start-ups, let us explain this type of entrepreneurial activity: By the "start-up we mean a new enterprise with a new entrepreneur, starting firm from "scatch".

The innovation types, which are found in start-ups, are most likely to require assistance and resources for implementation. For the promotion of innovations in start-ups firms the catalytic (disruptive) innovation is rare in start-ups, largely because this type of innovative activity requires highly specialised organisational and technical resources and skills. Start-ups, by definition, normally suffer the lack of critical learning-related capabilities, and the routes of overcoming the learning-problem would include e.g. external innovation strategies, which would require a reasonable level of face validity from the starting entrepreneur in the business environment.

Part Three: Describing several types of support to the innovation process of start-ups

There are several types of support to the innovation process of start-ups in the Czech Republic (Petrů, 2017). In this article the author will bring two examples, one of them is a governmental support (e.g. Operation Programme EIC, CzechInvest), the other possibility is an alternative support (e.g. Mamnapad.cz).

a. **Governmental support**

CzechStarter is a project implemented from the programme Marketing, of the Priority Axis 2 Development of business and competitiveness of small and medium enterprises of the **Operational Programme Enterprise and Innovation for Competitiveness** (OP EIC) 2014–2020.

CzechInvest is also targeting start-ups with other programmes such as **CzechDemo, CzechAccelerator or CzechMatch**.

The **CzechAccelerator** project provides rental of office space and an acceleration programme full of mentoring in Silicon Valley, New York, London and Singapore. The selected participants will participate in a three-month acceleration programme in developed destinations where they can expand their horizons and gain invaluable business experience. In addition to arranging office space, mentoring from experienced foreign mentors, counselling services related to the protection of intellectual property, helping with the preparation of promotional materials corresponding to the local mentality, it will provide 2 return tickets and within three months it will organise workshops on different topics (Lean Canvas, Pitching B2B Sales) or entry to interesting networking events where start-ups meet potential customers, partners, and investors.

The **CzechMatch** project will prepare start-ups for presentation and negotiation with investors and business partners. They will have a unique opportunity to introduce their innovative idea to foreign investors and get feedback from them. During a week-long seminar abroad, start-ups can expect a program full of mentoring and networking, with a matchmaking event in the end. They will strengthen their presentation skills, gain new contacts and experience abroad, and increase the chance to internationalize their business project.

CzechDemo is a project allowing start-ups to present themselves at major international events and showcase their innovative product. Young entrepreneurs have the opportunity to exhibit at the most famous fairs, festivals and conferences.

CzechLink Start is a project designed for **start-up innovative Czech companies** looking for a strategic or investment partner. Its aim is to facilitate Czech start-ups not only with foreign investors, but also to provide them with capital to start their business and increase the inflow of foreign investment into the Czech Republic.

b. **Alternative support**

Mamnapad.cz is an independent magazine about **innovation, creativity**, start-ups for all business innovators and enterprising people. In addition to information from the world of creative

projects and start-ups, it provides tips and guides to promote creativity and innovation in organizations. Its vision is to help individuals, groups and organizations successfully implement their ideas and innovative projects and promote creative thinking in society. It believes that creative thinking and innovation can create a better world together. On its website, it introduces new business ideas (such as irrigation technology, a taxi for pregnant women, a scarf against cold, Vissto – a start-up focusing on smart solution for data visualization, and more), looks for investment capital, or a suitable investment project.

Part Four: Discussing the expectations of firms in question for the future
The other question we solved in our research were the expectations of start-ups in question for the future. The results are as follows:

1. Growth and growth aspirations

42% of businesses are looking to grow over the next 5 years, but only 13% are aiming to grow quickly and aggressively over the next 5 years compared with 12% in 2015. Just under three quarters of the businesses I interviewed expect to see steady growth.

2. Skills and talent

47% of businesses were apprehensive about their ability to recruit skilled staff in the next twelve months, up from 41% since 2015. Remaining skills and talent continues to be a challenge and 58% of respondents said it was a key issue that needs to be addressed over the next 5 years. This is up from 55% in 2015. **To get talents is a very important condition for innovativeness and competitive advantage.**

3. Succession and conflict

41% of family businesses (former start- ups) are looking to pass on ownership to the next generation – up from 39% in 2015. Only 34% of family firms have a discussed and documented succession plan in place.

4. Internationalization

49% of businesses generate sales from exporting goods and services to foreign markets, nearly all of them expect an increased internationalization.

Part Five: The internationalization of firms in question
In our research we formulated following question concerning **the internationalization of businesses in question:**

1. What is your business's interest in working with a foreign partner?
2. What are the main motives for your cooperation with your foreign partner?
3. What aspects do you consider when choosing a foreign partner?
4. What are the main obstacles to the internationalization of your business?
5. How do you engage in internationalization?

The first part of the research interviews and the questionnaire survey were focused on the question of interest in working with a foreign partner and on aspects that are taken into account when choosing him. In the second part of the survey, the experiences of companies using commercial diplomatic services were monitored.

Table 3 Interest in working with a foreign partner

Reason	Percentage share
They already have a foreign partner	11
They are actively looking for a foreign partner	13
They are considering to look for a foreign partner	15
They are not interested in foreign cooperation	61

Source: Own research

Commentary: Table 3 shows the interest of SMEs in engaging in the process of internationalization of business. More than half of the respondents have no interest in cross-border cooperation (language barrier, loss of independence); For 28 % of respondents, internationalization is one of the ways to strengthen its competitiveness (15 % is considering and 13 % is actively looking for); only 11 % has already a foreign strategic partner.

Table 4 Motives for with a foreign partner

Reason	Percentage share
Access to foreign markets	98
Access to capital	43
New technologies	27
Division of business risk abroad	15

Source: Own research

Commentary: Table 4 discusses the motives for international SME cooperation. Respondents could choose more answers. The most important reason is access to new markets. As to the access to capital, more than half of respondents are afraid of losing their independence New technologies or business risk sharing on foreign markets are considered the least significant.

As to the question What aspects are taken into account when selecting a foreign partner? and What should be a strategic partner like?, the answers can be summarized as follows:

Table 5 Aspects to be considered for selecting a potential partner

Aspects	Percentage share
Vision, mission, strategic goals	100
Business profile	100
Ownership relationships in the enterprise	83
Competitive positions	100
Marketing and sales development	95
Relationships to the environment	93

Source: Own research

Table 6 What should be a strategic partner like?

Characteristics of the strategic partner	Percentage share
He should not seek priorities in conflicting goals	100
It should have the ability to agree on common goals and priorities	100
It should actively approach the achievement of jointly set goals	100

Source: Own research

The question concerning the main obstacles to the internationalization of business has given the following answers:

Table 7 Main obstacles to the internationalization of business

Main obstacles	Percentage share
High costs of internationalization	93
Lack of capital for expansion	97
Administrative burdens	92
Lack of information on foreign markets	91

Source: Own research

Conclusions

In today´s competitive environment, the challenge for all businesses is not only to innovate in existing markets to survive and remain profitable, but also to innovate in new markets in order to stay in front of competitors. In this article the author identifies factors influencing the innovativeness.

Some factors are related to both product and process innovations, others are related either to product or to process innovation.

Among factors related to both innovations we can mention *pressures for cost cutting*, *structures for managing innovation* and *internal management system* as these innovations (product and process) create an innovative organization based on innovative behaviour and financial discipline.

The product innovation is significantly related to *sectorial technological innovativeness* because of its emphasis on development and research in high technology.

The process innovation is related to the factor *actions for continuous improvement* which include many process-related activities.

The context in which innovation is likely to take place in SMEs (start-ups), relates to perceiving of new market opportunities, intensifying of current internal resources or recycling resources into new uses. Here we come back to the importance of internal initiative for innovation, the use of teams, applying of different creative techniques and the use of external expertise would bring valuable inputs in regard to the innovative quality of the decisions.

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Impact of personality traits (BFI-2-XS) on using Google or Facebook single sign-on for other web portals

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Abstract: *Web portals used to require a separate login name and password for each portal. A relatively new development in this area is allowing to use a single sign-on login through another platform, such as Google or Facebook. The aim of this paper is to see whether personality traits influence use of such logins. It is possible that people more open to experience may use it more often in order to be able to access new platforms regardless other concerns they may have about it. It can be that more neurotic people will use it less often due to anxiety what could be consequences of such logins. More conscious people may also have some concerns, and therefore use it less. While more agreeable people, i.e. also more trustful, may use it more. The analysis is based on data from the Czech Republic, respondents were university students.*

Keywords: *single sign-on, Google Sign-In, Facebook Connect, personality traits, Facebook, Google, empirical research, quantitative methods*

JEL codes: *L86, M15, L15*

Introduction

Digital age and technologies demand higher level of identification and authentication (Doucek, Fischer, & Novotny, 2017). In the past, users needed to create and to remember a password for each system they used. Some users coped with it by using the same password for more than one system, some wrote down their passwords, often on post-it notes. Both approaches have their weaknesses, especially with regards to security. When it comes to web portals, besides a username and a password, they often require additional personal information for account creation (Vondra, 2015), (Potancok, Vondrova, & Andera, 2015). An innovation in this area is a possibility of using Google or Facebook login credentials for other web portals; besides not needing a username and a password, a user does not need to enter the name nor the contact information. Some of the web portals using such logins still allow to set up an account in a regular way with a username and a password, but Google and Facebook single sign-on has become a standard.

Google Sign-In

Google Sign-In is a secure authentication system that enables to sign in with Google Account — the same account already used with Gmail, Play, Google+, and other Google services. Google Sign-In is also gateway to connecting with Google's users and services in a secure manner. Servers can give their users the opportunity to pay with Google Pay, share their Google-wide contacts, save a file to Drive, add an event to Calendar, and more. Integrating Google's user-centric APIs and services is also possible inside the mobile app, reportedly leads users take action and better convert.

Apart from Sign-In Google offers also other tools to enable easy log-in: Smart Lock for Passwords and Firebase Authentication. When the users save their password to Smart Lock for Passwords on Android or Chrome, they can skip entering their credentials on all of their devices. Google Sign-in with Smart Lock for Passwords provides frictionless sign-in and sign-up flows - users can create new accounts with a single tap and get automatically signed-in across all their devices. It also reduces the risk of forgotten user passwords and missed conversion opportunities when users get frustrated trying to sign in and move on to another activity.

Firebase Authentication provides backend services, easy-to-use SDKs, and ready-made UI libraries to authenticate users of mobile app. It supports authentication using passwords, phone numbers, popular federated identity providers like Google, Facebook and Twitter, and more.

Another possibility to verify the users is by SMS. Google's SMS Retriever API makes it possible without making them deal with verification codes. By using the SMS Retriever API, connected Android app can automatically retrieve verification codes intended for the app, without having to request full SMS reading permissions.

Academic literature however points out to some troubles – for example users of Google Sign-In are reported to integrate well with the Android platform, but iOS users (iPhone, iPad, etc.) do not have the same experience. The user experience when logging in to a Google account on an iOS application can not only be more tedious than the Android experience, but it also conditions users to engage in behaviors that put the information in their Google accounts at risk. (Dormann, 2016)

Google published some case studies of successful Google Sign-In integrations (Google Developers, 2018), claiming that in the case of Luxe Google Sign-In integration on Android and iOS has led to a 30% increase in registration rate and a 15% increase in activation rate. In case of Doodle - before using Google Sign-in, only 35% of users signed in to the app; later it has increased over 50%. It's even better for new users; Doodle is seeing over 75% of new app installs complete registration. Another example is Moovit app - although users can access it anonymously, they must be signed in in order to save their favorite route lines. The Google Sign-in button helps users sign in with just one tap instead of typing in an email address and password. Since integrating the Google Sign-in API, a substantial number of users have connected their accounts in order to sync their transport preferences. In fact, over 22% of users are signed in with either Google Sign-in or Facebook Connect.

Facebook Connect

Facebook Connect is a set of application programming interfaces (APIs) that enables users to log on to third-party websites, applications or devices using their Facebook identity. It allows users to interact on other websites through their Facebook account. Launched in December 2008, Facebook Connect works with "partnered" sites to make site access easier for its users. When a user chooses to access a third-party website through Facebook Connect, they allow that website to retrieve some of the information they have given to Facebook, including their full name, pictures, wall posts, friend information, etc. This not only allows the user to skip the basic registration steps required by most websites, but it also used to allow the website to update the user's Facebook wall and news feed with their activities. By gaining access to the user's friends list, the website is able to show the user which of their friends have also accessed the website through Facebook Connect. (Facebook Developers, 2014)

The most common example of Facebook Connect is its use in commenting on Web content. Articles posted online often allow comments. When they do so through Facebook Connect, the Facebook user's comment is also posted to his or her news feed (and therefore sent to all the user's friends). The comment also shows the user's name and profile picture on the website where the article appears. This function has been adopted by many online publishers because when posters are forced to act under a verifiable identity, this can help reduce hateful, violent or spam comments and promote ethical behavior (Sigmund, 2013).

Facebook Connect provides the following functionalities:

- Authentication: Users can connect their Facebook accounts with Facebook partner sites and applications while using the trusted user authentication Facebook provides.
- Identity Verification: The use of a Facebook profile provides a way to authenticate a user's identity for other applications.
- Interactivity: Facebook Connect gives Facebook users more opportunity to interact with their Facebook friends outside of Facebook itself.
- Privacy: Facebook Connect maintains all the privacy settings a user implements on Facebook itself. (Techopeida.com, 2016)

Single Sign-on – OpenID, OAuth

Web-based single sign-on (SSO) services such as Google Sign-In, Facebook Connect, Log In with Paypal are based on the OpenID Connect protocol. This protocol enables so-called relying parties to delegate user authentication to so-called identity providers. OpenID Connect is one of the newest and most widely deployed single sign-on protocols on the web. Despite its importance, it has not received much attention from security researchers so far, and in particular, has not undergone any rigorous security analysis.

(Fett, Kuesters, & Schmitz, 2017) carried out the first in-depth security analysis of OpenID Connect with a comprehensive generic model of the web to develop a detailed formal model of OpenID Connect and then precisely formalized and proved central security properties for OpenID Connect, including authentication, authorization, and session integrity properties. They also proposed security guidelines for implementors of OpenID Connect and demonstrated that these guidelines are in fact effective and sufficient.

Another popular protocol for SSO is OAuth 2.0, which is an open standard for authorization. However, due to the lack of detailed instructions on how to implement OAuth 2.0 on Android, there are many vulnerabilities in the current Android OAuth 2.0 implementations. While much research effort has been made to exploit such vulnerabilities, there is a lack of systematical collation and summary of these researches, resulting in the appearance of common vulnerabilities in new applications. Meanwhile, the rapid development of the Internet of Things (IoT) also requires an understanding of the usage of OAuth 2.0 in the IoT environment.

(Liu, Liu, Wang, & Zhu, 2018) describe the OAuth 2.0 authorization code grant flow and the implicit grant flow in detail and summarize the differences between the Web environment and the Android environment that affect OAuth 2.0 security. They also summarize the security issues (storing client secret or access token locally, using embedded WebView as user-agent, incorrect usage of authentication proof, handling redirection in mobile app improperly, lacking transmission protection and third-party app authentication) in the implementations of OAuth 2.0 on Android.

(Chen et al., 2018) focuses on a trust evaluation strategy for single sign-on solutions in the cloud environment. Identifies security problems like single point failure, maliciously access or even destruction of the authorizing node that was caused by the lack of knowledge of trust evaluation of interactional nodes. He proposed a strategy base on improved D-S evidence theory to verify the security of the peer nodes in cloud, including the calculation, combination and transfer of the direct trust and recommended trust. The article describes how the security problems brought on by evidence conflicts in trust combination and provides security insurance for single sign-on solutions in the cloud can be solved.

It may be expected that it is more tech-savvy users who use Google or Facebook login for other web portals. Previous research (Olexova, Kirchner, Sudzina, 2017; Pavlicek, Sudzina, Malinova, 2017; Sudzina, 2015;) identified that men, less neurotic, and more open to experience people perceive themselves as more tech-savvy. Alohali et al. (2018), who focused on use of technology from a security perspective, found out the consciousness was significantly correlated to 19 of 28 investigated behaviors, openness to experience was significantly correlated to 12, agreeableness was significantly correlated to 9, and neuroticism was significantly correlated to 7, while extraversion was significantly correlated only to one. With regards to demographic factors, age was significantly correlated to 16 of 28 investigated behaviors and gender was significantly correlated to 13. Therefore, it is reasonable to expect that personality traits and demographics factors may explain usage of Google or Facebook login for other web portals.

The research question this paper investigates is if/what five personality traits increase propensity of respondents to use Google or Facebook login for other web portals while controlling for demographic factors.

1 Data and Methodology

Data were collected in December 2017 – March 2018 using an on-line questionnaire. Respondents were 478 university students (272 men, 206 women; on average 20.5 years old) from the Czech Republic, of whom 377 respondents indicated that they use Google or Facebook login for other web portals. They differed also in experience from practice, 106 only study, 176 have a temporary job (brigade), 164 have a part-time job, 16 have a full time outside the field of study, and 12 have a full time within the field of study.

Personality traits were measured using John and Soto's Big Five Inventory-2 (C. J. Soto & John, 2017) translated to Czech by Hřebíčková et al.(Hřebíčková et al., 2018). Only BFI-2-XS (C. Soto & P. John, 2017), i.e. a 15-statement version was used for this conference paper; these statements were "I am someone who..."

- ... tends to be quiet,
- ... is compassionate, has a soft heart,
- ... tends to be disorganized,
- ... worries a lot,
- ... is fascinated by art, music, or literature,
- ... is dominant, acts as a leader,
- ... is sometimes rude to others,
- ... has difficulty getting started on tasks,
- ... tends to feel depressed, blue,
- ... has little interest in abstract ideas,
- ... is full of energy,
- ... assumes the best about people,
- ... is reliable, can always be counted on,
- ... is emotionally stable, not easily upset,
- ... is original, comes up with new ideas

on a 1-5 Likert scale where 1 meant strongly disagree and 5 stood for strongly agree. Extraversion was calculated as an average of the 1st (reversed-scored), the 6th and the 11th answer, agreeableness as an average of the 2nd, the 7th (reversed-scored) and the 12th answer, conscientiousness as an average of the 3rd (reversed-scored), the 8th (reversed-scored) and the 13th answer, neuroticism as an average of the 4th, the 9th and the 14th (reversed-scored) answer, and openness to experience as an average of the 5th, the 10th (reversed-scored) and the 15th answer.

The dependent variable was measured using the question "Do you use the following services? Google or Facebook login to other servers (.e.g. login via Facebook login to an e-shop)" Respondents were to choose one of the following answers:

- No (coded as 0),
- Yes, sometimes (coded as 1),
- Yes, often (coded as 2).

The questionnaire contained additional questions which were not used in the analysis presented in this paper.

Ordinal logisitic regression was used to analyze impact of gender, age, job type and five personality traits (extraversion, agreeableness, conscientiousness, neuroticism, openness to experience) on use of Google or Facebook login for other web portals. A multivariate approach was used. SPSS software was used for the analysis.

2 Results

The research question is if/what five personality traits increase propensity of respondents to use Google or Facebook login for other web portals. Control variables are gender, age, and job type. Ordinal logistic regression parameter estimates for the full model are provided in Table 1.

Table 1 Parameter estimates for the full model

	Estimate	Std. Error	Wald	df	Sig
Login = 0	-1.832	1.351	1.839	1	.175
Login = 1	-.029	1.348	.000	1	.983
Extraversion	.062	.111	.312	1	.577
Agreeableness	.062	.128	.234	1	.629
Consciousness	-.283	.131	4.660	1	.031
Neuroticism	-.014	.105	.017	1	.896
Openness to experience	.284	.115	6.150	1	.013
Age	-.045	.043	1.111	1	.292
Part-time job	.338	.568	.354	1	.552
Only study	-.286	.586	.239	1	.625
Temporary job	.141	.569	.062	1	.804
Full-time job outside the field of study	.181	.724	.062	1	.803
Full-time job within the field of study	0[a]	.	.	0	.
Male	-.114	.185	.382	1	.537
Female	0[a]	.	.	0	.

Legend: a. This parameter is set to zero because it is redundant.
Source: Own calculation

The model per se is not significant, p-value = .059, Cox and Snell pseudo R^2 is .040, Nagelkerke pseudo R^2 is .045, and McFadden pseudo R^2 is .019. Considering all variables, conscientiousness and openness to experience are significant at .05 level. Parameter estimates for ordinal logistic regression with only these two independent variables are provided in Table 2.

Table 2 Parameter estimates for the streamlined model

	Estimate	Std. Error	Wald	df	Sig
Login = 0	-1.065	.537	3.934	1	.047
Login = 1	.692	.535	1.669	1	.196
Consciousness	-.224	.122	3.349	1	.067
Openness to experience	.290	.111	6.867	1	.009

Source: Own calculation

The model per se is significant, p-value < .008, Cox and Snell pseudo R^2 is .020, Nagelkerke pseudo R^2 is .023, and McFadden pseudo R^2 is .010. Conscientiousness in the streamlined model is significant only at .1 level. Parameter estimates for ordinal logistic regression with only openness to experience are provided in Table 3.

Table 3 Parameter estimates for the model with openness to experience

	Estimate	Std. Error	Wald	df	Sig
Login = 0	-.363	.381	.908	1	.341
Login = 1	1.384	.386	12.842	1	.000
Openness to experience	.283	.110	6.590	1	.010

Source: Own calculation

The model per se is significant, p-value < .011, Cox and Snell pseudo R^2 is .014, Nagelkerke pseudo R^2 is .015, and McFadden pseudo R^2 is .006.

Conclusions

When it comes to logging into a web portal, probably the only major innovation is a possibility to use one's Google, Facebook, or other login. This way, a person does not need to remember (for security reasons, preferably) a different password for each portal. The aim of the paper was to investigate is if personality influences use of this innovation.

From the sample of Czech university students, a vast majority used their Google and Facebook logins to access other web portals; approximately half of them sometimes, and another half often. This behavior can be explained by their openness to experience.

Another personality trait in play was conscientiousness; unlike for openness to experience, the link was negative. Conscientious people are likely more organized, this means that they keep track of more passwords, therefore, they do not need to reply on Google and Facebook logins to access other web portals.

A possible reason for agreeableness and neuroticism not being significant is that there can be two mechanisms in play. Some may mistrust or fear that an individual web portal could try their password to access another portal (in case they cannot remember many passwords and, therefore, use the same password for several portals). Others may mistrust or fear Google and Facebook as a Big Brother.

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The Economic Impacts of Applying the Act on Public Procurement as Seen from the Contractors' Point of View

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Abstract: *A significant part of the GDP (about 24 billion EUR per year) is allocated through public procurement from public resources in the Czech Republic. There are some changes concerning the obligations of contracting authority as well as contractors after the new act on public procurement came into effect on October 1st 2016. The effort to decrease administrative demandingness is obvious. However, the volume of the contractors' transaction costs is still quite significant. This article presents some findings regarding the economic impact of that law from the point of view of the contractor, i.e. the tenderer for a public contract. Attention is paid to the calculation of the costs of participation in the procurement procedure that is carried by the contractor and whose return depend on the winning the contract and its realization. The cost of participation in each tender in which the tenderer has failed must be credited to the following contract by the contractor. A sample of 321 public contracts in the Czech Republic dealing with building works has been chosen for the analysis.*

Keywords: *public procurement, contract value, contractor, Czech Republic*

JEL codes: *L51, H42*

Introduction

The public procurement market handles a huge amount of funds spent by contracting authorities in the Czech Republic. It accounts for up to 12% of total GDP, and purchases and investments are made annually for nearly 600 billion crowns. Consumption and investment of public funds through public procurement aims at public institutions savings in order to get the best performance or product. The aim of the Act No. 137/2006 on Public Procurement was mainly to increase transparency, reduce corruption and strengthen the competitive environment for public procurement. A number of methodologies and publications dealing with the position of the contracting authority, i.e. the regulatory function of the state leading to the transparent, economical and efficient spending of public funds, have been developed. But only the new Act No. 134/2016 on Public Procurement (hereinafter the "Act") also focuses on the other side of the issue, i.e. on the contractors and to their status as part of the procurement process. The aim is to reduce administrative burdens, resulting in lower costs of participation in tendering procedures for tenderers. A research study was implemented in the workplace of the authors of this paper dealing with the economic impacts of applying the act on public procurement. The first part of this research, presenting the impacts of applying the Act from the point of view of the contracting authority, was published by Plevný (2017).

The aim of this paper is to present the findings regarding the economic impact of the Act **from the point of view of the contractor**, i.e. the tenderer. We will focus on the costs calculation of participation in the tendering procedure carried by the contractor. The return of this cost depends on the acquisition and subsequent implementation of the contract. The cost of preparing each offer for a tender in which the tenderer has failed must be credited to the profit margin on the next contract. A total of 321 public contracts dealing with construction works have been chosen for the analysis, particularly in a simplified subthreshold mode.

Literature Survey

The issues of the economic impacts on the overall costs of the contract implementation by means of applying the provisions related to acts on public procurement are not very frequent in professional literature. Nevertheless, it is possible to find some interesting and inspiring studies, namely on the example of the countries in which the implementation of the public procurement the way we understand it now does not have a long tradition. Balaeva and Yakovlev (2017) deal with

estimations related to the implementation of public procurement on an example of a large contracting authority. Nunes and Velame (2016) analyzed indicators of cost-effectiveness and time efficiency in public procurement processes in Federal Institutes in Brazil. The different aspects of the development of contractual procurement system as well as some impacts of different regulatory modes on the effectiveness of public procurement were studied by Kirpikov and Goshunova (2016) and Yakovlev et al. (2015) in the Russian federation. There are also articles dealing with some selected specific economic aspects related to inviting tenders for public contracts. For example, Minchuk and Mizrahi (2017) studied procurement auctions in the public sector using game theoretical tools. Keulemans and Van de Walle (2017) tried to explore and explain public preferences for different public procurement practices. Their paper looks into public support for cost-effectiveness, discriminatory procurement in favour of domestic suppliers and sustainable procurement. Patrucco, Luzzini and Ronchi (2016) investigated the architecture of public procurement performance measurement systems in local governments. In the Czech Republic various authors have dealt namely with the examination of the transaction costs of public procurement (Pavel, 2005), Holubářová (2012). A larger study on that topic was published by Dufek (2013). This paper develops some of these studies on the conditions of the current Act on Public Procurement in the Czech Republic.

Definitions of Basic Terms and Methodology

In a relatively short modern history of legislative regulation of public procurement, there is a second Act already in the Czech Republic (valid from October 1, 2016). The purpose of the new Act is not only the regulation of the entire investment process but also setting some basic rules for the procurement process itself. (Herman, 2016) The new Act originated on the basis of accepting new European directives. The new amendment should bring significantly more flexible and less formal rules for public procurement and namely more economical treatment of public funds. At the same time it should enable faster implementation of funds with a smaller administrative burden.

Contracting authorities of public procurement are as follows: the state, organizational components of the state, Czech National Bank, state funded organizations, territorial self-governing units and other legal entities which satisfy public interest and are not of business and industrial nature. *Contractor* is a person or more persons working together who offer to provide supplies, services or construction works. The act sets three *types of public procurement*: public supply contract, public service contract and public works contact. The act further distinguishes three basic *modes of public contracts*: excess contracts, subthreshold contracts and public contracts of small extent. Excess public contract is a contract whose anticipated value is equal to or higher than the financial limits stipulated by the rules of the European Union. These limits change regularly in a two year cycle. A subthreshold public contract is a contract whose anticipated value does not reach the limit of the EU (for construction works it is CZK 142,688.00) and at the same it exceeds the limits in case of public contract for supplies and services in the amount of CZK 2,000,000 and in case of a construction works contract in the amount of CZK 6,000,000. Smaller contracts are labelled as public contracts of small extent (Herman, 2016).

Altogether 12,461 public contracts were commissioned in the Czech Republic in total value of 283 billion Czech crowns in the year 2016 (VVZ, 2017). All three types of contracts (public supply contract, public service contract and public works contract) accounted for almost the same proportion both as far as the number and the sum of funds are concerned. Especially in case of small and medium sized enterprises the costs of participation in the tender play a much more significant role than in case of big multinational companies. Therefore a sample of public contracts dealing with construction works which were commissioned in a simplified subthreshold mode was chosen for the analysis. The proportion of small and medium sized businesses in this mode was very high in the year 2016, namely 74% (ISVZ, 2017). The basic results of this analysis are listed in the following Chapter 3.

Information on the costs of participation in the tendering procedure has been obtained in a simple questionnaire sent to construction companies that participated in the contracts included in the sample of procurement under examination. The results of this survey are presented in Chapter 4.

The Sample of the Examined Public Contracts

As mentioned above, the following key was set for the choice of public contracts:

- Mode: subthreshold public contract
- Type of tender procedure: simplified subthreshold procedure
- Type of contract: public contract for construction works
- Anticipated value: higher than CZK 1,000,000, maximum CZK 50,000,000.
- Date of beginning: October 1st 2016

As far as the time is concerned the choice of the sample was limited because all the contracts were supposed to comply with the new act on public procurement which came to effect on October 1st 2016. The data for the statistics file were taken over from Bulletin of public contracts where, according to law, the contracting authority is obliged to publish all the subthreshold and excess public contracts. The final data collection took place on 14 March 2017. In the statistics file there are public contracts which were published in the bulletin from 1 October 2016 to 14 March 2017. Altogether 321 public contracts were found that met the above mentioned criteria, for more detail see Pivoňka (2017). It was, however, necessary to rid the data of those public contracts that were incomplete; their anticipated value was smaller than CZK 1,000,000 and of those which were cancelled. Further it was necessary to remove those contracts that had been divided into more parts and therefore it was not possible to work with such data credibly enough (see the following Tab. 1). For more information on sampling see Plevný (2017).

Table 1 Ridding the statistics file of public contracts

Initial number of public contracts in statistics file	321
Public contracts with incomplete information	16
Public contracts with anticipated value less than CZK 1million	12
Cancelled public contracts	64
Public contracts divided into parts	4
Final number of public contracts in statistics file	225

Source: Own processing

All 321 forms were downloaded in PDF format and then transferred into Excel. As each public contract contained approximately seventy-five attributes, it was first necessary to filter out the required attributes.

The number of offers received within one public tender is an important statistic for the calculation of the costs of participation in the tendering procedure. The minimum number of offers was 1, the maximum was 22. The most frequent ones were three received offers that occurred thirty times in total and they accounted for 13.3% of the total number. The second most frequent occurrence was 5 received offers in the number of 28. The median of the file is in the value of six received offers. 6,284 is the average number of the received offers in the category of the monitored subthreshold public contracts for construction works. Therefore, the academic probability that an applicant for public contract will finally gain the contract is 15.9%. Consequently, the applicant prepares more than 5 offers at his own cost without resulting effect on average.

The anticipated value of the contract in the range between CZK 1 million and CZK 50 million was another examined quantity. The most frequently anticipated value is in the interval of six up to eight million crowns; this value occurred in as many as one third of the public contracts (Plevný, 2017).

Cost of Offer Processing

According to the professional consultation carried out in several construction companies, the demand for preparing the offer in a tender is not dependent on the estimated value of the contract. The costs of preparing the offer are influenced by other factors, especially the type of construction work, as well as mandatory and other required formalities. Thus, the cost of participation in a procurement procedure can be considered to be constant in relation to the value of a public contract.

Relevant information on the costs of processing offers for public contracts have been obtained through a simple questionnaire distributed to companies taking part in all 225 tenders from the surveyed sample (see above). Due to the usual participation of companies in a number of tenders, the total number of participating companies was much lower than the number of tenders monitored. Specifically, the questionnaire was distributed to 93 construction companies at whole that participated in these tenders. Respondents can be characterized as 83% of the legal entity and 17% of the individual. The purpose of the questionnaire survey was to find out information to calculate the costs of preparing the offer for a public contract. A total of 22 respondents answered the questionnaire. The questionnaire contained a total of six closed questions as follows:

Question 1 - How many staff prepares documents for the offer to simplified subthreshold public tender?

In the first question, the survey participants were questioned on the number of employees who processed the data and documents necessary to complete an offer to simplified subthreshold public tender. Respondents could choose from five possible closed responses: one employee, two employees, three employees, four employees, and five or more employees. The response results are shown in the table below.

Table 2 Number of staff preparing the tender offer

Number of employees	1	2	3	4	5 and more
Number of answers	3	11	4	2	2

Source: Own processing

Exactly half (11 suppliers) replied that the offer was processed by 2 employees; the second most frequent answer was 3 employees (18%). Also extreme variants are interesting in terms of results: one employee only handles an offer by 14% of companies, and 5 or more employees processed it by 9% of respondents. These relatively significant differences in individual responses could be clarified by the answer to the second question.

Question 2 - What is the average time for processing an offer to simplified subthreshold public tender?

The second question was targeted to determine the time of processing the offer at the stated number of employees. Responses are designed as four options: less than one day, one to two days, three to five days, five or more days - see Table 3.

Table 3 Processing time for one tender offer

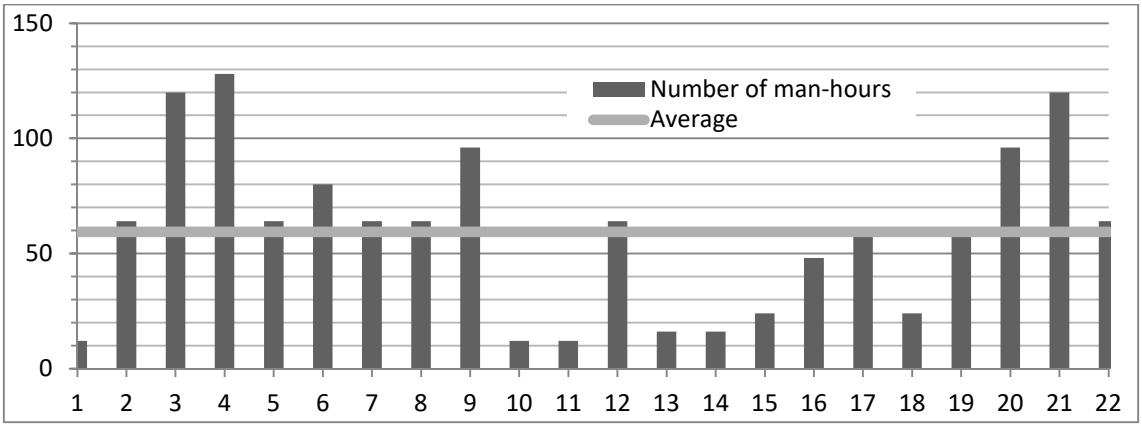
Number of processing days	< 1	1 - 2	3 - 4	5 and more
Number of answers	2	8	9	3

Source: Own processing

By combining the answers to the first and second questions, we can get an approximate conversion of the duration of the preparation of one tender offer to the so-called man-hours. For this calculation, in the second question the values of the half of the intervals and at the last answer of the lower limit of the interval were taken.

Also, according to the man-hour conversion, the differences in processing time consumption of one offer are relatively high (see Figure 1). However, about half of all respondents stated laboriousness in the range of 48 to 80 hours, which oscillates around the average value, which makes 59.44 man-hours for the entire sample of data including extremes. This corresponds quite well to the most frequent answers to the first and second questions, namely that two employees are working on average for four working days to process an offer for public contract.

Figure 1 Time for processing an offer



Source: Own processing

Question 3 - What proportion of offers do you submit in electronic form?

The purpose of the third question was to determine the frequency of submission of tender offers in electronic form. The response options were: less than a quarter, a quarter to a half, more than half, almost all.

Table 4 Ratio of offer submission in electronic form

Ratio of electronic form	< 25%	25 - 50%	50 - 75%	75 - 100%
Number of answers	21	1	0	0

Source: Own processing

The results in Table 4 show that, despite the efforts of the Ministry for Regional Development, very few offers are being submitted electronically. The vast majority of respondents replied that they submitted electronically less than a quarter of the offers, and about a tenth of them said they do not make electronic offers at all.

Question 4 - How long does it take to go to the place of performance of the contract?

The fourth question was to find out the distance to visit the place of performance of the future possible public contract. Responses were designed to the options: usually up to 50 km, usually 50 to 100 km, often over 100 km.

Table 5 Length of journey to visit the place of performance

Usual journey length	< 50 km	50 – 100 km	> 100 km
Number of answers	7	10	5

Source: Own processing

From the responses received (see Table 5), we can say that more than three quarters of suppliers commutes to explore the place of the future contract performance of less than 100 km. Therefore, it can be concluded that contractors tend to apply for a public contracts mainly in the region where they have their headquarters or branch office. This is also confirmed by the analysis of the Czech Statistical Office in 2014 that 54% of construction companies carry out construction works in the region where they reside; in the case of the Pilsen and Karlovy Vary regions it is even 60%, respectively 81% (Czech Statistical Office, 2014).

Question 5 - How much do you print the pages of the documents you need on average?

The purpose of the second last question in the questionnaire was to find out what is the total range of pages of all the copies needed for one tender offer on average, i.e. the question was directed at the costs of printing and copying. Respondents chose from four options: up to 50 pages, 50 to 100 pages, 100 to 200 pages, 200 pages and more - see Table 6.

Table 6 Number of printed pages per offer

Number of printed pages	< 50	50 - 100	100 - 200	> 200
Number of answers	3	8	8	3

Source: Own processing

For the fifth question, responses from respondents are symmetrically divided among all responses. By averaging the mean values of the intervals and the lower limit for the response of 200 pages and more, the result was 113 printed pages needed for submission of one offer to simplified subthreshold public tender.

Question 6 - In what form do you send documents to prove eligibility and qualifications?

The last question in the questionnaire was focused to find out in what form the applicants submit the supporting documents to prove the basic and professional qualifications - see Table 7.

Table 7 Form of documents to prove eligibility and qualifications

Form of documents	Affidavit	Simple copy	Verified copy	Original
Number of answers	8	10	3	1

Source: Own processing

Despite the fact that the Act does not require verified copies or originals regarding the documents to prove eligibility and qualifications for simplified subthreshold public tender, almost one fifth of tenderers submit original or certified copies. According to the tenderers, this action is justified by the fact that, if subsequently selected for the performance of a public contract, they will not have to supply originals or officially certified copies.

By law, applicants must demonstrate basic and professional qualifications, which are one-page documents in the case of affidavits. They must further submit the extract from the Criminal Record, confirmation by the Tax Office, affidavit of arrears on public health insurance, affirmation of the relevant Social Security Administration, and an extract from the Commercial Register, i.e. about ten pages - copies.

Calculation of the Tenderer's Costs when Submitting the Offer

The data found from the questionnaire survey and other sources within the analysis performed are summarized in Table 8 below.

Table 8 Calculation of the average cost of processing one offer

Tender Offer Cost Items		***survey data***	**Costs**
Personal costs - 1 hour work costing		*[man-hour]*	**[CZK]**
- average monthly gross wage*	25 000 CZK		
- average monthly personal expenses	33 500 CZK		
- number of working days per year	260 days		
- number of working hours per month	173,33 hrs		
Calculated price 1 hour of work	**193 CZK**	*59,44*	**11 471,92**
Cost of the place of performance inspection		*[km]*	**[CZK]**
- current amount of compensation for a car use	3,90 CZK/km		
- average oil price for the refund calculation	28,60 CZK/l		
- avg. car consumption by technical certificate	4,5 l/100 km		
Calculated cost per 1 km	**5,187 CZK**	*130*	**674,31**
Cost of printing the offer	[CZK]	*[number of pages]*	**[CZK]**
- calculated price per one copy	0,47		
Calculated cost of printing 1 page A4	**0,47**	*113*	**53,11**
Tender offer delivery Cost	[CZK]		**[CZK]**
- package price - Czech Post	115		
- cost reduction due to electronic offers (12.5%)	14,37		
Calculated delivery costs per one offer	100,63		**100,63**
Eligibility and qualifications proving costs	[CZK]	*[number of pages]*	**[CZK]**
1. *an affidavit or a simple copy*			
- calculated price per one copy	0,47	*10*	***4,70***
2. *originals*			
- extract from the Criminal Record	100	*3*	300,00
- extract from the Commercial Register (first page)	90	*1*	90,00
- extract from the Commercial Register (next page)	50	*1*	50,00
- confirmation by the tax office - gratis	0		0,00
- affidavit of arrears on public health insurance (print)	0,47	*1*	0,47
- Social Security Administration affirmation - gratis	0		0,00
- personal expenses (per man-hour)	193	*2*	386,00
Total – originals			***826,47***
3. *verified copies*			
- extract from the Criminal Record	30	*3*	90,00
- extract from the Commercial Register	30	*2*	60,00
- confirmation by the tax office - gratis	0		0,00
- affidavit of arrears on public health insurance (print)	0,47	*1*	0,47
- Social Security Administration affirmation - gratis	0		0,00
- personal expenses (per man-hour)	193	*2*	386,00
Total - verified copies			***536,47***
Calculated overhead 20 %			**2 460,93**
TOTAL COSTS for one tender offer processing (variant of qualification proving by affidavit or plain copies)			**14 765,60**
- average number of the received offers in one tender		*6,284*	
AVERAGE TOTAL COSTS for successful participation in the tender procedure			**92 787,02**

* the standard wage level at the position of the workers handling the tenders (according to the professional consultation carried out in several construction companies)

Source: Own processing

The simplified procedure for calculating the average cost of participation in one tendering procedure is evident from the above table. Taking into account the average success rate of the tenderer in this category of public procurement, it is evident that, even for the category of simplified subthreshold public tenders, the costs related to the compliance with the requirements of the currently applicable Public Procurement Act are close to CZK 100,000. These costs, especially for the category of SMEs, can certainly not be considered negligible.

Conclusion

The main purpose of this paper is to identify the economic impacts of the obligations arising from the Public Procurement Act on a contractor who is a small or medium-sized construction company. A sample of 321 simplified subthreshold public tenders for construction works was selected for the analysis. Data on tenderers' costs was collected by a simple questionnaire sent to construction companies that participated in tenders from the surveyed sample. We found that the average number of offers received in one tender was 6.28, which implies that the tenderer will prepare more than 5 offers on average at own expense without the resulting effect in the form of a contract. We found out that in case of tenders for construction works under the simplified subthreshold procedure mode, the cost of an offer preparing, converted into one successful contract, is on average close to CZK 100,000. Should the company calculate the profit of 10% of the contract price, then, at the average expected value of the public contract in the category under investigation, more than a tenth of the calculated profit would be used to cover the costs associated with the preparation of the tender offer. This consequence of the application of the Public Procurement Act can have a significant impact on the economy of, in particular, smaller companies applying for public procurement.

Acknowledgments

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The usefulness of social media for travel agencies in the Czech Republic

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Abstract: *There is a number of local travel agencies on the Czech market offering relatively similar product. For that reason, it is very important to offer top customer services. This can be achieved, for example, by social media. The aim of this study is to evaluate the usefulness of social media for the companies operating in the field of tourism. Our sample cover the best travel agencies in the Czech market. Our study shows that ROA or revenues are not suitable for evaluating the usefulness of social media for travel agencies. On the other hand, we discover strong positive relationship between travel agencies assets or turnover and the use of social media. Base on our research, we can recommend travel agencies to use social media particularly for empower branding and maintain a long-term relationship with customers.*

Keywords: *social media, travel agencies, revenue, ROA, performance*

JEL codes: *M37, M31*

Introduction

In recent years, the role of social has became more important on the market. Companies manage their own profiles and communicate with their customers through social media. Social media is particularly important on B2C market. For example, travel agencies create and offer trips to their clients. For them, it is very important to have a credible brand and trust on the market. Social media is one of the channels of marketing communication which enables companies reach their customers.
Swain et al. (2017) describe the importance of social media in marketing communication on B2C markets. These markets are also important for travel agencies. There are thousands of travel agencies on the Czech market that can be distinguish not only by products but also by marketing communication. Social media offers opportunity for differentiation on the market (Grizane and Jurgelane, 2017). In this research, we will evaluate the usefulness of social media and its importance for travel agencies. The aim of the article is to answer the following research questions:

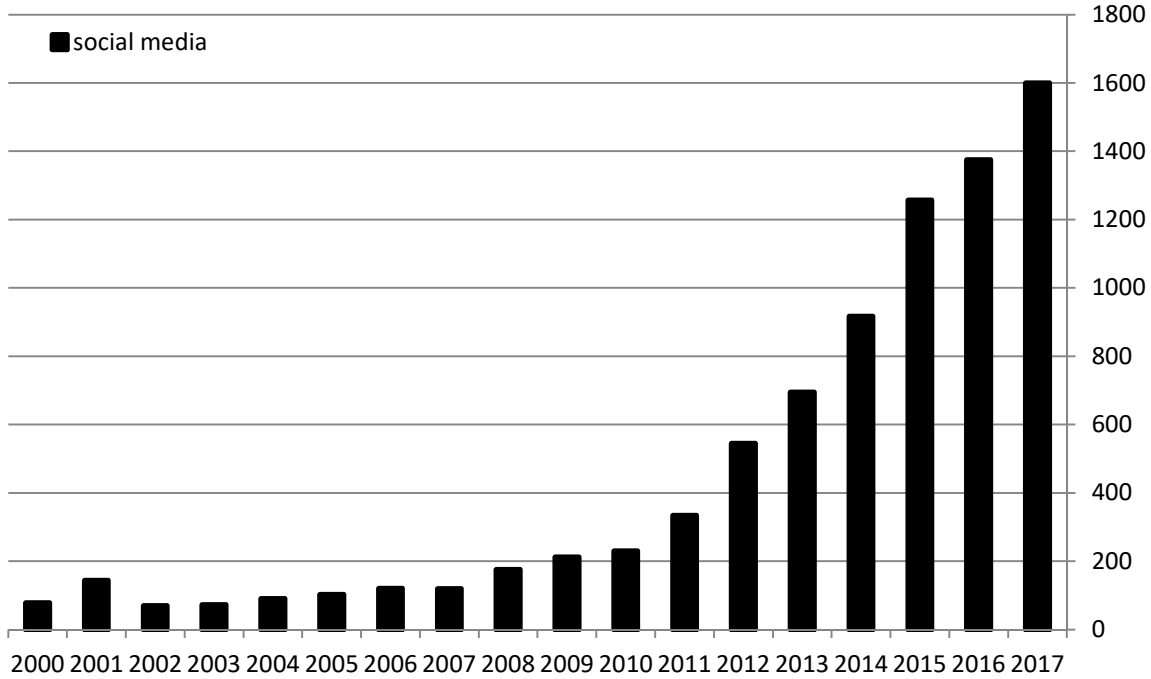
1. How many visitors comes from social media to travel agency websites?
2. Does the use of social media affect the economic performance of travel agencies?

The rest of this paper organized as follows, section 1 presents the existing work in the area. Section 2 presents our proposed methods to address research questions. Afterwards, section 3 shows the results. Finally, the conclusion are given in the last section.

1 Literature review

The use of social media gives businesses a competitive advantage, which enables strengthen the relationship with their customers. The number of articles using keyword *social media* (in headlines, abstracts or keywords) in the Scopus database since the year 2000 is summarized in Figure 1. In recent years, there has been an exponential increase in the number of articles devoted to this topic. While in 2010 only slightly more than 200 articles were published in the Scopus database, in 2017 nearly 1600 articles were published.

Figure 1 The number of articles related to social media in the Scopus database



Source: Scopus

Grizane and Jurgelane (2017) describe the impact of social media on businesses. They assess the economic implications of using social media at the five largest restaurants in the Latvian town of Jelgava. The impact is evaluated base on questionnaire survey among staff and restaurant owners. The study demonstrates the positive impact of social media on the business of restaurants. Thanks to the social media, it is possible to achieve higher customer satisfaction, strengthen the brand and maintain a long-term relationship. This results in increased sales and better financial results. Moreover, the research highlights the insufficient use of social media by restaurants and possible improvements are being discussed. Nacimento and Silveria (2017) also suggest a further improvements in business activities through social media. The correlation between the satisfaction of small business owners in Thailand with their business results and the use of social media was examined by Charoensukmongkola and Sasatanunb (2017). Research found a significant correlation between these two variables. This results confirm that the use of social media has positive effects on sales and thus on business results. The impact of social media on SMEs is also evaluated by Wang et al. (2016). Tajvidi and Karami (2017) focus on the importance of social media in the UK's hotel business. Data has been collected by mail survey from a sample of 384 hotels in the UK. Results demonstrate the positive and significant relationship between social media use and firm performance.

Kim et al. (2015) use various financial indicators to evaluate the impact of the use of social media on the performance of business. Restaurants in the USA are explored in this study. Among the financial indicators are being included for example ROA, assets, turnover or Tobin Q. One of the weakest correlation was found between ROA and the use of social media. The use of social media is much more related to the size of the business, turnover or Tobin Q, which evaluates the market value of the firm based on the stock markets. A number of studies also prove a positive influence of the use of social media on a stock price (Li et al., 2017, Nguyen et al., 2015, Lin et al., 2016, Oliveira et al., 2017). However, Kaushik (2017) is inconsistent with these conclusions and the impact of social media on the value of the business consider as an insignificant.

Swain et al. (2017) analyze influence between the type of messages posted on social media and customer satisfaction. Based on analysis of the largest companies in the US, they suggest what messages should companies publish on social media. Significant differences found in communication between B2B and B2C companies. In the case of B2C, they recommend rather emotionally-focused messages. On the other hand, they recommend that the B2B companies should focus on the information value of the messages. In the next study, Swain and Milne (2017)

conducted on the same sample of companies further research, which evaluate the differences in communication on social media between businesses offering services and goods.

Approach to strategic marketing on social media is evaluated by Felix et al. (2017). In their study, they draw attention to the lack of literature on the strategy of using social media in enterprises. For effective social media management, they propose to focus on four areas including culture, purpose, structure and leadership. They further define these areas and they design the most effective strategy for communication with customers through social media. Alalwan et al. (2017) also analyze the literature on social media marketing. This study evaluated 144 expert studies on social media that reveal the role of social media in communication. As the most common communication tool on social media is marked Facebook in this study. Strategic changes in CRM (Customer Relationship Management) caused by social media are evaluated by Wang and Kim (2017). Changes in digital marketing strategy due to social media are also evaluated by Tiago and Veríssimo (2014).

1.1 The use of social media in Czech companies

The Czech Statistical Office (2017) offers a view on the ICT environment of Czech companies. According to their findings, in January 2016, more than 82% of companies with ten or more employees in the Czech Republic had websites. The most common service that business websites offer to their customers is the possibility of viewing the catalogs and pricelists of the products and services, which are offered by company. On social media, in the Czech Republic in January 2017, 37% of companies with more than 10 employees were present. Only a third of companies had a website in January 2017 as well as a social media profile. Social media most often serve to inform about new products, discounts, etc. More than half of companies use social media to provide customer service. Similarly popular is the use of social media to recruit new employees. In fact, only 19% of companies used social media to communicate within the company. The presence of companies on social media is very much dependent on the subject. For example, companies operate in the building industry use social media rarely. On the other hand, companies offering tourism services are well presented on social media.

As can be seen from the statistics, the presence of companies on the Internet is an important condition for success. Social media have also been promoted in recent years, but they are still not as often used as websites.

2 Proposed methodology

To answer the two research questions, we will use the quantitative approach. Our sample includes 10 travel agencies (Table 1), one of the most successful in the Czech Republic. Their list was taken from the TTG Czech Travel Awards (TTG, 2017). This list is based on a poll in which the public votes for the best travel agencies in the given categories. Our sample includes travel agencies from four categories, including the Best Travel Agency for Active Holidays, the Best Travel Agency for Luxury Holidays, the Best Travel Agency for Traveling to America, and the Best Travel Agency for Foreign Vacations with Children. In these categories customer expecting top-class services. The list of companies in the sample is shown in Table 1. Financial indicators are also included. Companies that do not publish financial results were excluded from the sample.

Table 1 List of travel agencies in our sample

Travel agency	website	ROA (2017)	Assets (millions) (2017)	Turnover (millions) (2017)
Adventura	adventura.cz	0,19	41	134
Livingstone	livingstone.cz	0,16	62	127
Poznání	poznani.cz	0,07	317	600
EXCLUSIVE TOURS	exclusivetours.com	0,04	51	200
DELUXEA	deluxea.cz	0,21	93	200
ESO travel	esotravel.cz	0,16	102	417
Čedok	cedok.cz	-0,07	337	1763
ALEXANDRIA	alexandria.cz	0,07	305	755
America Tours	americatours.cz	0,09	17	66
Alvarez	alvarez.cz	0,15	20	43

Source: own

2.1 Analyses conducted

The following analyses will be employed to answer the research questions:

Analysis 1) **How many visitors comes from social media to travel agency websites?** For our sample, we evaluate how many visitors come from social media to travel agency websites based on analytic tool SimilarWeb (2018). This analytic tool evaluates website traffic to any website on the Internet. We explore the percentage of website traffic accessed from social media to the total website traffic. Analyze will be carried out for May 2018.

Analysis 2) **Does the use of social media affect the economic performance of travel agencies?** To answer this research question, we will examine whether economic indicators ROA (return on assets measured as EBIT / total assets), EBIT, total assets and turnover are related to the use of social media. Analyze will be carried out for the period 2017. The use of social media will be evaluated by using the average number of responses (number of likes, comments, shares) per post as shown in Formula 1. Then we compare if companies with a low ROA or low turnover have lower values for this indicator than companies with higher ROAs and turnover. We will explore 500 posts posted by selected travel agencies in 2017.

$$average\ number\ of\ responses\ per\ post = \frac{number\ of\ responses\ in\ 2017}{number\ of\ posts\ in\ 2017} \quad (1)$$

For evaluating differences between data (average number of responses per post and the selected economic indicator), the Pearson correlation coefficient will be calculated as suggested by Kim et al. (2015). This coefficient examines the linear dependence between observed variables. Pearson's correlation coefficient is <-1.1>. Near zero values indicate that there is no relationship between the observed variables. On the contrary, values away from zero indicate that there is a strong relationship between the variables and they are related together.

3 Results

Question 1) Websites in our sample were visited by more than 500,000 visitors in May 2018 (the most of the visitors was observed on cedok.cz website). The social media brings on average only 6 % of total traffic (Table 2). This value is similar across the sample and the variance is only 28. The maximum value in the sample reaches 17% for americatours.cz and a minimum is 2% for deluxea.cz. Social media on the website delivery significantly less traffic than search engines (52 %) or direct visitors (36 %).

Table 2 Share of selected data sources

Source of visits	Average share of traffic from a given source	Variance (σ^2)
Direct	36 %	324
Referrals	3 %	13
Search engines	52 %	346
Social media	6 %	28
Other	3 %	12

Source: own

Question 2) Moderate correlation can be seen between the average number of responses and revenues (Table 3). Here the Pearson correlation coefficient is 0.57. Similarly, there is a correlation between the average number of responses and the total assets of the company. The Pearson correlation coefficient in this case is 0.59. On the contrary, the Pearson correlation coefficient between the average number of responses and the ROA reaches -0.1 and is not statistically significant. For example, Čedok has the best social media in the sample, but in the year under review it ended in a loss, so even ROA reaches negative values. Statistically insignificant dependence was also found between the average number of responses and EBIT.

Table 3 Pearson correlation analysis

	r (between the average number of responses to the messages and the given indicator)
ROA	-0,1
EBIT	-0,2
Assets	0,59*
Turnover	0,57*

**Correlations are significant at the 0.01 level (2-tailed)*

Source: own

There is also no correlation between the average number of responses and the proportion of visitors, which come from social media to websites. For example, EXCLUSIVE TOURS, which reaches the second highest number of responses (63), has a very low proportion of social media visitors (only 3%).

Discussion and conclusions

All the travel agencies in our sample use social media. In particular, large companies are more active in using social media and they are able to reach more people than smaller companies. However, this fact does not guarantee more profits for companies. The Pearson correlation coefficient between the average number of responses on social media and the ROA reaches -0.1 and it is not statistically significant. The profits of companies are thus influenced by completely different factors, which lie primarily in financial management. Larger companies can invest more or have wider opportunities to optimize profits to pay lower taxes. Therefore, the ROA indicator and other earnings-based indicators do not seem appropriate for analyzing the impact of using social media on business performance. On the other hand, moderate correlation can be observed between the use of social media and the turnover or assets of travel agencies. These results are consistent with the study by Kim et al. (2015) and Akmese et al. (2016). Mainly large companies can very well strengthen their brand and maintain a long-term relationship with their customers through social media. This can be described as the main purpose of using social media based on our research.

The most important social media for travel agencies is Facebook. Other social media are not significant for travel agencies in the term of website traffic. The social media brings on average only 6 % of total traffic. Significantly more visitors on the websites come from search engines. On average, search engines bring up to 51% of total traffic. Thus, social media is not very effective to use to bring visitors to travel agency websites. Successful travel agencies use social media mainly for branding. Travel agencies must concentrate on creating quality products, management and

creating brand. Social media is just one of the channels of marketing communication where travel agencies can reach customers. We can recommend travel agencies to use social media particularly for empower branding and maintain a long-term relationship with customers.

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Cultural Differences in Perceived Price Fairness: Role of Styles of Thinking

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Abstract: *In contemporary years, researchers are increasingly recognising the role of styles of thinking (holistic vs analytic) as a driver of cross-cultural differences in consumer behaviour. This article addresses a gap in the extant pricing literature by focusing on the cultural differences in perceived price fairness as a function of styles of thinking. Consumers from Eastern cultures with holistic thinking style are predicted to perceive a price increase as fairer than consumers from Western cultures with analytic thinking style. The comprehension of cultural differences in perceived price fairness as a function of styles of thinking is important for managers and marketers in order to expand their knowledge and understanding on ways to maintain positive consumers' price perceptions, which thereby can augment firms' competitiveness.*

Keywords: *cultural differences, perceived price fairness, styles of thinking, holistic, analytic*

JEL codes: *M31*

Introduction

Culture as a research topic in the area of consumer behavior has received significant attention during the past couple of decades (Monga and Williams, 2016). This research has expanded our outlook of how customers belonging to diverse world parts engage in different consumption actions. This paper focuses on styles of thinking emanating from cultures having diverse social organisations. Social differences between cultures stimulate specific cognitive processes higher than others. Eastern cultures promote holistic thinking, whereas Western cultures promote analytic thinking. With the viewpoint that Easterners put emphasis on associations between an object and its environment and are more field dependent than Westerners, a considerable body of literature supports the opinion that Eastern and Western cultures encourage holistic thinking style and analytic thinking style respectively.

Price of a product/service has considerable impact on consumers' behaviours and perceptions, thusly pricing decision is significant and exigent (Chung and Petrick, 2015). Pricing decisions not only carry the opportunity to distinguish from competitors but also involve the hazard of disgruntling consumers (Diller, 2008). Not only economic motives but also subjective perceptions including preferences also play vital role in customers' price perceptions and buying decisions. Consumers have to go through a series of cognitive steps in order to determine fairness perceptions (Campbell, 1999). A considerable of literature has shown that making a price/ price increase seem to be fair or lowering unfairness perceptions can lead to higher levels of customer satisfaction and loyalty (Hassan *et al.*, 2013; Han and Hyun, 2015; Izogo and Ogba, 2015; Kasiri *et al.*, 2017). In that way, it is necessary for marketers and managers to comprehend the underlying cognitive processes that give rise to price fairness perceptions.

Fairness has been referred to as "a judgment of whether an outcome and/or the process to reach an outcome are reasonable, acceptable, or just" (Bolton, Warlop and Alba, 2003). Fairness as a concept is complex and thus making fairness judgements are not easy. Price fairness perception influences consumers' behaviour significantly. It is important for organisations to know when a customer perceives a price or price change to be unfair or fair. Customers evaluate the way by which prices of products/services are set (Garbarino and Maxwell, 2010; Ferguson, Ellen and Bearden, 2014) and thereby make price fairness perceptions (Kukar-Kinney, Xia and Monroe, 2007; Rondan-Cataluña and Martin-Ruiz, 2011). According to price fairness literature, the aspects of price increase or higher price has substantial influence on customers' price fairness perceptions. In today's ever-changing, complex, highly competitive, digitally enhanced and increasingly transparent world, organisations are increasingly embracing customer centricity (Shaw, 2017). Thereby, customer-oriented business strategies are increasingly gaining importance (Shaw, Chovancová and Bejtkovsk\`y, 2017). Therefore, deep understanding of consumers' needs, expectations and perceptions are becoming crucial for the development of effective business strategies (Shaw and Chovancová, 2018). Perceived price fairness is a key aspect of consumers' responses to prices. Perceived price fairness has a positive effect on consumer's purchase

intentions (Eid, 2015; Bettray, Suessmair and Dorn, 2017), satisfaction (Li, Ye and Law, 2013; Gorondutse and Hilman, 2014), loyalty (Hassan *et al.*, 2013; Kasiri *et al.*, 2017), and attitudes towards the seller (Narteh *et al.*, 2013; Chung and Petrick, 2015). On the contrary, perceived price unfairness can result to negative outcomes in form of negative word of mouth, complaints, return of goods/services, switching to competing firm, or reprisal in court (Jin, He, & Zhang, 2013; Lymperopoulos, Chaniotakis, & Soureli, 2013; Xia et al., 2004).

1 Research Problem

Fairness or unfairness perceptions rely on customers' subjective perceptions depending on cognitive reasoning (Chung and Petrick, 2013). A substantial body of pricing literature supports the viewpoint that cognitive attribution is an essential factor influencing perceived price fairness. However, a surprising omission in the literature is the understanding of significant cognitive factors that lead consumers to take different cognitive attributional decisions, which thereby influences their price fairness perceptions. In literature, the styles of thinking (holistic vs analytic) as a cognitive factor is known to have considerable influence on customers' attributional tendencies and thereby to be responsible for leading different kinds of consumer behaviour. A substantial body of research supports the view that the styles of thinking (holistic vs analytic) can be considered as an influential predictor of consumer behaviour across a range of diverse domains. Researchers are increasingly recognising the role of styles of thinking (holistic vs analytic) as a driver of cross-cultural differences in consumer behaviour. This article addresses a gap in the extant pricing literature by focusing on the cultural differences in perceived price fairness as a function of styles of thinking. Hence, this study directs to a novel and significant avenue for research where the styles of thinking (holistic vs analytic) drives the cross-cultural differences among consumers in the context of perceived price fairness.

2 Theoretical Findings

2.1 Price Fairness Perception

Consumer's evaluation of a product/service price depends not only on nominal aspect but also on the perception of price. From the perspective of consumer behaviour, the issue of price perception is mainly based on subjective and psychological dimensions. Price fairness perception is defined as "a consumer judgment of how just, reasonable, acceptable, or satisfactory a focal price is" (Xia and Monroe, 2005). Theories, such as, Dual Entitlement Principle; Attribution Theory; Equity Theory; Distributive Fairness; Procedural Fairness and Prospect Theory aid to depict conceptually intricate price fairness from different dimensions (Sheikhzadeh *et al.*, 2012). Until consumers perceive a price as unfair, the perceptions of price fairness perceptions may not be crucial (Xia, Monroe and Cox, 2004). Both offered price and the rationale behind it may lead to price unfairness perceptions. For evaluating price fairness, customers make comparisons. Customers compare given price to reference price (including past prices, competitors' price, and sellers' costs), other consumers' or sellers' price (Chung and Petrick, 2013). These comparisons can lead to unfavourable or favourable evaluations, which thereby induce customers to deem the price as unfair or fair respectively (Jin, He and Zhang, 2013). Price fairness perception play a vital part in customers' responses to prices (Reavey and Suri, 2015).

Fairness is dependent on the outcome, thereby price fairness perception is influenced by what/who is liable for that outcome. A price increase driven by internal costs or internal factors is perceived as more unfair (less fair) than those incited by external costs or external factors (e.g. inflation). In the context of price increase occur due to uncontrollable external factors, the customers are more likely to concede the price increase and perceive it as fair, or at least less unfair (Vaidyanathan and Aggarwal, 2003; Xia, Monroe and Cox, 2004). In contrary, when price increase occurs due to controllable internal factors, the customers are more likely to perceive the price increase as more unfair, or less fair (J. Y. Chung & Petrick, 2013; Vaidyanathan & Aggarwal, 2003). The seller's role is significant in buyer's evaluation process of prices or/and their increase (Bolton, Warlop and Alba, 2003; Bhowmick, 2010; Chung and Petrick, 2013). Customers' perceived motive regarding seller's price increase choice plays a vital role in price fairness evaluation (Somervuori, 2014). Sellers who are required to increase prices may enhance customers' price fairness perceptions by divulging the price increase and providing a suitable explanation concerning the extent of price increase (Rothenberger and others, 2015).

Today's world of dynamic market is characterised by incessant price changes, thereby customers can end up disbursing different prices for the same product/service, inspite the seller being same (Petro, 2015; Li, Hardesty and Craig, 2018). The discriminatory price setting strategies (such as,

differential vs. uniform pricing, auction vs. posted pricing) have their effects on price fairness perceptions (Haws and Bearden, 2006; Ahmetoglu, Furnham and Fagan, 2014). The perceived price fairness has its influence on consumer behavioural and attitudinal outcomes. Fairness process may result in perceptions of price fairness or unfairness, which thereby lead to various positive or negative consequences. Price fairness perceptions encourage customers to purchase products/services. Conversely, price unfairness perceptions may lead to negative outcomes, for instance, customers may end patronage, switch firms, spread negative word-of-mouth, or involve in other behaviours that can be detrimental to the seller.

2.2 Attributional Approach to Price Fairness

Attribution theory avers that people are inclined to pursue the causal reasoning of an event, especially in case of negative and/or undesirable event (Maxwell *et al.*, 2013). In comprehending a person's fairness perceptions, the understanding of his/her attributions of cause and responsibility are required. Observed actions/events can be attributed corresponding to three dimensions: locus of causality, controllability, and temporal stability (Bhowmick, 2010; Pallas et al., 2017; Vaidyanathan & Aggarwal, 2003; Weiner, 1985; Young Chung & James, 2016). Customers can deduce the cause(s) of an action/event with respect to any or all the attributional dimensions (Chung and Petrick, 2009). In the event of external (internal) locus of causality, price increases are perceived as more (less) fair. Likewise, uncontrollable (controllable) price increases are perceived as more (less) fair (Vaidyanathan and Aggarwal, 2003; Chung, 2010). Thereby provide evidence of contextual-situational dependence of price fairness perceptions.

Consumers tend to find reasons behind events/actions, unable to infer justifiable reasons can result to negative emotional reactions and unfavourable behaviour (Chung and Petrick, 2013; Young Chung and James, 2016). The attributional dimensions are connected to behavioural outcomes. When people meet certain types of events especially negative or undesirable, they deduce the events' cause(s) and depending on cognitive attribution (how the causes are attributed), different types of emotional responses are generated, which thereby lead to their reactions to the events. Cognitive attribution is defined as a cognitive process that infers the cause(s) of an event or others' behaviour, which in turn leads to behavioural intentions or consequences (Somervuori, 2014; Young Chung and James, 2016). Cognitive attribution influences distributive and procedural price fairness. Depending on the comprehension of cognitive attribution aspects (i.e., locus of causality, controllability, and temporal stability) outcome assessment causes positive or negative emotions (Weiner, 1985), which thereby lead to different behavioural intentions (Vaidyanathan& Aggarwal, 2003). In accordance to literature, locus of causality and controllability are the prime causal dimensions that influence cognitive attributions and ensuing behaviours (Chung and Petrick, 2013; Pallas, Bolton and Lobschat, 2017; Voester, Ivens and Leischnig, 2017).

2.3 Holistic and Analytic Style of Thinking

Holistic style of thinking (or mode of cognition) is defined as "involving an orientation to the context or field as a whole, including attention to relationships between a focal object and the field, and a preference for explaining and predicting events on the basis of such relationships" (Nisbett *et al.*, 2001). On the other hand, analytic style of thinking (or mode of cognition) "involves a detachment of the object from its context, a tendency to focus on attributes of the object to assign it to categories, and a preference for using rules about the categories to explain and predict the object's behaviour" (Monga and John, 2010; Cheng and Zhang, 2017).

Holistic style of thinking indicates to the approach of understanding a phenomenon by placing it in its context, thinking about and perceiving it in a holistic manner, and focusing to the causal connectivity between discrete events or entities (Kwan and Chiu, 2014; Hossain and Bagchi, 2018). In contrast, individuals with analytic style of thinking incline to decontextualise or distinct attributes from their context, elude contradictions, and emphasis on unique outlooks in forming their perceptions. Holistic (vs. analytic) thinkers comprehend the world with respect to various relevant factors, thus their causal reasoning and allocation of attention are based on an amalgamation of focal and contextual (vs. primarily focal) information. Previous literature has shown many instances of the fact that style of thinking has significant impacts on consumers' perceptions (Alokparna Basu Monga & John, 2009; Lalwani & Shavitt, 2013; M. T. Hossain & Bagchi, 2018).

Analytic thinkers tend not to pay attention to contextual and/or situational determinants of event/behaviour and assign causality of the event/behaviour to the object/individual. In contrary, holistic thinkers are more likely to concentrate on the field along with considering external contextual and/or situational influences as significant determinants of event/behaviour (Monga and

John, 2008; Dikici, 2014). Holistic thinkers tend to rely on external context/situation-based factors/explanations as well as internal object-based factors/explanations, while analytic thinkers tend to use internal object-based factors/explanations exclusively (Alokparna Basu Monga & Hsu, 2018; Alokparna Basu Monga & John, 2008). In case of holistic (vs analytic) thinkers, variations in causal explanations of behaviour/event primarily occur owing to greater focus on contextual and/or situation factors among holistic thinkers and not due to variations in consideration of internal (object-based/ dispositional) factors (Monga and John, 2008; Lalwani and Shavitt, 2013; Monga and Williams, 2016; Hossain and Bagchi, 2018).

2.4 Cultural Differences in Holistic and Analytic Style of Thinking

A considerable body of literature accept the view that Eastern cultures (e.g., China, Korea, India, and Japan) adopt holistic style of thinking, whereas Western cultures (e.g., U.S., Europe) adopt analytic thinking style. Indeed, the holistic-analytic framework was initially developed to explain differences in cultures with the view that diverse cultures encompass diverse social environments, which thereby promote specific thinking style. Individuals from Eastern and Western cultures exhibit different style of thinking, which emanate from different social structures (de Oliveira and Nisbett, 2017). Individuals from Eastern cultures being embedded in numerous and/or complex social relations are tend to be holistic thinkers, whereas individuals from Western cultures with fewer and/or less complex social relations are tend to be analytic thinkers. Nevertheless, it is also true that social orientations differ within cultures, and literature acknowledges the presence of within-culture differences in holistic and analytic thinking (Choi, Koo and Choi, 2007; Song, Swaminathan and Anderson, 2015).

In context to allocation of attention, individuals from Eastern cultures (with holistic style) tend to focus on interrelationships between object and its field/environment. Whereas, individuals from Western cultures (with analytic style) incline to focus more on the focal object itself(Briley, Wyer and Li, 2014). Hence, Easterners can see "whole picture" more easily in compare to individual parts, whereas the conserve is true for Westerners. Subsequently, Easterners exhibit more field dependency than Westerners(Monga and Williams, 2016). In explanation of causal relationships, Easterners assume the existence of complex causalities and put more emphasis on the interactions and relationships among actors and their surrounding situations. In contrast, Westerns mainly consider actors' internal dispositions(Choi, Koo and Choi, 2007). Consequently, Easterners in compare to Westerners take into account greater amount of information before making final attribution (Monga and John, 2008) and are less prone to make fundamental attribution error(Choi, Koo and Choi, 2007).

Previous literature have provide evidences that style of thinking bring about the differences in Eastern and Western culture consumers' propensity to depend on contextual information in order to form perceptions. Chinese (vs Americans) are more inclined to observe correlations among random figures (Norenzayan *et al.*, 2002). Evidence of cultural variation was provided by (de Oliveira and Nisbett, 2017) via emphasising the contrast that arises when the focus is on interrelationships among the object and its field versus attention to the focal object. When Japanese and U.S. participants were shown a picture of fish in a natural habitat, the former listed more thoughts about the environment and the relationship of the fish to the environment, whereas the latter cited more thoughts related to the fish as the focal object. Consumers belonging to Eastern (holistic thinking) cultures exhibit better fit perceptions between parent brands and brand extensions as well as react more favourably than consumers from Western (analytic thinking) cultures (Monga and John, 2010).

2.5 Holistic versus Analytic Style of Thinking and Attribution Tendency

Holistic and analytic thinkers use different cognitive processes in their attempt to envisage and explain the reasons for behaviours/events (Choi, 2016). Thinking styles (holistic versus analytic) are likely to dictate the individuals' level of considering contextual and/or situational factors while drawing attributions (Choi, 2016). Psychologists have observed that people with diverse thinking styles (holistic versus analytic) differ in placing importance on external and/or internal factors in cognitions. The holistic and analytic style of thinking can influence individuals' cognitive process of making causal attributions, i.e. cognitive attribution to a behaviour/event. Taking into consideration contextual and/or situational factors, consumers are more prone to attribute blame/responsibility to sources outside the firm (external attribution) than sources inside the firm (internal attribution) (Monga and John, 2008; Monga and Hsu, 2018). Analytic thinkers are more incline in attributing causes to broader context and emphasis more on interrelationships between person/event and context and/or situation, i.e., tendencies of external attribution (de Oliveira and Nisbett, 2017).

They favour attributing causes to internal object/disposition based factors by ignoring the role of contexts and situations, i.e., tendencies of internal attribution (Alokparna Basu Monga & John, 2008).

Holistic thinkers are less/not subject to fundamental attribution error – the tendency to underestimate situational-contextual factors (external factors) and overestimate object-dispositional based factors (internal factors) for explaining the cause of an event/a behaviour (Miyamoto, 2013; Berry and Frederickson, 2015). Whereas, analytic thinkers are more likely to make fundamental attribution error (Miyamoto, 2013). In the process of cognitive attribution, holistic thinkers were found to use context and/or situation-based information more than did analytic thinkers (Monga and John, 2008; Monga and Williams, 2016; de Oliveira and Nisbett, 2017). These attributions apart from allowing consumers to envisage and sway their environment, can also determine consumer satisfaction, perceptions, behavioural outcomes (such as complaining, demanding refunds), emotions (such as anger), and brand evaluations (Song, Swaminathan and Anderson, 2015). During cognitive attribution process, consideration of external (internal) factors divert (attribute) blame from (on) company and thus holistic (analytic) thinkers are less (more) likely to revise their brand evaluations in a negative manner (Monga and John, 2011; Pallas, Bolton and Lobschat, 2017; Monga and Hsu, 2018).

3 Propositions and Conceptual Framework

During cognitive attribution process, consideration of external (internal) factors divert (attribute) blame from (on) company (Monga and John, 2011; Pallas, Bolton and Lobschat, 2017; Monga and Hsu, 2018) and thus it can be said that consumers from Eastern (Western) cultures are less (more) likely to revise their brand perceptions and evaluations in a negative manner. Prior literature has provide evidences that style of thinking bring about the differences in Eastern and Western culture consumers' propensity to depend on contextual information in order to form perceptions. Based on the literature review and in accordance with the identified gap in the literature, I would like to introduce that culture influences price fairness perceptions from the perspective of thinking styles (holistic vs analytic). When exposed to negative and/or undesirable incident such as price increase, culture (Eastern vs Western) influences cognitive attribution, i.e., consideration of external or/and internal factors. Moreover, this cognitive attribution would thereby influence price fairness perceptions. Additionally, the cultural differences in perceived price fairness can be attributed to styles of thinking. The following propositions were proposed:

P_1: Culture (Eastern vs Western) influences perceived price fairness.

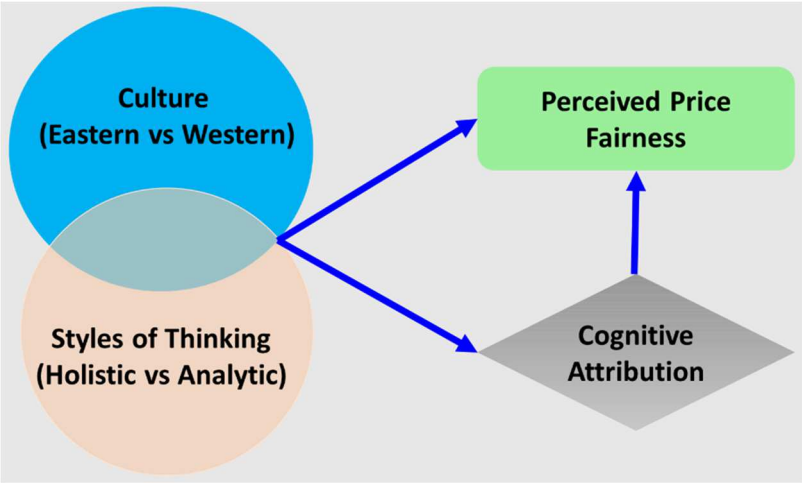
P_2: Culture (Eastern vs Western) influences cognitive attribution.

P_3: Cognitive attribution influences perceived price fairness.

P_4: Cultural differences in perceived price fairness is a function of styles of thinking (holistic vs analytic).

Figure 1 illustrates the current study's proposed conceptual framework.

Figure 1 A Conceptual Framework of Perceived Price Fairness



Source: Author's Research

Conclusions

The present research studies the role of culture on perceived price fairness, help to enhance the understanding of cognitive processes that consumers undergo while determining perceptions of price fairness. It is essential from perspective of both consumers and business entities to comprehend the cognitive processes related to perceived price fairness. This research endeavours to expand the growing literature in marketing and psychology studying cross-cultural differences in perceived price fairness from cognitive styles of thinking perspective by considering issues not researched before. The study attempts to extend and probe the pricing literature by focusing on the cultural differences in perceived price fairness as a function of styles of thinking. It is assumed that the relationship between culture and perceived price fairness can be explained through the specific path of cognitive attribution. Moreover, the cultural differences in perceived price fairness can be attributed to styles of thinking. Hence, this study show the way to a novel and important avenue for research where the styles of thinking (holistic vs analytic) drives the cross-cultural differences among consumers in the context of perceived price fairness. The introduced findings are believed to be able to add important aspects to the existing theories and thoughts. Perceived price fairness is a significant pricing issue and is vital to managers and marketers for its linkage to several positive and negative outcomes, for instance purchase intentions, willingness to pay, word-of-mouth behaviour, complaint behaviour, switching behaviour, brand attitudes and relationships, and firm profitability. This study is expected to be useful for theoreticians and practitioners predominantly marketers and managers. An improved comprehension of cultural differences in perceived price fairness as a function of styles of thinking would develop the understanding of marketers and managers on ways to increase perceived price fairness. It is crucial for marketers and managers to comprehend the cross-cultural differences in perceived price fairness from styles of thinking perspective in order to expand their knowledge and understanding on ways to maintain positive consumers' price perceptions, which thereby can lead to positive outcomes and augment firms' competitiveness. The research will contribute to the body of knowledge in the domain of consumer behaviour and enterprise from the aspect of price fairness perception.

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Automotive Industry and its Future in Employment

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Abstract: *The article analyzes the state and possible developments in the field of employment in the automotive industry in selected EU countries where the automotive industry has a traditionally important role (Czech Republic, Germany, Slovakia, France, Italy, Spain, Romania, Sweden) in companies by size (small, medium-sized). Based on the expected changes in the trends of the future development in the automotive industry and on the necessary changes in terms of cooperation, there will be a problem of the difference in the position of workers in small and medium-sized firms. A major employer in all countries is a large company, but with both maintaining the current state of production and the expected changes in the industry, large companies will need high quality suppliers. The article highlights the potential problems that may arise due to a lack of qualified workforce that affects small and medium-sized businesses.*

Keywords: *automotive industry, wage and salaries, employment, worked hours*

JEL codes: *D21, J21, J30, M51*

Introduction

The automotive industry has a significant position in industry - both in terms of profits and employment, but it is also significant by massive investment in innovation. In the past, the structure of the production chain has evolved from a multi-vendor manufacturer model that dominated the 70s of the 20th century. The current production chain model is built on suppliers of different levels (OEM, Trier 1, 2, 3). If we look at this production chain, then the greatest added value is at the beginning (design and development) and at the end (sale of the final product). It is logical that the more complex and longer the production chain, the more the value added is divided. In the next analysis, we will work on dividing companies by size into small, medium and large. End-to-end producers generally belong to the category of large companies; there are also major suppliers of larger parts, etc. Among small and medium-sized enterprises are mainly suppliers of subcomponents, which possess more customers than large companies. Although, the subcomponents may be only small andtypical parts, their importance for the development of the industry cannot be underestimated. Most automotive suppliers are under high cost pressure, which is reflected in all (from the position of an employer) cost items, including wages.

The SIEA study (Slušná, Balogh, 2015) points to the future and necessity of changes in the model chain of production in the automotive industry. Changes are mainly expected in terms of greater co-operation and supplier participation. This change is likely to exert pressure on other employees' positions and their wage "equality" in the sector. The shortage of technically trained professionals perceived by the market is long-lasting and so significant that in the Czech Republic for instance, the Ministry of Industry and Trade (2017) also supports technical education since kindergartens, long-term support programs are set to increase the interest of students in technical fields (Ministry of Education, 2015). This interest in technical fields is increasing slightly, but at present there is still a lack of technically qualified workers, especially for smaller companies, on the labor market. The aim of the article is to show an international comparison of the difference in wage levels depending on the size of the company in the automotive industry and past development, to discuss its sustainability. For this analysis, EU countries were selected for which the automotive industry plays an important role in terms of their position in the national economy.

1 Methodology

In order to determine the current state of employee use and their remuneration, the Automotive sector has been monitored, that is, in Eurostat, the data records defined by the Classification of Economic Activities (NACE_R2) as group 29 Manufacture of motor vehicles, trailers and semi-trailers (Czech Statistical Office, 2018). The automotive sector was monitored during 2008-2015 in order to record the entire business cycle. Separately, small entities (20-49 persons), middle (50-249 persons) and large (250 and more persons) were monitored; micro entities were excluded from the analysis due to their specifics. The conditions in the selected EU countries where the

automotive sector has an important role - Czech Republic, Germany, France, Spain, Italy, Romania, Slovakia, Sweden - were compared. However, given the globalization trends in production and the open labor market, the situation will also affect other EU countries. All data is monitored in the currency of EUR, unless stated otherwise, relative to 2010. Other data used is reported in the number of employees, hours worked, or the percentage of educated people, which means that the inputs are internationally comparable. The Price Level Indices for Total Goods method is used to convert to approximate wage comparability across countries with respect to employee purchasing power comparisons. The following indicators were created for comparison in different years and environments: Share of employees in the automotive sector (number of employees in the automotive sector/average number of employees), Wage per person (wage and salaries/employee/price level indices), Use of working time (worked hours/number of employee)/capability of personnel worked hours).

We used the logarithmic method (Synek et al., 2009) to describe the effect of change in average wage/employee on wage and salaries and the number of employees. For the indicators A and B in the multiplicative relation is correct: If $X = A/B$ then also $I_x = I_A / I_B$ and then is also $\log(I_x) = \log(I_A) - \log(I_B)$, it means, that the effect on change in X can be decomposed to effect A on change $X = \log(I_A)/ \log(I_x) \cdot (X_1 - X_0)$ and analogic for effect B.

2 Data

The data used for the analysis were drawn from public sources with the guarantee of reliability. First of all, I would like to thank Eurostat (Eurostat, 2018) for providing data on the automotive industry by country and selected indicators, drawn on 31.7. 2018. Furthermore, data from the OECD were used, specifically from the annual reports of Education at a Glance (OECD, 2017). For comparisons of multiple countries, dates were limited to 2015, although various data were available for others for 2017. France was excluded from some analyses because its data were not available to Eurostat, also Romania, whose data do not have the OECD.

3 Research and Results

The shaping of the future of the automotive industry is a highly discussed issue in terms of trends and their impacts (Pavelková, 2018). The main changes are expected in the growth (OICA, 2018) and in the field of technological development, and these call for a change in the communication of each sector between companies at different production levels and in logical and different sizes. A typical automotive production chain is long, which puts great pressure on the efficiency as an output / input ratio. If the company is a final producer, it has the ability to influence the output and its market position. The intermediates, which create a majority in the automotive sector, have limited possibilities. The effectiveness is then addressed with more emphasis on the inputs. In doing so, manufacturers have two basic ways - cost-saving and maximum capacity utilization. Employees are an important factor in production - from the position of European labor legislation that protects their rights, it is necessary to approach them as a long-term contract for the conclusion of the contract and to maximize their effects in terms of use. The employee is not an input, his reward is. Studies show that employees should also be kept during the crisis (Čámská, 2012), their fluctuations in individual subjects were minimal, the trend of lowering the number of employees seems to be a trend in terms of the states. During a boom, high employment and a perceived shortage of technicians are more pronounced. According to the OECD monitoring (OECD, 2017), it appears that the Czech Republic is still very well equipped with a technically educated workforce compared to other countries, although the state authorities are constantly taking measures to address the shortage of those interested in the technical fields. The Czech Republic has above-average numbers of citizens educated not only in technical fields but also in natural sciences and still an under-average number of graduates in humanities and social sciences.

3.1 Automotive industry - size structure

Small and medium-sized categories include vendors, end producers are in the large category.

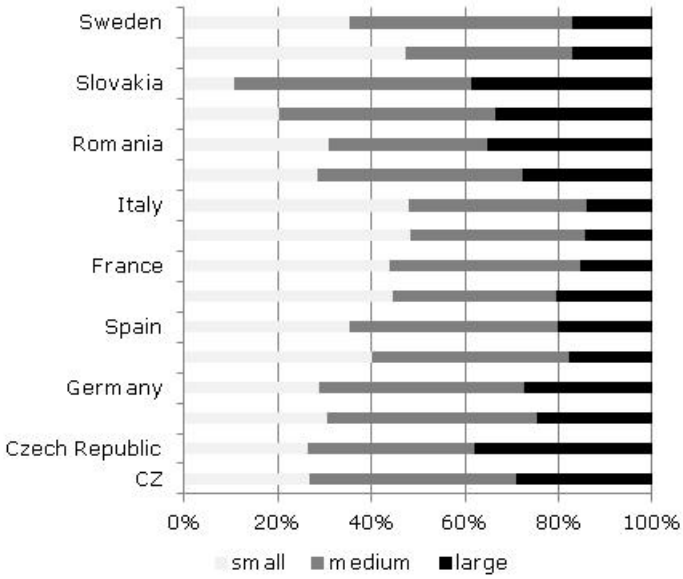
In the large category, however, there are also component suppliers, but to such an extent that their products are at a more complex level, or have more significant customers, and can better diversify the risk in both short and long terms. They are also more flexible in using any available staff capacity.

If we look at the number of companies in each of the different sizes (small, medium, large), in most of the countries surveyed, most of the enterprises (upper band data 2015, lower 2009) are in

the category of medium-sized firms. The crisis has changed the ratio of small and large companies in some countries, but the number of medium-sized companies that make up the suppliers is stable. In the monitored countries, the year-on-year (long-term) development points to a stable structure of firms by size, with moderate increases in larger firms.

This can be explained by the competitive environment and barriers that make it difficult for new small businesses to enter. In terms of number, the majority of small and medium-sized companies belong to the automotive sector and play the role of suppliers in the final production.

Figure 1 Automotive industry - share number of firms by size in 2009 and 2015



Source: Selfprocessed by data from EUROSTAT (2018)

When monitoring the number of employees in each enterprise size category, it is understandable that a significant part (more than 3/4) are employees of large companies.

3.2 Automotive sector - employment

Automotive industry is a steadily important employer especially in the Czech Republic, Slovakia and Germany (where more than 2% of employees work in the automotive sector). Employees and salaries can be monitored in terms of cost (personal cost). However, these vary from country to country due to different tax and social contributions from the perspective of the company) therefore we will only consider wage and salaries.
Table 1 shows annual wages and salaries per employee and month, for all countries in EUR. Because the next analysis is focused on the employee's view, wages were recalculated using the price level indices for goods in the country (compare with EU28 = 100%).

Table 1 Average corrected personal monthly wage (purchasing power of the employee)

	Size	2008	2009	2010	2011	2012	2013	2014	2015
Czech, EUR	S	918	894	942	982	980	993	1 075	1 034
	M	952	988	999	1 051	1 089	1 145	1 134	1 155
	L	1 197	1 216	1 289	1 370	1 417	1 454	1 520	1 556
Germany, EUR	S	2 272	2 098	2 165	2 258	2 380	2 328	2 465	2 569
	M	2 515	2 383	2 533	2 662	2 653	2 747	2 792	2 917
	L	3 980	3 742	4 215	4 449	4 638	4 680	4 925	5 111
Spain, EUR	S	2 170	2 333	2 360	2 561	2 499	2 444	2 460	2 648
	M	2 633	2 782	2 761	2 691	2 756	2 729	2 787	2 809
	L	2 981	2 997	3 094	3 099	3 149	3 229	3 264	3 319
France, EUR	S		2 212	2 187	2 247	2 306	2 317	2 507	2 487
	M		2 396	2 325	2 304	2 363	2 435	2 525	2 573
	L		2 929	3 117	3 043	3 022	3 203	3 261	3 308
Italy, EUR	S	2 109	1 861	2 255	2 276	2 217	2 218	2 382	2 506
	M	2 381	2 052	2 345	2 549	2 556	2 550	2 635	2 817
	L	2 364	2 061	2 180	2 360	2 274	2 379	2 636	2 870
Romania, EUR	S	462	506	499	513	656	612	680	669
	M	605	618	665	654	707	728	739	788
	L	666	695	768	850	915	985	974	1 069
Slovakia, EUR	S	917	966	1 325	1 138	1 291	1 346	1 396	1 167
	M	902	903	966	1 047	1 144	1 167	1 255	1 287
	L	948	1 003	1 129	1 173	1 285	1 379	1 503	1 490
Sweden, EUR	S	2 273	2 326	2 447	2 422	2 695	2 754	2 656	2 664
	M	2 325	2 116	2 300	2 572	2 488	2 633	2 690	2 883
	L	2 906	2 663	2 753	2 824	3 049	3 204	3 243	3 220

Source: Selfprocessed by data from EUROSTAT (2018)

In Table 1 we can see the gradually balancing disproportion between the purchasing power of salaries in the countries of Central and Eastern Europe (Czech Republic, Romania and Slovakia) and a relatively comparable price level in the original EU countries. An exception is Germany and the purchasing power of large companies' salaries. In all countries surveyed, there are differences between monthly salaries in small and large companies. When calculating the percentage difference of salary in a small and large company (see Table 2) one can notice that the biggest differences are traditionally in Germany, the Czech Republic and Romania, on the other hand, the smallest in Italy and Slovakia, but in the last monitored period, between the salaries provided by small and large employers.

Table 2 The difference between employee income in large and small business

	2008	2009	2010	2011	2012	2013	2014	2015
Czech	23%	26%	27%	28%	31%	32%	29%	34%
Germany	43%	44%	49%	49%	49%	50%	50%	50%
Spain	27%	22%	24%	17%	21%	24%	25%	20%
France		24%	30%	26%	24%	28%	23%	25%
Italy	11%	10%	-3%	4%	3%	7%	10%	13%
Romania	31%	27%	35%	40%	28%	38%	30%	37%
Slovakia	3%	4%	-17%	3%	0%	2%	7%	22%
Sweden	22%	13%	11%	14%	12%	14%	18%	17%

Source: Self processed using data from EUROSTAT (2018)

It is important to emphasize that this difference is not a reward for workers for using them more than expected. If we look at the hours worked per employee and the year (Table 3); on the contrary, it is seen that the employees of large companies have fewer hours worked. This is not due to inefficiency in the use of workers but rather to benefits. For the calculation of the working time utilization factor, we used the average annual working time of the worker, which is calculated for a week of 40 hours working time, 4 weeks of leave and 5 holidays, which fall on non-working days, ie 1880 hours per worker per year. (This capacity may vary from country to country due to labor legislation and the number of non-working days (holidays), but it is sufficiently accurate to compare the use of the hourly workers' workforce).

With the exception of Romania, where the differences are smaller in terms of hours worked in depending on the size of the enterprise(the use of time above 100% is due to the higher capacity of the time fund due to the specifics of the national legislation and holidays), the employees of big companies are better off in terms of hours worked. (The average number of hours per a worker summed up for all years and a country equals 1680 hours in a small business, 1655 hours in a medium-sized business, and 1626 hours a year in a large company). The correlation coefficient between the purchasing power for goods for an average monthly wage and the hours worked equals -0.63 in the whole monitored set, which confirms the unequal status among all employees, depending on the size of the companyIn connection with industry growth, rising wages per worker are reported as a positive trend, further analysis by means of impact breakdown shows how employers and de facto employees contribute to this, depending on the size of the firms.

Table 3 Use of working time

		2008	2009	2010	2011	2012	2013	2014	2015
Czech	S	89%	87%	92%	91%	89%	90%	90%	90%
	M	87%	85%	90%	91%	90%	91%	90%	90%
	L	88%	85%	90%	90%	89%	90%	90%	88%
Germany	S	82%	80%	82%	83%	84%	82%	82%	85%
	M	78%	79%	82%	84%	80%	83%	82%	83%
	L	80%	78%	78%	83%	80%	79%	81%	79%
Spain	S	92%	90%	89%	90%	90%	91%	91%	92%
	M	90%	88%	89%	90%	89%	90%	90%	91%
	L	85%	81%	85%	86%	84%	83%	85%	87%
Italy	S	94%	86%	90%	94%	88%	85%	86%	88%
	M	86%	80%	85%	89%	85%	85%	84%	86%
	L	79%	73%	76%	86%	84%	83%	76%	79%
Romania	S	97%	98%	94%	87%	95%	88%	100%	99%
	M	101%	95%	99%	98%	99%	100%	99%	99%
	L	96%	97%	97%	100%	98%	100%	99%	100%
Slovakia	S	91%	87%	89%	85%	91%	93%	91%	93%
	M	90%	85%	91%	92%	92%	92%	92%	90%
	L	89%	84%	92%	92%	93%	92%	90%	92%
Sweden	S	78%	81%	95%	102%	80%	93%	85%	97%
	M	82%	74%	82%	85%	76%	81%	82%	90%
	L	91%	84%	86%	84%	82%	82%	83%	81%

Source: Selfprocessed by data from EUROSTAT (2018)

In Table 4, 5 and 6, the impact of wage costs and the change in the number of workers on the overall change in the average wage are quantified by logarithmic decomposition. The last column adds the main reason for the growth of the average wage between 2008 and 2015.

Table 4 The impact of wages and the number of workers on average wage growth between 2008 and 2015 (small)

	change 2015/2008	wages	number of emploee	main impact
Czech	1%	-5%	7%	e
Germany	11%	15%	-4%	w
Spain	20%	-54%	74%	e
Italy	18%	-17%	36%	e
Romania	34%	59%	-25%	w
Slovakia	22%	-62%	85%	e
Sweden	24%	-12%	36%	e

Source: Selfprocessed by data from EUROSTAT (2018)

Table 5 The impact of wages and the number of workers on average wage growth between 2008 and 2015 (medium)

	change 2015/2008	wages	number of emploee	main impact
Czech	9%	-13%	22%	e
Germany	14%	1%	14%	e
Spain	5%	-6%	11%	e
Italy	18%	-1%	18%	e
Romania	20%	21%	-1%	w
Slovakia	37%	59%	-22%	w
Sweden	31%	-8%	40%	e

Source: Selfprocessed by data from EUROSTAT (2018)

Table 6 The impact of wages and the number of workers on average wage growth between 2008 and 2015 (large)

	change 2015/2008	wages	number of emploee	main impact
Czech	17%	20%	-3%	w
Germany	27%	35%	-9%	w
Spain	9%	0%	10%	e
Italy	21%	8%	13%	both
Romania	49%	102%	-54%	w
Slovakia	51%	70%	-18%	w
Sweden	18%	4%	14%	both

Source: Selfprocessed by data from EUROSTAT (2018)

In the case of small and medium-sized companies, in most cases, the main reason for the growth of average wages is the saving (efficiency) of the number of workers; for large firms, the growth of the average wage (with the exception of Spain) is mainly due to wage growth or the mixed influence of both factors. This results in another disadvantage for employees of small and medium-sized companies whose long-term social security is not as positive as that of large companies. Raising average wages can often be the result of job cuts.

For the sake of completeness, Table 7 shows the share of technically educated people in selected countries (secondary and tertiary education). Unfortunately, the more pronounced decline relates precisely to countries where the automotive sector has the highest share of employment (Czech Republic, Germany, Slovakia).

Table 7 The graduates - secondary and terciary level - share of technically educated

GEO/ (technical educated)	Secondary technical educated (2014)	Terciary students enrolled (2015)	Terciary educated (24-65 year) 2015
Czech, %	28	16	20
Germany, %	16	20	26
Spain, %	6	16	17
Italy, %	16	13	14
France, %	14	13	17
Slovakia, %	24	14	19
Sweden, %	20	18	19
EU, %	15	15	18

Source: data from OECD (2017)

If a shortage of technicians is being felt, it can still be predicted and, on the contrary, employees cannot be expected to work longer for less money.

Conclusions

Previous analyses have shown that in the automotive sector in selected countries employees of large companies have higher average wages, while working less hours. Employees of small and medium-sized firms are under greater pressure of efficiency, with less perceived work stability. More than 3/4 of the automotive employees work in large companies, lacking skilled workers, and

no significant increase in technically educated staff is expected. Small and medium-sized businesses, which offer worse conditions in terms of salary and time,need to consider what kind of non-financial benefits they can offer, otherwise their recruitment problems will not change.

Large companies, if they want to follow trends and move on to the participatory model, will have to relieve pressure on suppliers to raise wages and hire qualified workers who will then be able to participate in a new industry model, which will create additional added value. Another possible consequence (solution) is the concentration in the sector and the extinction of small and medium-sized firms, which would not be good either from a macroeconomic point of view, nor for theproduction chain, division of labor, etc. The analysis shows that this problem concerns a wider range of countries, the problem will occur in more countries in Europe.

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Expected Behavior of Healthcare Professionals

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Abstract: *The article deals with healthcare management and the expected behavior of healthcare staff from the point of view of students. Here are presented results of the research focusing on the views of students of the Faculty of Health Studies of the University of West Bohemia in Pilsen in last three years. First, the basic theoretical starting points and the results of the foreign surveys from the healthcare sector are presented, followed by conclusions from the questionnaire survey of students of selected branches of the aforementioned faculty. This research also revealed some factors that affect students in choosing their future jobs. The behavior of healthcare professionals is an important factor in increasing the satisfaction of their colleagues as well as patients and in creating a pleasant work environment.*

Keywords: *management, healthcare, behavior, research, students,*

JEL codes: *M12, M54, N30*

The behavior of staff and employers in individual organizations is very important. The ways of behavior and characters of workers are crucial for relationships at the workplace. They affect the loyalty of employees, their performance as well as the efficiency of their work.

It is necessary to select suitable staff and to manage them properly in order to create a suitable working environment where mutual co-operation will work, good relations between workers will exist, internal guidelines will be followed and an appropriate indoor climate will be created. The main activities of managers that affect the internal organizational culture and the work climate include the staff training, good communication and motivation leading to the desired performance. The way these managerial activities are performed affects the work performance as well as the satisfaction of employees and customers.

Staff behavior plays an important role, particularly in the health sector. The staff as well as patients should feel pleasant in the healthcare environment. The healthcare environment should be positive and the patients should be satisfied with the services and the performance of healthcare staff. That is why it is necessary to ensure the required quality in all areas of healthcare.

In order to create a pleasant environment in which patients and employees will be satisfied, it is appropriate to influence the behavior of employees. This can be achieved by building a strong organizational culture that uses ethical factors and greatly influences the quality of the work done.

1 Methodology

This article focuses on providing a positive environment that contributes to the necessary performance of healthcare workers and patients´ satisfaction. It focuses mainly on the possibilities of managers and their approach to solving possible changes, especially in the field of organizational culture management, organizational behavior and quality of work performance. This article deals with the thematic area of human resource management. Human resource management is becoming an important aspect affecting staff performance, so managers need to pay close attention to it.

In this paper is theoretically mentioned the need to increase the work performance of workers, to improve their working conditions and the working environment. There is also mentioned the importance of valuable employees in individual organizations. The article highlights the conditions that need to be created for workers not to leave the healthcare companies. Due to the fact that there is a shortage of workers in these organizations in the Czech Republic, this article focuses on the management of healthcare workers. There are mentioned the impacts of the current state of unemployment on the Health Care System in the Czech Republic. The paper mentions the need to improve the overall working conditions and organizational behavior of healthcare organizations to

avoid the outflow of workers in this area. It outlines the potential for innovative changes in healthcare organizations related to human resources management.

From a practical point of view, the article highlights the results of the research, which assessed the expected behavior of health workers in view of students from the Faculty of Health Studies at the University of West Bohemia in Pilsen. The research assessed the views of students on the current state of healthcare and assessed the main character characteristics of the employees on certain jobs in this field. Research has also been measured in the area of management and motivation of human resources in the health sector and the solution of current problems in this field. Only an area focused on the behavior of healthcare workers was used for this article. Since organizational culture and communication are closely linked to the behavior of employees, the various principles that need to be used in these areas in the healthcare sector will also be mentioned here.

2 Valuable employees

Malach (2006) points out that "knowing the success factors of a business has a great socio-economic significance." One of these factors are employees. Employees are the most significant asset of each enterprise. Therefore, each organization should select its staff and cares enough about. Dvořáková (2007) notes that "access to personnel management is always derived from the specific conditions in which they operate."

It is important for each organization to provide staff who will work diligently and consistently and perform their work thoroughly. These workers should be proud of the results of their work and be responsible for it. They are expected to be sufficiently hardworking, communicative and willing to work with their colleagues. These characteristics should also be assessed during the selection process. It is not enough just to assess the knowledge and professional readiness of a new worker. In practice, it is also necessary to include a worker in the work team. A good adaptation of the worker in the work environment and appropriate communication with colleagues will ensure his high performance.

The authors of the Business communications book (Himstreet, Maxwell, Onorato, 1987)draw attention to the basic characteristics of a valuable employee. “They are good judgement, appropriate dress and speech, courtesy and respect, understanding management's needs and problems.” They also point to the fact that the happiest are the workers who like their work. “They tend to be success-oriented dependable, and competent in work skills. Good attendance records, participation in work groups or teams, and a friendly attitude also are characteristics of people who perform well on the job.” In each organization we can find specific responsibility of employers to their employees and also responsibility of employees to their employer. “Again, personal habits admired by others, such as promptness in reacting, dependability in performing tasks correctly the first time, and responsibility in accepting tasks, will make you a valuable employee." (Himstreet, Maxwell, Onorato, 1987).These authors also point out that loyalty to the employer is needed to create a suitable work environment and ensure appropriate communication. Workers should “avoid gossiping and spreading rumors, respect their employer's confidence”.

They also point to the need to realize their role and responsibilities as a team member. The team is important to cooperate and understand people. They say: "Most people want to be wanted, be appreciated, be respected, and be heard. When these are not met, people have psychological problems.”(Himstreet, Maxwell, Onorato, 1987).

These problems are not only reflected in team work but in particular in the health care sector, where workers are in close contact with people who suffer from their illness, and therefore expect their understanding from their doctors and nurses.This work environment is very exhausting for workers.That is why it is necessary to ensure good cooperation between the individual workers.

Working in a demanding work environment where workers are constantly in contact with clients or patients is very exhausting and. Workers are at risk of burnout. Therefore, it is necessary to prevent it. Prevention consists, for example, in the possibility of relaxing in leisure time, possibilities of self-realization at work, creation of a suitable working team, suitable relations between workers, possible consultations with a business psychologist etc.In order to avoid the burn out syndrome, it is advisable to provide a suitable working environment where these facts are sufficiently solved by the managers.The importance of the burnout syndrome is mentioned by many authors of professional books, for example by Bělohlávek, Košťan, Šuléř, (2006); Hekelová, (2012); Plevová (2012) and others.

2.1 Unemployment and Health Care System in the Czech Republic

Workers´ as well as employers´ behavior should not be immoral and the work environment should be appropriate to the needs of the employees. If workers are not satisfied with the behavior of their colleagues and their work environment, they often change their job. Employee leaving the organization brings unnecessary costs to the enterprise and increases unemployment.

Among the factors affecting unemployment are, in particular, the government's unemployment policy, the impact of minimum wages and social benefits, demographics and employment of foreign workers, education, qualifications and personal competences, mobility, flexibility and willingness to move to work. (Samuelson, 2013)

In the Czech Republic, it is currently one of the lowest unemployment. Unemployment rate was only 2.9% in the Czech Republic in June 2018.However, the unemployment rate is not evenly spread across the economy.In some fields it is possible to encounter permanent problems, which are caused mainly by labor demand, but also by a different evaluation of work in the Czech Republic and abroad. The example of these problems is the health sector in the Czech Republic.

The health care should be provided to anyone with health problems. Every person should be treated individualy with respect to his or her needs. Here should be chosen the most available way for his or her treatment. All employee in the health care area should use the ethical way of behavior based on ethic codes. They should choose the right approach to their clients or patients. Available and adequate communication plays very important role here.

Given that health is an important aspect that enables people to be included in the work process, health care should be given due attention. It is a field that is the center of attention of all citizens. At the same time, it becomes the main point of the government. The level of health care area determines the maturity of the state. Therefore, care must be taken to ensure that a sufficient number of quality workers are provided and to prepare a suitable concept for its development.

In spite of all efforts, here is a constant decline in medical staff in the Czech Republic. Lot of graduates as well as other healthcare staff decided towork abroad. Czech healthcare workers often prefer to work abroad, because the earnings of healthcare workers are much higher in some neighboring countries and working conditions are more favorable.Especially in border areas, it is not necessary to move to work. Workers choose only commuting for work. (http://www.hasim.cz/content/odchody-lekaru-do-ciziny)

Especially young workers use a better-paying job and a more favorable working conditions in foreign countries in the field of health. Differences are also evident in specialized education of physicians. For example, in the Czech Republic it is more difficult to obtain an attestation than in neighboring Germany. (http://www.hasim.cz/content/odchody-lekaru-do-ciziny) It is estimated that about one fifth of graduates of medical faculties will work abroad a year. (http://www.hasim.cz/content/nedostatek-zdravotnickych-pracovniku)
That is why Czech health care institutions have the problem of providing sufficient nursery and nursing staff. This causes frequent overburdening of health workers, thereby aggravating their working conditions and increasing their dissatisfaction.

Although salaries are currently rising in healthcare area in the Czech Republic, here are still big differences in the Czech wages and the wages of some more advanced neighboring countries. Recruitment of workers just for this area is a very problematic issue. It is addressed by the government, the Ministry of Health, but also individual hospitals and healthcare organizations.

The required number of health workers is ensured by employing foreign workers. The healthcare organizations try to create a more appropriate working environment and conditions for the staff. This situation is not easy. The quality of healthcare has always been high In the Czech Republic. This level should not be reduced due to the departure of trained workers abroad or to other fields of economy. This trend causes overloading existing workers and increasing demands on their performance. To avoid collapse of the health system, executives must ensure the appropriate working environment and working conditions for current employees.

2.2 Organizational Behaviour

The importance of behavior of health workers is highlighted by D. Mudd (2010) in the paper Organizing Behavior in Healthcare. It mentions the need to map the values and working attitudes of workers. These findings can be the basis for creating a motivation system for workers. Work values and attitudes of employees determine their needs and lead to the creation of favorable motivational incentives.

Among the reasons for motivation include (Bělohlávek, Košťan and Šuléř, 2006):

Achieving results, goals,

Collaboration between people and various departments,

Stability of workers,

Recruitment of workers,

Qualification increase,

Labor and technological discipline,

Relationship to the customer (to the client),

Initiative.

It must be remembered that the values and attitudes of workers can be culturally and age-dependent. It is therefore necessary to assess adequately the composition of workers, their needs, interests and the links between them.

Collaboration among workers is especially necessary due to teamwork. The lack of trust, fear of conflict, lack of loyalty, avoidance of responsibility, and indifference to results can be the reason for team failure, according to Lencioni (2009).

Communication in healthcare is specific. It is therefore important to cope sufficiently both at the level of colleagues and at the level of the health worker and the patient / client. All staff in the field of healthcare should be able to communicate and handle the various situations in which they can find themselves. Křivohlavý (2012) mentions the following specifics of this communication. "Patients are mostly stressed and afraid. The work environment is above-average influenced by emotions. All of this adds to the stress that healthcare workers are exposed to." Patients / clients may be aggressive because of their problems and their overall condition. Some patients / clients may be depressed. These specific situations must always be handled appropriately so as not to harm the health or the psyche of the parties involved.

It is important to identify which workers are accepted in the organization or whether their characters can contribute to the development of the business. In the selection process, it is appropriate to find out whether the job applicant is a neurotic, introverted, extraverted, rigid or flexible person.

The characteristics of individual workers also determine the possibilities and their access to their further development. Armstrong (2005) mentions the individual components of personality and the possibility of their development. The core elements of the personality include expertise, communication and other abilities as well as potential.

Hekelová (2012) points out that, in particular, medical staff must have the characteristics to handle some specific communication situations, including, for example, the specific behavior of the patients to be corrected, the patient's conflict, communication with family members etc.

Grohar-Murray and DiCroce (2003) mention the most common possible conflicts in nursing. These are professional versus bureaucratic conflicts, nurse vs. nurse conflicts, nurse versus physician conflict, conflicts of lack of personal competence, competitive role conflicts, expressive versus instrumental conflicts, patient versus nurse conflicts. These conflicts mentioned above can be

supplemented in healthcare by physicians versus non-medical staff conflicts, nurses versus non-medical staff conflicts, non-medical staff versus clients or patient conflicts.

Preventing conflicts can lead to better team management. Košturiak (1993) recommends using the following tools: Using people's strengths instead of highlighting their weaknesses; Motivation instead of coercion; Moderation instead of commanding; Eliminating the causes of errors instead of finding the culprit; Dialogue instead of a monologue; Competence instead of authority.

Rashid and Archer (1983) in their book Organizational Behavior draw attention to the use of all possible human resources management factors to effectively achieve business goals. They see the main thrust of improving staff performance by maximizing the management capabilities of managers and thereby influencing organizational behavior."For an organizational leader or manager to be effective,he or she must be able to relate employees´ performance to goals; must be able to train and develop his or her people and define standards of performance; must be willing to listen to people but be prepared to make decisions; must establish credibility to communicate his views effectively; must establish credibility and mutual trust and must provide a climate in which people can perform. The various skills required can be summarized as follows: technical skill, human skill, conceptual skill, decision-making skill, informational and communicational skills."

Rashid and Archer (1983) also recommend to use the Immediate Supervisorbusinesses in organizations. "A supervisor is generally regarded as a person who greatly influences worker morale. The research has shown the dependence of productivity on supervisory behavior."

2.2 Inovation Changes in Organizational Behavior

Making innovation changes is beneficial to businesses. In particular, changes in the management of people are often very demanded. We can encounter different barriers in enterprises, which can influence the course of their implementation. The main causes of resistance to change include self-interest, uncertainty, lack of understanding and trust, different perceptions, lack of tolerance. It is always advisable to use a proactive person to overcome barriers to admission. Authors Bělohlávek, Košťan and Šuléř (2006) state that "A proactive person assumes the responsibility to become realistic, he believes his behavior is a function of his decision, not the conditions in which he is. Change may be caused by external or internal forces. Vlček (2008) states that change can be caused by external or internal forces. In order for the organization to be sufficiently flexible, it must also pay attention to the demands of changing the corporate culture and attitudes of people. (Pitra, 2006)

In particular, changes in the management of people are often very demanded. We can encounter different barriers in enterprises, which can influence the course of their implementation. Bělohlávek, Košťan, Šuléř, (2006) mention the main causes of resistance to change. They include self-interest, uncertainty, lack of understanding and trust, different perceptions, lack of tolerance.

To overcome barriers when introducing changes, it is always advisable to use a proactive person. Authors Bělohlávek, Košťan and Šuléř (2006) argue that "A proactive person assumes responsibility for making things happen, he or she believes his or her behavior is a function of his or her decision, not the conditions in which he or she is."

Businesses should implement not only functional but also value innovations, which may be reflected in a more appropriate approach to colleagues and to customers / patients.

Vlček (2011) states that "value innovations are such positive changes in customer value, the emergence of which is motivated by the saturation of often urgent economic, social, occupational safety and environmental needs. Their methodical basis consists in the application of a functional and value approach, while exclusively and dominantly striving to maximize value for the customer while increasing the value of the company, it means the growth of the double-effect value."

Kislingerová (2011) points out that for the implementation of value innovations, it is necessary to realize "that the double-effect value expresses:

- What is the customer's need - what to do,

- What the object really can do and what it does."

The introduction of these innovations brings maximization of the current and new value for the customer.These innovations also consist in a change in worker behavior, in creating better links between workers and in deepening their cooperation. Value innovations can be applied by introducing a more appropriate way of managing workers and making more effective use of their features. The effect of these innovations can be both better performance and organizational climate, so more satisfied customers / patients.

Introducing innovation in human resource management while improving overall employee communication is always beneficial to each organization as well as the business environment. In particular, healthcare professionals should master both social (unscheduled) and structured (planned) communication. Innovation in these areas should be focused on deepening communication skills, enhancing the psychological knowledge of workers, enhancing their listening skills and improving the overall organizational culture, for example by introducing ethical codes or by creating precise directives.

2.3 Importance of Organizational Culture in Health Care

The required operation of each organization is due to the appropriate behavior of the workers in the organizations. Leaders should be an example to their subordinates. They have to follow their desired behavior. It is not appropriate to apply unethical approaches to employee. Individuals must be treated individually and fairly.

Each manager should try to behave morally in their activities. J. Bláha (2003) points out that it is necessary to think especially about the economic contribution of this process in the use of ethical aspects in the decision-making process as well as to increase the culture of the managed object.

J. Bláha (2003) mentions the basic features that E. Kohák (1993) has already defined as functioning and non-functional approaches from the point of view of morality in the history of humanity. As functional features, he has declared responsibility and conscientiousness, joy of work, attitude of respect and reciprocity, love and care, and service. Ineffective from the point of view of human relations and working communications were defined arrogance, egoism, consumerism, irresponsibility, hatred and anger.

A suitable tool for ensuring the above mentioned effective factors is the creation of a strong organizational culture that will provide a positive working environment and will motivate the work of all employees.

Organizational culture management is very important for every organization. Organizational culture determines the way of dealing with employees and employers, it defines the basic ways of interrelation between the superiors and the subordinates and the relation of the employees to the customers. A well-managed strong organizational culture ensures the organization's reputation for the public. In order to ensure an appropriate organizational culture, it is necessary to analyze it and to constantly work with the workers.

In order to be workers successful at work, be pleasure of working and the results of their work, it is important to do the work they like. It is also necessary to be surrounded by workers who are capable and willing to cooperate with them. It is difficult to create such a working team so that all employees are tuned. It is always the job of the manager to strive to create an environment where workers are maximally motivated to work and create the conditions for cooperation. To achieve this goal, workers must be chosen appropriately. Even during the selection process, it is necessary to examine not only the professional knowledge but also the characteristics of the job seekers.

Managers should focus on managing social skills, including coaching, motivation, ways of communicating with staff, resolving potential conflicts, ways to manage team work, managing career growth, managing organizational culture, expressing consent and disagreement, praising and critics.In healthcare, it is also necessary to manage intercultural relationships within the framework of organizational culture management. Sufficient perceptions of the differences of customs of workers of different nationalities will lead to a better understanding of their approach to work and their better integration into the working group.

Here are important ethics codes that apply to the management of organizational culture in individual economic areas. In the field of health care it is possible to meet the codes of doctors, nurses and other workers. These codes should be followed by all relevant staff. The behavior of

workers as well as the definition of their competencies is regulated in the internal guidelines of the relevant healthcare organization. It is also governed by specific laws and decrees. Examples include the Code of Professional Behavior of Registered Workers, the Code of Ethics for Medical Workers of Non-Medical Workers or Ethical Codes of Health Workers.

3 Research results

Since workers have a certain role in their job position, it is necessary to know what behavior they are attributing to their colleagues.

Therefore, research has been carried out among students of Faculty of Health studies in order to find out what behavior the current students expect from their future colleagues. Expected behavior of specific workers would be suitable for them to create a positive working atmosphere and a collective in fulfilling their job responsibilities. Working conditions and environments often affect the actual behavior of workers in specific positions. The actual behavior of these sometimes differs from what is expected. Students indicate the characteristics of the staff they would expect to be in the position.

The research was focused on the assessment of some healthcare factors. The questionnaire was completed by students in the field of physiotherapy and ergotherapy of the Faculty of Health Studies of the University of West Bohemia in Pilsen for two consecutive years. In the questionnaire, there was examined especially organizational culture and staff behavior issues within the health environment and their perceptions of the medical environment. In addition, students assessed what they would expect from staff at certain health care positions. Selected positions included the director of the hospital, the head doctor, the doctor, the head nurse and the nurse. In this questionnaire, students completed a spontaneous determination of the three most important characteristics of the staff in given positions.

According to the students, the director of the hospital should be educated and intelligent with a broad overview of the field and running of the hospital, decisive, communicative, responsible, reliable and a good leader with leadership skills and authority, fair and objective.The head doctor should be an expert in the field, should be purposeful, reliable and responsible, fair and communicative. The physician should be educated, determined, empathetic, communicative, and patient. The characters of head nurses should be empathy, kindness, patience, willingness, diligence, psychological resilience and expertise. The nursing staff should have the following characteristics: education, empathy, determination, listening ability, good organizational skills, consistency, responsibility and comprehensiveness.

Students often mentioned the need for health professionals' expertise. Last year there was a change in the education system for some health workers in the Czech Republic. Requirements for higher education for nurses were reduced.

Students also expressed their opinion on whether nurses should maintain university education for their job. Half of respondents answered positively and half negatively. The most common reason for maintaining higher education for a nurse's position was greater penetration into the field and more knowledge.

Other responses included the following: Nurses may be the first to notice symptoms of illness with which secondary education does not count. A high level of education is important. It is good to be knowledgeable, but practice is much more than theory. The desire of most current students to self-educate in a particular area. Higher expertise. It depends on the department but I rather agree because the nurse spends the most time with the patient and takes care of most of his needs. A high level of education is important. Higher education = higher quality of care. High responsibility at work, more administration. The education and knowledge gained at universities is substantial and beneficial. I would leave college education but not mandatory - I would leave secondary education with the possibility of further specialization in the form of bachelor or master studies (specialization in the narrower field). However, most students emphasized the need for practice.

In negative replies, students mostly expressed that the 4-year education at a nursing high school is sufficient. Because of the demanding university education with nurses, the nurses have a significant deficiency.

Students also responded other questions about areas that may affect work conditions, the work environment, and the overall organizational culture in the health care sector. It was an appreciation of the factors that would be preferred in their job. The obtained answers confirmed the positive attitude of students towards their chosen profession and considerable interest in the given field. Financial assessments in their field are not the most important factors. Especially important are praise from manager, helping others, good working team.

Conclusion

The aim of the article was to highlight the need for healthcare management. In healthcare, it is important to keep existing workers and lure new graduates to Czech healthcare organizations. The decisive factor in choosing a job is not always money, but other factors also play an important role.

The main factors influencing employee satisfaction and performance include a good working environment. The working environment is formed by many influences. The most important is the helpfulness and cooperation of all staff. Behavior of workers determines relationships between people, the possibility of good communication, understanding of each other and predetermines long-term cooperation. Managers should assess whether workers will strengthen existing team by their behavior and will not create unnecessary disagreements or hostility among colleagues.

The article looked at the required features of the staff at certain positions in the health care system and at the same time evaluated the importance of individual healthcare motivators.

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Consumer perception of the impact of innovative marketing resulting from implementation of Industry 4.0

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Abstract: *In present-day marketing, thanks to the gradual implementation of Industry 4.0, there are many fundamental changes. The theoretical part of this contribution presents innovative marketing tied to Industry 4.0. However, the main benefit is in identification of the impacts of these innovative marketing tools on consumers. A primary research study was conducted, which consisted of qualitative collection of data, to which quantitative collection of data corresponded. The result of the first part of the research was identification of 13 impacts of innovative marketing. These impacts were the subject of quantitative research, where importance was determined using scale questions. The evaluation was carried out with the aid of descriptive statistics, from which it as apparent that nine impacts in all indicators were perceived as very important. The standard deviation and coefficient of variation confirmed that the respondents agreed in evaluation of twelve impacts. This was followed by evaluation with the aid of statistical induction, which was intended to uncover the differences in evaluation of respondents divided according to education, age, gender and home size. A statistically significant difference in responses among respondents of different education levels and age. While it is debatable whether the impacts of these consumers are only a consequence of marketing innovations, or a comprehensive implementation of industry 4.0, it is pushing research and the evaluation of the issue forward.*

Keywords: *innovative marketing, industry 4.0, digitalization, impact of marketing innovations*

JEL codes: *M31*

Introduction

Industry 4.0 is currently linked with the onset of automation and mainly digitisation in industrial production. Digitisation is apparent mainly in engineering and is gradually being implemented in other sectors. Since it involves a revolution, the impacts of the implementation of Industry 4.0 are revolutionary. It involves realisation of new approaches mainly in the technical field. However, the changes are visible and predictable also in other areas of the economy, such as IT, HR management and marketing (Heiner et al., 2014). In the area of marketing, turbulent changes have been taking place in many areas, in relation to satisfaction of customers' individual needs, resolution of issues related to competitiveness, the shared economy and data protection in the form of the GDPR. In order for the phenomenon of Industry 4.0 to be understood completely and so that it is not used solely as a marketing tool for building the company's image, it is necessary to implement systematic support in the economic and management area. This needs to be done mainly during companies' strategic decision making. The presented research is focused on Czech consumers. If we take a look at the international application of Industry 4.0, then we can see that many developed countries for several years already have been involved in the onset of Industry 4.0. The greatest pressure for implementation of Industry 4.0 is apparent among German companies. This can also be attributed to its creation, since Germany is considered the original source of Industry 4.0. The concept is based on a document, which was presented at a trade fair in Hanover in 2013. However, the basic visions of the fourth industrial revolution appeared already in 2011 (Jenšíková, 2016). The Czech Republic is at a high level in the implementation of Industry 4.0. Thanks to the overlapping of many Czech companies with German capital, it has been implementing innovative marketing, which will also have impacts on final consumers. This innovative marketing and its impacts on businesses are the source of the research, which is presented herein. The presented contribution resolves one main objective, which has been broken down into two sub-objectives and one hypothesis:

The main objective of this contribution is to identify the impacts resulting from the implementation of innovative marketing, which also stem from the implementation of Industry 4.0.

Sub-objectives of the contribution:

- **To determine the individual impacts, as they are perceived by consumers.**
- **To compare the answers to the classification questions, which dealt with education, age, gender and residence size.**
    - **H0: In the answers to the classification questions, there are no statistically significant differences.**

1 Literary overview

The research focused on two areas, which were the subject thereof, and they formed a theoretical basis for the subsequent primary study and evaluation. **The first area** is marketing innovation, which is linked to Industry 4.0. In the Czech Republic and the rest of the European Union, innovations are categorised based on the Oslo Manual from 2005, a methodological manual. According to that document, innovation can be divided into four groups: product innovation, process innovation, organisational innovation and marketing innovation (OECD 2005). These four groups of innovations are further divided into technological and non-technological types. Technological innovations include product and process innovations, and non-technological innovations include marketing and organisational innovations. This contribution focuses on non-technological marketing innovations. The research yielded a list of areas, which are linked to innovative marketing and Industry 4.0. The resulting list of impacts is comprised using a synthesis from multiple authors and is divided according to marketing mix 4C (Ungerman, Dedkova, 2018), (Hermann, Pentek and Otto, 2016), (Bundesministerium für Wirtschaft und Energie, 2016), (Ládrová, 2017), (Myslivcová and Maršíková, 2017):

- **Customer Value:** Use of virtual and expanded reality for testing products, IoT - Internet of Things, 3D printing of products, involvement of customers in product creation (Engagement Marketing), marketing focused on individuals via social media.
- **Cost:** Virtual currencies, payment via smartphone apps.
- **Convenience:** Purchasing of goods via smartphone apps, autonomous distribution (ect.drones).
- **Communication:** Product placement on shared multimedia, holding of marketing events, multi-functional packaging, loyalty programmes for customers, corporate social responsibility.

Another area focuses **on the impacts of the implementation** of innovative marketing, which are created in the context of Industry 4.0. The impacts of marketing innovations can be divided into positive impacts and negative impacts.

Positive impacts of innovative marketing can include an increase in **product availability.** According to Foret (2016) the tools of innovative marketing, such as mobile apps, increase the availability and comfort for customers. The availability of products and the option of online ordering 24/7 is a positive impact of innovation. **Price reductions and price campaigns** are another positive impact for consumers. As pointed out by Nagle, Hogan and Zale (2016), thanks to innovative marketing, when a customer has a perfect overview of price offers, the customer can purchase for lower prices than previously. However, exceptions exist in certain segments, where the competitive environment has signs of a monopoly or oligopoly. **Easier searching for information** is another positive impact of marketing innovation. According to Wang, Malthous and Krishnamurthi (2016), social media in combination with mobile marketing are the most important source of information. Sellers attempt to inform consumers about purchasing options. An informed consumer then is more inclined to purchase a product, and more information can serve as an impulse for certain steps. **The option of selecting a payment method,** which is based on non-cash payment. According to Svatošová (2012), today's electronic forms of payment such as use of a debit or credit card, bank transfers or SMS payments are already considered standard. However, companies, mainly e-shops, have been implementing completely new forms of payment, such as PaySec, PayU, PayPal and Moneybookers. These payment methods shatter the customers' mistrust during payments on the internet and ensure their protection when payments are made.

However, innovative marketing also has certain negative impacts. The general trend in the Czech Republic is a greater focus on **the consumerist approach to life.** Thank to better knowledge about consumers, who reveal their hobbies and consumer behaviour on social media, marketers can better target and better satisfy the needs and wishes of consumers. This often results in consumers purchasing products that they don't need. As a result, the consumer does something

without carefully considering it and which in the end is indirectly forced. The effect of marketing on consumers can be described as negative. From the seller's side, this is positive activity (Kotler, Kartajaya and Setiawan, 2016). Another negative impact is the significant rise in **elitism**. This can be attributed to the increasing importance of brands. According got Carsona and Jolibert (2017), this is one of the negative effects of the present-day era. Brand divide society into groups. The more expensive the brand, the more an individual is considered richer or more stylish and thus a member of a more prestigious group. This effect is most apparent at schools, where children are divided into those who wear brand-name clothing and other "inferior" children. Thus the global brand is perceived as more important that the function of the product, and this also leads to brand counterfeiting. Another possible negative impact **is limitation of an offer of services** for consumers. The recent trend has included pressure for the purchase of a new product instead of repair of a broken product. Marketers implement the rule that it makes more sense to purchase a new product than to try to repair an old one. This pressure to purchase a new product is apparent in the implementation of "new" marketing as presented by authors Wilson et al. (2016). The negative impact arising from the implementation of innovative marketing is **misuse of information**, which the consumer unknowingly spreads about himself on the internet. Information published on social media are misused the most. Misuse of personal data is a security risk to which each user of social media is subjected. Information often leaks and is then misused. This topic is currently relevant, since Facebook has recently confirmed for the first time that 50 million user accounts have been misused. Then representatives of Facebook admitted that the data of the overwhelming majority of its more than two billion users may have been misused (Facebook, 2018).

2 Methodology

Since the addressed topics have not yet been processed at a practical level and specific information is not yet available, a combination of qualitative and quantitative research has been used. Qualitative data collection was first used, for ensuring the information base. The results of qualitative research then served for quantitative determination of frequency. The qualitative research was supposed to identify the impacts of innovative marketing on consumers.

Respondent selection method: for qualitative research, the selection of respondents was done using the method of multiple random selection, and the basic set was further divided into four groups according to respondents' ages. A total of 10-15 respondents were included in each category and formed a homogeneous group according to age. The the quantitative research, direct random selection was used, with each unit of the basic set having the same likelihood of being selected.

Data collection method: Qualitative data collection was done using the focus group method, with attention focused on examination of the problem in depth. The research was led by a moderator, who in individual groups led a discussion regarding innovative marketing and its impacts on consumers. Quantitative research was done using a combination of electronic and personal questioning methods.

Data evaluation methods: the focus group was evaluated from personal records and audio recordings and participated in by experts in marketing from the academic community as well as practice in cooperation with a psychologist. The method of evaluating the qualitative research involved "content analysis". The definition of content analysis is linked to the expressions: objective, systematic, manifest, reliable, valid and reductive breakdown of information. For evaluation of quantitative research, descriptive statistics were used: modus median, average, standard deviations and variation coefficient. For determination of differences in the perception of innovative marketing depending on classification questions, Pearson's chi-squared test was used as the method of testing statistical hypotheses.

3 Evaluation of research

This factor presents the results of research obtained through primary data collection. The primary research was divided into three parts, which mutually correspond to each other.

3.1 Impacts of innovative marketing from consumers' point of view

The main aim of the work was to identify the impacts of innovative marketing, which has been fulfilled via synthesis of data from the focus group. The evaluation method was content analysis, which was used by a collective of evaluators. The result is thirteen impacts, which are related to the implementation of innovative marketing. These impacts are presented in table 1.

Table 1: Impacts of innovative marketing on consumers.

Marketing tools	Impacts
Customer solution	Product quality improvement
	Product price increases
	Product uniqueness
Cost	The facilitation of product purchasing
	The gradual disappearance of cash money
Convenience	Expansion of direct sales
	A change in the appearance and furnishing of shops
Communication	Better presentation of transferred products
	Creative communication and thus better awareness
Services	Service orientation
	shared economy
Knowledge of needs and wants	Empathetic design of products
	Customer loyalty

Source: own

The resulting list of the thirteen impacts of innovative marketing on consumers can be divided further into six groups. Then each group of impacts is described:

1. The first group is the largest and consists of three impacts: "Improvement of product quality", "Product price increases" and "Product uniqueness". All of these impacts fall into the marketing tool "**Customer solution**" and are linked with product innovation related to Industry 4.0. The source for these impacts is the use of augmented reality during product presentation, when not only can the appearance of the product be presented, but there is also a need to show the cut of the product and its functionality. The impacts are also related to 3D printing, which leads to uniqueness and precision of products. The present-day era is already linked to smart households, based on the Internet of Things. However, according to respondents' answers, smart appliances have been making products more expensive. Respondents also identified an increase in product quality, which is the impact of involvement of customers in product creation, known as engagement marketing.

2. The second group consists of two impacts: "the facilitation of purchasing of a product" and "the gradual disappearance of cash money". These impacts can be included under the **"cost"** marketing tool and among payment innovations. Both identified impacts are based on changes during the payment method. The first impact is based on the transition from cash money to non-cash payments. Credit and debit cards are used the most today, but payments via smartphone apps are increasing in popularity. Respondents to the survey predict the complete disappearance of cash payments. Another attribute, which influences the impacts of innovative marketing in connection with Industry 4.0, is the gradual implementation of crypto-currencies in real payments. The most used of these at present is Bitcoin, which can already be used to pay in many businesses.

3. The third group consists of two impacts: "Expansion of direct sales" and "the change in the appearance and furnishings of shops". These two impacts fall under marketing tools **"convenience"** and among distribution innovations. The expansion of direct sales without the use of distribution intermediaries was described by respondents as an impact of technological innovation. Such technological innovation is based on autonomous facilities, which directly transport a product to a customer from production. Drones are already used to transport small packages. Another impact is the change in the appearance and furnishings of shops. These changes are related to the virtual presentation of products. Information stand kiosks are already used today, which present offered products, where information can be provided by virtual advisers.

4. The fourth group consists of two impacts: "Better presentation of presented products" and "Creative communication and better awareness". These two impacts fall under the **"Communication"** marketing tool and among promotion innovations. Better presentation of products is related to augmented reality and the option of obtaining information via the internet. A major role in presentation is played by targeted advertising focused on exact satisfaction of customers' wishes. This means that the customer receives information about the product in a way that the customer prefers. The creativity of communication is the result of the popularity of obtaining information through videos and photos, which are virally spread via social media. Discussion forums also enable a customer to get more exact information about products. Greater awareness is the result of constant online connection via a mobile device, which a customer always has within reach nowadays.

5. The fifth group consists of two impacts: "Service orientation" and "shared economy". These impacts have a shared area relating to impacts: **services**. Service orientation is related to a change of requirements for employees in the context of Industry 4.0. Thanks to digitisation and replacement of people with robots, many employees are being transferred to the services sector. Supply in the services sector is increasing already now thanks to a higher living standard of people and more work burden. As a result, many duties are being transferred to services. The shared economy is also mostly applied in services, mainly via apps. The main areas of the shared economy are providing of financial services, transport and accommodation. The most well known services in the shared economy are Airbnb and Uber.

6. The sixth group consists of two impacts: "Empathetical product design" and customer loyalty". These two impacts are combined by **a more detailed recognition and subsequent exact satisfaction of customers' wishes.** Respondents have stated that thanks to information on social media and subsequent massive processing of such data, companies will have more exact information. This means the creation of a database of customers, in which each customer is processed individually. This information will then be used by companies for exact tailoring of a product or service to individuals, known as empathetic product design. This method will shatter unnecessary and disadvantageous communication, which will also lead to building of loyalty with customers. Respondents have described loyalty as one of the impacts of innovative marketing, which are based on loyalty programmes. Corporate Social Responsibility also has a major impact on building of loyalty. Customers already currently perceive social responsibility as a crucial element in their decision making processes when they shop.

3.2 Evaluation of the frequency of impacts on consumers

The resulting list of impacts was subjected to an additional round of primary research. The research has been conducted using a combination of electronic and personal surveying. A total of 250 responses were used for the evaluation. From the resulting values, methods involving descriptive statistics were used to calculate the modus, median, average, variance and variation coefficient. The resulting values are presented in table 2.

Table 2: The extent of the impact of innovative marketing on consumers.

No.	**Impacts of innovative marketing on consumers**	average	median	modus	Standard deviation	Variation coefficient
1	Product quality improvement	5.13	5	6	0.98	0.19
2	The facilitation of product purchasing	5.05	5	5	0.85	0.17
3	Better presentation of transferred products	4.96	5	5	0.89	0.18
4	Creative communication and thus better awareness	4.84	5	6	1.14	0.23
5	Product uniqueness	4.82	6	6	1.53	0.32
6	Product price increases	4.58	5	5	0.88	0.19
7	Empathetic design	4.50	4	4	0.92	0.20
8	Customer loyalty	4.46	5	5	1.22	0.27
9	Expansion of direct sales	4.41	5	5	1.24	0.28
10	Shared economy	4.42	5	5	1.25	0.29
11	The gradual disappearance of cash money	4.13	4	5	1.02	0.25
12	Service orientation	4.10	4	4	1.20	0.30
13	A change in the appearance and furnishing of shops	3.82	4	4	0.83	0.22

Source: own **(**1 = minimum strength of the impact, 6 = maximum strength of the impact)

The table of impacts of innovative marketing on consumers is sorted from the strongest to weakest, based on the average evaluation. It is apparent from the results of the primary research that the respondents consider all of the aforementioned impacts to be relatively strong. The arithmetic average of evaluation of the importance of individual impacts ranges from 5.13 to 3.82, and therefore in all cases it is significantly high, since the values are in the upper half of possible values, which is an average of 3.5. The median can be divided into three levels, based on the strength of the impact. The strongest impacts in a range of <6, 5> consist of nine impacts. The medium impacts are in a range of <4, 3>, where the remaining four impacts are categorised. These are impacts 7, 12, 12, 13, for which there are apparent low values and the arithmetic

average of evaluation,which increases the reflection capability of both characteristics. Other impacts can be described as very strong. Almost the same evaluation exists for modus, where only impact 11 is evaluated as medium important. The standard deviation, which indicates the average dispersing of values of the statistical set around the arithmetic average, is the lowest for impacts 1, 2, 3, 6, 7 and 13, and highest for impact 5. In view of the clear differentiation of the level of values for individual impacts, a relative level of variability is also used, the variation coefficient, which indicates the dispersed nature of the values in view of the average. It ranges from 17-32%, and the lowest variability is reported by impacts 1, 2, 3, 6 and 7, and the highest relative variability is for impacts 5 and 12. It is apparent that for impacts with the lowest variability the agreement among respondents in their answers to questions is high, while for impact with high variability, respondents have agreed to a lesser extent.

3.3 Influence of classification questions on research results

The classification questions, which have been included in the questionnaire, enable division of respondents based on various criteria. This involves the following four criteria: education, age, gender, residence size. The statistic induction methods were used for the evaluation. Table 3 presents all four classification questions. The responses have been aggregated into a smaller number of groups, so that the groups are sufficiently large and the comparison is as objective as possible.

Table 3: The characteristics of respondents.

Education			**Age**			**Gender**			**Residence size**		
University	62	31%	15 - 25	56	28%	female	86	43%	Up to 1000	25	12%
Secondary school	85	42%	26 - 35	45	22%	male	116	57%	Up to 10,000	32	16%
Trained with graduation	33	16%	36 - 45	43	21%				Up to 100,000	86	43%
Trained, basic	22	11%	46 - 55	38	19%				over 100,000	59	29%
			56 and more	20	10%						
total	202	100%	total	202	100.00%	total	202	100%	total	202	100%
p-value	α=0.05	0.02113	p-value	α=0.05	0.03841	p-value	α=0.05	0.09455	p-value	α=0.05	0.26654

Source: own

The answers to these questions were subjected to Pearson's chi-squared test. Defined hypothesis:

H0: There are not statistically significant differences in the responses to the classification question

H1: non HO

Critical values are not presented in the contribution, but only p-value, and the tests have been conducted with a degree of importance of α=0.05. Statistically significant differences were identified for education and age, where hypothesis H0 can be rejected and hypothesis H1 can be accepted.

Conclusion and discussion

This contribution maps the current situation at a turning point, which is the advance of the fourth industrial revolution. This revolution will affect all sectors of the economy, including marketing. And marketing was the subject of the two-level research presented herein. It is apparent from a literary point of view that the impacts of present-day innovations can be divided into positive and negative impacts. However, the research has shown that twelve of the identified impacts are positive, and only one impact, “product price increases”, has a negative impact for consumers. The research has also called into question certain impacts discovered. The most significant is the opinion regarding price changes, where the theory says something other than what the research has proved. The main aim of this contribution was to identify the impacts that arise from implementation of innovative marketing resulting from the implementation of Industry 4.0. The subject of the research was determination of the impacts from the consumers’ point of view. The synthesis made it possible to identify thirteen attributes, which were subsequently aggregated into six homogeneous groups. The results can be summarised as revealing that the current and future marketing is linked to massive collection and use of data. The main objective was then determined

in two sub-objectives. The first sub-objective was fulfilled by quantitative data collection using a combination of personal and electronic questioning. For questioning, a list of discovered impacts was used, where their frequency was determined. Using descriptive statistical evaluation, the average, modus, median, dispersal and variation coefficient were defined. The results confirmed the medium and great strength in all of the identified impacts. The dispersal and variation coefficient proved a significant match in opinions regarding the strength of impacts. The second sub-objective was intended to determine whether in individual respondents' answers there were any statistically significant differences. Differences were discovered in relation to two classification questions, which related to education and age. For education, it can be stated that respondents with university education clearly assign greater strength to the impacts of innovative marketing in the context of Industry 4.0 than respondents with different education levels. The second criterion, where there were statistically significant differences, was age. It became apparent from the detailed examination of the responses that 45 years of age is the turning point. Younger respondents evaluated the impacts as stronger, while those age 45 and over evaluated them as weaker. The research revealed a lot of interesting information, which could be beneficial both in practical use and in further theoretical research. For practical use, the information can serve as an inspiration for defining business strategy. In the theoretical area, the presented research advances the issue a bit further, thanks to the currentness and complexity of the information, and can correspond thereto.

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Why do consumers hate brands? A conceptual paper of the determinants of brand hate

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Abstract: *Negative emotions can impact consumers' purchase decisions. Company will face consequences such as consumer avoidance, the negative word of mouth, and brand boycotts from consumer's negative sentiment if no actions have been taken out. Therefore, it is important for company to understand why consumers hate brands, and what factors will influence consumers' brand hate. Base on the concept of brand hate, this research proposes that negative past experience, negative word of mouth, ideological incompatibility, negative brand-self relationship, and negative social self-connection may be the antecedents of brand hate. Further, we propose that brand distrust mediates above effects on brand hate. Our study sheds light on the antecedents and mediator variable of brand hate and offer important implications for brand managers.*

Keywords: *brand hate, negative past experience, negative brand-self relationship, negative social-self connection, brand distrust*

JEL codes: *M31*

Introduction

Recently, studies of negative customer brand relationship have been growing (Fournier and Alvarez, 2013; Park et al., 2013; Romani et al., 2012, 2015). In marketing practices, negative customer brand relationship can result in customer reduction, avoidance, negative word-of-mouth, and even boycotting actions (Grégoire et al, 2009; Hegner et al, 2017). For example, 10 famous companies (e.g., H&M, Apple, Gap, Hershey's, etc.) have been found to continue use child labour in the production process (Lamarque, 2016). All these incidents make those leading companies face ongoing negative customers' complains and resistance. By understanding such strong negative feelings consumers towards brands, scholars recently propose a new concept with the name of brand hate, which describe an intense negative emotion towards a brand (Bryson et al., 2013). Further, such a negative feelings cannot be simply equally to brand dislike or brand dissatisfaction. In comparison, brand hate more refers to an extreme and intense emotional response that consumers have toward the brands (Hegner et al., 2017). Brand hate brings outcomes such like the purposeful and deliberate brand rejection or brand avoidance, even boycotts and sabotage toward the brands (Bryson et al., 2013).

Existing research of brand hate mostly focus either on the determinants or the outcomes of brand hate, none of them have ever purpose any mediate variables to explain the brand hate underlying mechanism. Given that brand hate is relevant to both academic and managerial perspectives, this paper aimed to provide more antecedents of brand hate, and especially explore the underlying mechanism of brand hate.

Against this background, this study provided four incremental contributions above and beyond existing brand hate research: (1) discuss the effect of product related factors on brand hate; (2) discuss the effect of self-related factors on brand hate; (3) propose brand distrust as a possible mediate variable that underlying the relationships between negative past experience, negative word of mouth, ideological incompatibility and brand hate. We hope understanding brand hate can help companies to respond effectively to such extreme negative customer emotions, and can further help the companies to avoid brand hate as well.

1 Theoretical background

1.1 Conceptualization of brand hate

Emotion prototypes are the features which create certain emotions (Fossati et al., 2003; Shaver et al., 1987). Fehr and Russell (1991) study the foundation of emotion categories by the method of asking respondents to name emotion prototypes. They found that in the overall most important emotions, hate has been placed in the second position just after the first emotion love. Lately, Shaver et al. (1987) found out that hate was ranked in the third place out of a total of 213 emotions words and pointed out emotions always have relations with subjective experience and behavior.

The emotion of hate is considered as a complex emotion by most psychologists, which is a combination of several primary emotions or secondary emotions (e.g. disgust, anger, and fear) that leads to the formation of hate (Fossati et al., 2003; Zaranotonello et al., 2016). Sternberg (2003) has studied a number of prototypical stories of hates, and all of them come with different forms of moral violation. Beside moral violations, Aumerryan (2007) found out that there are plenty of possible causes that may form the emotion of hate such like disagreeable personality (misfit), feeling being betrayed, extremely disappointed, and physically damaged.

People usually adopt three common strategies to deal with hate: (1) attack strategy, that attack/damage the target which they hate; (2) avoidance strategies, that avoid by keeping distance from the target which they hate, and (3) approach strategies, that to communicate with the target which they hate (Zaranotonello et al., 2016). Allport (1958) claimed that hate creates desires to harm others, while Rempel, Burris and Sternberg (2003) agree that hate is also included diminish and devalue. Behaviours to cope with hate can also be classified into two types, verbally and physically (Opotow and McClelland, 2007). For the verbal type, it is usually harassment, impugnation, threat and humiliation. For physical type, it includes most physical damage behaviours such like beating or injuring the target of hate, or in worst case, killing might also happens.

Hate, as an important emotion, recently began to attract marketing scholar's attention (Bryson et al., 2013; Grégoire et al., 2009; Hegner et al., 2017; Zaranotonello et al., 2016). Carroll and Ahuvia (2006) have made a contrast between the notions of brand hate and brand love, and define brand hate as the degree of passionate emotional attachment that someone has for certain brands. Lately, Bryson et al. (2013) defined brand hate as an intense negative emotional towards a brand. In addition, brand hate is a more intense emotional response that consumers have toward a brand than brand dislike (Hegner et al., 2017). Brand hate can be viewed as the extreme negative affective component of attitude towards a certain brand (Bryson et al., 2013). Cohen (2990) indicated that attitude has always been linked to behavioural intention, and ultimately, actual behaviours. For example, consequence of brand hate is the deliberate intention to reject or avoid a brand, and also the spread negative word of mouth (Hegner et al., 2017).

1.2 Antecedents of brand hate

Negative past experience

Brand hate can be arose from negative experience such like incidents that hurt the customers' benefits, and these incident could be either product related or service related experiences (Johnson et al., 2011). Negative past experience was mostly caused by the failures or dissatisfaction towards a product or a service (Hegner et al., 2017). Consumers always compare their initial expectation and the actual performance while using the product or experiencing the service (Oliver, 1980; Halstead, 1989). Once the actual performance is below their initial expectation, then it will probably result in dissatisfactions (Oliver, 1980). Dissatisfaction has been identified as the factor that most generates brand hate (Bryson et al., 2013). Research has pointed out that violation of expectations might also have a huge potential to cause brand hate (Zarantonello et al., 2016). We thus proposed that,

H1. Negative past experience leads to brand hate.

Negative word of mouth (NWOM)

Word of mouth reflects the interpersonal influence between the sender and the receiver; through the interpersonal communications, there might be a change to the receiver's attitudes and

behaviour, either positively or negatively (Sweeney et al., 2008). Negative Word of Mouth refers to the poor conversation or writings about a brand from an individual (Bonifield and Cole, 2007). People prefer sharing their negative experience to positive experience with others, which helps the sender to alert the receiver about what he or she has experienced with the brand. (Baumeister et al.,2001; Nyer and Gopinath, 2005; Singh, 1988). Presi et al. (2014) have divided negative WOM into two types: private complaining and public complaining. The former is normal conversation with people such like complaining, grumbling, and other negative speaking, whereas, the latter is to express negatively to the internet such as blog posts. In this study, instead of dividing negative WOM into two types, we are just going to use the general term without differentiation between private and public WOM. Previously, scholars used to identify negative WOM as an outcome of brand hate (Ruiz-Mafe et al., 2015; Zarantonello et al., 2016). However, it is reasonable to expect that negative WOM can be as influencing factor that may lead to brand hate, and, hence, we hypothesize that,

H2. Negative word of mouth leads to brand hate.

Ideological incompatibility

Ideological incompatibility refers to beliefs and values which are incompatible with the consumers (Kavaliauskė and Simanavičiūtė, 2015). This factor relates mostly on the inner dimension of the consumer such like societal or moral focus instead of the basic product or performance of service (Lee et al., 2009). When there exists an inconsistence between the brand and the consumers' value, consumer may disgust the brand (Hamlin and Wilson, 2004; Zdravkovic et al., 2010). There are also evidences indicating that disrespecting human rights or environment harming will lead to consumers' disapproval and consumers' boycott (Friedman, 1985; Sandikci and Ekici, 2009). Consumers may perceive an ideological incompatibility with brands which suspected of corporate irresponsibility (Bryson et al., 2013; Lee et al., 2009; Romani et al., 2015; Zarantonello et al., 2016). Hence, we hypothesize that,

H3. Ideological incompatibility leads to brand hate.

Negative brand-self relationship

Customers intend to purchase brands whose images match to their self-concepts and those that will give them the meaning they seek to their lives (Kressmann et al., 2006). In order to build up a personal identity, consumer will deliberately choose the brands that can support their self-concept. (Escalas and Bettman, 2005; Grubb and Grathwohl, 1967). Negative emotion can be caused by the incongruity between a brand's symbolic image/meaning and the consumer's self-perception. The theory of disidentification indicates that "people may develop their self-concept by dis-identifying with the brands that are perceived to be inconsistent with their self-image" (Lee et al., 2009, p. 174). Accordingly, Zarantonello et al. (2016) has identified negative brand-self relationship as a possible determinant of brand hate. Thus, it is reasonable to expect that negative brand-self relationship leads to brand hate, and hence, we hypothesize that

H4. Negative brand-self relationship leads to brand hate.

Negative social self-connection

Brands offer consumers the value of self-expression and help them to differentiate themselves from others within a social environment (Sprott et al., 2009; Wallace et al., 2014). For example, financial offices may prefer to wear Armani instead of Uniqlo because Armani's brand image can strengthen their social roles. Consumers use specific brands to help them to create their social identities and define who they are in the social reality (Malär et al., 2011). If brands' images match well to the consumers' social image in the social environment, it may then lead to a strong and positive emotional response towards that brand (Bergkvist and Bech-Larsen, 2010; Carroll and Ahuvia 2006). Correspondingly, if the brand cannot support and even violate a consumer's social role, we can expect that such a violation may lead to a negative consumer emotional attitude towards the brand. Therefore, we make an assumption that consumers might hate the brand that will weaken their social roles, and thus hypothesize that,

H5. Negative social self-connection leads to brand hate.

1.3 The mediating variable brand distrust

Brand trust refers to consumers' feelings of security, honest, reliable and responsible from the interaction with the brands (Delgado-Ballester et al., 2003). Brand trust can help brands to share values, create long-term relationships with consumers, and reduce transactional uncertainty for consumers (Morgan and Hunt, 1994; Wu et al., 2016). In contrast, brand distrust can distort a positive relationship between the brand and consumer, which may turn brand love to hate, excluded, or disparage.

Brand distrust is a kind of emotional crisis, especially when consumers' sincere and trusted brands betray them, which may cause a strong degree of anger and hate to that brands. Michael et al. (1959) purposed a model of attitude change, and believed that any change in attitude involves a person's original attitude and the existence of external differences. The disharmony between attitude and external differences will lead to individual inner conflict and psychological incongruity. In order to recover the psychological incongruity, individual either accepts external influences, or make a change to their original attitudes, or even adopt various methods to resist external influences so as to maintain their original attitudes. We thus propose that once consumers experience distrust feelings, they will hate the brand, and hypothesize that,

H6. Brand distrust leads to brand hate.

Darke (2010) found that customers' negative experience will cause distrust. If a consumer's expectation toward a brand is high, once the actual experience outcome appeared the other way around, such disappointment will make consumers feel distrust toward the brand, and then may cause brand hate. Thus, we propose that,

H7: Brand distrust has a mediator effect between negative past experience and brand hate.

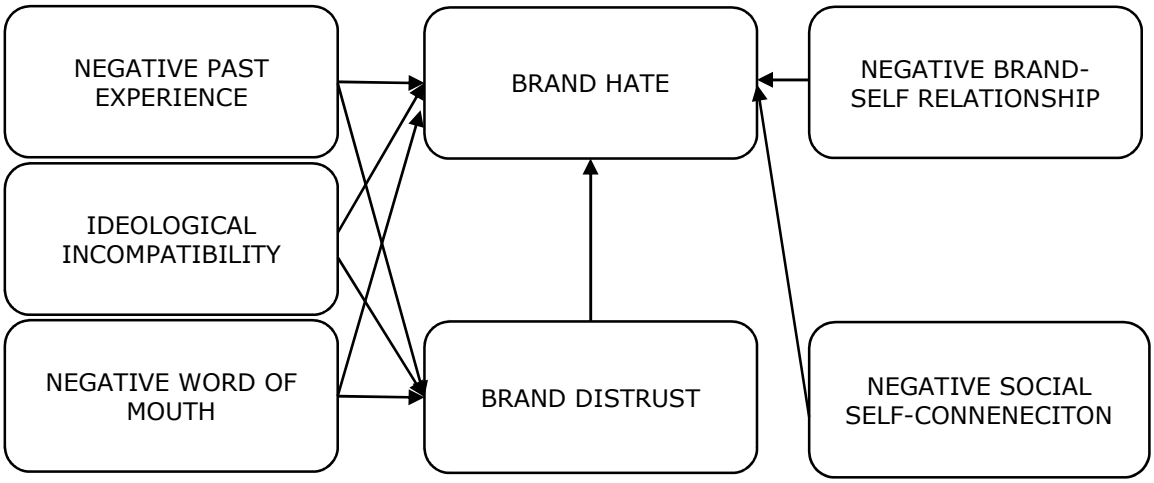
Word of mouth has become a growing force in shaping consumer decisions (Bansal and Voyer, 2000). Especially internet technic makes the word of mouth easier and faster spread every corner of the world. These days, everyone heavily relies on social media and online shopping. Most consumers trust online reviews and comments from other strange consumers. Somehow consumers even regard the strangers from the internet as the in-real-life friend and trust them a lot. Thus, when they saw the negative comments from strange others, the more credits the consumer gave to the brand before, the higher degree of negative emotion he or she will be raised by the negative WOM. Therefore, we believe that,

H8: Brand distrust has a mediator effect between negative word of mouth and brand hate.

Previous literature confirms that unethical corporate wrongdoing make consumer distrust the brands (Zarantonello et al., 2016). Corporate wrongdoings mostly were developed by moral misconducts, dishonest communication or incongruity of values of the brand. When ideological incompatibility incident happens, consumer may have conflict between their cognition and the original attitude. In order to get rid of the psychological incongruity under a strong psychological conflict condition, consumer will tend to change their original cognitive component to maintain the original judgement standard. Thus, an emotional deviation exists to the brand, from trust to distrust, from love to hate, and eventually leads to changes in consumes' negative emotion. Based on above discussion, we proposed that,

H9: Brand distrust has a mediator effect between ideological incompatibility and brand hate.

Figure 1 A conceptual model of determinants of brand hate



2 Research design and methodology

This study plans to adopt survey as the research method. The initial questionnaire was composed by several parts covering the measurement of brand hate, negative past experience, negative word of mouth, ideological incompatibility, negative brand-self relationship, negative social self-connection, distrust, and a personal information section. In addition, the first part of the questionnaire has designed two short questions that ask the respondents recall and write down the brand names they hate most, and the reasons why they hate the brands. These two questions are the stimulus of brand association which help the respondents to recall the brands they hate, and then work as the foundation to carry through the following survey successfully.

For the avoidance of high deviation, and the confirmation of preciseness and carefulness, the measurement scales of the questionnaire have been made from multi-metrics. In the meanwhile, all of these measurements were directly adopt from previous literatures with slightly revision to fit the context of this study. All items were measured using a seven-point Likert-type scale. Items were anchored with "strongly agree/strongly disagree"

Conclusion

Previous studies pay more attention to positive customer brand relationships, only few research began to investigate negative customer brand relationship. The extreme negative affect as manifested in brand hate reflects a gap in existing literature. We believe that understanding of such extreme negative affect will have both theoretical and practical implication into brand management domain.

Brand hate is an intense emotional responses that consumers toward brands, which differs from brand dislike and satisfaction. Brand hate describes extreme negative affective component of attitude towards a certain brand, and often bring the outcomes such like negative word of mouth, protesting in public, brand boycotts, and sabotage of properties belong to that brand. Once brand hate was formed, companies will no doubly suffer huge losses.

This study aims to deepen the understanding of brand hate, and proposes several factors that may influence consumers' brand hate. Specifically, we propose that negative past experience, negative word of mouth, the ideological incompatibility, negative brand-self relationship, and negative social-self connection will impact brand hate. Meanwhile, we propose that brand distrust has a mediation effect on the relationship between negative past experience, negative word of mouth, and ideological incompatibility on brand hate. We hope our study can provided incremental contributions to the brand hate research, and provide managerial implications for the brand managers.

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