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UNIVERSITY
OF ECONOMICS



KNOWLEDGE ECONOMY SOCIETY

CHALLENGES FOR CONTEMPORARY
ECONOMIES – GLOBAL, REGIONAL, NETWORK
AND ORGANIZATIONAL PERSPECTIVE



Edited by
Jacek Kopeć, Bogusz Mięka

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– GLOBAL, REGIONAL, NETWORK
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Introduction

Permanent turbulence of the environment brings about the necessity to conduct continuous research enabling to diagnose correctly the most important present and future economic and management challenges for the states, individual regions, enterprises and public organisations. Undertaking on that basis adequate activities by individual governmental entities and organisations requires them to possess appropriate knowledge and consider numerous determinants from the area of economics, management, politics, law or social conditionings. Undoubtedly, this publication is a helpful source of information and knowledge. It addresses a lot of problems from the level of the global economy, national economies, activities of sectors, the functioning of networks and managing economic and public institutions. The presented issues include the subjects of trade, tourism, finance, competitiveness, employee competences, work systems, organisational behaviours, information systems, risk, restructuring and innovativeness. This considerable portion of knowledge is included in the chapters presenting findings of empirical and theoretical deliberations.

The content of the book is divided into three parts, namely:

1. Global, regional and sectoral challenges for the contemporary economy.
2. Challenges of the network economy.
3. Challenges for the theory and practice of organizational management.

The first part of the book opens with the subchapter devoted to the current trade war between the U.S. and China. The authors present potential consequences of that conflict. The second subchapter is dedicated to the problem of financial exclusion on the example of Ukraine. It presents the analysis of the availability of the basic financial services for people of Ukraine in comparison with other countries, particularly with Poland. The next three subchapters focus on personnel problems. They are devoted to the issue of the flexibility of the conditions of work and workforce turnover in Central and Eastern Europe, as well as contemporary requirements concerning workers' skills in different countries. The next subchapter tackles the issue of the level of use of management accounting in

medium-sized enterprises on the example of Russia. Next, the problem of the use of human capital in the tourism sector is presented, as well as the role of transformational leadership in the public administration sector, the role of small and medium-sized enterprises in regional development and the analysis of benefits for the owners of cooperatives in the dairy industry in Poland. Each of the subchapters of this part discusses important economic and management problems.

A specific feature of knowledge based economy is its network character. Examining networks in terms of various aspects of their activities gives valuable knowledge for making decisions both on the level of economies and enterprises. Therefore, the second part of the book is devoted to challenges that network economy poses in respect of collaborative economy in retail, activities of social networks in museums, systems for distributed information resources integration, trust in relationships between retail entities, absorption of skills in virtual teams and operations of eco-innovative energy management systems.

The third part of the monograph is devoted to selected contemporary challenges facing the theory and practice of organisational management. Individual subchapters address the issues of the systemic approach to competitiveness, various aspects of innovativeness, the role of customers' age in the choice of advertising strategies, operating risk in the activities of start-ups, consulting and succession in family firms.

The subchapters are of both theoretical and practical character. The variety of the problems should cause that every reader interested in the contemporary economy and organisational management will find some interesting issues in this monograph.

This monograph is a result of conducted scientific cooperation of the academic environment of the Faculty of Management, Cracow University of Economics with other scientists from Poland and abroad, in this case coming from such countries as the US, Egypt, Ukraine, Slovakia, Slovenia, Serbia and Germany. The monograph is a part of the cycle of publications with the common title "*Knowledge – Economy – Society*", which is one of the effects of many years' scientific collaboration. As scientific editors we would like to thank all the Authors for accepting our invitation to co-create this publication and their dedication and contribution to its creation.

Jacek Kopeć, Bogusz Mikula

PART I

**GLOBAL, REGIONAL
AND SECTORAL CHALLENGES
FOR THE CONTEMPORARY ECONOMY**

USA–China: Trade War or a Managable Conflict?

Jolanta Maroń, Kinga Szmigiel

1. Introduction

The twenty- first century brought many political and economic changes, however, currently one of the most significant ones should be considered a conflict between two major economic powers: United Sates of America and Chinese People’s Republic. The first being an old hegemon trying to protect its superiority and the second: a rising power, slowly, but so far unstoppable towards regaining international significance.

The aim of this paper is to evaluate the potential outcomes of this conflict and determine whether the global economy is dealing with a trade war that can develop even further, or a managable conflict.

2. The American perspective

Often times it is pointed out that it was Donald Trump’s dissatisfaction with the ongoing trade deficit (Fig. 1), China’s weakness in intellectual property protection, as well as their growing international position, that led to, what we now refer to as a trade war. However it needs to be highlighted that all of mentioned above problems are no news, as these phenomena have been growing for almost two decades. Despite, surely being noticed by former US administration, these were not treated as an immediate danger to American economy, which would justify such serious tariff actions. The changes in the US political arena resulting in modified foreign policy are to be blamed for current economic relations between the United States and China.

As Figure 1 shows the volume of trade between the US and China indicates that the trade relationship between them is permanent and strong. Codependence of US and Chinese economies, relating specifically to trade, has even led to the term “Chimerica” In this relationship, China has held a subordinate position so

far. Yes, Middle Kingdom exported more and more, probably trying to keep their currency against the US dollar at the same time, but as long as they delivered cheap products that fuel US consumption, side effects could have been ignored. Yet those problematic issues have grown, together with the trade deficit, and lately, have been accompanied with a China's shift towards knowledge based economy. By fulling "Made in China" strategy, the cost of which is estimated at \$ 300 billion, China wants to become self-sufficient by 2025 in terms of integrated circuits, electric cars and robotics. That strategic goal caused considerable irritation among most developed countries, especially United States, that began to consider China more in terms of systemic rival than a partner. The most concerning issue with the "Made in China" strategy seems to be plan's intent to gain know-how, with expansive state support, both direct and indirect, which already hampers relations with more innovative partners. For example China is absorbing innovation by forcing foreign companies to engage in joint ventures with domestic companies which in turn gives Chinese companies illicit access to their technologies, including those patented (McLaughlin & Strohm, 2018).

From an American perspective, China is using its growing market power to benefit itself at the expense of its trade partners, specially US, in a variety of ways (Liu & Woo, 2018). At the same time Chinese government seems to manage to escape direct accusations, for example of manipulating exchange rate in order to maintain export prices. Also, China's foreign policy and their investments [among others in Africa] have become increasingly expansive, reflecting their growing political and economic ambitions. For some politicians and economists those are clear signs that China might be aiming at global leadership, not only as a major exporter but also as an industrial and technological superpower. It is understandable that the United States considers this a worrying phenomenon, especially since in their opinion it is the US economy, investments and imports that China owes its economic boom. At the same time, China is accused of not complying with commitments it undertook to implement by joining the World Trade Organization (WTO), such as: abandoning subsidies, price controls, enabling fair competition and implementing transparency of China's trade related polices (*2018 Report to Congress...*, 2019). It is also worth noting that US lobbied in favor of China's WTO admission, for both economic and political reasons, but hopes for mutual openness to trade, business and investment proved futile. According to the United States Trade Representative People's Republic of China enjoys full membership rights in the WTO while restricting access to its economy for companies and foreign capital.

It is very likely that even the current situation would have been treated differently by another administration, but President Trump's decisions are far from moderate. Although a year earlier the US Congress was proposing to im-

pose a duty on imports from China, but then the threat itself worked and the yuan began to strengthen faster. In addition, the proposal to introduce a duty was a pre-election move and did not enter the legislative phase at that point. However, the new administration led by President Trump makes faster and bolder decisions.

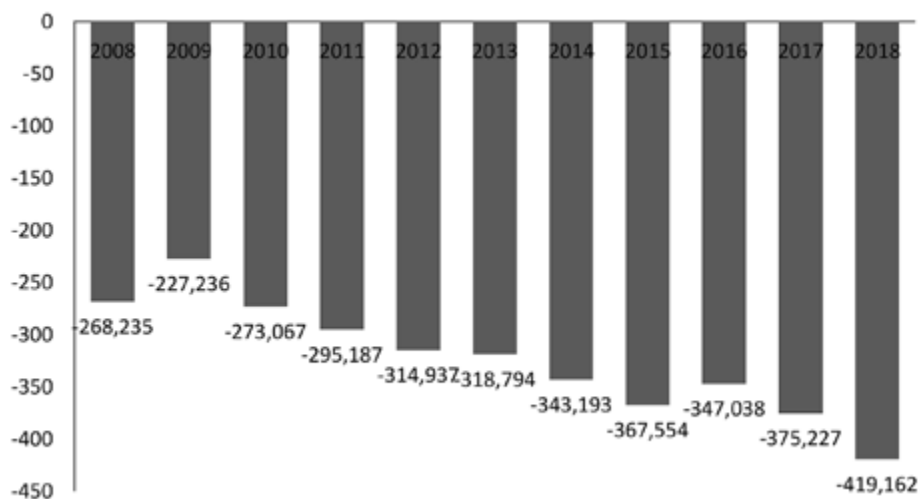


Figure 1. The US trade balance with China in 2008-2018

Source: own study based on: (What's the..., 2007; BEA, 2018).

As an effect since March 2018 two largest economies of the world have been waging a trade war with each other, increasing customs tariffs on imported products on both sides, in order to force the opposite side to submit to and accept the required changes. The leading force of the conflict is definitely the US that seems determined to continue and even escalate the trade war until its goals are reached. What are the expectations of President Trump towards China to end this trade war?

The US Foreign Ministry points out that the United States expects several changes in Chinese policies. Those include:

- the cessation of subsidies for its technology sector, which will affect its international competitiveness,
- facilitating business to foreign companies,
- China's increase in funds for the protection of US intellectual property,
- enabling further strengthening of the yuan, which is allegedly slowed down by Chinese exchange rate policy.

The tense situation has lasted for several months already, and subsequent negotiation rounds between the countries have not brought the expected re-

sults for either party (Polish Press Agency, 2019). However, it is worth noting that President Trump's tough policy towards China is gradually losing its initial strength. The planned increase of customs tariffs by the American party, which was to take place on 1 March 2019, was stopped (Polish Press Agency, 2019). On 1 March, the deadline for the temporary "ceasefire" negotiated during the third round of meetings was to expire, after which the tariffs were set to increase once again. As President Trump stated: "As the conversations were so productive, I put aside the imposition of US tariffs and tariffs on 1 March" (Forbes, February 2019).

It seems that what was supposed to quickly lead to a kind of "surrender" of the Chinese side and establishing a reform plan in reality met with a different reaction than expected by President Trump. Unable to count on a quick victory, the United States is trying to choose a different tactic, constantly raising the stakes in the form of subsequent tariffs, which ultimately can affect all imports from China. Although President Trump probably expected a different result, the United States have economic grounds for prolonged conflict to soften the opponent over a longer period of time.

The United States imports from China mainly capital resources and semi-finished products. In fact consumer goods were in the third place on the list, and customs duties on these products were not raised in the early stages of the conflict. The average American consumer will therefore feel the effects of the trade war later than it would be in the case of imports narrowed only to consumer goods. Combined with promises to increase the number of domestic jobs and rhetoric speaking, it is China to fully pay for the increase in tariffs, it creates a positive reception in American society. This fact allows for more severe and unpredictable decisions on the part of President Trump, while the Chinese side during the conflict only responds to the actions taken by the US, seemingly being in a damage control mode. In fact, despite constantly changing decisions whether to raise further tariffs President Trump minds for American consumers by delaying further tariffs until the end of Christmas shopping spree.

3. Chinese perspective

It is highly probable that neither two countries involved nor the global economy would benefit from ongoing trade war, but it is mostly agreed upon that China is on the losing end. As the trade dispute is unfolding itself China is often seen as a party that only responds to America's actions, which is in line with this country's culture. Following Confucian values, Middle Kingdom does not seek to escalate the conflict, the more so that according to the mentality there, open disputes lead to a loss on both sides (Góralczyk, 2019). However, even assuming that the Chinese side does not find itself as well in an open conflict situation as

Americans, Chinese government remains persistently unwilling to fulfill demands of President Trump.

The Chinese Ministry of Commerce commented on this issue: “We do not want to fight, but we are not afraid of a trade war. The Chinese side will follow its [American] example and will not hesitate to pay every price, and we will definitely fight. We must prepare a new comprehensive response and defend the interests of the country and people” (Mallick, 2018). And those claims are, up until this point, fulfilled, despite the fact that for every difficulty in negotiations or delay in implementing the arrangements, Americans respond with threats of subsequent tariffs. The Chinese government does not plan to change its external policy, let alone intimidate foreign pressures.

On this basis, an application may be made that the trade war from Chinese perspective poses a smaller threat to Chinese plans than the possible implementation of American demands. Some specialists claim that in the future China wants to replace the US as an economic hegemon and to impose a new order based on the idea of state capitalism, or on a smaller scale to dominate the Asia-Pacific region. However, the dominant view is that China’s main goal is to maintain the country’s economic growth and pursue both internal and foreign policy in order to “make China great” (M. Swaine and C. Freeman). According to this theory for Chinese administration regional or global domination is not a main goal, however, should it occur as a side effect of economic development it will be an additional political and economic advantage for China. Assuming that dynamic development is an ultimate goal for the Middle Kingdom anyone trying to dissuade China from developing might become an “enemy” who will have to deal with a strong reaction. From this perspective, the actions of the US administration, especially President Trump, can be seen in terms of a “trade war”. However, it might be perceived by the Chinese side as insufficiently effective to cause concern or harm China’s long-term plans (Zha et al., 2019). If such a belief persisted among Chinese politicians the escalation of the conflict should not be expected. It is also pointed out that toned China’s reaction stems less from the strategic planning and more from the lack of tariff tools comparable to United States. Therefore, China is looking for alternatives, partly in terms of how to adequately respond to US actions, but above all how to achieve its most important goals despite the ongoing conflict.

4. European and global perspectives

Economists’ opinions on the effects of war on the European Union are divided. Some claim European countries stuck between two giant economies, which are also their trade partners, might be left as collateral damage. This can hap-

pen not only if EU countries would have to take sides in a trade war, but also because of global trade disturbances, diminishing trust and growing uncertainty that is harmful to both consumers and investors.

On the other hand, many point out at Europe's potential gains on US-China trade war. This is due to the fact that while President Trump has threatened tariffs on EU goods over the trade surplus, which could lead to another trade war, China is looking at EU for a replacement for trade with the United States. The European Union has become the most important trade partner for China (European Commission, 2019), and in the current tense and uncertain situation this partnership has a chance to expand.

Since the start of the trade war on the US-China line, Chinese investments have seen a drastic decline in the United States (Fryc, 2018). This may lead to a shift in the flow of Chinese capital to Europe, which has already began, despite some backlashes. Particularly developed European Union countries give China hope for relations similar to those they had with the United States. However, since China is considered to have unduly benefited from this relationship for its technological development, this raises legitimate concerns for European governments. Still, scientific exchanges between EU countries and China are expanding and research programs are moving towards European universities. An example of this trend is the opening of the "Center for Advanced Research" at the University of Oxford in cooperation with the University of Suzhou (Orr, 2019).

In addition, one should not forget about the One Belt One Road Initiative that aims to increase China's trade with Europe. The associated investments and increasing the volume of trade with all economies involved in OBOR are seen by China as one of the potential ways of further development. And it might be so if sensitive issues of intellectual property protection will be resolved to the satisfaction of countries such as Germany and France. In addition, what might have been strategically planned to accelerate the development of the Chinese economy may not be equally profitable for its trading partners.

In other areas of the world, trade war also has negative effects, including both the issues already mentioned in the case of the European Union and those directly related to changes in supply chains.

So far, it is recognized that only producers of cheap products profit from it, especially Vietnam. Many companies and even countries feel obliged to choose parties to the conflict, and moods in the markets and among consumers are deteriorating. However, in the long run more problems might be caused by other countries following the US example and threatening to raise tariffs for their trading partners, as it happens in the case of South Korea and Japan. Should selective trade restrictions spread and WTO member countries take matters into their own hands, the foundations of this organization could be breached. And this might

cause far worse repercussions as many economies suffering negative effects of current trade war or recession will feel grown to shift the burden of its effects on others through tariffs and non-tariff barriers.

5. Conclusion

There is more into ongoing trade war than President Trump's swinging moods hampering consensus and the passive resistance of the Chinese authorities to even the field for economic relations with the US. It is pointed out that it would be difficult to end this trade war because it has deeper meaning than trade issues. As it has been presented in this paper politics and economy are extremely intertwined in the US-China trade war. The dynamically changing situation between them affects the decisions taken by the world's largest economies to minimize their predicted losses in the current situation. The same will soon apply to the majority of businesses and consumers around the world, if the conflict does not end quickly, and much indicates that it will be long lasting. China might be better at managing this conflict as it already prepares for different scenarios, while President Trump seems to change his mind depending on the situation. Even if US-China trade war itself may be a manageable conflict, its global repercussions are beyond control, as it already caused a major disturbance in a global trade system, previously going towards liberalization, under a supervision of World Trade Organization. Trade war can be linked to the loss of confidence in WTO and its ability to settle such disputes (Wagner, 2019). Threatens of trade tariffs began to be used as a means to achieve political and economic goals. Prospect of a Japan-South Korea trade war already arose, which may signify an incoming shift in the world trading system. It should also be considered that despite the fact that Europe may benefit from US-China trade war, the same weapon that has been used against China is also threatening European Union.

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Financial Inclusion and its Determinants: the Case of Ukraine

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1. Introduction

In recent years, the problem of low involvement of the population in the financial sector has become increasingly relevant throughout the world – not everyone has access to high-quality financial services and has sufficient knowledge and experience to use them. According to the World Bank, over 2.5 billion people in the world do not have access to quality financial services. To borrow and insure their assets they use informal methods.

At the same time, the availability of basic financial services for consumers is an important indicator of the development of the financial sector. The availability of financial services is an important tool for the competitiveness of any country, as the financial sector stimulates the growth of the welfare of the population, promotes business development, and helps expand the markets for goods and services.

The outlined problem has led to the concept of "financial inclusiveness/inclusion", which in general means availability of financial services for retail customers. A well-developed and inclusive financial system helps reduce information and operational costs at the same time stimulating investment decisions, technological innovations and growth in the long run.

The problem of financial inclusiveness is gaining special significance for Ukraine, as evidenced by the results of the survey "Portrait of the Ukrainian consumer of financial services". At the beginning of 2017 representatives of the USA Agency Project for International Development USAID "International Partnerships for Financial Stability" conducted a survey among the population in order to find out how much Ukrainians are aware of the financial system and interact with it. According to the results of the study, it was found out that ordinary Ukrainians know little about finances, mainly use simple banking services, know almost nothing about their rights as consumers of financial services and do not trust

financial institutions. The population uses a very limited list of financial services, among which the dominant position belongs to utility bills, bank accounts/plastic cards and ATMs (Vitka, 2018).

Given this situation, increasing the availability of financial services in Ukraine is one of the most topical economic problems, which is constantly under the spotlight of both regulators, financial institutions and researchers.

The purpose of the study is to reveal the economic content of the concept of "financial inclusiveness", to analyse the availability of basic financial services for the population in Ukraine in comparison with other countries, Poland in particular, and to outline areas for promoting financial inclusiveness.

2. The essence of financial inclusiveness and its components

Within the research it is necessary, first of all, to define the terminological content of the basic notion of "financial inclusiveness".

The United Nations and the World Bank define financial inclusiveness as "access to a wide range of financial products and services that are affordable or provided at a reasonable price, useful and able to meet the needs of households and enterprises, and which are provided responsibly and stably". The National Strategy of Financial Inclusion (NSFI) points to four components of financial inclusion, namely: 1) access, 2) quality, 3) use and 4) welfare (Fig. 1).

The integrated approach of the Center for Financial Inclusion (CFI) defines financial inclusion as "a state in which anyone who can use financial services has access to a full range of quality financial services provided at reasonable prices, in a convenient way, with respect and dignity". That is, here the social component of the category under consideration is also taken into account.

According to Gatnar (2013, p. 225), financial inclusion is a condition in which all people have access to a full range of quality financial services provided at reasonable prices, in a convenient way and with dignity for clients.

In the study by Akimova (2015, p. 195), financial inclusion is seen as "characterizing the population's inclusion in the official financial turnover including the access to services of officially registered financial institutions". According to Naumenkova (2015, p. 336), the disclosure of the economic content of the concept of "financial inclusion" is associated with such concepts as financial inclusion and financial exclusion. Financial inclusion is consumers' access to basic financial services, which is based on the absence of any kind of obstacle (price and non-price) for obtaining them. Contrary to it by its content is financial exclusion rate. Financial exclusion is making it impossible for consumers – citizens of a country – to access basic financial services that meet their needs, due to presence of various kinds of obstacles and complications (price and non-price), which diverts the

citizens from normal social life in the society which they belong to. Mazaraki and Volosovych (2016, p. 17) note that financial inclusion involves the need of households and business entities in financial services, the ability to meet this need, the availability of relevant financial services and their quality.

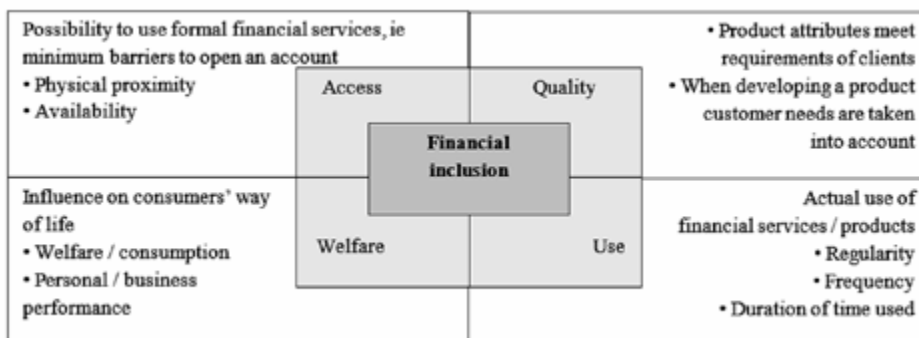


Figure 1. Components of financial inclusion

Source: own compilation based on (*Financial Inclusion*, 2018).

The common elements of these definitions are “universal access” to a ”wide range of financial services” at a ”reasonable price”.

Finally, the concept of financial inclusion also implies financial exclusion, also known as being “unbanked”. Financial exclusion is defined as not using any financial services or products of formal financial institutions, including MFIs. However, it is important to distinguish between those who, for whatever reason, do not wish or need to use such services and products, and those who wish to use them but cannot do so due to insufficient funds, poor access, high costs, ignorance or a lack of understanding, a lack of trust, or identity requirements (Yoshino & Morgan, 2017).

3. Factors of financial inclusion

Let’s consider the factors of financial inclusion. According to research by Camara, Pena & Tuesta (2014), Llanto & Rosellon (2017), Martinez, Hidalgo & Tuesta (2013), the following factors have impact on access to financial services:

- 1) Place of residence. For example, most commercial banks operate only in commercial premises, and these banks set up their branches in profitable areas. Hence, rural population has complicated access to financial services.
- 2) Limited awareness about financial services and low level of financial literacy. Incomplete basic education and low level of financial literacy are the main obstacles for individuals to access different financial services. Some catego-

ries of people do not understand financial products and have a poor understanding of the fundamental principles of the financial market functioning. According to the studies, the effect of increasing financial literacy increases the effect of greater financial depth (Grohmann, Klühs & Menkhoff, 2018).

- 3) The level of income of the population. People's financial capability always plays a key role in accessing reasonable financial services. Poor people can not access financial services, even if these services are created for a low income group.
- 4) Lack of legal identity. Economic and political migrants, refugees do not have access to financial services due to lack of legal identity, that is, documents identifying the individual and providing the right to open accounts.

We believe that the list of factors of financial inclusion should be supplemented by such an important factor as the level of trust in financial institutions. This factor is especially relevant for Ukraine, where now there is a crisis of confidence, as a result of which the tendency of keeping the population's savings outside the banking system is spreading. According to a survey conducted by the Ukrainian company InMind, only 11% of respondents keep a large share of their savings in banks, 7% – half of their savings, 49% – only a small percentage. Thus, a third (33%) of the surveyed respondents having some savings have no confidence in commercial banks and keep their money outside banks (The National Institute for Strategic Studies, 2015).

4. Results of the analysis of financial inclusion in Ukraine

The importance and complexity of the issue of financial inclusion led to the emergence of many approaches to assessing its level. A number of international institutions and organizations (World Bank, IMF, OECD, Basel Committee on Banking Supervision, etc.) collect statistical data, calculate and analyze the indicators of financial inclusion.

In addition, new international and regional organizations and structures were formed whose activities are aimed at fostering financial inclusion – the Alliance for Financial Inclusion (AFI), the Center for Financial Inclusion (CFI), the Global Partnership for Financial Inclusion – GPFII), Microfinance Information Exchange (MIX), Finscope, etc.

The most comprehensive studies of financial inclusiveness and changes in its level are regularly conducted by the World Bank (Global Findex database), by the International Monetary Fund (Financial Access Survey (FAS) and by the Alliance for Financial Inclusion (AFI).

Findex's global database contains detailed data on how people save, borrow, make payments and manage risks. It is the world's most comprehensive database

of financial inclusion, which constantly monitors the level of using financial services by people in different countries and over time. Global Findex consists of over 100 indicators, which are also displayed by gender, income, and age. Collected in partnership with Gallup's global survey funded by the Bill and Melinda Gates Foundation, Global Findex is based on interviews with approximately 150,000 nationally and randomly selected adults (aged 15) in more than 140 countries.

According to Global Findex 2017, Ukraine has a rather low level of financial inclusion of the population in the organized money market (Tab. 1). In particular, almost all indicators of financial inclusion in Ukraine are lower than in the developed OECD countries, and sometimes lower than the average world values. We also provide the data of Poland to compare.

Table 1. Dynamics of separate indicators of financial inclusion (% population aged 15 years)

Indicator	World			OECD			Ukraine			Poland		
	2011	2014	2017	2011	2014	2017	2011	2014	2017	2011	2014	2017
Account (% age 15+)	50.6	61.2	67.1	89.9	94.0	94.7	41.3	52.7	62.9	70.2	77.9	86.7
Debit card ownership (% age 15+)	30.7	40.6	47.7	61.9	79.7	84.2	33.6	39.7	49.4	37.3	49.5	79.3
Credit card ownership (% age 15+)	14.9	17.8	18.4	50.8	52.	56.7	19.3	27.5	26.7	17.7	16.8	16.5
Saved at a financial institution (% age 15+)	22.4	27.3	26.7	45.2	51.5	56.5	5.4	7.8	12.9	18.0	20.8	32.6
Borrowed from a financial institution or used a credit card (% age 15+)	14.9	22.3	22.5	50.8	53.5	56.8	19.3	21.7	21.7	-	26.8	30.5
Borrowed from family or friends (% age 15+)	23.0	26.5	25.8	11.9	14.9	12.7	37.3	22.0	30.8	13.4	12.1	25.1
Paid utility bills: using a financial institution account (% age 15+)	-	17.0	21.7	-	61.1	62.4	-	5.6	19.7	-	31.9	50.0
Paid utility bills: using cash only (% age 15+)	-	41.5	29.6	-	11.6	8.9	-	65.8	52.6	-	39.3	14.9

Source: own compilation based on (Worldbank, 2018).

5. Reasons for low level of financial inclusion in Ukraine and ways to increase its level

Considering the economic and socio-political instability, households are compelled to be in a state of total savings, so any intentions of the population to put aside, invest, or simply spend their funds are passive in nature.

The low level of financial inclusiveness in Ukraine is related to the existing problems on protecting consumer rights and financial literacy of people. The study by Dudynets and Vernei (2017) indicates that the existing consumer protection system in the financial services markets is not fully in line with the general principles of the Organization for Economic Cooperation and Development and leads to distrust of financial institutions by the public and, consequently, to a low level of financial inclusion.

In 2017, less than 10% of the population of Ukraine had a deposit with the bank (apart from the current account) and only a few respondents (0.3%) invested in credit unions. Of all the respondents, 70% believe that “deposits are a dangerous tool for saving, as many people put money into a deposit and lost it”. It is not surprising that 59% of those residents of Ukraine who at the time of receiving the next revenues happen to have spare finances, prefer saving in cash, and not in the form of deposits.

As we see, it is the high risks that cause the formation of the population's savings in national and foreign currency cash outside the financial and credit system, which, according to potential consumers of financial services, is considered to be the safest.

The resolution of consumer protection rights is directly linked to an increase in the level of financial inclusiveness in Ukraine. Secondly, it is necessary to increase the level of financial education and financial literacy of the population.

Akimova (2015) stresses the necessity of forming a model of inclusive financial behavior in Ukraine, for both individuals and legal entities, which envisages increasing requirements for the level of risk of financial and credit institutions in all sectors of the financial market in order to increase their confidence in them.

According to Naumenkova (2015), in order to increase the efficiency of accumulation of funds by the financial system and to ensure access of the population to financial services, it is expedient to introduce the following measures:

- to develop a list of tasks to organize the survey of financial inclusiveness and assess the territorial and technological access of the population of Ukraine to the basic financial services;

- to identify the existence of price and non-price barriers to financial services and the marginal cost of financial services, the average amount of payment for financial services provided through bank and payment agents;
- to optimize the infrastructure of the financial services market, including the structure of customer financial service points as well as electronic self-service points (payment terminals);
- to strengthen control over intermediaries that use mechanisms of remote provision of financial services (mobile and Internet banking), especially in the context of creating network structures for providing financial services (network marketing);
- to develop recommendations for optimizing the composition of financial services providers in different segments of the financial market, who require increased attention to technological, operational and communication integration, excluding the possibility of regulatory arbitrage.

It is worth noting that in Ukraine, despite the foreseen equality in access to financial (banking) services, there is a practice of restricting the receipt of qualitative financial services by persons with disabilities. The problem is that most of the premises in which bank branches are located are architecturally inaccessible to wheelchair users, terminals (ATMs) are located without taking into account the possibility of using them by persons with disabilities, they are located either too high or separated from a disabled consumer with steps that they can not overcome on their own. Information on the display of the ATM is not accessible to the visually impaired, and most of the bank's sites, where by the Internet it could be possible to do transactions with their own bank cards, are also not accessible. For people with hearing impairments, there is a problem of communication with bank employees without the help of an interpreter, which leads to the fact that those who do not hear are not always aware of the content of the transactions they sign in the bank. For people with visual impairments, the most pressing problem is the same reproduction of their own signature several times, which leads to the situation when bank employees refuse to serve such clients. In addition to the above mentioned, there is a practice of considering persons with disabilities to be high-risk clients. For such clients, a polite refusal is applied, which consists in the requirement of collateral security, or they are offered to conclude transactions on some other, more unprofitable terms, than for ordinary clients. To address this problem, it is necessary to foresee the responsibility of banks and other financial institutions for not creating conditions for access to banking services by persons with disabilities.

In our opinion, one of the promising directions of promoting financial inclusion in Ukraine is development of financial technologies. We should note that the Internet as an information and transport technology has already ensured the

access to financial services for more customers, eliminating geographical and time barriers. However, measures to increase the information literacy of the population and the development of online platforms is also the necessary step to increase the level of financial inclusion in Ukraine, as the results of the analysis show that in Ukraine the indicators of financial inclusion based on applying digital technologies are lower than in the developed countries of the OECD (Tab. 2).

Table 2. Indicators of financial inclusion based on the use of digital technologies in 2017 (% of population aged 15 years)

Indicator	World	OECD	Ukraine	Poland
Used a mobile phone or the internet to access a financial institution account in the past year (% age 15+)	22.8	53.5	18.1	52.4
Used the internet to pay bills in the past year (% age 15+)	22.2	53.7	22.9	51.1
Made or received digital payments in the past year (% age 15+)	52.3	92.1	60.7	81.8

Source: own compilation based on (Worldbank, 2018).

Financial inclusion on the basis of digital technologies has several advantages. Digital financial integration enables banks to reduce costs by reducing queues in bank halls, by reducing paperwork and reducing the costs of maintaining branch offices.. With digital financial inclusion, a large number of depositors can easily change banks within a few minutes, forcing banking institutions to provide better-quality services so as not to risk losing depositors to competing banks. For regulators of financial and currency systems, digital financial inclusion also helps to reduce the amount of physical cash in circulation and contributes to lowering high levels of inflation in developing countries. A digital financial inclusion can improve the welfare of individuals and legal entities that have a reliable digital platform to access funds in their bank accounts in order to conduct financial transactions. The expected benefits of digital financial inclusion can be fully gained if the cost of obtaining a digital transaction platform for low-income people is insignificant or low in case the digital platform refers to mobile phones, personal computers and related devices.

Important role in increasing the level of financial inclusion on the basis of digital technologies is played by FinTech-companies with a number of advantages:

- 1) Fintech-providers can provide operational financial services through a continuous process that facilitates managing by low-income people their financial obligations on a daily basis.
- 2) Fintech companies face less regulation than banks, enabling them to focus on improving their financial technologies and the effectiveness of mediation (in particular, by reducing the cost of services, where possible, for better customer service.

- 3) Fintech companies can collaborate with traditional lending institutions that can help them reduce operating costs and improve the quality of their mediation. Collaboration with traditional financial institutions can help Fintech vendors become stable over time, and financial technology of Fintech vendors can benefit traditional lenders with which they collaborate, in particular, in improving their online lending.
- 4) Some Fintech providers have better opportunities to provide quick loans or small loans to low-income individuals compared to banks and other lending institutions. Any request for such funding in a traditional bank or credit institution should undergo a credit risk assessment process that may be too long for people in need of instant loans. This makes some Fintech providers more affordable for providing short-term cash in small amounts with higher interest rates for middle-income and low-income individuals.
- 5) There is potential for ensuring convenience of providing financial services technology for Fintech providers working through Internet platforms. They can by electronic means ensure greater convenience for their users by providing access to such services always and anywhere where the user or consumer can access the Internet. This makes it possible for Fintech providers to help their customers avoid visiting a bank premises to do financial transactions.

In this aspect, in order to promote financial inclusion in Ukraine, the US-AID Transformation of the Financial Sector Project, the National Bank of Ukraine (NBU) and the Independent Association of Ukrainian Banks (NABU) have announced a contest “FinTech Challenge” (#GOFinTechUA). The goal of “FinTech Challenge” is to select up to five of the best proposals on the development of innovative fintech solutions that would deepen the knowledge of Ukrainian citizens about financial services, as well as increase access to financial services, increase the volume of use and improve the quality of financial services throughout the country. The total prize fund of this contest is 1.5 million hryvnias.

6. Conclusion

In order to increase the level of financial inclusion in Ukraine and promote the use of active strategies of financial behavior, it is necessary to increase the level of the population's awareness of a certain set of financial knowledge about the main tendencies that are taking place in the financial market of Ukraine, to increase the level of financial literacy, so that the population have the opportunity to independently analyze processes taking place in the economic life of the state.

The strategy of promoting financial inclusion in Ukraine should be based on improving the quality of financial services for consumers who already have

access to them and on extending the provision of basic financial services to those who do not have access to them at all. In this aspect, the use of financial technologies is an effective tool for raising the level of financial inclusion, so the research of the issue of implementing financial technologies and prospect of their use should be considered as a further direction of the research.

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Flexible Working Arrangements and Employee Turnover in the Central and Eastern Europe

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1. Introduction

The labor market has significantly changed in the last decade due to the processes of digitalization, globalization, competitiveness, dynamism, and the presence of a new generations (Y and Z generation) in the companies. Many organizations are faced with insufficient number of employees, but also with insufficient competencies of their work force. In order to attract and retain talents, increase their knowledge, skills, and abilities (KSA), employers all over the world are becoming increasingly flexible and innovative in terms of the organization of work, work-life balance, compensation systems, training and development programs, career management, etc.

As a response to the changing workplace, organizations developed flexible working arrangements (FWA), as working patterns involving modifications to the regular working hours such as work at nights and at weekends, home-based working, teleworking, part-time jobs, flexitime, compressed work weeks, etc. (ILO, 2000; Stavrou, 2005; Coenen & Kok, 2014), and make available to employees the choice regarding where and when to work and how much work to perform (Hill et al., 2008; Azar et al., 2018). These FWAs are found to have significant influences on organizational performances (Baltes et al., 1999; Beauregard & Henry, 2009; Battisti & Vallanti, 2013; Berkery et al., 2017), and especially on employee turnover (De Janasz et al., 2013; Caillier, 2018; Wadsworth et al., 2018).

The aim of this research is to investigate the relationship between flexible working arrangements (FWA) and employee turnover in the sample of 9 Central and Eastern European (CEE) countries (Croatia, Estonia, Latvia, Lithuania, Hungary, Slovenia, Slovakia, Serbia, and Romania). The research is based on the CRANET research methodology and research database from 2015/2016. The authors explored the available literature on FWAs and turnover, and performed Fac-

tor analysis, Spearman's correlation, and Hierarchal regression analysis to investigate the proposed relations.

2. Theoretical background

There is no universal definition of a FWA. However, the general definition of a FWA is the work role offers some flexibility with where someone works, when someone works, and how much they work. If at least one of these flexible traits is present, then the role is a FWA (Chen & Fulmer, 2018). Spreitzer et al. (2017) identify three dimensions of flexibility inherent in different types of alternative work arrangements and review the literature relevant to each dimension: (a) flexibility in the employment relationship, (b) flexibility in the scheduling of work, and (c) flexibility in the location where work is accomplished.

Zapf and Weber (2017) state that employers require working-time flexibility to deal with and to respond quickly to fluctuations in demand and thus to save costs, to realize shorter delivery times and to meet customer needs, to increase performance and productivity and to foster innovation performance. Employees require working-time flexibility to balance work and private life responsibilities, but also changing lifestyle and work style preferences and the increasing need for life-long learning require more flexible working hours.

The FWAs have significant benefits for the employees and for employers, too. The main benefit of FWA for the workers is the better work-life balance (Dougherty, 2017), as enhancing flexibility through a FWA can promote the integration of work, personal life, and family (Hayman, 2009). The other benefit of FWA is to increase a worker's positive attitude towards their job. There is evidence stating workers who know a FWA is available may have an increased positive job attitude (Chen & Fulmer, 2018). The increased autonomy in a FWA can enrich a worker's life which ultimately increases job satisfaction. A FWA can be a positive factor in reducing turnover and absenteeism FWAs give organizations increased capacity in addressing diversity in the workforce (Davis, 2018).

FWAs reported in the literature include part-time work, job sharing, shift, and weekend work, overtime, annual hours, flextime, temporary work, fixed-term contracts, subcontracting, home-based work and tele-working (Stavrou et al., 2015). According to different law regulations, the particular FWA practices may have a different meaning in various states word-wide, but according to Cranet international research methodology the measures of FWA are the following: (a) weekend work: employees may extend work hours during weekends or work two long shifts on Saturday and Sunday with time off during the rest of the week; (b) shift work: employees replace one another at the workplace so that the establishment can operate longer than the hours of work of the individu-

al employees; (c) overtime: employees work extra hours per day, week or year over and above those stipulated in their working contracts; (d) annual hour contracts: employees complete a predetermined number of working hours during a year, with the allocation of hours being based either on employee/ employer agreement, or on the latter's need to respond to market demands; (e) part-time work: employees work less than full week on a regular basis; (f) job sharing: two part-time employees together share one full-time position; (g) flextime: employees work full-time but choose their starting and finish times within limits set by management; (h) temporary employment: employment is offered on a temporary basis; (i) fixed term contracts: employees work on short or long-term employment contract with a specific duration; (j) home-based work: employees work from home; (k) tele-working: employees work away from the office for some/all of working week, maintaining an electronic pre-sence in the office. Employees are usually required to participate in regular quarterly, monthly or weekly meetings at the work location; and (l) subcontracting: a contract of employment displaced by a commercial one, as a means of getting the job done (Stavrou et al., 2015).

2.1. The organizational effects of the usage of FWA

Based on the results of a 4 year balanced panel data Cailler (2016) state that satisfaction with family-friendly programs in general had a significant, negative effect on turnover at the 10 level. The results also indicate that alternative work schedules, child care programs, and employee assistance programs reduced turnover. Child care and employee assistance programs were significant. Tele-working, elder care, and health and wellness programs, on the other hand, were not found to have an impact on turnover.

Moen et al. (2017) have found that initiatives that give employees more control over when and where they work and conveys managerial and co-worker support for attending to personal life, reduces employees' plans to leave the firm over 12 months and also reduces voluntary turnover over a period of about three years. Employees whose teams were randomly assigned to FWA practices were 40 percent less likely to choose to leave the company as their counterparts in the usual practice groups.

Based on a representative large-scale German panel data Kröll and Nüesch (2017) have found that the three considered flexible working practices (FWPs) – flextime, sabbaticals, and working from home – significantly increase job satisfaction and that sabbaticals and working from home (but not flextime) significantly decrease turnover intention. In addition, sabbaticals but not flextime or working from home significantly increase leisure satisfaction. The effects of FWPs on health are mostly weak and statistically insignificant. These findings indicate

that organizations in Germany can increase job satisfaction and decrease employee turnover intention by offering FWPs.

Chen et al. (2018) have found that work-to-family enrichment acts as a mediating factor between flexible work arrangements and outcomes. In addition, the relationship between work-to-family enrichment and turnover intention is stronger for female employees.

Masuda et al. (2012) explored the availability of FWA and their relationship with manager outcomes of job satisfaction, turnover intentions, and work-to-family conflict across country clusters. They used individualism and collectivism to explain differences in FWA availability across Latin American, Anglo, and Asian clusters. The results showed that while there is a negative relationship between flextime work and turnover intentions for the Anglo cluster with a negative slope significantly different from zero, the relationship was not significant for the Latin American cluster. Further, there was a negative relationship between part-time work availability and turnover intentions for managers in the Latin American cluster. However, the relationship was not significant for managers in the Anglo cluster.

Stavrou and Kilaniotis (2010) explored the relationship between FWAs and turnover between two GLOBE clusters – namely Anglo and Nordic – and found significant differences in the FWA – turnover relationship between the two clusters. They found that in the Anglo societal cluster unsocial hours and part-time arrangements are positively related to turnover in a statistically significant manner. In the Nordic societal cluster schedule flexibility is negatively related to turnover in a statistically significant manner. The results raise issues about the universal applicability of FWA policies and practices among nationally and internationally operating organizations.

The research results of Timms et al. (2015) prove that supportive aspects of organizational culture are consistent with the increased employee utilization of FWAs, high work engagement, low turnover and low levels of psychological strain. Supportive organizational culture demonstrates an enduring effect over time. However, the research also identified a negative relationship between use of FWAs and work engagement over time. This suggests that take-up of FWAs is highly dependent on workplace cultural norms.

Mass and Pallais (2017) note that, while flexible working arrangements may facilitate work-life balance, they are not necessarily worker-friendly. Many jobs have irregular schedules, whereby workers cannot anticipate their work schedule from one week to the next; many workers are on-call or work during evenings, nights, and weekends. They state that despite this active debate on how alternative work arrangements should be promoted and regulated, very little is known about how workers actually value different arrangements. The research data obtained

from call center workers from the USA show that the most workers are not willing to pay for scheduling flexibility, though a tail of workers with high valuations allows for sizable compensating differentials. The average worker is willing to give up 20 percent of wages to avoid a schedule set by an employer on short notice, and 8 percent for the option to work from home.

Based on the abovementioned the authors proposed the following hypotheses:

H1: FWAs are related to employee turnover in organizations in the CEE.

H1a: FWAs which include flexibility of working time and place are negatively related to employee turnover in organizations in the CEE.

3. Methodology

The research is based on the data from Cranet research (Cranfield Network of International Human Resources Management) made in 2014/2016 period. The Cranet was established in 1989, and is now a collaboration of more than 40 universities and business schools, representing different countries from all over the world (Mayrhofer et al., 2012). It uses a standardized questionnaire that is filled out by the HRM managers or general managers in organizations with more than 100 employees, consists of six sections: HRM activity in the organization, staffing practices, employee development, compensation and benefits, employee relations and communication, and organizational details (Morley et al., 2016). The sample was created from 9 countries of the CEE region (Tab. 1).

Table 1. Sample

Country	Frequency	Valid Percent
Croatia	171	10.7
Estonia	83	5.2
Hungary	273	17.0
Latvia	67	4.2
Lithuania	145	9.0
Romania	225	14.0
Serbia	160	10.0
Slovakia	262	16.3
Slovenia	218	13.6
Total	1604	100.0

Source: Authors' analysis based on Cranet data.

The main part of the sample belongs to SMEs (45.2%), to large organizations with 250-1000 employees (38.5%), while the organizations with more than 1000 employees make only 16.3% of the sample. Private sector organizations make 70% of the sample, while the public sector makes 30%. About 30% of the

sample belongs to organizations from the production sector, and services make 70% of the sample.

The authors used the following *control variables*: size of the organisations – as a number of employees, we used log value of the number of employees; sector of business (private and public); industry (production and service sector); and trade union density (a proportion of employees that are members of trade union).

Independent variables were flexible working arrangements: the level of the usage of weekend work, shift work, overtime, flexi-time, home-based work, teleworking, compressed working week, job share, part-time working, fixed-term contracts, temporary/casual work, and annual hours contracts.

Dependent variable was annual staff turnover (expressed by the percentage of employees who left the organization in a given year).

Since there were 12 working arrangements used in the research, the authors performed a factor analysis in order to get groups or bundles of FWAs, and to create critical factors for further analysis. The authors performed Spearman's correlation and hierarchical multiple regression model to explore proposed relations between FWAs and employee turnover.

4. Results

Factor analysis was used to summarize several flexible working arrangements into a smaller number of underlying dimensions as critical factors.

Table 2. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.723
Bartlett's Test of Sphericity	Approx. Chi-Square	2186.869
	df	66
	Sig.	.000

Source: Authors' analysis based on Cranet data.

Table 2 shows two tests that indicate the suitability of the data for structure detection. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy indicates the proportion of variance in variables that might be caused by underlying factors. According to the data in Table 2, KMO is 0.723 which is acceptable and that factor analysis can be done with potential success. Bartlett's test of sphericity tests the hypothesis that the correlation matrix is an identity matrix, which would indicate that the variables are unrelated and therefore unsuitable for structure detection. Small values (less than 0.05) of the significance level indicate that a factor

analysis may be useful with the present data. In order to explore which dimension creates which factor, we perform the component matrix as factor loadings. Since in this step there were detected cross-loadings, the varimax rotation was performed. The final rotated component matrix showed 4 factors, based on the following variables (Tab. 3).

Table 3. Rotated Component Matrix

	Component			
	1	2	3	4
Weekend Work	.823			
Shift work	.777			
Overtime	.679			
Flexi-time		.723		
Home-based work		.653		
Teleworking		.592		
Compressed working week			.788	
Job share			.596	
Part-time working			.494	
Fixed-term contracts				.742
Temporary/casual work				.623
Annual hours contract				.555
<i>Eigen values</i>	<i>2.560</i>	<i>1.804</i>	<i>1.039</i>	<i>1.023</i>
<i>Percentage variance (%)</i>	<i>21.333</i>	<i>15.030</i>	<i>8.660</i>	<i>8.523</i>
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 5 iterations, and only variables with a factor loading than 0.45 were extracted				

Source: Authors' analysis based on Cranet data.

In order to test the relationship of each independent variable with the level of productivity and annual staff turnover, the authors used Spearman's correlation and regression analysis. Correlation analysis (Tab. 4) showed that between the independents and the dependent variables there are statistically significant positive weak correlation in the case of the number of employees, bundle 1, and bundle 3. Also, correlation analysis showed that between the independents and the dependent variable there are statistically significant negative weak correlation in the case of the sector of the business, and trade union density.

According to the regression model summary in Table 5, the value of 0.321 indicates a moderate level of prediction. The coefficient of the determination, R square, of the final model for the annual staff turnover is 0,103 which mean that the model explains only 10.3% of the variability of the dependent variable. The Durbin-Watson statistic is 1.811 (between 1.5 and 2.5) which means that the data is not auto-correlated. The variance inflation factors (VIF) and tolerance

also pointed out that there was no multicollinearity in the model (Tab. 6). In this case, the variance inflation factors were lower than the generally accepted threshold of 10 (Hair et al., 1995).

Table 4. Means, standard deviations, and correlations between observed variables

	Mean	SD	Size	Industry	Sector	TU	B1	B2	B3	B4	Turnover
Size	5.75	1.27	1.00								
Industry	1.70	0.46	-0.04	1.00							
Sector	1.28	0.45	0.01	.332**	1.00						
TU	2.89	1.70	.290**	-0.05	.354**	1.00					
B1	2.52	1.75	.207**	-.158**	-.116**	.065*	1.00				
B2	0.87	1.08	-0.03	.107**	-.151**	-.209**	0.03	1.00			
B3	0.61	0.80	0.00	.151**	0.03	-.126**	.124**	.332**	1.00		
B4	1.07	1.05	.120**	-0.01	-0.02	0.05	.208**	.207**	.250**	1.00	
Turnover	11.01	12.24	.105**	0.05	-.189**	-.171**	.060*	-0.01	.101**	0.04	1.00
**. Correlation is significant at the 0.01 level (2-tailed).											
*. Correlation is significant at the 0.05 level (2-tailed).											

Source: Authors' analysis based on Cranet data.

Table 5. Regression model summary

Model	R	R Square	Change Statistics					Durbin-Watson
			R Square Change	F Change	df1	df2	Sig. F Change	
1	.264	.070	.070	17.351	4	929	.000	
2	.321	.103	.033	8.633	4	925	.000	1.811

Source: Authors' analysis based on Cranet data.

Based on the results of the F test, the model is statistically significant, in case of both dependent variables. The F-ratio in the ANOVA table showed that the overall regression model is a good fit for the data. The independent variables in the final model statistically predict annual staff turnover $F(8.925) = 13.277$, $p < 0.001$).

Table 6. Hierarchical regression model and collinearity statistics

Model	B	t	Sig.	Tolerance	VIF
(Constant)	8.034	3.093	0.002		
Size	1.303	3.695	0.000	0.945	1.058
Industry	2.424	2.688	0.007	0.858	1.165
Sector	-5.115	-5.030	0.000	0.732	1.366
TU density	-0.781	-3.065	0.002	0.777	1.287

Model	B	t	Sig.	Tolerance	VIF
(Constant)	6.684	2.533	0.011		
Size	1.215	3.456	0.001	0.920	1.087
Industry	2.695	2.987	0.003	0.830	1.205
Sector	-5.264	-5.163	0.000	0.705	1.419
TU density	-0.807	-3.169	0.002	0.752	1.329
Bundle 1	0.583	2.507	0.012	0.883	1.133
Bundle 2	-1.089	-2.821	0.005	0.815	1.228
Bundle 3	2.452	4.656	0.000	0.824	1.214
Bundle 4	-0.379	-1.012	0.312	0.852	1.174

Source: Authors' analysis based on Cranet data.

Table 6 presents the coefficients of the regression model for the annual staff turnover, as dependent variables. In the first step of the analysis, it has been detected positive relation between a number of employees in organizations and staff turnover ($\beta=1.303$, $p<0.05$). Service industry is positively related to higher staff turnover ($\beta=2.424$, $p<0.01$), while public sector is associated with lower staff turnover ($\beta=-5.115$, $p<0.01$). According to the negative beta coefficient ($\beta=-0.781$, $p<0.01$), higher level of trade density is associated with lower level of turnover, when the other variables in the model are controlled. In the second step of the analysis, a positive relation has been detected between a number of employees in organizations and staff turnover ($\beta=1.215$, $p<0.05$). Service industry is positively related to higher staff turnover ($\beta=2.695$, $p<0.01$), while public sector is associated with lower staff turnover ($\beta=-5.115$, $p<0.01$). According to the negative beta coefficient ($\beta=-0.807$, $p<0.01$), higher level of trade density is associated with lower level of turnover, when the other variables in the model are controlled. Bundle 1 (weekend work, shift work, and overtime; $\beta=0.583$, $p<0.05$) and Bundle 3 (compressed working week, job share, and part-time working; $\beta=2.452$, $p<0.01$) are positively related to higher staff turnover. According to the negative beta coefficient ($\beta=-1.089$, $p<0.01$), higher level of the usage of Bundle 2 (flexi-time, home-based work, teleworking) is associated with lower level of turnover, when the other variables in the model are controlled. In case found Bundle 4, there has not been found statistically significant relation with the staff turnover (but it was found to be negative). Based on the above-mentioned, the authors proved the research hypotheses.

5. Conclusion

Globalization and innovations in technology allow different types of work to be done anytime, anywhere. Besides, in contemporary management practice

the satisfaction of employees and their work-life balance has become an important requirement towards employers. This is why FWAs are getting more and more importance, as a part of family friendly practices, originally designed to reduce stress between work and family.

The results of this research showed that FWAs are related to employee turnover in the CEE region, but these findings are not unambiguous. In the case of the investigated bundles of FWAs, the authors found that bundle created of flexible time, home-based working, and teleworking had a negative relation to turnover, which means that the usage of these kind of FWAs reduce turnover in companies. On the other hand, bundles of FWAs including weekend work, shift work, and overtime, and compressed working week, job share, and part-time working are positively related to higher staff turnover. The results are in the line with previous results of the research in this area, regarding relations between home based work and turnover (Kröll & Nüesch, 2017), flexible time and turnover (Stavrou & Kilaniotis, 2010), and flexibility of working time and place and turnover (Masuda et al., 2012). Also, positive relations as a results are in the line with Mass and Pallais (2017) results, which showed that FWAs can be a problem for employees, since many jobs have irregular schedules, whereby workers cannot anticipate their work schedule from one week to the next, and many workers are on-call or work during evenings, nights, and weekends. Therefore, these kind of FWAs sometimes may not be seen as factors that reduce turnover.

Companies from the CEE should explore possibilities of introducing FWAs carefully, since results of the research showed different relations with the turnover.

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Exploring the Relevant Skills Needed for the Digital Age Employees in Business

Hanan Gouda, Eiman M. Negm

1. Introduction

In contemporary markets worldwide, advancement in technology has progressed and dominated human life (Younes & Zoubi, 2015). Innovations in computing and telecommunication technologies are significantly affecting most of the areas of the economy, leading to the transformation acceleration in business (Fox, 2018). Accordingly, technological advancements have entirely reshaped the organizations by making their business processes highly integrated, restructured, and well run. Work (its content, its organization and design, its regulation and protection) is all undergoing great change in this digital age (Frey & Osborne, 2017). The impact of digitalization has changed the labor market requests and skills as well (Acemoglu & Restrepo, 2017).

Digital technologies have caused business operations to develop to a new level of quality and distinction (Corless et al., 2018). It provided solutions and enhancements towards the responsibility, accountability, efficiency, and delivery time of tasks. Technology allows flexibility in communication, making employees connect with each other straightforward, simple, and effortlessly anywhere at anytime, such as through electronic messages, teleconferencing, and co-working space (Terzioglu et al., 2017). Cloud technology lets data access, storage, and usage to be instantly reachable wherever and whenever (Acemoglu & Restrepo, 2017). Technology helps in keeping the business fully organized. Numerous applications, programs, and software help in building, delegating, tracking, reviewing, and assessing tasks (Fox, 2018). Moreover, these new innovations are cost-effective in operating various business activities (Corless et al., 2018). According to the United Nation's *Sustainable Development Goals Report* (2018), digital technology has influenced employability. It allowed labor productivity to increase and the unemployment rate to decrease.

The influences of digital technologies have brought changes to the labor market (Rahmil, 2014). Certain occupations have vanished due to the absence of their necessity; others have become more demanded in the market. Moreover, additional job positions have transpired and increased. To perform these new jobs, the development of certain skills and know-hows are required (Walwei, 2016). According to research and prior studies, technology-intensive usages in businesses reduce the reliance on manual and routine tasks, shifting the skill composition toward cognitive and non-routine tasks. Thus, sets of proficiencies and services are required in the labor market (Terzioglu et al., 2017).

Digital technologies are one of the main drivers of the world economy today and their impact on the business market is a topic of continuous discussion (Fox, 2018; Acemoglu & Restrepo, 2017). Many studies investigated the labor market consequences of technological change. Research debates support the empirical relationship between the expansion of technology and the change of labor force requirements, decreasing middle-skilled jobs and increasing high skilled jobs (Acemoglu & Autor, 2011; Messina et al., 2016). This association is well established for developed countries. However, the evidence is still scarce for emerging economies (Almeida et al., 2017). Hjort and Poulsen (2017) analyzed the impact of fast Internet arrival on Africa's labor market. They provided evidence that technology has changed the requirements of employment. Digital technology stimulated an effect on employment in a wide range of industries. *For this reason, exploring the role of digital technology on the skill needed at work in a developing country is one of the essential contributions of this paper.*

This study plans to investigate the impact of digitalization on the Egyptian labor market. Egypt has an immense potential labor market (with nearly 100 million people) that can benefit both global and local companies. According to the CIA world fact book (2018), over the next five years, around 3.5 million young Egyptians are projected to join the labor force. The State Information Service (2018) indicated that the government is seeking to develop programs to train youth to be ready for the contemporary market and improve their employability in order to reduce unemployment and improve living standards among workers.

1.1. Research objectives

The digitalization in business has a prevalent impact on the market and labor force. Thus, current students (the future workforce) and potential employees that lack digital knowledge and skills will have difficulty to compete with others for employment since the skills in the workplace is continuously expanding (Almeida et al., 2017). Potential work force needs to develop their digital age literacy. Studies mentioned that technology literacy represent critical grounds for success in work field. The needed knowledge related to technology literacy

can include effective communication, information analysis and interpretation, task management and priorities, problem solving, and other business related skills (Bughin et al., 2018). Thus, *the main aim of this study is to identify the relevant skills needed by the digital age labor market relevant to the Egyptian business field.* In order to achieve this aim, this research contains twofold objectives: (1) critically review relevant literature in order to identify the impact of digital technology antecedents supplementary on employment in the business industries; (2) explore and develop a rich understanding of the vital skills needed in order to make individuals employable in the digital age in Egyptian context through the use of qualitative approaches.

2. Literature review

Academics, practitioners, and economists have long been interested in the effect of technological change on the labor market (Fox, 2018). *This research has focused on how digital technology influences the skill acquisition of young workers in the business field.*

2.1. The labor market

With the progression in technology, the process of business operations and functions are not stable or predictable these days. This allows the labor force to exist in a complex and uncertain market. Consequently, scholars recommend that: *“they need to develop their own capacity to innovate, adapt to change, and manage instability”* (Preda, 2002, p. 80). There are several market dynamics that impact labor market, such as: *“demographic development, the competitiveness of the nation economy, globalization and last but not the least is technological change or digitalization”* (Walwei, 2016, p. 2). Research showed that the technological revolution, however, is of great significance. The technological transformation is a prevailing factor out of the four listed (Messina et al., 2016). It is the key determinant of economic growth and productivity (Walwei, 2016).

Technology advancement generated and increased business usage of: artificial intelligence, autonomous vehicles, big data analytics and clouds, custom manufacturing (3D printing), Internet, digital devices, robots, social media and platforms, and many more technological elements (Acemoglu & Restrepo, 2017). These elements are: *“drastically changing prospects for the type of jobs that will be needed in the future and how, where and by whom they will be done”* (The Organization of Eastern Caribbean States, 2016). The burst of technology constantly evokes debates on whether it serves as an opportunity to create many new jobs on the market or to diminish existing jobs (Hjort & Poulsen, 2017). Overall, the digital transformation has both positive and negative impact on the labor market,

affecting: “*job creation and job loses, expectation for the demanded skills for the future and the way labor market respond to these requirements and changing working conditions*” (European Parliament, 2016, p. 6).

Digitalization and Job Creation: The digitalization era brought changes to the labor market (Hagel et al., 2017). It created demand for some jobs and decreased it for others (Kucera, 2017). There is a continuing tendency of technological professions to be in strong demand (Acemoglu & Restrepo, 2017). Nowadays, most in-demand and top paid jobs are related to the positions that use advanced technology, such as: data scientists and engineers (people who design and build programs to create large data sets), analytics leader (people who analyze data to create long-term and short-term business strategies for the generation of revenue and the efficiency in operations), social marketing executive (people who performs market analysis, formulates and implements marketing plans, and engage in customers relationship management through social media programs and online functions) and many others jobs in technology related fields (Almeida et al., 2017). These professions exist in various market fields, for example, in education, healthcare, law, finance, customer services, etc. (Bureaus of Labor Statistics, 2015).

Digitalization and Low-Skilled Jobs: Digitalization not only created strong demand for technological positions and jobs, but it reduced the demand for routine and low-skilled jobs (Frey & Osborne, 2017). For example, with technology, retail cashiers are being replaced with digital self-checkout options; there is no need for newspaper deliveryman if people can read news online; travel agent are becoming defunct sense people can use Google and other online search engines to book and plan their trip; there is declining demand towards postal-services worker as automated sorting systems and online telecommunication services exist and made communication instantaneous and rapid (Almeida et al., 2017). Besides reducing routine and low-skilled jobs, digitalization also influenced certain routine and low-skilled jobs' conditions and approaches (Fox, 2018). For example, with technology (the internet, digital devices, and the ease of mobile payments, creation of applications and online platforms), there is no need for dispatchers, as orders can be taken online. With the usage of the Internet and its applications, shared digonomy prevailed and transpired. It effectively connected people who have underutilized assets with people who want to make use of these assets (assets range from large goods, such as cars and houses, to products such as tools, toys and clothing) (Hamari et al., 2016).

Digitalization and New Jobs: Smartphones was first launched in the market in 2007. Nowadays, almost half of the world's adult population has a smartphone. This phenomenon allowed digitalization to create new jobs in the market (Association of Southeast Asian Nations, 2016). For example, there is a huge demand for mobile applications, which leads to: “*a blooming market for app devel-*

opers” (Hallett & Hutt, 2016). Social Media Executive is another profession that emerged. Social media platforms have become very popular among individuals, making it a prevalent tool to promote and popularize brands allowing them to efficiently reach and communicate with customers (Kotler & Armstrong, 2017). Cloud computing specialist is another job that emerged (Burke, 2017). Other jobs that digitalization created are: Market Research Data Miner, App designer, Blogger, Chief Listening officer, YouTube content creator, Driverless car engineer, Drone operators, Uber driver etc. (Almeida et al., 2017). Accordingly, these new occupations require certain set of skills to perform the jobs successfully (Fox, 2018; Frey & Osborne, 2017).

2.2. Employability skills: hard and soft skills

The importance of employability skills is increasingly emphasized in recent times (Suartha et al., 2017). Employability skills refer to a collection of necessary skills, capabilities, powers, and knowledge that is required for success in the modern workplace (Rahmil, 2014; Walwei, 2016). Suarta et al. (2017) stated that there are employability skills that are considered essential credentials for many job positions. The American Management Association (2010) stated that critical thinking and problem-solving, creativity and innovation, collaboration, and communication skills are becoming increasingly important in today’s global economy. Furthermore, in the digital age, many research proved that digital media literacy is vital for employment (Grundke et al., 2018).

It is known that technology: *“make certain forms of human labor unnecessary of economically uncompetitive and create demand for new skills”* (Manyika et al., 2013, p. 15). Digitalization influenced employees’ hard and soft skills that are in-demand and relevant for the current labor market (Hagel et al., 2017). Today, most companies do not need some skills that were required in the past to get a respectable job (Kucera, 2017). In this new era, many research show that the digital age has formed newly emerged occupations that require a different set of skills. There are certain combinations of hard and soft skills needed to successfully perform tasks (Fox, 2018; Patacsil et al., 2017).

The Organization for Economic Co-operation and Development (2015) claimed that the development of information and communications technology (ICT) industry leads to the increased demand of some divisions of ICT skills, such as: *“ICT generic skills (ability to use information and communication technologies on the daily basis such as using software and applications, sending emails etc.), ICT specialist skills (such as ability to program software, develop and design applications, ability to manage networks etc.) and ICT complementary skills (social media marketing, communications on social networks, present brand products on online platforms etc.)”* These skills are a necessity in the work field in many

businesses. Reports indicate that businesses in the digitalization era embrace technologies to catch up with the market and benefit from its productivity and innovations (Grundke et al., 2018). Thus, companies need *“digitally skilled employee for increasing productivity, sales, offering better services for the clients and generating revenue”* (Information and Communications Technology Council, 2016, p. 7).

Brooks (2016) claimed that the needed hard skills these days needed by future employees include: *“programming and application development, business intelligence and analytics, web development, database administration, middleware and integration software, social media management, cloud and distributing computing”*. Walwei (2016) explained that these mentioned hard skills are in demand. Brooks (2016) argued that not having any of these mentioned skills reduces the chances of finding a job almost to zero.

Kotler and Armstrong (2017) mentioned that social media has dominated the business and consumer market. It is changing the way companies do business (Fox, 2018). Thus, social media literacy is significant to grasp in the current era. It is important to understand how these tools work, using them effectively for business purposes (McDougall et al., 2018). Social media literacy is one of the top five skills that companies look for when hiring (World Economic Forum, 2016). Research showed that employees with social media knowledge and the comprehension of digital devices have a clear advantage over candidates that have limited experience (Kishokumar, 2016). In the digital age, employees can obtain better jobs and advance their careers by proving social media competency (Durga, 2015; Jagero, 2014).

When it comes to soft skills, according to World Economic Forum (2016), there are ten vital skills that companies are looking for in potential employees. Based on this report, the potential employee is expected to be able to solve complex problems; to conduct critical thinking; to be able to have wholesome Judgment and fast decision making capabilities (cognitive flexibility); to have negotiation skills; to be a good communicator in order to coordinate well with others; people management skills are required (emotional intelligence); to remain an active listener; to be creative in rational and behaviors; to pursue for quality in productivity; and service orientation skills are one of the key skills needed. The World Economic Forum (2016) indicated these skills are the highest demand in 2020 labor market.

Berger (2016) explained that soft skills are not so relevant and important for information technology industry (industries concentrated on the technologies and their development of mobile applications, data mining and analysis, cloud computing, web development, etc.). These skills are given high values regarding industries related to consumer services or retail the focus on personal relationship management, such as: restaurants, consumer services and professional training

and coach (Kotler & Armstrong, 2017). These industries require lots of communication, interaction and negotiation with customers, so the soft skills are a must in these industries (Soloman, 2017).

Business skills are a necessity in order to have sustainable operations in the market (Jibuti et al., 2017). Human resources and strategic officers will seek employees holding certain skills necessary to run day-to-day business operations (World Economic Forum, 2016). As more companies adopt flat organization structures, there is demand for people who understand basic business principles (Mazzarol & Reboud, 2006). Reports show that it is beneficial to hire individuals that understand how businesses operate (Jibuti et al., 2017). Prior empirical evidences show that when potential job candidates show hiring managers that they are acquainted with the basic functions of different departments (marketing, sales, finance, etc.) within the company, they become a significantly more attractive job candidate (Feng, 2018). Another study indicated that employees capable of strategic planning are valued in the workforce (Alencar et al., 2017). Strategic planning is an important business activity because it allows the recognition of proper development of company's future performance, strategy or direction regarding various industry decisions on allocations of resources of capital and people (Gluck et al., 1980).

Based on this literature review, the researchers concluded that the digital age changed the needed skills individuals should hold to become attractive job candidates. What skills should an individual look to focus on and develop to succeed in the digital age can be categorized into two groupings: Business Know-how (knowledge of business processes and operations in an industry) and Digital Know-how (knowledge on the usage of technology and communication platforms and devices). Thus, this two research questions emerged: *(RQ1) what are the needed Business Know-hows for the digital age employees; (RQ2) what are the needed Technology Know-hows for digital age employees.*

3. Methodology

A qualitative approach was used to provide deeper insights into the studies presented in the literature. The aim of the exploration was to validate the research variables and develop the proposed conceptual framework, through an interpretivism perspective. According to the literature, there are voluminous skills that can be sought among potential candidates for employment. Knowledge work tasks are usually dominated by intellectual demands, technical know-how, creativity, interaction, mobilization, networking, and innovation. Thus, the research needed to downscale and identify the relevant skills needed in the Egyptian content.

The conduction of focus groups operated as a tool for the research variables validation. Prior studies stated that focus groups are useful in adapting and developing models and surveys in different environment settings (Saunders & Townsend, 2016; Bryman, 2016). The researcher used this method in order to gain a clearer focus on the main focal skills needed among employees in the workforce.

Three focus groups were steered in this study. Each focus group contained seven participants who were managers in various companies in different business sectors. The participants in each focus group were homogeneous. The managers were into groups according to their company’s classification (local, multinational, and non-profit organization). In the focus groups, the managers discussed the employability of graduates. In this research, employability refers to: “a set of skills, knowledge and personal attributes that make an individual (graduates) more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy” (Saunders & Zuzel, 2010). The questions directed to the managers were regarding the vital skills needed in the workplace. The questions referred to the “Employability Skills Framework”, by Yorke and Knight (2006). This framework consists of personal qualities, core skills, and process skills. Each skill groups made up of a number of aspects (Tab. 1). The researchers asked the respondents to explain which skills under the employability aspects do they seek when hiring individuals’ in their company. The discussions also reflected the impact of technology in the 21st century workplace.

The participants in the focus groups signed a consent form to participate in the study. The focus groups that were conducted were recorded for forthcoming analysis. The researcher analyzed the data using *thematic analysis*. According to the identified themes, units derived from the patterns that occurred during the conversations, the proposed conceptual framework was developed.

Table 1. List of Employability Aspects

Personal Qualities	Core Skills	Process Skills
Self awareness	Reading Effectiveness	Computer Literacy
Self confidence	Information Retrieval	Commercial Awareness
Independence	Language Skills	Political Sensibility
Emotional Intelligence	Self Management	Ability to work cross culturally
Adaptability	Critical Thinking	Applying media technology
Stress tolerance	Creativity	Coping with complexity
Initiative	Listening	Teamwork
Willingness to Learn	Written Communication	Prioritizing
Reflectiveness	Oral Presentation	
	Explaining	
	Global Awareness	

Source: (Yorke & Knight, 2006).

4. Qualitative results

The studied population in this research is Egyptian employers of local, multinational, and/or nonprofit companies in Cairo and Alexandria, operating in various business fields. The organizations were chosen based on a *purposive sample* and only organizations with a human resource department were invited to take part. The following table (Tab. 2) illustrates the socio-demographic traits of the participants' involved each focus group.

Table 2. The Focus Group's Participants' socio-demographic traits

Focus Group	No. of Participants	Company Classification				Gender		Year of Experience in the Company	
		Finance Industry	Governmental Industry	Educational Industry	Retail Industry	Male	Female	< 5	5 <
1	7 (local org.)	4	1	2	0	4	3	1	6
2	7 (multinational org.)	2	0	2	3	6	1	1	6
3	7 (nonprofit org.)	0	6	1	0	1	6	5	2
Sub Total		6	7	5	3	11	10	7	14
Percentage		29%	33%	24%	14%	52%	48%	33%	67%

Source: own work.

According to the managers' opinions in the Egyptian market, they want to recruit graduates not only with technical skills, as represented by the degree obtained or the subjects that they took, but also with their employability skills. According to the employability element that they mentioned, the researchers classified two broad domains of skills, competencies, values and/or attributes: (1) personal skills in business practices (2) digital media and information literacy. Each competency consists of a number of skill attributes. Table 3 and Table 4 illustrate the frequency of the mentioned skills and the implication. With these insights, the proposed framework (Fig. 1) was developed.

According to the managers in Egypt, the relevant personal skills in the business practice are: self-efficacy (technical skills), self-monitoring, tolerance of ambiguity, originality, coping strategy, achievement importance, teamwork, and communication skills. Thus, the first research question was answered, (RQ1) *what are the needed Business Know-hows for the digital age employees?* According to the managers, when it comes to digital media and information literacy, the relevant skills are: usage of digital tools, internet usage in business practice, internet information search, ICT communication, and digital media content creation. Thus, the second research question was answered, (RQ2) *what are the needed Technology Know-hows for digital age employees.*

Table 3. Relevant Skills Needed for the Digital Age Employees in Business (*Business Know-hows for the digital age employees*)

Personal skills in the business practice	Managers explanation of the needed skill in Business	Frequency of skill mentioned by managers
Self-Efficacy (Technical Skills)	<i>"Employees should have the ability to successfully complete a specified task".</i>	21/21
Self-Monitoring	<i>"Employees should observe and control his/her expressive behavior for the purpose of managing a desired appearance".</i>	10/21
Tolerance of Ambiguity	<i>"Employees should be able to adapt to the dynamic work environment, having the openness toward stimuli that are less than clear, puzzling, or indefinite".</i>	18/21
Originality	<i>"Employees should be characterized by behaviors that exhibit creativity, individuality, and spontaneity".</i>	17/21
Achievement Importance	<i>"Employees need to attain competence and have work success as a priority in accordance with social standards".</i>	6/ 21
Teamwork	<i>"Employees hold positive affect toward working in teams. They should be able to get along with other and be in harmony when in group work".</i>	20/21
Communication Skills	<i>"Employees communicate with the use of reason and logic thinking to be persuasive".</i>	18/21
Coping Strategy	<i>"Employees are able to deal with stressful situation by taking direct action to solve the problem in an objective manner".</i>	17 /21

Source: own work.

Table 4. Relevant Skills Needed for the Digital Age Employees in Business (Technology Know-hows for digital age employees)

Digital Media and Information Literacy	Managers explanation of the needed skill in Business	Frequency of skill mentioned by managers
Digital Tools Usage	<i>"Employees are able to use various media and ICT Devices".</i>	21/21
Internet Usage in Business Practice	<i>"Employees are able to use the Internet with an emphasis on its usefulness in learning information related to the business practices".</i>	21/21
Internet Information Search	<i>"Employees' have the knowledge and ability to find information on the web (Ability to Locate/Access Information)".</i>	21/21
ICT Communication	<i>"Employees are able to use digital media for communication interactivity with the emphasis of two-way flow of information"</i>	21/21
Content Creation	<i>"Employees are able to create Media Content – blogs, emails, posts, etc."</i>	10/ 21

Source: own work.

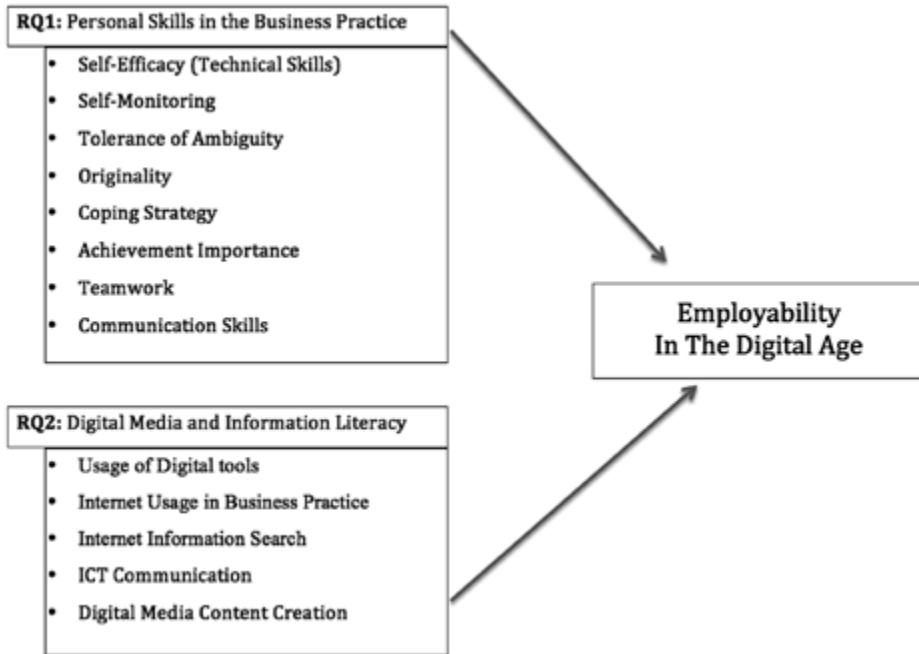


Figure 1. Proposed conceptual framework

Source: own work.

5. Research discussion and conclusion

The aim of this study is to explore the relevant skills needed for the digital age employees in business. In order to achieve this aim, this research contains twofold objectives: to critically review relevant literature in order to identify the impact of digital technology antecedents supplementary on employment in the business industries; and to explore and develop a rich understanding of the vital skills needed in order to make individuals employable in the digital age in Egyptian context through the use of qualitative approaches.

To achieve the first objective of this study, the researchers reviewed various prior studies and literature. According to the secondary research, it was recognized that technology changed the requirements of employment (Almeida et al., 2017). Digital technology stimulated an effect on employment in a wide range of business industries, changing the labor-force requirements (Brooks, 2016; Fox, 2018). To become employable in the digital age, potential employees need to hold certain knowledge. Knowledge involves two strongly inter-linked but different components: content and skills (Almeida et al., 2017). Content refers to the technical skills needed in the job. It can include facts, ideas, principles, evidence, and descriptions of processes or procedures (Fallow & Stevens, 2000). Intellectual-

al skills include critical thinking and problem solving, creativity and innovation, collaboration, and communication skills (Fallow & Stevens, 2000). Furthermore, in the digital age, many research proved that digital media literacy is vital for employment (Grundke et al., 2018). These knowledge and skills are a necessity in the work field in many businesses to catch up with the market and benefit from its productivity and innovations (Brooks, 2016). Based on the review of the literature, two main research questions emerged: what are the needed Business Know-hows for the digital age employees; what are the needed Technology Know-hows for digital age employees.

To achieve the second objective of this study, and answer the research questions, a *qualitative approach* was used. The aim of the exploration was to validate the research variables and develop a proposed conceptual framework of the vital skills relevant in the digital age labor-market. Three *focus groups* were steered in this study. Each focus group contained seven participants who were managers in various companies in different business sectors in Cairo or Alexandria. The participants in each focus group were homogeneous. The managers were into groups according to their company's classification (local, multinational, and non-profit organization). The organizations were chosen based on a *purposive sample* and only organizations with a human resource department were invited to take part.

The data gathered from the focus groups were analyzed using the *thematic analysis*. The results of the research analysis indicated that there are two categories of knowledge and skills needed in the digital age: *Personal Skills in the Business Practice and Digital Media and Information Literacy*. According to the managers in Egypt, the relevant personal skills in the business practice are: self-efficacy (technical skills), self-monitoring, tolerance of ambiguity, originality, coping strategy, achievement importance, teamwork, and communication skills. When it comes to digital media and information literacy, the relevant skills are: usage of digital tools, Internet usage in business practice, internet information search, ICT communication, and digital media content creation. Based on these outcomes, the research questions were answered.

5.1. Research contribution

This study contributed to the academic and practical field. Practically, this study developed empirical evidence that showed digital technologies has changed the composition of skills among workers. It has become one of the main drivers in the work field. Consequently, future employees need to advance their skills, focusing on both obtaining the needed technical skills (whether soft or hard skills) and developing their digital media and information literacy.

Many studies in the developed countries investigated the labor market consequences of technological change. Research debates support the empirical re-

relationship between the expansion of technology and the change of labor force requirements, decreasing middle-skilled jobs and increasing high skilled jobs (Acemoglu & Autor, 2011; Messina et al., 2016). However, the evidence is still scarce for emerging economies. Thus, this study contributed academically by filling in this academic gap, providing empirical evidence that technology has changed the requirements of employment in developing nations, specifically Egypt. Furthermore, this study developed a proposed conceptual framework that recognizes the main skills needed in the digital age workforce. Accordingly, future studies can use this model as their base in other contexts.

5.2. Research limitation

This study had several limitations. The first was the small size of the sample and the fact that participants were in certain area of Cairo and Alexandria. Hence, the results may not be generalized or accurate regarding other cities in Egypt. The focus was on business field, neglecting the medical and engineering field. The present study needs to be supported by quantitative research that assesses the range of suggested antecedents as well as the overall model that was suggested. Finally, this study only focused on the managers' viewpoints not the employees that exist and work in the market.

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The Premises and the Course of the Calendar Effect in Selected Companies Listed on the Warsaw Stock Exchange*

Tomasz Rojek

1. Introduction

Market anomalies related to net share issues are omnipresent on stock exchanges and concern stock prices of micro-, small, medium-sized and large enterprises (Fama & French, 2008). The term of capital market anomalies includes any deviation from the market efficiency (Ślepaczuk, 2006, p. 3). According to the Polish Language Dictionary, a deviation is defined as “a course of action which is a departure from the prevailing standard” (SJP, 2018). The market-efficiency hypothesis is one of the most often discussed topics in financial studies. The creator of the bases of market efficiency is regarded to be Eugene Fama. He defines an efficient market as “a market on which prices fully reflect available information” (Marianowska, Szerszyńska, & Szymański, 2016, pp. 36-37). The aforementioned hypothesis assumes that investors are not able to achieve above average rates of return on investment in the long run. When an investor obtains above average profits permanently, we talk about non-observance of the rule, thus, about the deviation from the rule which with regard to capital markets is called a market anomaly.

Therefore, the aim of the article is the presentation of the calendar effect as a category of market anomalies and an attempt to identify it among the group of selected companies listed on the Warsaw Stock Exchange.

2. The characteristics of market anomalies

Owing to the analysis of the market-efficiency hypothesis and key factors influencing the efficiency, most frequently occurring deviations from this hypoth-

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esis, which in literature are called capital market anomalies, have been specified. The most significant categories of anomalies are presented and shortly described below (Ślepaczuk, 2006):

- *Calendar effects*

The rhythm of the calendar influences numerous fields, not only concerning everyday life of man. It also affects aspects related to taking decisions about investments. Calendar effects consist in the seasonal character of stock prices of listed companies (Marianowska, Szerszyńska, & Szymański, 2016). They question the market-efficiency hypothesis to a small extent, their changeability in time and seasonality decrease their significance (Ślepaczuk, 2006).

- *The momentum effect*

The effect consists in a medium-term trend of rates of return to the continuation of decreases or increases. Based on the research carried out on various capital markets, the occurrence of the momentum effect has been confirmed. It usually lasts from a few to even more than a dozen months. Basing on this effect investors have developed a strategy consisting in the purchase of the shares which in the most recent n-periods had the highest rates of return and the sales of the shares which in the analysed periods had the lowest rate of return (Wójtowicz, 2011).

- *Contrarian strategies*

These strategies are directly related to momentum strategies, however, the investment concept they include is their opposite. Investors who on the basis of the historical record of listings think that the trend will reverse are called contrarians. W. De Bondt proved that contrarian strategies are mainly used by professional investors, as opposed to the momentum strategy preferred by individual investors (Kubińska & Markiewicz, 2013, p. 42).

- *Correlation of short-term rates of return*

The phenomenon mainly occurring for share portfolios and stock market indices. It consists in the positive correlation of rates of return, important from the statistical perspective. For individual securities insignificant negative autocorrelation coefficients were observed in the research.

- *Correlation of rates of return in the long term*

Both from share portfolios and from indices a statistically significant correlation of rates of return was observed, occurring in the long term. Moreover, the effect of small companies with the effect of this anomaly was related.

- *Effects connected with changes in the value of company financial ratios*

The effects are most frequently studied relations of the capital market under the influence of incoming information. The significance of incoming information on the fundamental situation of a company has often been overes-

timated and underestimated. The literature of the subject distinguishes the following anomalies in this category (Ślepaczuk, 2006):

- *P/E effect (price to earnings ratio)*

The ratio which is the quotient of the market price of a single company share and its annual net profit per one share (Dunal, 2014). After the research conducted on the capital market the listing of an above average rate of return for shares with low P/E ratio was proven, in comparison with an average rate for the totality of the studied companies.
- *BV/P effect (book value to price ratio)*

The literature distinguishes shares with value potential and growth potential based on the assumption that the value of companies for which a promising future is not augured is valued low on the market and companies with favourable perspectives are valued high. Therefore, firms with growth potential marked low BV/P ratio, and firms with value potential marked it on a high level (Wolski & Rychter, 2009, p. 229). Based on those divisions, research was carried out which proved that investing in companies with value potential enabled to achieve significant above average rates of return also after adjustment by related risk.
- *A small firm-effect/low capitalisation effect*

One of the most often documented effects from the group of effects connected with financial ratios. Companies with low capitalisation are characterised by a significantly higher rate of return compared to companies with high market value.
- *Effects related to publicising significant information about the company*
 - *An effect related to the financial result*

It is not possible to define unambiguously the company's reaction to the financial result. The significance of the information concerning financial results was both overestimated and underestimated. Financial analysts tended to overestimate the importance of positive information, at the same time underestimating the importance of negative information. Overestimation was mainly related to a short period of time, which also affected the valuation of shares in the long term.
 - *A financial results forecasting effect*

The mode of operation is similar to the one occurring in the previous effect. During speculation not enough attention was paid to unfavourable information, devoting too much interest to positive one, which was manifested in an inappropriate reaction to rates of return of companies.
 - *An effect of dividend payment/changes in dividend policy*

Information connected with the commencement or discontinuation of dividend payment, as well as with a decrease or an increase in divi-

dend was reflected in rates of return. Above average rates of return were marked by companies which publicized information about the commencement of dividend payment, as well as its increase, compared to discontinuation of the payment or a decline of dividend.

- *A public share offering effect*

The effect is related directly to making a public offer, both the first and the next one, as well the behaviour of the company before the issue of shares and after the issue. Companies being in such a situation marked considerable changes in the value of the rate of return after the issue. Above average positive rates of return concerned companies for which the issue of shares was the next (Ślepaczuk, 2006). Such a situation can take place because a public offer concerning subsequent share issue is less costly than the offer of the company which debuts on the stock market. Public offers made again are related to fewer risks even because they are more recognizable (Wasilewska & Janowska, 2005).

- *An effect of purchasing own shares/ shares split*

There have been observed positive abnormal rates of return for securities of companies which split the shares or informed about the intention to purchase their own shares. The effect maintained over the years following the announcement of the information (Ślepaczuk, 2006).

Market anomalies are known and accepted by capital market participants. Although a lot of investors think that one should strive for the minimisation of such phenomena, the reason for the acceptance of anomalies may be the willingness to use their occurrence to make profits (Keller, 2014).

3. Calendar effects in the structure of market anomalies

Research conducted into the market-efficiency phenomenon has enabled to define different kinds of anomalies. One of the kinds are anomalies called calendar effects. They owe its name to abnormal rates of return in an exactly specified time (Sroczynska-Baron, 2015). There are four basic effects connected with the seasonality in the analysed time series (Ślepaczuk, 2006):

- *The effect of a month in the year*

We can talk about the effect of the month when the portfolio replicating a given stock market index achieves rates of return higher than the average in individual months. In this category the literature mentions several most important effects:

- *the January effect*

One of the most frequently noticed monthly effects is the January effect. It consists in the trend to achieve above average rates of return on in-

vestment in the first month of the year (Borowski, 2013). Consequences that the January effect evokes have been observed on the American capital market, however, it has been also noticed on the markets of 16 other countries, also those highly industrialised. The effect in America was most strongly observed during changes in share prices of enterprises with relatively low capitalisation. For the markets of the other countries the relationship between the size of the company and seasonal changes in rates of return was not as significant as it took place on the American market. The occurrence of higher rates of return in January compared to other months was most often explained by the phenomenon of shares sell-off connected with tax optimisation. Pursuant to the American tax law, during the calculation of tax on capital revenue there is a possibility to reduce revenue generated with the stock trade by losses made on other companies' shares. Such a possibility brings about the willingness to get rid of the shares which turned out to be unprofitable. As a rule, investors decide to purchase new shares or repurchase those previously sold at the beginning of the new year. The highest rates of return, according to observations, fall on the first five trading sessions in a given year. There are numerous hypotheses put forward to explain causes of the January effect. Probably none of them is the only reason for the existence of this anomaly. The phenomenon seems to be significant both from the statistical and practical point of view (Szyszka, 1988).

- *the December effect*

The December effect is also called the Santa Rally. For the first time the name was used by Y. Hischer, who described the phenomenon in 1972. In his opinion, the effect fell on the last five trading days of the present calendar year and two trading days of the subsequent year. Depending on the country, the last trading days of the year on the stock market fall on different calendar days, which makes the December effect hard to investigate. According to numerous market anomalies, it is so-called the march of stock market indices north, which is called the December effect (Lewandowska, 2017, p. 19). It means that an average monthly rate of return on investment is positive, that is with time series of the proper length the frequency of the occurrence of the positive rate of return in December is higher than 50% (Borowski, 2018, pp. 7-8).

- *the April effect*

The April effect is also a popular topic occurring in the literature of the subject. It consists in the occurrence of above average positive rates of return in April compared with other months. The effect was best visible on the British market. The first mentions on that anomaly occurred in

1976, and the research was continued for several dozen years. The veracity of the occurrence of the April effect on individual capital markets is, however, questioned by some researchers. M. Raj and D. Thurston have proved non-occurrence of this effect on the New Zealand Stock Exchange. On the other hand, M. Raj and D. Kumari in the research conducted on two Indian stock exchanges, the National Stock Exchange of India and the Bombay Stock Exchange proved that the stock prices of companies in April revealed an upward trend achieving higher values in comparison with the nine other months. In their opinion, the reason for such a situation was selling shares in March due to the tax year commencing in April in India (Borowski, 2015, p. 3).

- *The effect of a week in a month*

One of the most popular studies exploring the subject of the distribution of rates of return in one month is the study conducted by R.A. Ariel in 1986. The research was carried out on the American market on the data from the years 1963-1981. R.A. Ariel divided a month into two equal sub-periods and then calculated cumulated returns separately for the first and the second half of the month (Szyszka, 1988). For 19 years the cumulated rate of return for the first half of the month was 2.552%, while for the second part of the month it was approximately 0% (Ślepaczuk, 2006). Sceptics suspected that the effect of a week in a month may be another manifestation of the month effect. The majority of above average values of rates of return fell on the first half of exactly that month. However, having eliminated the January growth of share prices from the research, R.A. Ariel was still able to prove a difference between returns in both sub-periods. The difference, however, was not so significant as previously. So far, the occurrence of a given anomaly has not been rationally explained. The occurrence of this relationship in a long term could be another argument against the market-efficiency hypothesis (Szyszka, 1988).

- *The effect of a day in a week*

One of the most frequently analysed calendar effects is the effect of a day in a week, which concerns changes in the rates of return on shares in individual days of the week. The distribution of returns on investments during the week was also discussed on capital markets of different countries. One most popular day effect is distinguished (Landmesser, 2006):

- *the Monday effect*

The Monday effect is also called the weekend effect. Its history goes back to the 1920s. The effect is manifested in the occurrence of a negative average rate of return on Mondays. A given anomaly is usually explained by changes in the behaviour of individual and institutional investors on

Mondays compared to other days of the week (Piontek, 2000). Moreover, Monday drops of rates of return can be also caused by a longer time for decision making than usual, namely, the period between the Friday session and the session taking place on Monday (Waszkowski, 2011).

- *The effect of an hour in a day*

The inspiration with the effect of a day in a week led to the willingness to explore the anomaly even in a shorter period of time, that is in an hour, or even a quarter of an hour. M. Smirlock and L. Starks had a closer look at changes in the share prices of companies included in the Dow Jones Industrial Average index in the years 1963-1983. They proved the occurrence of abnormal negative rates of return during the first hour of the session. The relationship, however, referred only to Mondays, not reflected in the initial minutes of the sessions on other days of the week (Szyszka, 1988). Another person who decided to investigate rates of return in a period shorter than a day was L. Harris. In 1986 he carried out research which showed that during the first 45 minutes of trading on Monday share prices reveal a downward trend, and on the other days of the week in the first three quarters there is an increase in prices (Ślepaczuk, 2006). L. Harris also managed to discover another relationship, this time referring to all days of the week. In accordance with the results he obtained, the last 15 minutes of every session is characterised by a tendency for rapid growths. An important issue the attention should be paid to is the fact that the mentioned research does not owe its results to single cases with large values which would inflate average values. The analysed anomaly concerns over 90% of companies. However, sceptics note that the research by L. Harris included the period of 14 months only, thus, it cannot fully determine the regularity of the thesis of the occurrence of the hour effect (Szyszka, 1999).

The mentioned examples of the calendar effect show the existence of specific mass behaviours which have brought about specific price movements. They are one of the fundamental types of anomalies on the capital market. For a long time, calendar effects have been an important topic in the literature on capital markets. To a greater extent it is not possible to determine unambiguously whether their use can be a key to effective investing (Budka, Kosiński, & Sobczak, 2017).

4. The selection and classification of companies for the research

The research was carried out based on listings of 10 listed companies. When selecting companies for the research a few important factors were taken into consideration. Due to the fact that the Warsaw Stock Exchange S.A. (WSE) is a stock exchange which has been operating for a relatively short time (28 years),

thus, it was considered significant for the companies being research objects to be listed on the WSE since the moment of opening it or shortly after it. It enabled a possibly long research period.

Another factor was belonging of the companies to a proper stock market index. The analysed companies are included in the indices: WIG-banks and WIG- construction. They are stable and opinion-forming indices, therefore appropriate from the point of view of the conducted research. At the same time, the list of the data concerning the companies included in one index will make their comparison and, what follows, also the formulation of research conclusions simpler. An analysis of the other index will allow to exclude suspicions that the occurrence of the calendar effect or its lack could be an exception in the analysed sector index and have no application on the main market of the Warsaw Stock Exchange.

The companies selected for the research are presented below with the date of the first listing included in the research:

- WIG-banks:
 - Bank Polska Kasa Opieki S.A. (PEO) – June 1998,
 - mBank S.A. (MBK) – October 1992,
 - ING Bank Śląski S.A. (ING) – January 1995,
 - Bank Millennium S.A. (MIL) – August 1992,
 - Bank Ochrony Środowiska S.A. (BOS) – February 1997.
- WIG-construction:
 - Energoaparatura S.A. (ENP) – September 1997,
 - Elektrobudowa S.A. (ELB) – February 1996,
 - Budimex S.A. (BDX) – May 1995,
 - Lentex S.A. (LTX) – May 1997,
 - MDI Energia S.A. (MDI) – June 1997.
 - The value of both indices is calculated and announced three times a day:
 - during the opening – 11.15 a.m.,
 - after the second fixing – 3.15 p.m.,
 - during the session closing – 5.45 p.m.

Companies are allocated to the WIG-banks and WIG-construction indices according to own principles of the Warsaw Stock Exchange based on the Polish Classification of Activity, as well as on the structure of assets and revenues of the companies (Gazeta Wyborcza, 2019).

5. The objective, assumptions, methodology, as well as the course and interpretation of the findings of the research into the calendar effect in the selected companies

The objective of the conducted research was to check whether calendar anomalies affect the values of share prices and the rates of return on investments on the Warsaw Stock Exchange. The period included in the research depends on the availability of data and for each company it was established separately. The analysis did not consider dividends paid out in the research period. The formula for the calculation of the rates of return on share prices was chosen in respect of the availability of data and is as follows:

$$r = \frac{V_d - V_{d-1}}{V_d} \times 100\% \quad (1)$$

where:

V_d – closing rate on d-day,

V_{d-1} – closing rate on d-1-day (the previous one).

In order to calculate average stock prices the arithmetic mean was used. Weekend days were skipped when preparing Figures due to no listings in that period. Figures which served to prepare Figures were not rounded. During interpretation of the data in the Figures, in order to improve transparency of the image, figures were given to four decimal places.

The first analysed calendar effect is the **January effect**. In order to observe this phenomenon, average monthly stock listings, as well as average monthly rates of return were calculated. Figure 1 is a graphical presentation of average monthly values of the stock listings of the companies selected for the research among the WIG-banks index.

To improve the clarity of the presented data in respect of the occurrence of calendar effects, an analysis of individual months was also conducted based on average monthly rates of return. The rate of return on investment is the basic source of information when taking investment decisions by investors. Figure 2 presents average rates of return on share prices of 5 companies belonging to the WIG-banks index for each month.

The next Figure also aims at examining the impact of the January effect on the distribution of stock prices but in another economic sector. Figure 3 is the presentation of average monthly stock listings of 5 companies from the WIG-construction index.

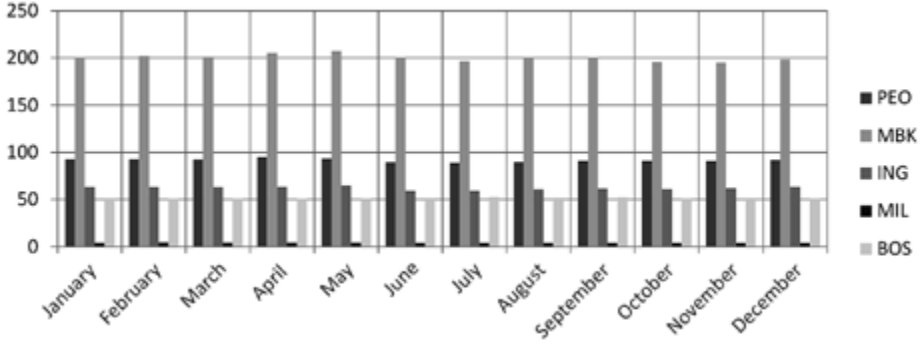


Figure 1. Average listings of shares of companies from the WIG-banks index in individual months
Source: own study.

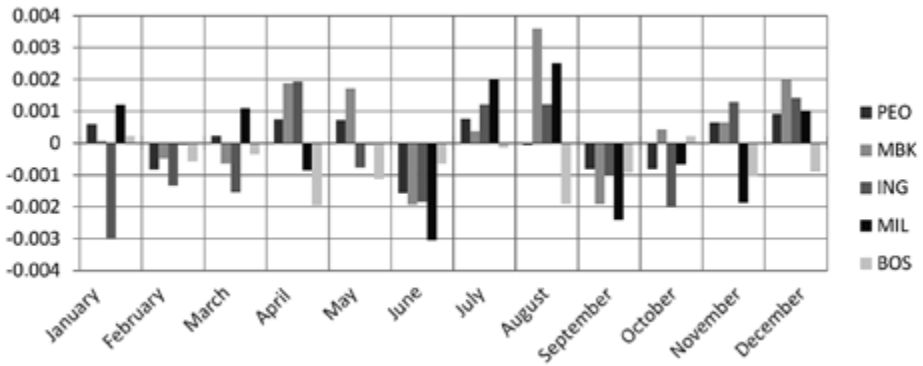


Figure 2. Average rates of return of selected companies from the WIG-banks index in individual months
Source: own study.

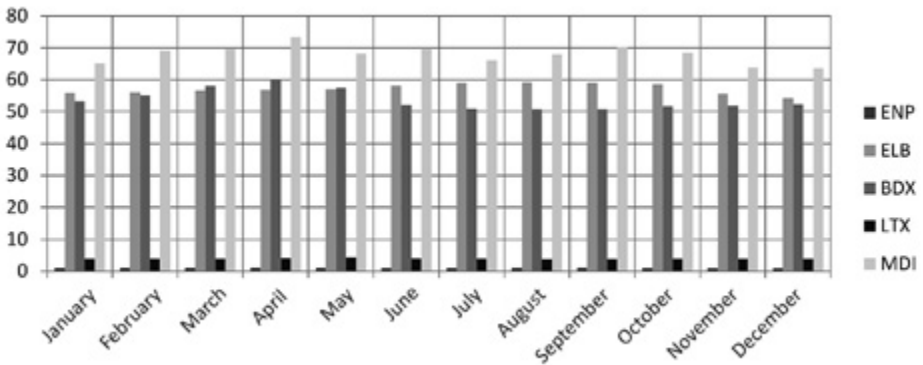


Figure 3. Average listings of shares of companies from the WIG-construction index in individual months
Source: own study.

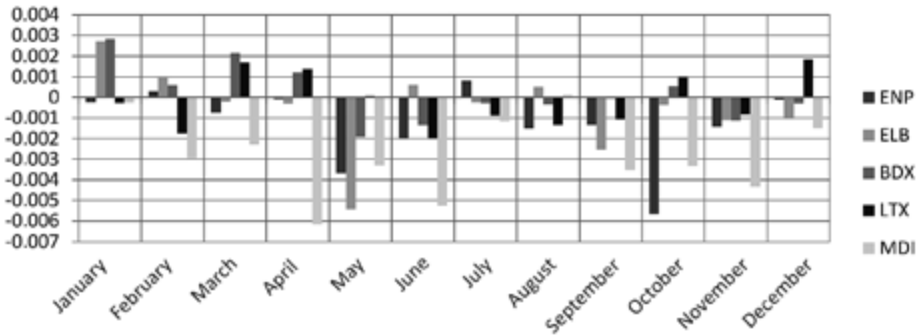


Figure 4. Average rates of return of selected companies from the WIG-construction index in individual months

Source: own study.

Analogously to the analysis of companies from the WIG-banks index data from the WIG- construction index were discussed in respect of average monthly rates of return. Figure 4 presents the monthly distribution of average rates of return on the stock of 5 selected companies included in the WIG-construction index.

The second analysed calendar effect is the Monday effect. In order to analyse the behaviours of stock prices on a given day of the week, average daily stock listings were calculated. Figure 5 presents an average value of stock listings value of the analysed companies from the WIG-banks index for each day.

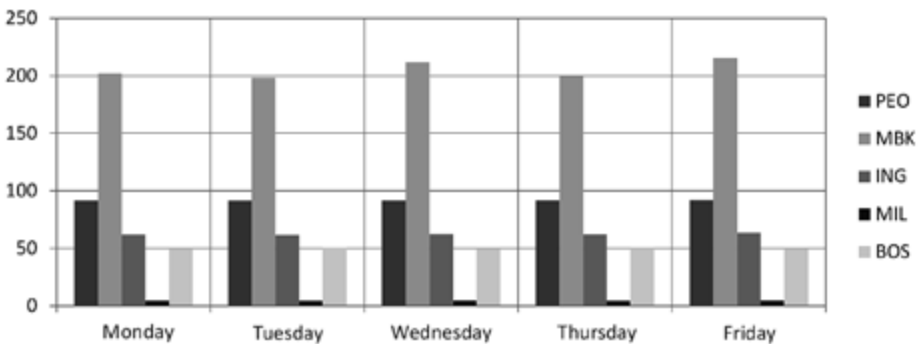


Figure 5. Average listings of selected companies from the WIG-banks index in individual days of the week

Source: own study.

To be able to present the distribution of rates of return within a week, daily rates of return were calculated and then presented in the Figure. The pres-

entation of average rates of return on stock prices of 5 selected companies from the WIG-banks index calculated for each working day separately are shown in Figure 6.

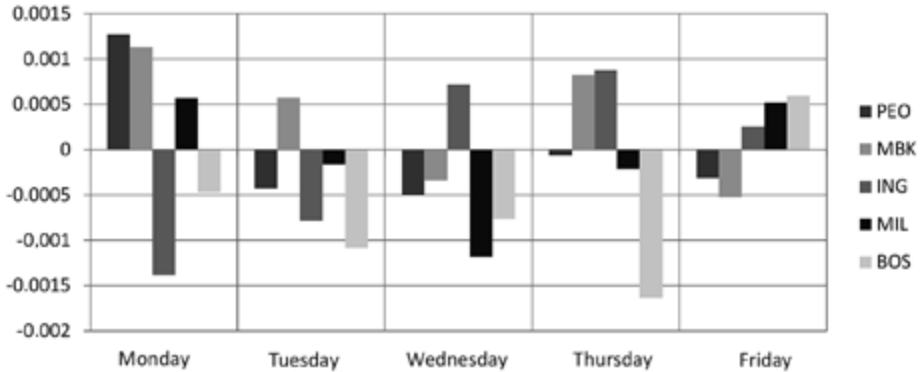


Figure 6. Average rates of return of selected companies from the WIG-banks index on individual days of the week

Source: own study.

The next two Figures also aim at showing the Monday effect or its lack. Figure 7 presenting the distribution of average daily listings was based on the data of companies belonging to the WIG-construction index.

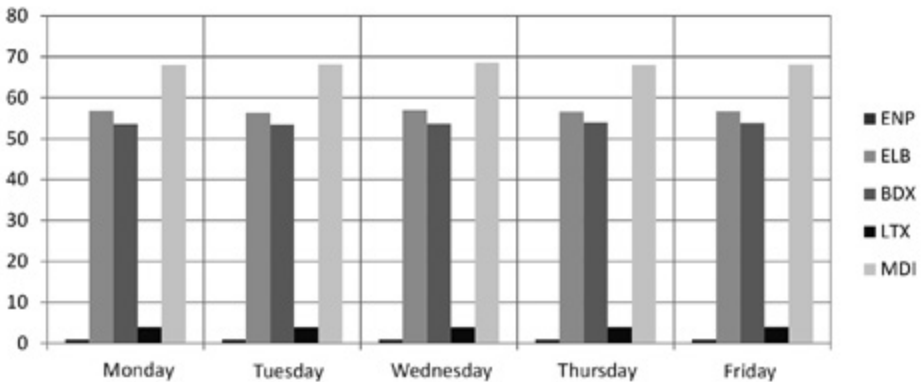


Figure 7. Average listings of selected companies from the WIG- construction index in individual days of the week

Source: own study.

In Figure 8 there is a presentation of average daily rates of return on stock prices of 5 companies selected for the research and belonging to the WIG- construction index.

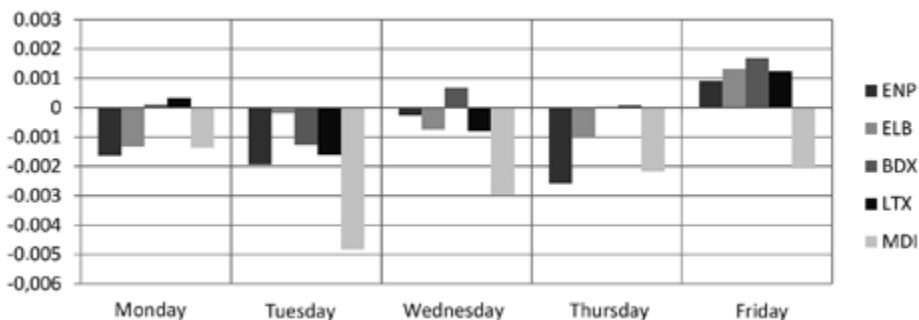


Figure 8. Average rates of return of selected companies from the WIG-construction index on individual days of the week

Source: own study.

In the analysed research period, average monthly listings of stock prices of companies belonging to the WIG-banks index as presented in Figure 1 are steady, however, already at first glance we can notice slight deviations. The highest average values were achieved by the shares in April and May. It is clearly visible, particularly in the case of the listings of mBank S.A. Only in those two months average listings of the company exceed the value of 205. The listings of Bank Polska Kasa Opieki S.A. are also the largest in April and, achieving value above 93 in comparison with the other months. ING Bank Śląski S.A. also achieved two highest values of average stock prices in May and April. In the case of that company the differences between two highest and other values are so slight that it is difficult to talk about the influence of a given month of the year on the achieved values of listings. The highest average values of the stock prices of Bank Ochrony Środowiska S.A. fall on July, August and September, and for Bank Millennium S.A. these are February and March. After the conducted analysis of Figure 1 we can say that the calendar effect did not affect average monthly listings of 5 companies from the WIG-banks index. In Figure 2 we can see that average monthly rates of return on stock prices of the companies belonging to WIG-banks are not steady. The highest values for rates of return take place in July, August and December. Relatively high average rates of return in December could indicate the commencing January effect already in the previous year. However, January is not characterised by high rates of return on shares in comparison with previous months, which negates this thesis. Average rates of return on stock prices of 3 studied companies, namely PEO, MBK and BOS in January do not exceed 0.001%. Only the average of the return of MIL exceeded the value of 0.001% and was 0.0012%. The average monthly rate of return of ING was negative at the level of -0.0030%. Preparation and interpretation of Figure 2 presenting average monthly rates of return on stock prices of 5 companies from

the WIG-banks index allows to assume that calendar effects do not affect the distribution of the rates of return of companies listed on the Warsaw Stock Exchange. The analysis of Figure 3 showing average monthly listings of the shares of 5 companies belonging to the WIG-construction index also did not prove the occurrence of the January effect. According to the data from the analysed research period, January was one of the months marking the lowest values of the stock prices of companies from the construction industry. For MDI Energia S.A. January turned out to be the third lowest result in terms of listings, constituting only 88.7% of the highest average value of stock prices achieved in April. April turned out to be the best month also for Energoaparatura S.A. It was April that was the only period in which average monthly listings of shares exceeded the value of 1, constituting 1.0009. The listings of Elektrobudowa S.A. take similar values month by month. With regard to the whole month July, August and September stand out, achieving the value of 59. Similarly, slight deviations of monthly values of stock prices are characteristic for Lentex S.A. The difference between the biggest and the smallest average monthly listing is only 0.4944. In the case of that company, the value achieved in April is one of the highest, however, the value from May exceeds it slightly. Budimex S.A. is another company which achieves average monthly listings on the highest level in April. The difference between the value in April and the next value is as much as 1.9589, that is more than 3% of the highest value. The interpretation of Figure 3 could result in drawing conclusions on the effect of the April effect not only on the British or Indian market, which was proven by research, but also on the Polish market. In the case of 3 of 5 companies constituting the research sample April turned out to be the month with the highest average value of stock prices. One of the remaining companies reached the second highest average monthly listings in April, and the last company marked in that month a result lower by 0.3286 than the average annual value of listings. The presented data show clearly the impact of the April effect on the listings of 5 companies from the WIG-construction index selected for the research. The effect is not the subject of deliberations of the conducted research, but its occurrence proves the influence of calendar anomalies on shaping the stock prices of companies on the Warsaw Stock Exchange. Figure 4 reveals that average monthly rates of return on shares of 5 companies selected for research from the WIG-construction index for the majority of months have negative values. We can distinguish January, March and April, in which rates of return on shares of 2 companies have positive values. In January MDI reaches negative values but much closer to 0 than in March and April. The average rate of return on the shares of MDI in January is -0.0003%, in March -0.0022%, and in April -0.0061%, which is a considerable difference between January, and March and April. The value may shape in that way due to the occurrence of

the January effect influencing average rates of return of the WIG-construction index. Taking into consideration data included in Figure 2 and Figure 4 we can assume that calendar effects influence the shaping of average monthly rates of return. Calendar anomalies selected for the research are not reflected, however, in the data of all the analysed companies. It may result from the choice of stock exchange indices, but also the selection of companies.

Figures 5-8 were created to check the impact of the Monday effect on average listings and average rates of return. To be able to confirm or exclude the influence of the Monday effect, average daily listings and average daily rates of return were calculated. It allowed to analyse each day of the week. Average daily listings of companies in Figure 5 shape evenly to some extent. Undoubtedly, an exception is mBank S.A. whose average stock prices differ depending on the day of the week. They reach the highest value on Friday, when the average stock price is 215,1884. Monday is the third day of the week in terms of the listing value. Average daily listings are 202,0852 on that day, that is only by 3,7231 more than the lowest of the average daily listings achieved by mBank S.A. on Tuesday. Shares of ING also reach the highest average listings on Friday. In the case of that company, however, the difference is negligible. Friday average daily rate differs from the next highest only by 0.9936 percentage points. The distribution of stock prices of mBank S.A. and ING Bank Śląski S.A. not only does not confirm the Monday effect but also rejects the occurrence of the Friday effect, according to which stock prices should drop at the end of the week. Differences in average daily listings of the remaining three companies are so insignificant that when analysing them it is hard to talk about the connection between the day of the week and the value of stock prices. The situation is completely different when observing the average daily rates of return of 5 companies belonging to the WIG-banks index. They are presented in Figure 6 in which at first glance we can notice that rates of return reaching the upper limit fall on Monday. The highest of average daily rates of return in 5 studied companies were reached by Bank Polska Kasa Opieki S.A. and is 0.0013%. It was the only day of the week on which the mentioned company reached a positive average rate of return. The difference between the lowest and the highest average daily rate of return reached on the first day of the week was 0.0018 percentage points. With regard to the data of Bank Polska Kasa Opieki S.A. we can find out that Monday is the best day of the week from investors' point of view. Average daily rates of return on shares of one company cannot prejudice the existence of the Monday effect on the Polish capital market. In the case of mBank S.A. Monday was also characterised by the highest of average daily rates of return. Positive rates of return were reached in as many as 3 days, so the difference between the highest and the next value is not as spectacular and is only 0.0003%. The average rate of return from Friday is the

lowest of average rates of return calculated for this company. The difference between the value from Friday and Monday is as much as 0.0016 percentage points, which proves a considerable growth of rates of return on Mondays. Millenium S.A. bank is also included in companies which in the analysed period reached the highest of average daily rates of return on Monday. It is one of two days on which the studied value was positive. In addition to Monday it is Friday, which could prove the growth of rates of return on the shares of Bank Millenium S.A. on Fridays and maintaining such a situation on the next day of trading sessions taking place. The assumption is supported by the growth of the average rate of return from Friday to Monday by 9.65%. Bank Ochrony Środowiska S.A. reached the second result in terms of the value of the average daily rate of return on Monday. The company marked a positive result on only one working day. The data concerning ING Bank Śląski S.A. seem to deny the occurrence of the Monday effect. On the first day of the week the average rate of return was the lowest, reaching the level of -0.0014%. Tuesdays were not beneficial for investors having the shares of the company, either, because the average rate of return also on that day of the week was negative. The company reached positive rates of return on other days of the week, however, it was not possible to maintain them during the days without trading sessions. We may assume that the collected data, with the exception of average daily rates of return on the shares of ING Bank Śląski S.A., could determine the influence of the Monday effect on the distribution of rates of return on the shares of companies of the WIG-banks index. Figure 7 aims at checking the impact of the Monday effect on average daily listings of companies based on the WIG-construction index. Average values of stock prices of all 5 companies are steady and it is hard to notice the effect of any of the days of the week. None of the analysed companies included in the WIG-construction index achieved the highest of average daily listings on Monday. Elektrobudowa S.A. marks the second average value of stock prices on the first day of the week. Monday average value differs from the lowest average value reached during the whole week by only 0.4698. Average listings of MDI Energia S.A. take the lowest value on Monday. Due to the value of differences between individual average daily listings, data concerning MDI Energia S.A. should not be considered as an argument against the thesis of the impact of the Monday effect on listings of the Friday effect. Figure 8 should be another proof for the occurrence of the Friday effect. The highest average rates of return on shares are achieved by as many as 4 companies. In the case of Lentex S.A. Friday is one of 3 days of the week on which the company reached positive average rates of return. One of these days is Monday when the company achieves the second average rate of return. The value achieved on Friday, however, exceeds the Monday value by almost 4 times. The second and last company reaching the positive average rate of return on Monday

is Budimex S.A. However, the result is close to 0, shaping on the level of 0.0001. In the case of that company the difference between the average rate of return on Friday and Monday is significant and is as much as 0.0016. However, it should be noted that on the following working day Budimex S.A. reached the lowest average rate of return, and the drop compared to Monday was 0.0014, which shows that keeping the positive average rate of return on Monday, in spite of such a large reduction of the value of this rate on Tuesday, may prove the impact of the Monday effect on the rates of return of Budimex S.A. MDI Energia S.A. MDI Energia S.A. reached negative average rates of return on each day of the week. However, on Monday it reached the highest value on the level of -0.0014. Elektrobudowa S.A. reached the lowest value on Monday. In comparison with the highest average rate of return achieved on Friday, the average rate of return from Monday declined by as much as 0.0026. It is the highest weekend drop of the average rate of return among the 5 companies of the WIG-construction index. Energoaparatura S.A. reaches on Monday the second lowest average daily rate of return on shares. When analysing Figure 8, we could claim that the Monday effect influences average daily rates of return on shares of some of the studied companies from the WIG-construction index. However, it does not influence average rates of return of all the considered companies.

6. Conclusions

The aim of the research was to check whether listings of companies and the distribution of rates of return on stock prices of the companies listed on the Warsaw Stock Exchange may depend on the calendar effect. In spite of numerous research conducted to establish the influence of the calendar effect on the efficiency of capital markets all over the world, so far it has not been possible to unambiguously determine whether the use of the calendar effects will ensure above average rates of return to investors. Within the conducted research, the influence of two of the most popular calendar effects, namely the January effect and the Monday effect were analysed on the listings and distribution of the rates of return of 5 companies belonging to the WIG-banks index and 5 companies belonging to the WIG-construction index. The research findings are not unambiguous. It was not possible to prove statistical significance which would determine the connection between the shaping of the value of share prices and average rates of return, and the month or the day of the week. We can assume that both mentioned calendar effect have a real influence on the values of stock prices and rates of return on those prices, but not in the case of all the companies. In the event of some of the studied companies no above average growth of share prices or rates of return on shares was observed. What is more, for a few

of the studied companies, January or Monday were characterised by significant drops in the value of share prices and rates of return on shares. Due to such big discrepancies in the obtained results we cannot undisputedly confirm the impact of the calendar effects on the situation of investors investing their money in the shares of companies listed on the Warsaw Stock Exchange. It gives a basis for the continuation of the research on a larger sample of companies.

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Workplaces, Education and Experience. Case of Municipal Company in Poland*

Marek Jabłoński

1. Introduction

Literature review allows for identifying a number of factors which impact implemented job processes, the major ones including: technological innovations promoting automation, robotisation and the development of a digital economy (mobile devices, 3D printing, internet of things, or BigData), changes in the global division of labour – the popularisation of offshoring, changes in the organization of market firms and institutions, demographic changes, and changes in consumption models (OECD, 2017b, p. 12). Generally, intensive progress of these technologies, especially their implementation within business and social processes is related to the increase of information processing capabilities. For example, Nordhaus estimated the real cost of carrying out a standard set of computational tasks and discovered progress in the field of conversion capabilities significantly accelerated in the 1970s of the 20th century, especially due to the spread of microprocessors. For instance cost of standard calculation set decreased annually by 60-75% in the years 1980-2006 (Nordhause, 2007). As the result of these tendencies, growing number of information is used in each sectors of modern economy, both traditional and knowledge-based. Moreover as scientific research points the development of later one accelerates in the last years, though the knowledge-based economy sectors started few decades ago (OECD, 2017a). These factors have a major impact on the change of content of work in many if not every positions and groups of positions influencing contemporary labour markets. Such transformation processes in economies, sectors and enterprises create demand for

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new employee skills and change job requirements of many occupations (OECD, 2016), resulting in changes in demand for specific types of jobs.

The paper presents an empirical analysis of the share of particular types of jobs representing differences in content of work as well as changes within the level of education and experience of employees working on these particular jobs. The study employs data from one of municipal company in Poland collected in the year 2009 and 2018. From the perspective of this objective, the paper presents a review of literatures for the purpose of theoretical and methodological interpretation, and it presents the methodology of empirical research as well as its results and conclusions.

2. Technological progress and job requirements

There is a rich literature, which identifies the impact of technological progress on the content of work and job requirements for employees. Basing upon the scientific research, it has been discovered that from the beginning of the 19th century to the present day three phenomena can be specified, i.e. unskill-biased technical change, skill-biased technical change and talent-biased technical change. Unskill-biased technical change generally concerns technical progress in the 19th century. The conducted study indicates that 19th century technological advancement resulted in the increased productivity of employees possessing relatively low skills – skilled craftsmen were replaced by lower-skilled workers (Autor, Levy & Murnane, 2003). The craft workshop was replaced with a factory, followed by exchangeable parts and an assembly line, and the products previously produced by skilled craftsmen were then produced in factories by employees with relatively small skills (Mokyr, 1992). However, it is worth mentioning that unskill-biased technical change can be identified today, when selected sectors are analyzed, particularly basing upon lower-skilled employees (Esposito, 2008), or when we analyze individual occupational groups.

Skill-biased technical change has been confirmed in the U.S. industry since the beginning of 20th century. In particular technological advancement connected with transition from the production system of the late nineteenth century to factory systems with electric motors allowed for the automation of operations, especially in the field of moving raw materials and semi-finished products (transport, production line), which was previously performed by unqualified workers (Goldin & Katz, 1996). It was also discovered that skill-biased technical change is particularly accompanied by the development of information and communication technologies, which increases in the productivity of skilled workers performing functions based on abstract thinking, creativity, and problem solving (Acemoglu & Autor, 2011). Talent-biased technical change is related to currently identified increase in demand for experts and talented employees, especially in the area of

robots, artificial intelligence and information analysis (Brynjolfsson & McAfee, 2014). Advances in computer technology over the last few decades have provided employers with cheaper machines and software that can potentially replace people in many activities requiring medium skills such as accounting, office work and repetitive production tasks (OECD, 2017b, p. 10). In studies investigating the impact of technological progress on human employment, the classification developed by Autor, Levy and Murnane (2003) is often used. The routinization hypothesis argued towards a more distinctive impact of ICT, based on the task content of each occupation (Terzidis et al., 2017). According to this classification, the terms “tasks” and “skills” are used interchangeably, depending on whether referred to an occupation or an employee, which are divided – on the basis of the content of work criterion – into routine and non-routine (see: Fig. 1).

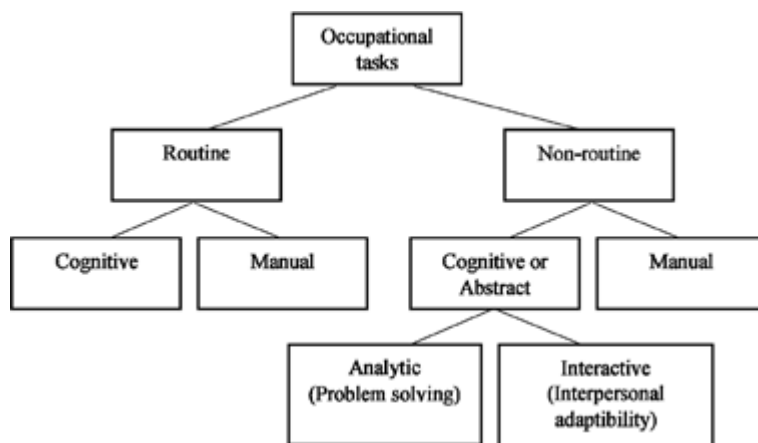


Figure 1. Occupational task model

Source: (Terzidis et al., 2017, p. 5).

In particular, according to typology tasks are distinguished at first between (Author & Acemoglu, 2011, pp. 1076-1079): routine tasks (including manual and cognitive) and nonroutine tasks (including manual and abstract) (see: Tab. 1).

The analysis of the share in the work force of particular groups of positions in the USA in 1979-2012 points to a rapid increase in the group of specialist, technical and managerial posts, accompanied by a decreasing share of production, craftsman and operating positions (Author & Acemoglu, 2011, p. 1077). This tendency, called the polarisation effect has been also confirmed for OECD countries. It was pointed out, in particular, that advanced production processes leads to an increased number of non-routine positions (low and high wages for service providing positions) and reductions in staff engaged in routine work (production, administration and office jobs) (OECD, 2017a, p. 9).

Table 1. Traditional economy versus knowledge-based economy

Type of job	Groups of positions	Main function of groups of positions
Nonroutine cognitive	Managers, specialists, technicians	Problem solving, assessment of information, creativity
Routine cognitive	Salespersons, administration and office staff	Simple information-related tasks: organizing, storing, retrieving and manipulating information
Routine manual	Production, repair and craftsman tasks	Manual activities based on rules and algorithms
Nonroutine manual	Service sector	Manual tasks requiring interpersonal and environmental adaptability

Source: own work based on (Autor & Acemoglu, 2011, p. 1077).

3. Research methodology

The research study was conducted in one of the municipal companies of agglomeration in Poland and it aimed at identification of changes in the level of education and experience (total and within company) of employees in relation to the identified types of positions. Empirical data refers 2009 and 2018 year. The research tasks were performed on the basis of three major internal sources of information: the scopes of responsibilities of organizational positions and individual educational and experience data provided by HR department, and the results of interviews with executive staff and employees in particular posts. Basing upon documentary analyses, educational level and job experience and particular type of jobs (routine manual and cognitive as well as non-routine manual and cognitive) according to adopted classification were identified. Job experience was measured with the number of years with (total and within company) employment, while educational level was identified with a 5-item scale, i.e.: 1 – elementary, middle school, 2 – Basic vocational, 3 – Secondary comprehensive/ vocational/technical, 4 – Post-secondary, 5 – Higher (including BA/BSc). Interviews with executive staff and employees in particular posts were used in order to verify the identification to particular types of jobs previously elaborated by documentary analyses (see: Tab. 2).

Table 2. Criteria for classification of organizational posts

Type of job	Groups of positions	Main function of groups of positions
Nonroutine cognitive	Administration and office posts Managers, specialists, technicians	Work involves problem solving, assessment of information and creativity as well as interpretation of phenomena and processes, and adapting existing solutions to a company's current needs and potential. Research work is required as well as the testing of new solutions. Analytical, synthetic and creative thinking
Routine cognitive	Administration and office posts Salespersons, administration and office staff	Simple information-related tasks: organizing, storing, retrieving and manipulating information based on strict instructions, code of labour, technological processes and supervisors' instructions. Routine thinking.

Type of job	Groups of positions	Main function of groups of positions
Routine manual	Workman posts Production, repair and craftsman tasks	Manual activities based on rules and algorithms, strict instructions, code of labour, technological processes and supervisors' instructions. Routine thinking
Nonroutine manual	Workman posts Service tasks	Manual tasks requiring interpersonal and environmental adaptability. Work involves independent choice of implementing techniques. Semi-routine thinking

Source: own work based on (Author & Acemoglu, 2011, p. 1077).

4. Results and discussion

The results of empirical research in the analysed periods show changes of the share of particular posts in the total number of employed staff. The percentage of routine jobs is relatively lower, with greater changes in the group of workman tasks (from 49.52% to 16.72%) than in administration and office posts (11.52% – 11.09%). Simultaneously, the percentage of nonroutine jobs increases, with greater changes in workman tasks (from approx. 12% to approx. 39%) than in the group of administration and office jobs (from approx. 27% to approx. 33%) (see: Tab. 3).

Table 3. Share of jobs in the analysed period (%)

Types of jobs	Total	
	2009	2018
Routine manual	49.52	16.72
Nonroutine manual	11.79	38.82
Routine cognitive	11.52	11.09
Nonroutine cognitive	27.18	33.36
Number	1137	1172

Source: own work.

Empirical data has been subjected to statistical processing, in particular the basic indicators of descriptive statistics were used (see: Tab. 4).

Table 4. Indicators of descriptive statistics of empirical data

Indicator	Mean		\bar{x} (2009 r. = 1,00)	Standard deviation		Coefficient of variation	
	2009	2018		2009	2018	2009	2018
Education	2.976	3.491	1,173	1.3886	1.3815	0.4666	0.3957
Job experience within Company	16.840	17.238	1,024	10.984	11.859	0.6522	0.6879
Job experience Total	25.155	24.968	0,993	11.692	13.173	0.4648	0.5276

Source: own work.

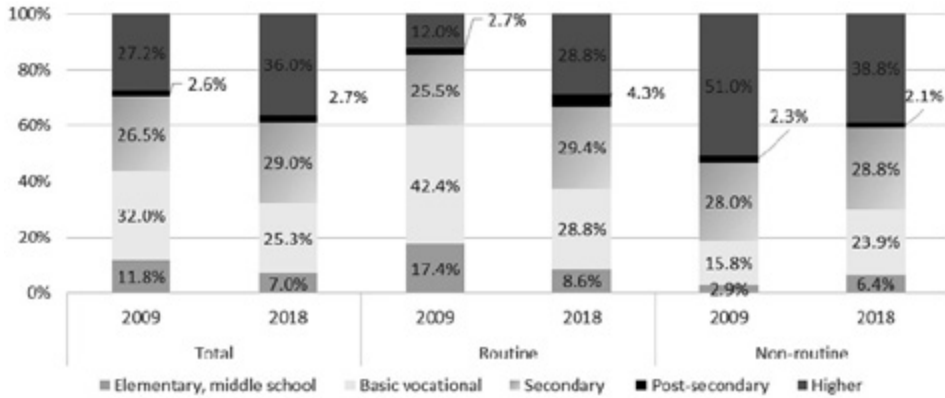


Figure 2. Education and types of jobs

Source: own work.

The research shows that the average level of education of employees increased, with 26% increase in the average level of education in case of routine jobs, and 11% decrease in the group of non-routine jobs (see: Tab. 6). In addition, the percentage of employees with at least secondary education increases. The highest growth rate was recorded in the group of employees with higher education. Generally, routine jobs are characterised by increased education levels, while employees on non-routine jobs have, on average, lower education. In the analysed period, both in absolute and relative terms, the number of routine tasks decreases in favour of non-routine work. As a consequence, routine employees with relatively lower education than those who perform non-routine tasks, after being reclassified to non-routine positions, lower the average level of education in this group of employees.

The vast majority of employees in cognitive positions have at least secondary education, additionally in the analyzed period the share of employees with secondary education decreases, while the percentage of employees with higher education increases. Relative differences in education levels measured by standard deviation (V_s) increase for non-routine jobs and decrease for routine tasks. Greater differences in education levels (V_s) for non-routine jobs are mainly caused by greater differences (V_s) in the group of employees performing non-routine manual tasks (see: Tab. 7). On the other hand, the use of the differential coefficient based on quartile deviation (V_q) points to an increase in relative education differences in both groups of employees, i.e. routine and non-routine (see: Tab. 6).

The collected empirical material indicates that the average experience in the company is growing over the period under consideration. It should be noted, however, that the analyzed index slightly decreased for routine positions, while it increased for non-routine employees, with simultaneous lowering of both groups

of positions (see: Tab. 6). Comparative analysis of the total experience and experience within the company indicates that the period of professional experience preceding employment in the company has been shortened, in particular this variable has dropped from 8 to 7 years. However, the median of both total experience and experience in the company in both studied periods is 10 years. Similarly, the professional experience preceding the employment by non-routine workers was shortened (from approximately 9 years 2009 to approx. 8 years in 2018), with a simultaneous reduction in the median from 14 to 11 years (see: Tab. 6). The higher level of the average total experience was noted for employees performing manual tasks, while lower for those employed on cognitive jobs. However, while in the group of manual positions, the average level of total experience is relatively similar in both periods. So in the case of cognitive positions, significant differences were noted, in particular the average total experience in routine positions is around 16.5 years, and in non-routine cognitive positions – approx. 22.5 years (see: Tab. 7). Relatively greater variation has been noted in relation to cognitive jobs, especially routine cognitive. On the other hand, the lower diversity of the total experience is among those employed on manual jobs.

Table 5. Differentiation indexes for education and experience (total and within a company) in particular types of jobs

	Indexes	Edu.		Exp.		Exp. within company	
		2009	2018	2009	2018	2009	2018
Routine	\bar{x}	2,49	3,16	25,45	24,69	17,79	17,81
	\bar{x}^* (2009 r. = 1,00)	1,00	1,269	1,00	0,970	1,00	1,001
	Q1	2	2	18	12	10	6
	Me	2	3	28	27	18	17
	Q3	3	5	34	37	26	29
	Q4	5	5	50	55	44	49
	V_s	0,47	0,43	0,46	0,56	0,60	0,70
	V_q	0,25	0,5	0,29	0,47	0,44	0,66
	max/min	5	5	50/0	55/0	44/0	49/0
	Number	694	326	694	326	694	326
Nonroutine	\bar{x}	3,83	3,43	24,70	25,03	15,34	17,02
	\bar{x}^* (2009 r. = 100)	1,00	0,896	1,00	1,013	1,00	1,110
	Q1	3	2	14	14	6	8
	Me	5	3	27	26	13	15
	Q3	5	5	34	36	23	25
	Q4	5	5	49	49	43	48
	V_s	0,34	0,4	0,48	0,51	0,74	0,68
	V_q	0,2	0,5	0,37	0,42	0,65	0,57
	max/min	5	5	49/0	49/0	43/0	48/0
	Number	443	846	443	846	443	846

Source: own work.

Table 6. Differentiation indexes for particular types of jobs in the analysed period

	Indexes	Edu.		Exp.		Exp. within company	
		2009	2018	2009	2018	2009	2018
Routine manual	x_{max}	2,126	2,352	27,485	30,3	19,188	22,5
	$x_{\text{max}}(2009r. = 100)$	1,00	1,106	1,00	1,102	1,00	1,173
	Q1	2	2	22	24	14	13
	Me	2	2	29	34	19	25
	Q3	3	3	35	39	26	31
	Q4	5	5	50	49	43	48
	Vs	0,403	0,376	0,370	0,384	0,515	0,509
	Vq	0,250	0,250	0,224	0,221	0,316	0,360
	max/min	5	5,00	50/0	49/0	43/0	48/0
	Number	563	196	563	196	563	196
Nonroutine manual	x_{max}	2,29	2,44	29,80	26,84	19,13	18,13
	$x_{\text{max}}(2009r. = 100)$	1,00	1,066	1,00	0,901	1,00	0,948
	Q1	2	2	25	15	12	7
	Me	2	2	30	30	21	19
	Q3	3	3	36	37	26	29
	Q4	5	5	44	49	43	47
	Vs	0,29	0,37	0,30	0,49	0,59	0,69
	Vq	0,25	0,25	0,18	0,37	0,33	0,59
	max/min	5	5	44/0	49/0	43/0	47/0
	Number	134	455	134	455	134	455
Routine cognitive	x_{max}	4,08	4,38	16,69	16,43	11,80	10,71
	$x_{\text{max}}(2009r. = 100)$	1,00	1,074	1,00	0,984	1,00	0,908
	Q1	3	3	4	7	3	2
	Me	5	5	13	13	6	8
	Q3	5	5	30	23	21	14
	Q4	5	5	44	55	44	49
	Vs	0,25	0,21	0,80	0,78	0,98	0,99
	Vq	0,20	0,20	1,00	0,61	1,50	0,73
	max/min	5	5	44/0	55/0	44/0	49/0
	Number	131	130	131	130	131	130
Nonroutine cognitive	x_{max}	4,49	4,59	22,49	22,91	13,71	15,72
	$x_{\text{max}}(2009r. = 100)$	1,00	1,022	1,00	1,019	1,00	1,147
	Q1	4	5	11	13	6	9
	Me	5	5	24	21	10	14
	Q3	5	5	33	34	19	21
	Q4	5	5	49	49	42	48
	Vs	0,191	0,175	0,541	0,536	0,809	0,658
	Vq	0,100	0,00	0,458	0,5	0,650	0,429
	max/min	1,67	5	49	49/0	42/0	48/0
	Number	309	391	309	391	309	391

Source: own work.

5. Conclusion

The paper identifies changes in the share of particular types of jobs in one of municipal companies as well as differences in the level of education and experience of employees in relation to specific types of jobs. To the best knowledge of the author, it is difficult to refer the conducted analyses to other research studies in Poland with regard to municipal or commercial companies. However, the analyses conducted in the year 2009 and 2018 lead to several general conclusions. There is a significant change between the two analysed years with regard to the content of work. The results of the analyses indicate – confirming the results of other representative studies in this area – a decrease in the share of routine in favour of nonroutine tasks. Moreover, non routine jobs are performed by employees with relatively higher educational level. The relatively shorter average job experience was noted for employees performing cognitive work. But average job experience among employees performing routine manual and non-routine cognitive work increased.

Literatures attribute this trend to technical advancement, which is not confirmed by the case of the analysed company. The presented analyses do not give consideration to the company's activities related to innovation and investment projects aimed to modernize organizational processes. However, the analysed period does not record any significant structural changes related to the company's particular functions. It can be assumed, therefore, that the diagnosed changes in work content reflect the effects of technical advancement and the employment of more advanced technologies, especially in the company's core activities.

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Management Accounting Practices in Mid-Sized Companies in Emerging Economies: an Evidence from Russia

Pavel Lebedev

1. Introduction

Recent developments in management accounting globally led in 2014 to the adoption of The Global Management Accounting Principles (GMAP), which provide guidance to best practice of the profession. This is the result of the cooperation of the two most prestigious professional bodies in the world: The American Institute of CPAs (AICPA) and the Chartered Institute of Management Accountants (CIMA). In 2017, these institutes founded the Association of International Certified Professional Accountants, which represents more than 650,000 members and students in 179 countries (*Global...*, 2017). The GMAP detail the first universal set of management accounting principles (MAPs) to guide management accounting practices.

Although businesses around the world are increasingly adopting similar management accounting practices (Shields, 1998), the development of management accounting in various countries follows its own path and pace, being determined by national peculiarities of socio-cultural, historical, legal, political, and economic nature, which requires more systematic evidence (Luther & Longden, 2001; Shields et al., 1991). In Russia, management accounting is still an emerging concept, and only recently the debate within the profession has become more inclusive of global topics (Lebedev, 2014). This study provides insight into the current state of management accounting practices in midsized private Russian companies in comparison to the global framework.

2. Research design

The research design and methodology the author used for this study are discussed in details in previous publications (Lebedev, 2015, 2018). The summary of the research design is presented below.

The survey-based study was conducted in the period 2015-2016 as a joint project in cooperation with the Center for Financial Management and Education of the National Guild of Professional Consultants of Russia. The author is the Director of the Center. Participants in seminars (of both open and corporate programs) in the field of management accounting, controlling, and financial management were surveyed during a period of two years. In total, 756 representatives of financial and management accounting departments from 231 companies were surveyed. 522 questionnaires representing 167 mid-sized companies were found to be valid for processing.

2.1. Research questions

This study aims to provide a deeper insight into current understandings of management accounting within a country-specific context, answering the questions:

- What is the current state of management accounting practices in mid-sized private Russian companies? How is it compared to the GMAP?
- How do the management accounting practices in use contribute to the overall effectiveness and efficiency of management accounting? Are management accounting practices consistent with the GMAP? Do they support each other?

2.2. Research method

The nature of this research is interpretive and exploratory. It is conducted with the following aims:

1. Exploration of the phenomena of management accounting in emerging markets (in the context of Russia), in order to gain preunderstanding and understanding informing further research and research methodology.
2. Formulation of theoretical propositions regarding various aspects of management accounting in mid-sized companies (in emerging markets, such as Russia), which could be further reframed to testable hypothesis.

In order to address the research questions, the following approach to the operationalization of MAPs was taken. 14 subsections of the questionnaire were developed, corresponding to each of the practice areas of management accounting. The definition of each practice area was adopted from the GMAP to reconcile the respondents' understanding of what each practice area consists. Each subsection was divided into four parts, corresponding to each of the four MAPs. In each part, statements of best practice as to how the principles could guide the practice were suggested. A Likert scale, ranging from 0 to 5 (with 0 being included), was offered to respondents for them to evaluate the extent to which certain practices were being applied in their companies. Responses could range from 0

(“The practice is non-existent in our company”) to 5 (“The practice is fully implemented in our company”).

2.3. Summary of the findings

Table 1 provides a summary of the results of the study.

Table 1. Study results

Management accounting practice areas	MAPs				Integrated score	Max. score ("best practice")
	P1	P2	P3	P4		
Cost transformation and management	4	5	2	3	14	20
Regulatory adherence and compliance	4	4	1	3	12	20
Management and budgetary control	4	1	0	2	7	20
Resource management	2	2	0	2	6	20
External reporting	0	3	1	1	5	20
Price, discount, and product decisions	2	2	0	0	4	20
Strategic tax management	1	1	1	1	4	20
Treasury and cash management	2	2	0	0	4	20
Financial strategy	1	1	1	0	3	20
Investment appraisal	1	0	1	1	3	20
Project management	1	1	1	0	3	20
Risk management	0	0	0	0	0	20
Internal control	0	0	0	0	0	20
Internal audit	0	0	0	0	0	20
Integrated score	22	22	8	13	65	X
Max. score ("best-practice")	70	70	70	70	X	280

(P1) Communication provides influential insight; (P2) Information is relevant; (P3) Impact on value is analyzed; (P4) Stewardship builds trust.

Source: own work.

The results allow to outline five groups of practices:

- Core practices: The most intensively used practice areas with the biggest influence and contribution to MAPs. These include cost management and compliance.
- Common practices: Often mentioned practices with moderate influence and contribution to MAPs. These include budgeting, resource management, and external reporting.
- Occasional practices: Rarely used practices with an insignificant influence and contribution to MAPs. These include price decisions, tax management, and cash management.
- Emerging practices: Extremely rarely used practices with an insignificant influence and contribution to MAPs. These include financial strategy, investment appraisal, and project management.

- Ignored practices: Non-existent practices. These include risk management, internal control, and internal audit.

3. Management accounting practices in Russian midsized companies: discussion

3.1. Overview

The results of the research demonstrate that, from the point of view of the practices prevailing in companies today, the current understanding of management accounting in Russian midsized companies corresponds to the understanding countries with developed market economies had twenty to thirty years ago. The key focus of management accounting is aimed at information support (22 points) and transfer of information to users (“communications” also received 22 points). Importantly, the maximum possible score could be 70 points, which would mean a profound and balanced use of all management accounting practices under consideration. Creation of value and protection of assets (in order to ensure sustainable operation of the company) received, respectively, only 8 and 13 points out of 70 possible, which indicates that these topics are not significant in the corporate agenda, yet. The integrated assessment of all four principles of management accounting was only 65 points, whereas the maximum value corresponding to best management practices could be 280 points. Accordingly, 65 points also included an integrated assessment of all areas of practice, with an analogue of a maximum value of 280 points. Altogether, it indicates that management accounting (in general) is ascribed relatively low importance.

3.2. The core practices: cost management and compliance

Cost transformation and management is defined as “the exercise of cutting waste while preserving or enhancing value generation. It involves the sustained identification and reduction of waste across the organization while freeing up resource to invest in innovation that will drive future value for stakeholders” (*Global...*, 2017, p. 25). This practice area is the most intensively used by Russian midsized companies as the results of the survey (score 14 out of 20) evidence. It contributes to all the four MAPs, with the biggest impact on supporting the MAPs “Information is relevant” (score 5 out of 5) and “Communication provides insight that is influential” (score 4 out of 5), and a moderate contribution to the MAPs “Stewardship builds trust” (score 3 out of 5) and “Impact on value is analyzed” (score 2 out of 5). These results, however, are ambiguous. Although they demonstrate that cost management is an important practice area for Russian midsized companies, the essence and the extent of this practice are far from good practices (Lebedev, 2019). Most of the companies have very basic costing systems.

Thus, the overall popularity of the topic could be explained by a search of a tool which would easily allow to improve profitability, whereas it is widely assumed that cost management is the right tool.

Cost transformation and management are closely followed by regulatory adherence and compliance (score 12 out of 20). These are defined as “the fulfilment of statutory and regulatory obligations in relation to accounting, statutory reporting, tax, and other regulatory compliance. The objective is to prevent penalties and other enforcement activity and promote the reputation of the organization for good corporate citizenship” (*Global...*, 2017, p. 26). The practice significantly contributes to the MAPs “Information is relevant” (score 4 out of 5) and “Communication provides insight that is influential” (score 4 out of 5), and a has moderate contribution to the MAPs “Stewardship builds trust” (score 3 out of 5) and “Impact on value is analyzed” (score 1 out of 5). In the past, the role of regulation was high in Russia, with high cost of non-compliance. For more than a decade during the post-Soviet era, statutory accounting was determined by tax rules, not by the logic which is normally applied to financial accounting. Besides, a large number of agencies and organizations are empowered to check for compliance within various aspects of business activities, whereas, traditionally, financial departments are internally in charge of most of these inspections. This explains why regulatory adherence and compliance were named as a second mostly used practice area.

3.3. The common practices: budgeting, resource management, and external reporting

Management and budgetary control are defined as “the system of proactively controlling performance against predetermined targets at all levels of the organization, which may include projects, people, activities, processes, sales volumes and revenues, resource quantities, operating costs and expenses, assets, liabilities and cash flows, as well as other non-financial measures” (*Global...*, 2017, p. 26). This practice contributes mainly to the MAP “Communication provides insight that is influential” (score 4 out of 5), with some insignificant contributions to the MAPs “Stewardship builds trust” (score 2 out of 5) and “Information is relevant” (score 1 out of 5). The results show that this practice does not influence the MAP “Impact on value is analyzed” (score 0). The total contribution of the practice to the functioning of management accounting system is determined by a score of 7 (out of 20). The popularity of budgeting has long traditions in Russia. Indeed, it is one of the most popular management tools, as publications in professional media and the frequency of educational programs of various length indicate. These sources present budgeting mainly as a tool of cost-cutting and motivation management by means of financially-determined key performance indicators. In the absence of supporting organizational structures and values, budgeting failed

to produce desired outcomes in most of the cases. This possibly explains the gap between the results of the survey and the perception of the popularity of budgeting in the domains of consultancy and professional media (it could have been expected that budgeting would obtain much higher score).

Resource management is defined as “the consideration of the priority of resource availability in the context of organizational decision-making. It helps organizations to efficiently and effectively manage transformational or continuous improvements to products and processes. It involves the alignment of resources, systems, and employees to strategic objectives and the organization’s priorities” (*Global...*, 2017, p. 27). This practice has a modest contribution (score 2 out of 5) to all the MAPs, except to the MAP “Impact on value is analyzed”. Resource management in Russian midsized companies is closely associated with budgeting, but there is even less understanding of the underlying tools and philosophy. It could be assumed that the companies which mentioned resource management as an existing practice area were focused mainly on the aspects of economy, but not of efficiency. While the economy assumes merely savings, the efficiency assumes the improvement of processes, for which most of the companies are not ready, yet.

External reporting is defined as “the provision of an integrated and comprehensive view of the organization’s financial and non-financial performance, business model, risks, and strategy, which together form the basis for an effective assessment of expected future performance, help the organization to engage with a wide stakeholder base, and explain the organization’s strategy, business model, and performance” (*Global...*, 2017, p. 25). The influence of external reporting on the MAP “Information is relevant” is below average (score 3 out of 5), while it does not support a process of communications (score 0 out of 5), and only insignificantly contributes to the MAPs “Impact on value is analyzed” and “Stewardship builds trust” (score 1 out of 5). External reporting of the Russian midsized companies mainly consists of the statutory reporting, which is often perceived by managers as a purely formal act of compliance, rather than a tool of presenting meaningful information about the company. Being interlinked with tax accounting and supervised by tax authorities, external reporting thus constitutes an area of managerial attention. This determined a relatively high score on MAP “Information is relevant” as a reflection of these routines.

3.4. The occasional practices: price decisions, tax management, and cash management

All practice areas in this group have an insignificant influence on achieving the goals of management accounting. They all have a total score of 4 (out of 20). However, differences occur in how they influence certain MAPs.

Price, discount, and product decisions are defined as “deciding what to produce or what service to provide, and determining the selling price and discount

structures for products and services” (*Global...*, 2017, p. 26). This area of practice equally influences the two MAPs “Information is relevant” and “Communication provides insight that is influential” (score 2 out of 5), with no influence on the other two MAPs.

Strategic tax management is defined as “the role of tax in financial analysis and decision-making while proactively managing the organization’s tax position, so that legal requirements are met” (*Global...*, 2017, p. 27). The influence of strategic tax management on the MAPs is evenly distributed among them, with the same score 1 (out of 5) for each of the MAPs.

Treasury and cash management is defined as “the corporate handling of all financial matters, the generation of external and internal funds for business, incorporating the management of currency and interest rate risk, bank facilities, and funding and cash management” (*Global...*, 2017, p. 27). Similarly to the practice area of pricing decisions, this area of practice equally influences the two MAPs “Information is relevant” and “Communication provides insight that is influential” (score 2 out of 5), with no influence on the other two MAPs.

3.5. The emerging practices: financial strategy, investment appraisal, and project management

All practice areas in this group have an insignificant influence on achieving the goals of management accounting. They all have a total score of 3 (out of 20). They are also almost similar in how they influence certain MAPs.

Financial strategy is defined as “the identification of the possible strategies capable of maximizing an entity’s net present value, the allocation of scarce capital resources among the competing opportunities, and the implementation and monitoring of the chosen strategy to achieve stated objectives” (*Global...*, 2017, p. 25). It slightly influences three of the MAPs (score 1 out of 5), except the MAP “Information is relevant.”

Investment appraisal is defined as “the assessment of whether or not to pursue a particular investment based on alignment with strategy, prioritization of options, affordability, and acceptable returns versus unacceptable risks” (*Global...*, 2017, p. 26). It slightly influences three of the MAPs (score 1 out of 5), except the MAP “Stewardship builds trust.”

The practice areas of financial strategy and investment appraisal assume that the company operates on the premises of the value-based management philosophy. However, most of the mid-sized companies in Russia demonstrate their commitment to the paradigm of profit, but not of value. The concept of value is not understood and thus is not widely accepted as a basis for developing and executing a strategy.

Project management is defined as “integration of all aspects of a project, so that the proper knowledge and resources are available when and where need-

ed, and, above all, to ensure that the expected outcome is produced in a timely, cost-effective, and quality controlled manner” (*Global...*, 2017, p. 26). The influence of this practice on MAPs is similar to the influence of the practice area of financial strategy: It slightly influences three of the MAPs (score 1 out of 5), except the MAP “Stewardship builds trust.” The main obstacle for the implementation of the practice area “project management” is an authoritative style of leadership in Russian midsized companies. No actual delegation occurs, which makes it impossible to implement the project management according to the generally accepted approaches.

3.6. The ignored practices: risk management, internal control, and internal audit

These are the three practices which, as the survey highlighted, are not used by midsized companies in Russia. They all gained the score of 0, which means that the companies did not admit that these practices are in use to some extent. These outsiders are:

1. Risk management, which is defined as “the process of identifying, assessing and responding to uncertainty arising from the organization’s activities to support the delivery of its strategic objectives” (*Global...*, 2017, p. 27).
2. Internal control, which is defined as “a documented framework of policies, systems, processes, and procedures for managing risks to value generation and preservation, the efficient and effective implementation and operation of the framework, and the reporting on and supervision of the framework” (*Global...*, 2017, p. 25).
3. Internal audit, which is defined as “the provision of independent assurance that an organization’s risk management, governance, and internal control processes are operating effectively. It is sometimes referred to as the management review of controls” (*Global...*, 2017, p. 27).

Russian midsized companies are not ready, yet, to implement this set of practices, as corporate governance and strategic management in these companies are currently at very basic levels. Internal audit operates towards internal control, which, in turn, supports the process of risk management. Risk management ensures that the objectives are met within the determined level of the risk appetite in the company. When the prerequisites for this package of tools are non-existent or weak, the whole bunch of tools does not perform.

4. Emerging theory

Based on the findings from the survey, for each group of practices theoretical propositions were developed. They are presented below. At the subsequent stages of the research, these propositions can be converted into hypotheses for testing.

4.1. The core practices: cost management and compliance

The current prevalence of the practice area “cost management” among mid-sized companies in Russia is determined not by the goals of continuous improvement and “cutting waste while preserving or enhancing value generation”, but as a reaction to the unsatisfactory financial results (i.e., achieved as a result of the inefficient management and uncompetitive business models).

The lower is the level of transparency of the midsized company in Russia, the “darker” governance practices it employs. Also, the lower is the role of the practice area of regulatory adherence and compliance, the lower is its influence on the goals of management accounting.

4.2. The common practices: budgeting, resource management, and external reporting

The implementation of practices of management and budgetary control and resource management in midsized companies in Russia is an opportunistic decision, which is determined by irrational factors (e.g., management fashion and fads, and popularity of a tool), but not a deliberate act to increase efficiency. Effectiveness and efficiency of the company do not depend on the formal existence or absence of these practice areas.

The practice area of external reporting in Russian midsized companies is an extension of the practice area of regulatory adherence and compliance, rather than functioning as best practices (see above) define. Its value for the stakeholders is not evident. It fails to help an organization to engage with a wide stakeholder base and to explain the organization’s strategy, business model, and performance.

4.3. The occasional practices: price decisions, tax management, and cash management

The implementation of practice areas of price, discount and product decisions, and treasury and cash management in midsized companies in Russia is an opportunistic decision, which is determined by irrational factors (e.g., management fashion and fads, and popularity of a tool), rather than by well-understood needs of the company and opportunities of the respective practice area.

As a result, strategic tax management in Russian midsized companies is non-existent. Indeed, what companies present as tax management is practices of manipulation, tax base erosion, profit shifting, and tax avoidance.

4.4. The emerging practices: financial strategy, investment appraisal, and project management

In Russian midsized companies, the practice areas of financial strategy and investment appraisal are implemented mainly as a response to the challenges arising when they cooperate with external providers of capital. Except these extremely rare cases, these practices are insignificant.

The implementation of practice areas of project management in mid-sized companies in Russia is an opportunistic decision, which is determined by irrational factors (e.g., management fashion and fads, and popularity of a tool), rather than by well-understood needs of the company and opportunities of this practice area.

4.5. The ignored practices: risk management, internal control, and internal audit

The practice areas of risk management, internal control, and internal audit are totally ignored by Russian mid-sized companies, due to the very basic level of a strategic process in these companies, which is an important prerequisite of risk management and risk-oriented systems of internal control and internal audit.

5. Conclusion

As the study evidenced, management accounting practices in Russian mid-sized companies currently generally exist in a very rudimentary form. During this investigation, an attempt to provide a systematic outlook was made, along with a formulation of theoretical propositions explaining various aspects of the researched area. It is important to highlight that, in spite of the overall results, exceptional cases exist among mid-sized companies in Russia, which demonstrates the full-range of best practices in use. This provides an opportunity for further research on the factors that determine the existing differences with the mainstream situation. This study could be effectively conducted by employing a case-based methodology.

Future research could also focus on the contradictions of the obtained findings, representing the voice of companies, to the findings from another study, representing the view from the literature and archival sources (Lebedev, 2019). The latter study demonstrated a more positive outlook on the evolution and state of management accounting in Russian mid-sized companies. In particular, the research showed the signs of evolutionary path of management accounting from transactional focus (“bean-counting”) to the more advanced constructions of sense-making and sense-giving, when management accounting performs the roles of financial advisory and financial leadership. Reconciling the findings from the two studies could provide further insights and perspectives on the development and current state of management accounting in the studied companies.

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Human Capital as a Strategic Factor for the Competitiveness of the Tourism Sector

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1. Introduction

Tourism is an important economic sector with high incomes. In this area, there are tourism operators that are competitive with each other or can cooperate with each other to achieve a high level of development. The growing importance of tourism as an economic phenomenon raises questions about its development mechanisms. In modern economies, the basic regulator of economic processes is the market, but its functioning and the factors that shape it are very complex. In the case of tourism, we are dealing with a particularly large scale of difficulties, because it is a phenomenon that borders on many sciences, including economics, sociology, psychology, as well as pedagogy and education. It is difficult to imagine a comprehensive description of all conditions for tourism development, but it is worth making an effort to learn at least partially about the factors that determine the shape of the tourism services market. Undoubtedly, it is necessary to analyse the key role of human capital in tourism as a kind of competitive strategy in the context of the changing international situation. The analysis of the growing importance of the human factor in tourist services, as a basic and distinctive element, capable of ensuring competitive advantage in the sector is indispensable.

2. The concept of human capital

The founder of the theory of human capital is Schultz, who in 1979 was awarded the Nobel Prize for research in the field of economics. In his views, he emphasized the importance of human capital by creating *human capital theory*. Schultz used in his reflections the works of the American economist Mincer and Becker, who in his work entitled *Human Capital* (Becker, 1993) described the concept of human capital. It introduced the notion of investing in human

capital, understood as the allocation of resources that affects future real income. He pointed out that the level of capital has a significant impact on school education, the acquisition of qualifications, the acquisition of professional experience and other aspects of life as health influences the physical and psychological disposition of man. All these types of investment in the human person improve the functioning of the economic system. Becker believed that knowledge and innovative technology had an increasing impact on economic growth. The most place in his deliberations was devoted to describing the processes involved in investing in human capital through education at work (Cichy & Malaga, 2007, pp. 22-23).

Domański human capital has been described as „a resource of knowledge, skills, health, vital energy contained in society. This resource is given by the genetic characteristics of a given population once and for all, but it can be enlarged by means of investments called human investments: in people, in human capital, in human life” (Domański, 1993, p. 19). He also claimed that it was „a resource that is the source of future satisfaction, earnings or, in general, services of some value” (Domański, 1993, p. 19). A similar opinion is represented by Florczak, who treats human capital in a broad sense as „all the psychophysical characteristics of an individual, such as his innate abilities, knowledge, level of education, skills and professional experience, health, cultural level, social and economic activity, worldview, etc., which directly or indirectly affect productivity at work and which are inextricably linked to man as a carrier of these values” (Florczak, 2007, p. 113). In the Management Lexicon, we read that human capital is a collection of human qualities such as knowledge, skills, psychological characteristics, health, and value-added behaviour that can be a source of future income for both employees and organizations (Adamska, 2004, p. 193). At this point, a general and relevant definition of the OECD organisation should be given, according to which human capital comprises „the knowledge, skills, competences and other attributes possessed by individuals who are conducive to the creation of personal, social and economic well-being” (OECD, 2001, p. 3).

The above definitions indicate that human capital is not only human knowledge and abilities, but also various other factors such as health, physical and mental fitness, culture and education. In this way, human capital is generally identified with formal education, although sometimes aspects related to non-formal education, work experience and even individual health conditions are also introduced.

The term human capital refers to the amount of useful and valuable knowledge accumulated by an individual in the process of learning and education. It includes innate abilities and talents, as well as education and qualifications, and is often strongly conditioned by the family environment. In such a concept we

can distinguish between innate and acquired human capital – the first would be shaped by the physical and intellectual abilities of the individual and the second by formal and informal education.

Formal education, especially in the educational system, is based on reconstructive thinking, and creative thinking is very often subject to immediate negative evaluation with the conviction that there is one correct answer. Personal and social abilities and skills, which include creativity, business ethics, leadership, entrepreneurship, ability to work in a group, conflict resolution are desirable features both on the labour market and in social life. It is worth noting soft and hard skills, which complement each other by creating a comprehensive “tool” for solving problems at various levels of the social and economic structure. Education in the formal system includes learning in the school system, and education takes place in educational institutions in accordance with top-down approved curricula. As a result, this education leads to obtaining qualifications confirmed by a certificate, certificate of completion of school, certificate or diploma.

Informal or non-formal education, due to active teaching and work methods, is referred to as *practice-based learning*. Fordham (1993, p. 34) distinguished the key elements related to non-formal education and indicated a) the place of implementation of the activities that take place within and outside educational institutions, b) participants are people of different age groups but with strictly defined needs, c) the curriculum is focused on achieving specific goals and d) there is flexibility in the organisation and methods of teaching and transfer of knowledge. The classical definition of non-formal education is the position of Coombs and Ahmed, for whom this education includes all organised, systematic educational activities, conducted outside the framework of the formal system, so as to provide specific forms of learning of particular subgroups in the population, adults and children (Coombs & Ahmed, 1974, p. 8). Equally, in its documents, the European Union stresses the importance of non-formal education as a link between lifelong learning and lifelong learning, which directly raises the quality of human capital. This capital is built by the family, the environment, enriched by the school and the norm system, and only in mature form is available to the economy (Galar, 2009, p. 308). This education includes educational programmes provided by social institutions such as libraries, museums, music schools, language schools, cultural houses, theatres and other active leisure activities. In determining the structure of human capital, the most frequent aspect that appears is the description of competences, relations and values. According to Roos, Roos, and Dragonetti (1997, p. 36) human capital creates attitudes (motivation, professed views, behaviors), competences (knowledge, skills, employee capabilities) and mental fitness (ability to analyze and synthesize, draw conclusions, adapt to new conditions, inclination to innovation).

There are therefore good reasons to believe that human capital is an important determinant and determinant of productivity in tourism services, both at individual and team level.

3. Human capital and competitiveness in tourism

The growing need to adapt to the new paradigms of the world tourism scene makes it necessary to recognise human capital as one of the key factors in the development of competitive strategies.

We analyse changes in economic activity in tourism and what new elements give the sector the opportunity to diversify and compete in this new context.

In order to analyse a phenomenon called “tourism”, it is necessary to adopt a methodological and model structure appropriate to the field of science that will coherently explain this reality. It seems necessary to define a systematic approach to the methodological structure of what has been called the “tourism system”.

The greatest support for the systemic approach in terms of defining the “tourism system” is the use of models that represent the above reality in terms of characteristics relevant to the phenomenon of both internally coherent and external features affecting the shape of the studied phenomenon. From the analysis of the available literature it can be concluded that the concept of general models of tourism practice includes all instruments and phenomena occurring in the field of tourism policy (Meyer & Milewski, 2009, p. 141), which can be included as a structural-functional model, a demand model, a model of development of travel destinations and an impact model. In the first, it defines the internal form and dynamics of the “tourism sector”, in the second, it includes classifications and various factors connected with the process of tourism implementation, in the third, it is defined as a model for the development of tourist destinations expresses the evolution of tourist destinations, and in the fourth, it assesses the psychosocial, cultural, historical, economic and environmental impacts of tourism.

In view of the above, within the scope of the European and national level, one can distinguish characteristic features constituting a direct reference to the above models, which can be considered as the basic directions of implementation of tourism tasks, such as: popularisation of tourist activity, organisation of tourist activities, including sports and recreation and cultural activities, co-creation of the material base for the needs of tourism and education and training of staff for the needs of tourism.

In this case, there is a heterogeneous demand, increasingly diverse market segments and a greater need for personalised attention and quality of services. Lifestyles and values have changed over time. Tourist consumers are more and more experienced and at an adequate level of income, and there has been an

increase in the flexibility of holidays and available leisure time, which is an integral part of the above analysis. On the other hand, technological developments are contributing to the change of systems covering tourism services in general (e.g. hotel chains, airline services, distribution of tourism products) with the rapid and efficient exchange of information.

When analysing the above considerations, it should be pointed out that management and production in tourism aimed at minimising costs and maximising relative benefits. Consequently, management and production must focus on two basic levels. The first is related to specific segments of demand that are flexibly met by obtaining a competitive price in the products offered, maintaining a high level of quality in the product offered and expanding the possibilities for satisfying increasingly complex tourist demand.

In recent years there have also been significant changes in the environment in which tourism activities are carried out, in line with social, economic and political factors. New aspects of human awareness of the need to implement a model of ecologically sustainable tourism are emerging. It would appear that the increasing globalisation of markets is leading to tougher conditions for competition, not only in international terms, but also in terms of local markets. All the changes analysed create risks and opportunities, and there is therefore a need for a new positioning of tourism companies in the global economic context, capable of promoting a diversified and sustainable tourism model that must respond to these new circumstances. It seems that this new perspective opens up new, hitherto untapped opportunities for the tourism industry in the 21st century. These new perspectives are geared towards targeted specialised tourism products, targeted and implemented by market segment, which differ from other competitors.

The competitiveness of the economy is directly related to its level of development and economic and social structure. In the common understanding, the notion of competition is understood as competition between individuals or groups with values that are at the center of their interest. Competition is reflected in the theory of economics and is an inseparable element of the process taking place in the free market, and at the same time it becomes a symptom of its proper functioning. Competitive advantage appears to refer to a country's capacity to increase the value of its resources and to integrate effectively and efficiently the productive, social and institutional factors at its disposal, thereby maintaining its presence in the markets.

The concept of "competitiveness" derives from and is part of competition. Consequently, competitiveness is sometimes referred to as the ability of an entity to compete (Skawińska, 2002, pp. 81-87). Competitiveness is a theoretical concept referring to the market-based way of regulation (Gorynia, 2002, p. 48). It should therefore be assumed that conventional economic theory raising the issue of ef-

fective competition in domestic and international markets takes into account the analysis of competitiveness factors in tourism. In their research, Crouch and Ritchie (1999, pp. 137-152) apply comparative advantage theory to competitiveness analysis in tourist destinations, identifying six categories in the supply of human resources, materials, knowledge, capital, historical and cultural factors and infrastructure.

According to the definition of the World Economic Forum (WEF, 2014, p. 4), competitiveness is a set of institutions, policies and factors determining a country's productivity level. According to the accepted understanding, an economy is competitive if it shows high productivity allowing to achieve high incomes and a high standard of living for the citizens of a given country. Such a broad approach makes it possible to distinguish comparative advantage from competitive advantage related to infrastructure, management skills and qualification of the labour force. In this sense, in relation to tourist destinations, an approach that distinguishes the comparative aspects of the destination itself, such as natural resources (development of a tourist enclave) and other competitive advantages that make up the added value of the destination (quality of service, image, tourism and innovation education, undistorted information flow), seems justified.

Among the significant elements of competitiveness in tourism is the strategic importance of quality, understood as the way in which operators are able to effectively deliver a tourism product (Go & Govers, 2000, pp. 79-88). An important determinant of competitive advantage is the creation of the image of a tourist destination, which will determine the ability to satisfy the needs of visitors and create a proper tourist experience. Consequently, the tourist competitiveness will depend on the combination, synergy and integration of many models of competitiveness of a tourist destination, which include all the above mentioned elements.

The construction of competitiveness indicators at the level of the tourism sector is based on the measurement of the various qualitative aspects covered by this concept. The term "competitiveness measurement" today uses a definition that sums up the theoretical achievements of economics, the factors of economic development and the quality of the economic space for the activities of enterprises.

An important element of the analysis of the tourism sector is the indication of multi indicator synthetic indices used for continuous monitoring of tourism phenomena, e.g. TTCI – *Travel & Tourism Competitiveness Index*. From the analysis of the above document can be distinguished the following components of the described phenomenon such as: price competitiveness index (combination of hotel price index and currency purchasing power – appropriate reflection of price level in tourist destinations), human factor index (participation in tourism – ratio of tourists entering and leaving a tourist destination), infrastructure development index (road, railway), environmental index (assessment of the quality

of physical environment and resources allocated for its protection), Technological development indicator (level of acquisition of new technologies), human resources indicator (labour factor directly linked to the quality of the tourist product), openness indicator (analysis of economic development of the place in the context of the global economy) and human resources indicator (quality of life and level of development of the tourist destination) (Gooroochurn & Sugiyarto, 2005).

4. Competitiveness potential

Stankiewicz (2005, p. 89) believes that the starting point for the analyzed issue is the competitiveness potential of the enterprise understood as a system of tangible and intangible resources necessary for the enterprise to function in the market arena of competition. These resources are those components which an enterprise has or should have at its disposal to use in order to build, maintain and strengthen its competitiveness. This potential is co-created by internal and external factors (Bargłowska, 2004, pp. 49-62), which consists of the possibilities available to the enterprise and specific opportunities existing in the environment. Otta, on the other hand, believes that the potential for competitiveness is a potential opportunity for effective operation on the market (Otta, 1988, p. 93), so that the proper use of these opportunities enables the operation of any enterprise.

In this economic context, it can be observed that successful tourism companies base their competitiveness on innovative capacity based on the accumulation of resources, mainly intangible assets and capacities that are difficult for competitors to replicate. Such an approach neglects neither national benefits (supply of natural resources and infrastructure, strength of domestic demand, potential of ancillary industries, adequate location) nor sectoral benefits (competition between competing tourism products).

It is worthwhile to analyse two approaches that may help to identify which factors in the tourism sector may lead to sustainable competitive advantages in the long term. The first model is the competitiveness model and Porter's (2001, p. 200) five competitive forces, which allows the analysis of success in a given sector, the second factor is outlined in the theory of resources and capabilities, to determine what resources and capabilities can be the key to the competitiveness of companies in the tourism sector.

The basic unit of analysis in the theory of understanding competition is the sector. Therefore, there are two levels of competitive strategy selection that relate directly to the structure of the sector in which the company competes and the positioning within the sector.

Although Porter (2001, p. 15) does not define the subject of their research anywhere, it indicates that competitive advantage is „the soul of companies' per-

formance on competitive markets”. It uses the notion of sustainable competitive advantage concerning long-term ability to win with competitors. It indicates that the main sources of competitive advantage are: 1) cost leadership (the ability to offer a product at a lower price), 2) differentiation (the ability to offer a product of exceptional value to the buyer) and 3) concentration (focusing attention on a particular section of the product range or on the geographic market) (Porter, 1996, pp. 60-65). The concept of five forces of competition distinguishes five main factors: bargaining power of suppliers, bargaining power of buyers, threat of substitutes, threat of new competitors, competition between competitors (Porter, 2006, p. 63).

The concept of Porter in no way took into account the resources of the company itself and their potential impact on building a competitive advantage. Generally speaking, the attractiveness of the sector is greater, the less intense the competition between companies from this sector. In the case of Porter’s theory, companies manage to create value for their buyers through their activities. This means that they implement them more effectively than their competitors (at lower costs) or, in particular, that they manage to differentiate between them in the eyes of their customers (Porter, 1990, pp. 70-76). The author points out that the adopted principles of competitive strategy apply regardless of whether the company competes at the national or international level. This means retaining state influence on the company’s ability to compete in specific sectors and business segments, including tourism. It also indicates the conditions of factors of production, demand conditions, support and related sectors, strategy, structure and rivalry of companies. As Porter (1990, p. 82) points out, nations are more likely to succeed in sectors where the national diamond is more favourable, as the effect of one determinant depends on the state of the others. The interaction of advantage in many determinants gives benefits that are extremely difficult for rivals to nullify or imitate.

According to Medina and Garcia (2004, pp. 162-175), the main tool for strategic analysis of competitiveness of tourist destinations is the “Porter diamond”. because it covers all the factors which together determine the possible competitive advantage of a tourist activity in a given territory. Such action will increase the potential for developing tourism, provided that conditions linked to factors such as human resources, capital, infrastructure, natural and cultural resources, the structural and strategic characteristics of the tourism enterprises, the presence of competitive support and related sectors and the conditions of demand for the products and services offered by the destination are conducive to improving and innovation in the tourism sector. More important than an analysis of each of these diamond elements is also an analysis of the interdependencies between them.

5. Human capital and competitive advantage in tourism

The analysis of intangible assets is becoming increasingly important in an attempt to establish which competitive strategies should be implemented in the tourism sector. In the tourism sector, intangible assets become justified because tangible assets are easily transferable on the market and do not significantly affect competitive advantage. In terms of competitiveness, intangible assets, especially human capital, seem to be important and inalienable. It therefore appears that even technology and innovation, which are undoubtedly an essential part of the operation of tourist organizations, constitute a real competitive advantage if used by well-trained human capital, capable of making full use of this resource and of adapting to the new requirements of the sector.

Human capital in tourism can be defined as the amount of technical knowledge and skills that workers in the sector possess through investment in formal education and training in the workplace. Human capital can be considered in many ways. Narrowly speaking, it is treated as knowledge and skills that people have acquired through education and training. In a broader sense, human capital is also a result of other outlays influencing the quality of human resources (Poniatowska-Jaksch, 2013, p. 54).

Human capital is directly related to people, their knowledge, experience, presence and possibilities of action in the enterprise (Lipka, 2007, p. 36). The distinguishing feature of human capital is its embodiment in the person himself. The resignation of an employee from the enterprise may lead to the loss of skills, experience related to the mastery of specific mechanisms of operation, informal relationships with customers, suppliers and other employees. Consequently, it should be assumed that human capital consists of the competence and skills of employees and includes the ability to solve problems and leadership predispositions, entrepreneurship. Tourism enterprise is a service company in which the main resource are people, so the competitive advantage is related primarily to the capabilities of human resources. The modern organization of the tourism enterprise as an economic activity highlights in a special way the importance of human resources that are fundamental to the business. The human factor is an essential component of this reality, as it is inextricably linked to the provision of services by introducing values in relation to the human relationships created between the provider and the recipient. In this way, the differences between the industrial (manufacturing) and the service sectors can be clearly established. A characteristic feature of the tourism sector is the creation of interaction through direct contact with customers. A product (tourism service) is the result of the experience of a tourism consumer who is part of the product development

process and takes an active part in this process, thus acquiring relevant tourism experience. Therefore, there is a valid thesis that human resources in tourism are closely linked to quality parameters. At this level, the competitiveness of the destination (business) in the tourism sector appears to be increasingly dependent on the ability to attract and maintain demand, and the human element plays an essential role in achieving high quality parameters, thus configuring itself as an essential element in achieving the ability to differentiate it from its competitors in the tourism market. This is all the more so because competitiveness (customer loyalty) is based on tourist satisfaction, which translates into a permanent “link” between the customer and tourism services.

Therefore, it can be stated in a borderline manner that the quality of tourist services is inseparably connected with the quality of human capital, which is a key element of competitiveness. It is therefore necessary to coordinate external marketing aimed at consumer-tourists using internal marketing techniques. Satisfied, motivated and trained staff can offer professional service at a high level, which translates into the satisfaction of the external client.

6. The key role of education in tourism

Analyzing the importance of education in a person's life, it should be pointed out that all activities undertaken by him/her have a legitimacy in education. “Education is a social value and a capital and a hope, as well as a great area of tasks. It should also be in its goals and methods of work a serious opposition to many anti-values and negative phenomena and threats to human existence” (Barnach, 1998, p. 111). Education is a fundamental element of building intellectual capital.

According to the adopted classification, Okoń distinguished formal education understood as „a system based on forms of learning fixed in terms of time and content, leading from initial education to university and including, apart from general education courses, many special programmes and institutions of stationary technical and vocational education” and non-formal education defined as „conscious and organized activity of a character of education and upbringing, conducted outside the statutory formal school system, enabling a specific group of participants to achieve the assumed educational goals”, as well as non-formal education “a lifelong, unorganised and unsystematic process of acquiring knowledge, skills, beliefs and attitudes by a person on the basis of everyday experience and educational influences of the environment” (Okoń, 1992, p. 28) It should be concluded from the above that the traveler's tourist experience and level of satisfaction are directly related to the work done by professionals in this sector. It seems that the quality policy in the field of human resources, which takes into

account personal qualifications and significantly increases the value of services, becomes important for the tourism sector.

Investment in education undoubtedly makes it possible to offer better quality services, which should lead to higher incomes and profits in the sector in the long term. Hence the need to treat education in tourism based on human capital as an investment whose profits clearly outweigh expenditure on further training (Becker, 1964, p. 7).

Education in the field of implementation of increasing the importance of human capital in the tourism sector is the key to business success in the paradigm of a new approach to the implementation of the adopted tasks. Therefore, concentration on the implementation of various training courses in this area by educational institutions is a favourable element of solving real needs in the sector. All the more so because this education belongs to specialist education dedicated only to the tourism sector. The need to improve education in the sector is configured as a basic element of tourism activity, which requires the cooperation of all the parties involved.

7. Conclusion

The starting point for the work was an analysis of whether, in the current tourism context, human capital in tourism can be considered as a strategic factor in the competitiveness of the sector. The conclusion that can be drawn from the above analysis is that Porter (2006, p. 25) “strategy is to do things differently than competition”. The tourism sector, as a service sector with its own characteristics, appears to be an intangible asset, the most important of which is undoubtedly human capital, which is one of the sources of competitiveness. We therefore consider human capital in tourism and education in general to be one of the key factors in achieving sustainable competitive advantage for the sector. The strategic importance of human capital as a distinctive potential leads us to increase the need to develop high-quality education policies in tourism.

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Transformational Leadership in Public Administration – the Essence and Use

Katarzyna Baran

1. Introduction

The paradigm of transformational leadership initiated by Burns and later developed by Bass, shows a growing interest in the public administration as a research subject. The dynamic growth of public sector spending appears to be of key importance among the causes of this phenomenon. An excellent example of this situation is France, where government spending in 2017 amounted to over 48% of GDP (Our World in Data, 2017).

The aim of this paper is to learn about the essence and use of transformational leadership in public administration. First of all, it was decided to discuss theoretical issues of leadership in the public sector, including the concepts of leadership, its scope, and the current context of changes in the approach to leadership in public institutions. The following part of the paper contains a synthetic approach to transformational leadership. In particular, it focuses on the objectives of this model, its elements, results and relationship with transactional leadership.

2. The context of leadership in public sector

One of the natural implications of quantitative and qualitative changes in public administration was the evolution of the public sector leadership process. The source literature offers many meanings of this concept. Most often, it is described as a process of exerting an influence where a person or a group of people influence others in order to achieve common goals (Morse et al., 2007).

Public sector leadership is frequently understood in terms of the political leadership, considering political decision-makers and their leading influence on the structure and functioning of public organisations as the main point of refer-

ence. In this sense, the factor that significantly determines the process of managing public administration and its scope is the political power.

As part of the existing definitions and associations, it is also important to note the dimensions of public leadership, such as:

- achieving a political goal,
- organisation orientation,
- solving of social problems (Morse et al., 2007).

When looking at the circumstances that cause this pressure to change the way of public sector leading, one should recall the challenges common for various types of organisations proposed by Mr Block. The first one concerns “doing more for me”, i.e. controlling costs while at the same time searching for effective methods (usually innovative) of managing problems. In the public sector, these problems mainly concern the production of public services and the service delivery process. The next challenge focuses on quality, understood as continuous improvement of the citizens service level. The overview of three main challenges concludes the adaptability, which includes the need for adaptation to changing requirements and the corresponding external forces.

Due to the fact, that since this list was published some time has passed, it is necessary to add a few other important variables, such as globalisation, horizontal connections or the need for change. The first variable focuses on the opportunities and threats to public sector organisations caused by globalisation. At the same time, the drop in unemployment as well as increased mobility of capital should be considered as opportunities. On the other hand, peripheralization and privileged positions of bigger ones over smaller ones should be considered as a threat

Another factor of change, the horizontal connections, is responsible for the need of moving from the vertical management of public administration to the creation of horizontal cooperation networks based on broad environmental integration and mutual influence. The need for change, including the understanding of its nature, involves collecting data and analysing changes in the public sector, involving both public managers and researchers investigating public sector (Morse et al., 2007).

Another issue that needs to be considered is the problem of politicising the civil service. However, this phenomenon is nothing new, its increased scale may significantly weaken the ability to lead public organisations. Moreover, inappropriate distribution of power between the public administration and its political superiors creates a risk of poor efficacy of the implemented public policies. Interestingly, one of the most favoured public sector control tools used in recent years has been the appointment to top positions of individuals who showed strong ties with the political authorities. This dependence is relatively disturbing, as it may

have a destructive impact on the functioning of public administration, including the problem of blurred responsibility, the primacy of loyalty over competences, deterioration of the quality of public services and loss of social trust (Mazur et al., 2018).

The American Management Association also presented its assessment of the situation, referring to the future shape of the leadership regardless of the sector. It covers:

1. Significant impact of technological progress on society, governments and businesses.
2. Global trends related to free trade and demographic changes leading to increased competition and regional conflicts.
3. Strengthening interrelations requiring “agile thinking”.
4. Changes in the so-called global pool of talents, diversified by region, e.g. ageing workforce in developed countries and political and social disorders associated with inequalities in developing countries (Morse et al., 2007).

In this context, it is necessary to ask about the efficacy of public administration, which, as noted above, besides its changing uncertain and complex environment faces internal problems, including the increasing erosion of power and political accountability.

3. Transformational leadership

Transformational leadership should be understood as conscious influence on employees by broadening and raising the level of their goals and affecting their self-confidence in order to develop their standard expectations (Khan et al., 2014).

As one can notice on the presented Figure 1, interest in the subject of transformational leadership among scientists is constantly growing. Compared to the 1990s, the number of papers concerning transformational leadership increases several times each year. This proves the high research attractiveness of this subject and the need to broaden this investigation both in quantitative and qualitative terms.

Leaders pursuing the transformational leadership style motivate their teams to an above average activity that allows them to achieve more than they intended and even more than they thought they could. As a result, such institutions achieve better results. Moreover, with an appropriate incentive system that attracts an increasing number of willing and satisfied followers, they are able to help their leaders to discover and develop his or her further leadership skills.

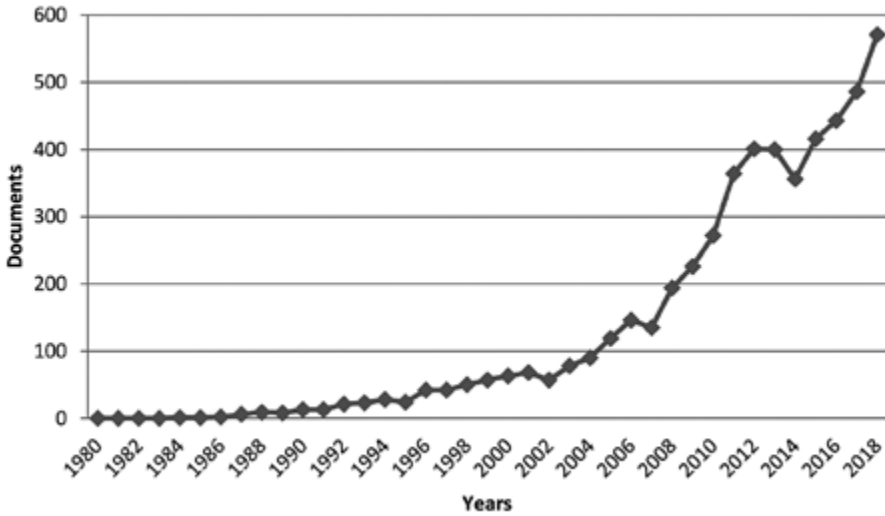


Figure 1. Popularity of Transformational Leadership in Scientific Publications in the years 1980-2018
Source: own elaboration based on Scopus Database (Entry date: 13.05.2019).

To change the behaviour of a leader's followers in a real way, 3 rules must be followed:

1. Inspirational motivating of employees through a clear determination of the organisation's mission and vision of its development.
2. Involving employees in the process of creating the vision of the organisation, encouraging them to follow leader's behaviour, strengthening their self-confidence and sense of pride for the organisation.
3. Supporting employees in achieving the institutional objectives by encouraging them to be more critical about the assumptions of the organisation's old structure and problems (Wright & Pandey, 2010).

When discussing the rules that transformational leaders should follow in order to achieve the institutional objectives, one often mentions the attributes supporting their implementation, i.e. adequate access to information in order to understand and introduce changes, clear intentions and their consistency including the objective of the change and willingness to its implementation, and the possibility of exerting influence that increases the likelihood of achieving the assumed vision. However, in order to be effective, all the above mentioned attributes should be present simultaneously (Morse et al., 2007).

Transformational leadership leads up to the concept of change caused and controlled by a team leader. In this regard, his or her most important leadership feature is ability to create a vision and communicate it effectively to group members, thus making leader supporters more susceptible to higher goals and higher

levels of excellence. The leader therefore does not focus on the limited skills and needs of his or her followers, but strives to make full use of their potential. The result of this increased leadership activity is a change in the entire organisational culture of given institution, including a change in the systems of employees' values, expectations, aspirations and goals (Pocztowski, 2018).

Table 1. Elements of the Transformational Leadership

Element	Description
Idealised impact (charisma)	– leader has vision of the desirable future
Inspirational motivation	– he or she presents the way to achieve it
	– he or she specifies an exemplary model to follow
	– he or she demonstrates standards for efficacy
	– he or she demonstrates determination and trust
	– he or she uses persuasion and challenges
	– followers demonstrate a willingness to identify themselves with the leader
Intellectual stimulation	– leader supports follower's innovativeness and creativity
Individual approach	– leader creates opportunities to satisfy followers developmental needs
	– he or she determines pro-developmental tasks
	– he or she offers support to followers (mentorship, coaching)

Source: own elaboration based on (Bass, 1999, p. 13; 2006, p. 20).

Transactional leadership consists of:

- conditional reward (leader provides followers with conditions for getting a reward for their effort) considered as the most effective method:
 - expanding the scope of the leader's influence on the success and development of the institution,
 - increasing institution's efficacy (Khan et al., 2014).
- active management by exception (leader observes follower's efficacy and introduce changes if the expectations are not met),
- passive management (leader applies passive management by exception, waits until the problem becomes serious or adopts a laissez-faire approach and does not undertake an action (Bass, 1999; Bass & Riggio, 2006).

The essence of transactional leadership is the process of exchange between the leader and the members of the managed team. As a result of this process the leader achieves his or her goal, i.e. the implementation of decisions made while the followers get remuneration, prestige or other rewards. One of the most popular models of exchange between the leader and the group members is LMX Model (Leader-Member exchange) that holds a strong position in the literature on human resources management (Pocztowski, 2018).

Leader can demonstrate some or all of the leadership concept elements. It is assumed that a lower level of one leadership attribute indicates a higher level of another one. It should be added that, at the research stage, there may occur

a risk of “false leadership” which consists in declaring a different than actual practice leadership model. In such cases, one refers to “pseudo-transformation” or “pseudo-transactional” leaders (Avolio & Bass, 2002).

Empirical research confirms the theoretical assumptions concerning higher effectiveness of transformational leadership over transactional leadership (Avolio, 2005). This practical advantage manifests itself primarily in higher involvement (efficiency), loyalty and satisfaction of employees. Furthermore, active transformational leadership encourages increasingly higher expectations among stakeholders regarding the level of innovation, risk and creativity.

It is worth noting that, at the initial stage of the types of leadership development, transformational leadership was put in opposition to transactional leadership. However, over time, this relationship has evolved. It was found that transformational leadership positively correlates with productivity growth and followers’ satisfaction. For better impact, the variability of performance evaluations that are already part of transactional leadership should also be taken into account. Therefore, their nature should be defined as more complementary than mutually exclusive (Bass & Riggio, 2006).

The moment of transition from transactional to transformational leadership is also significant. The awareness of change is a key, because only when mutually dependent entities, in this case leaders and followers, become aware of the changes in the organisation, roles, perception of reality, significance of potential, the transformation of the entire organisation may take place (Morse et al., 2007).

Summarising this part, the concepts of transformational leadership can be recognised as a process of adapting the interests of an organisation and needs of its members. For this purpose, leader simultaneously inspires, stimulates and considers individual predispositions and expectations of his or her followers. These factors together create a certain climate of change and development, where trust in the leadership becomes a necessary condition for reorientation of the organisation’s values and its internalisation.

4. Role of the transformational leadership in public administration

As the authors of transformational and transactional leadership theory persuade, their analysis is supported on any continent, in all types of organisations, including the public sector (Bass & Riggio, 2006). The dynamic growth of both these theories has made them one of the most common subject within the framework of organisational behaviour investigation.

It is worth mentioning that this leadership model required a considerable amount of time to become legitimate for the public sector, since it was previously

associated mainly with the private sector. This pessimistic approach to public administration was based mainly on the belief that excessively bureaucratic nature of public institutions and multiplicity of control mechanisms will have a negative impact on the development and effectiveness of leaders' transformational behaviours. Although, nothing could be further from the truth. Empirical research shows that transformational leadership in public administration can be at least as effective as it is in the private sector. Arguments that support these rather non obvious predictions include two perceptions:

1. Perception of public institutions as being more bureaucratic than they really are: many studies indicate a moderate level of bureaucratic control, in particular with regard to centralisation, formalisation and routinisation, while the supremacy of bureaucratic forms relates mainly to purchasing and resource management.
2. No clear evidence of the negative impact of bureaucratic mechanisms on the popularity and effectiveness of transformational leadership, while the nature of the impact may differ depending on the investigated feature of the bureaucracy, e.g. organisational or contextual (Wright & Pandey, 2010).

The popularity of transformational leadership in public administration despite its bureaucratic nature is also related to the complexity of the public sector as it was already mentioned in the context of changes in the development of leadership in public administration. In order to respond to these challenges, the leadership of public organisations, in addition to standard procedures, should involve continuous implementation of changes, innovative approach and reorganisation of the public administration structure, thus indicating the need for a transformational approach, in which the leader, thanks to the change of organisational culture, high quality of public institutions and continuous improvement, will also influence the development of the public sector. And it is not only about quantified development, but above all about issues such as organisational learning process, transformational culture or modern public management.

Moreover, the presented view on the transformational changes in public administration shows that public sector, by using number of instruments, values and interactions, is able to attract a growing number of its own supporters, and, as a result, play an important role as a subject of organisational change, people and the society as a whole.

Concluding the topic of utility of transformational leadership in the public sector, it is worth emphasizing that in the case of public institutions, apart from the analyzed transformational leadership, the previously mentioned transactional leadership is also applicable. It has been noted that, thanks to the mutual exchange of valuables between leader and followers (financial rewards, sense of fulfilment, etc.), this type of leadership can be used to achieve more productive

work environment, better performance and more effective employees and development, where trust in the leadership becomes a necessary condition for reorientation of the organisation's values and its internalisation.

5. Conclusion

The multitude of problems that public administration faces, i.e. growing social expectations, pressure on increased efficiency of public sector, erosion of trust and political responsibility leads to the necessity for public institutions to introduce serious institutional changes exceeding the change of the public sector mindset.

The main conclusion of the analysis is that transformational leadership as a model focused on changes and development of the organisation is not only adaptable in the public sector so it can be a tool for a real change in the organisational culture of public administration, influence its quality and perception, but most of all it can provide a greater ability to react to problems and existing environmental conditions.

It is worth noting that, despite the significant popularity of studies on the role of leadership in public administration, their number in relation to the business perspective remains relatively small. Future research on this issue should focus on organisational and contextual influences of the use and development of transformational leadership in public administration due to changes in the external environment and the specificity of the public sector.

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The Role of SMEs in Creating Regional Development

Sylwia Kowalska, Wioletta Skibińska

1. Introduction

Micro-, small and medium enterprises (SMEs) are the core of the Polish economy, which generates nearly half of GDP, creates jobs and contributes to regional development. In addition, the existence of such enterprises is the condition for sustainable development of any economy and stable functioning of market mechanisms.

The objective of the paper has been to present the significance and the role small and medium enterprises play in the regional economy. To achieve the objective their brief characteristics have been presented as well as the outline of the impact of small and medium enterprises on economic development in four areas: direct, indirect, by creating the so called multiplier effect (e.g. beneficial events) and by changing attitudes of citizens.

2. The identification of small, medium and large enterprises and their local nature

The management of SMEs is strongly linked to changes taking place in their environment since they fill in the market gaps which large enterprises do not want to enter, simultaneously indicating a greater flexibility than large companies (Skowronek-Mielczarek & Bojewska, 2017, p. 47). SMEs can:

- respond promptly to the changing situation in the market and, consequently, they can easily adapt to it,
- they are more open to the use of innovation,
- they more easily enter cooperative systems through rapid creation of new jobs,
- they exploit various market opportunities in entrepreneurial terms,
- there are fast information flows inside companies,

- the activity of these enterprises is based on satisfying specific needs reported by the local market,
- they are sometimes characterized by higher competitiveness, achievable through a strict control and cost reduction (Mądra, 2013, p. 204; Skowronek-Mielczarek, 2007, p. 17).

In the literature, there is no uniform definition describing the meaning of small and medium enterprise since this concept is differently defined for the purposes of tax records, administrative records and also for banks and other financial institutions (Martyniuk, 2011, p. 11). In Poland, like in many European countries, there are different qualitative and quantitative criteria or the mixed ones – qualitative and quantitative, describing SMEs. On 1 January 2005 the European Commission adopted the quantitative criterion defining small and medium enterprises, i.e. (*Commission...*, 2003, pp. 36-41):

- number of employees,
- annual turnover,
- annual balance sheet total.

According to the European Commission, the first condition to qualify as SME is to have the status of the enterprise, i.e. “the entity conducting a business activity regardless of its legal form” (*Commission...*, 2003, pp. 36-41). Another step is to compare the data of enterprises with the thresholds and ceilings which will allow for determining whether the specific entity is a micro-, small or medium enterprise (Tab. 1).

Table 1. Thresholds and ceilings for SME classification

Category of the company	Number of employees: annual working units (AWU)	Annual turnover	Annual balance sheet total
Medium	< 250	≤ 50 million EUR	≤ 43 million EUR
Small	< 50	≤ 10 million EUR	≤ 10 million EUR
Micro:	< 10	≤ 2 million EUR	≤ 2 million EUR

Source: (*Nowa...*, 2018).

On 26 January 2018 the Sejm (Polish Parliament) passed the Act on Entrepreneurs, the law, which became a part of the so called Constitution for business and Morawiecki Plan and which replaced the Act on freedom of economic activity in which micro-, small and medium entrepreneurs were defined, which is shown in Table 2.

In turn, while taking into account the qualitative criterion, the characteristics of SMEs ought to be pinpointed (Sasin, 2003, p. 33), and mostly decision-making autonomy and full responsibility of the owner for the company's liabilities. This can be a barrier to development in the form of unwillingness to take

risky investment decisions but also such independence positively affects the flexibility of the company in adaptation to the changing environment (Kiziukiewicz & Sawicki, 2012, pp. 9-11).

Table 2. Characteristics of micro-, small and medium entrepreneurs

Enterprises	Micro-entrepreneur	Small entrepreneur	Medium entrepreneur
Average annual employment	< 10 people	< 50 people	< 250 people
Annual net turnover from the sales of goods, products and services and financial operations	< 2 million EUR	< 10 million EUR	< 50 million EUR
or			
Total balance sheet assets	< 2 million EUR	< 10 million EUR	< 43 million EUR

Source: (The Act of 6 March 2018 The Act on Entrepreneurs).

According to the Act on Accounting, small and medium enterprises are the ones that conduct their activity on a small scale. They have the right to use the simplified forms of balance sheet and profit and loss account (Bauer, 2013, p. 13). However, they must fulfill at least two of the conditions listed below:

- average annual employment of less than 50 people,
- total balance sheet assets at the end of the financial year of less than 2 000 000 ECU,
- revenue from sales of goods and products and financial operations of less than 4 000 000 ECU (The Act of 29 September on Accounting (Dz. U. of 2018 No. 395 as amended) Art. 50 item 2).

The differences between small and medium enterprises and large enterprises amount not only to the aforementioned values. A range of characteristics which distinguish them from each other have been described, which is presented in Table 3.

Table 3. Distinguishing features of SMEs and large enterprises

Characteristics of SMEs	Characteristics of large enterprises
Operating on the basis of own intuition of the owner or hired manager	Using modern management methods and techniques
Relatively low level of educational background of the staff	High level of educational background of the management
Advantage of operational decisions	Advantage of strategic decisions
The ability to operate without having legal personality	Having legal personality
Frequent combining the function of an owner and a manager	Management by the hired management staff
Taking decisions which are significant for the company by the owner or owners	Decision-making based on the opinion of the team of advisors
Conducting an activity on a small scale and mostly locally	Large volume of sales and at least the nationwide range

Characteristics of SMEs	Characteristics of large enterprises
The company's independence of other entities	Numerous organizational and capital ties
No access to the sources of financing, which is immanent for the capital market	The ability to use different instruments of the capital market
Relatively small market share	Significant market share
Low capital –intensive development	High-volume investments
Little concern for the company's image, in many cases, resulting from lack of knowledge in the field of marketing	Using modern techniques for creating the company's image
The functioning of the management on the principle of "fire brigade"	The operations of the company based on the adopted development strategy and partial strategies
Marginal share of export	Developed export operations
No tendency to organize themselves into local groups to defend their interests	Participation in numerous economic organizations and business clubs

Source: (Dylkiewicz, 2008, p. 65).

The presented features indicate that the SME sector is flexible and able to rapidly adapt to the environment, it also plays important social functions consisting in bridging social tensions through absorbing labor surpluses, building entrepreneurial attitudes and showing opportunities and possibilities for self-employment (Mikołajczyk & Krawczyk, 2007, pp. 9-16).

The SME sector, due to its local and regional nature, is a serious factor of the activation of the local population, which consequently translates into an improvement in living standards and also easing disparities in the wealth of individual social classes (Bławat, 2004, pp. 23-43).

3. The characteristics of SMEs in terms of its development

The development of SMEs, particularly in rural regions and small towns is of great economic and social importance not only due to creation of new jobs and allocation of capital resources but also facilitation of the access of the local population to products and services (Łuczka, 2007, p. 35; Dunicz, 2015, p. 81).

The data analysis indicates that over the last few years the number of enterprises was growing steadily and in 2016 it exceeded 2 million enterprises. The most numerous group is micro-enterprises which, due to their flexible and uncomplicated nature, amount to nearly 2 million entities, the second position among active enterprises in Poland is occupied by small enterprises with the number of nearly 60 thousand entities, followed by medium and large companies.

Table 4. Number of active enterprises in Poland in the years 2013-2016 (in thousands)

	2013	2014	2015	2016
Number of enterprises, including:	1771,0	1843,0	1914,0	2013,0
Micro-	1693,8	1764,6	1838,4	1937,3
Small	59,1	59,2	56,7	57,2
Medium	15,5	15,5	15,6	15,4
Large	3,4	3,4	3,4	3,6

Source: (*Działalność...*, 2017, p. 48).

It should be pinpointed that the SME sector is the overwhelming majority since it constitutes 99.8% of the total number of enterprises, which slightly fluctuated and remained at a similar level. Among SMEs, the most numerous group, since amounting to as much as 96.2% of the total number of enterprises, was micro-enterprises, which recorded the most significant increase in 2016. In turn, the share of small enterprises in the structure of Polish enterprises amounted to 2.8%, the share of medium ones amounted to 0.8%, and there was a slight decrease in their number, whereas the share of large enterprises amounted only to 0.2% (3.6 thousand active enterprises) – (see Fig. 1).

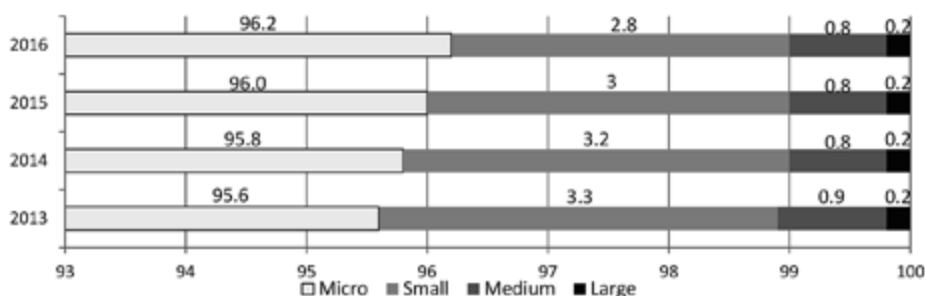


Figure 1. Number of active enterprises in Poland in the years 2013-2016 (in %)

Source: (*Działalność...*, 2017, p. 48).

While analyzing the SME sector, it is necessary to pay attention to the share of SMEs in producing GDP, which was growing steadily generating nearly three quarters of the GDP value (74.0%) in the analyzed years. Figure 2 also indicates that micro-, small and medium enterprises generate every other 1 PLN of GDP (49.9%), which shows the significance of this sector. Additionally, it can be noted that micro-enterprises had the largest share in generating GDP, since about 30.7%.

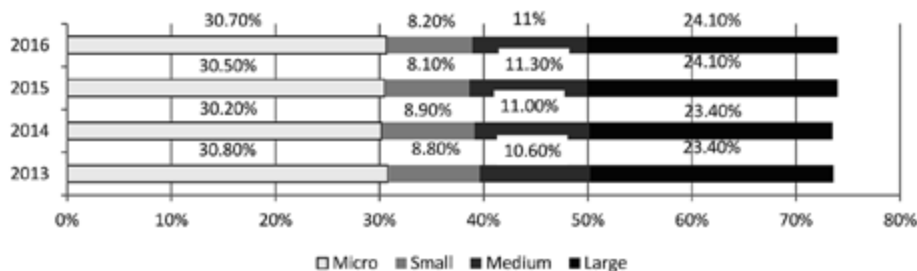


Figure 2. The share of gross value added generated by enterprises in GDP in the years 2013-2016 (in %) Source: (*Działalność...*, 2017, p. 49).

The analysis of the share of enterprises in generating GDP, broken down by the economic sector, indicates significant differences between large enterprises and SMEs. In the case of SMEs, the sector of services was of the greatest importance. Its share in generating GDP exceeded 43% in 2016 whereas, in the case of large companies, it amounted to less than 28%. The second position was occupied by trade, with the share of more than 27% in generating GDP by SMEs and over 10% share in generating GDP by large companies. In turn, it was industry that had a larger contribution to GDP in the case of large companies, since as much as 58.7%, and only 18.1% in the case of SMEs. The building industry had the smallest contribution to generating GDP both in the case of large enterprises (4%) and SMEs (12.3%) (Fig. 3).

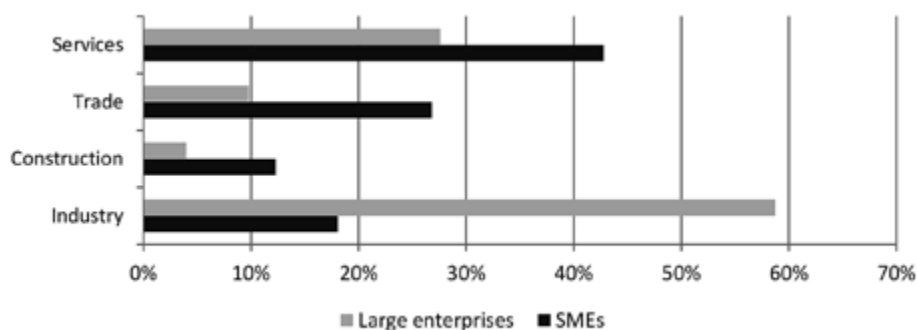


Figure 3. The share of large enterprises and SMEs in generating GDP broken down by the basic activity in 2016 Source: (*Działalność...*, 2017, p. 49).

One of the most important roles played by SMEs in the local and regional economy is the function of the employer performed by them, which significantly supports the fight against unemployment. (Dunicz, 2015, p. 82) In the entities of

the SME sector, the number of employees was steadily growing and in 2016 it amounted to nearly 6.7 million people, which amounted to 68.7% of all employees in the sector of enterprises. Micro- and small enterprises were the workplace for more than 5 million people, medium enterprises – for more than 1.6 million people and large companies – for slightly more than 3 million people. A general increase in the number of jobs did not affect the change in the structure of number of employees in enterprises. Over the years 2013-2016 most jobs were generated by micro-enterprises, followed by large enterprises. The smallest share in creating jobs belonged to small companies.

Table 5. The number of employees in enterprises in different size classes and their share in the total number of employees in the years 2008-2016

	2013	2014	2015	2016
Micro-	3 371 459	3 495 101	3 667 604	3 861 975
Small	1 218 130	1 223 036	1 194 140	1 185 069
Medium	1 592 360	1 608 324	1 630 254	1 615 484
Large	2 716 949	2 819 197	2 903 609	3 029 640
Total	6 181 949	6 326 461	6 491 998	6 662 528

Source: (*Działalność...*, 2017, p. 49).

In the research into micro-, small and medium enterprises, conducted by Confederation Lewiatan in cooperation with Polish Leasing Association, nearly 75% of entrepreneurs of SMEs indicated clearly that the business philosophy should be to exploit opportunities and constantly search for new sales markets. However, it cannot be achieved without appropriate resources in the form of fixed assets, therefore, investments are indispensable, particularly, in smaller companies since the average value of fixed assets per one enterprise is very low even if taking into account the fact that a relatively large proportion of SMEs are enterprises from the service sector, where fixed assets are used on a smaller scale, e.g. in industrial companies. (*Inwestycje w...*, 2018) The largest share in the total investment of enterprises belonged to large entities, which means that the value of expenditures incurred by these entities was larger than the value of expenditures of the whole sector of small and medium enterprises. The second position was taken by medium enterprises with 19% share in capital expenditures of companies. The smallest share in the total value of expenditures belonged to small and micro-enterprises (respectively 9% and 16%).

Table 6. Total capital expenditures per one enterprise in the years 2013-2016 (in thousand PLN)

	Total	SMEs	Micro-	Small	Medium	Large
Total 2013	98,44	45,25	16,28	318,57	2 145,15	27 547,25
Total 2014	99,46	46,40	17,01	329,32	2 319,16	29 167,48
Total 2015	104,81	47,04	16,17	349,06	2 582,35	32 264,06
Total 2016	93,67	41,09	15,63	293,31	2 315,09	29 733,80
Capital expenditures on new fixed assets in 2016	81,38	34,03	12,44	223,63	2 053,09	26 771,67
Capital expenditures on the purchase of second-hand fixed assets in 2016	12,29	7,06	3,19	69,69	262,00	2 962,13
Share of individual groups of enterprises in total expenditures in 2016 in %	100%	44%	16%	9%	19%	56%

Source: own study based on (*Działalność...*, 2017 p. 48).

As far as the sources of investment financing are concerned, two thirds of capital expenditures of SMEs were financed with own funds, amounting to slightly more than 60%, more than a fifth of investments was financed with credits and nearly 8% was foreign funds. It should be pinpointed that the larger the enterprise the higher the commitment of own funds to the financing of the investment.

Summing up, SMEs are characterized by the low propensity to invest, (*Inwestycje w...*, 2018) which leads to low technical employment infrastructure and consequently weak productivity growth. Enterprises still have the resources which are easier to use – human labor. However, they are running out of these resources, which is determined by a growing demand for labor with the simultaneous shrinking of its resources. Therefore, investments are essential since the sooner the companies understand that the easier it will be for them to reduce the risk threatening not only the development but often the survival. They need to change business models because those based on cheap labor belong to the past. The propensity of enterprises to invest must grow. Not only will they benefit from this but also the beneficiaries will be the economy and the State. Investments allow the economy to use its development potential, enterprises to increase their productivity, employees to benefit from better jobs and higher income. If SMEs do not increase investments, they will regress and the economy and all of us will regress with them.

4. The place and role of SMEs in regional development

The SME sector, in spite of many difficulties, is constantly evolving and has impact on many areas in its regions, at least realizing investments which satisfy local needs and creating new jobs. One can distinguish four types of impact of SMEs on the economic development (Huczek, 2008, pp. 10-11; Nowak, 2005, pp. 220-221):

1. Direct:
 - an increase in the number of jobs,
 - tax base,
 - investments satisfying different local needs;
2. Indirect:
 - labor as a window to the world,
 - local economy as the foundation for the civil society,
 - enterprises as the carrier of progress: sponsor of research and development of useful technologies also in the business environment;
3. Generating favorable events or increasing the efficiency of the already cultivated fields:
 - investments,
 - attracting investments, programs and grants that search for places of dynamic development,
 - ventures involving both private and public capital;
4. By changing attitudes of citizens – independent problem solving, satisfying needs as a result of own activity and not dependence on official aid structures.

The direct effect of the significant role of SMEs, from the point of view of local authorities, is budget benefits resulting from creating new jobs, e.g. an increase in revenues from income tax, an increase in revenues from property tax, less expenditure on social assistance (Jabłoński & Jabłoński, 2012, p. 107).

Another benefit which arises as a result of setting up a new company from the sector of small and medium enterprises is the emergence of entrepreneurial spirit in the area of a high concentration of enterprises (Edwards, 2007, p. 237). The specificity of small companies, i.e. their simplified structure and far less complicated decision-making process, compared to large enterprises, and also the level of motivation revealed by them, affects their high flexibility and ability to constantly adapt to changing market conditions.

Other benefits for an increase in the value of the region and economic growth, resulting from setting up new companies from the SME sector is their high innovativeness. (OECD, 2010, p. 67).

The significant role in forming the value of regions by enterprises of the SME sector is played by human capital. In the dynamic and complex organization, employees operate jointly, developing its entrepreneurship and creating innovative concepts whereas, in large organizations, the problem is the integration of employees (Antczak, 2004, p. 73).

The importance of the SME sector is commonly known and accepted, which is, among others, reflected in preferences of the EU and national economic policy. Numerous programs of financial, organizational and institutional support

for the development of this sector have been created. (Kamińska, 2011, p. 48; Niedzielski, 2015, pp. 159-161).

The main barriers to the development of entrepreneurship in poorly industrialized regions are lack of own capital resources and limited access to external sources of financing and lack of knowledge and experience in conducting a business activity.

The development of economic entrepreneurship of SMEs is also an opportunity for professional activation of the population but also develops social attitudes and affects human relationships (Stróżycki, 2004, p. 158).

Oliński (2006, p. 134) states “Small and medium enterprises perform many positive functions in any developed market economy. Generally, they are divided into social and economic functions. The primary social function performed by the SME sector is the formation of economically independent middle class whereas the wealth of the State and the smooth functioning of the market mechanism depends on the extent of development of the middle class in the society”.

5. Conclusion

Small and medium enterprises play an important role in the regional economy. Their significance for the economy of the specific region mostly results from their local nature, i.e. the operation area limited territorially. The most important advantages of the operation of small and medium enterprises in the region include primarily the role of the employer for the inhabitants of the area. They not only employ the local population but also, while cooperating with other institutions and gaining additional funds, fight against unemployment, which is a frequent source of social problems (Kośmider, 2000, p. 8).

Small and medium enterprises are also known as the driving force of the economy since they have significant impact on the overall economic situation of the country. The indisputable issue is their big role in stimulating the economic growth, in local and regional development and stabilization of the economic system.

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Activities for the Organization's Owners. The Example of Dairy Cooperatives from Świętokrzyskie and Małopolskie Provinces

Izabela Konieczna

1. Introduction

Each organization has the owner, who often is its founder, and the relations binding the owner with the organization are based on the ownership right and resource recharges. Because of the fact that the organization belongs to its owner/owners and in their interest must be run. Thus the objective of management should be to maximize the market value of the company (Chilosi & Damiani, 2007, p. 2). Generally, the organization's goal is to generate profit, which can then be freely distributed among the owners. However, organizations may undertake many other activities for the benefit of owners. Hence the aim of the article is to determine the activities that cooperatives implement for their owners on the basis of the list of activities indicated by the author of this article. In the article are shown research results of activities for cooperative's owners from Świętokrzyskie and Małopolskie provinces.

2. Owners of the organization

The internal environment is the environment that has a direct impact on the business. The elements of the internal environment of the organization are forces or conditions or surroundings within the boundary of the organization. The organization's internal environment consists mainly of the factors that influence the organization's activity: its owners, managers and leadership, employees, material resources, organizational culture (Halmaghi, Iancu & Băcilă, 2017, p. 378). Among these elements are stakeholders with formal ties to the firm, i.e. owners/board of directors, managers and employees, who according to Harrison and St. John (1998, p. 8) form the internal organization. Stakeholder is a person, group

or organization that has interest or concern in an organization. Stakeholders can affect or be affected by the organization's actions, objectives and policies (Gaur, 2013, p. 122). They have the right to change the company's policy at any time.

The important internal factors which have a bearing on the strategy and other decisions of internal organization are its owners. Owners are people who invested in the company and have property rights and claims on the organization. Owners can be an individual or group of person who started the company; or who bought a share of the company in the share market, and they are called shareholders. Owners, who can be also called financiers clearly have a financial stake in the business in the form of stocks, bonds, and so on, and they expect some kind of financial return from them. The stakes of financiers differ by type of owner, preferences for money, moral preferences, and so on, as well as by type of firm (Freeman et al., 2010, pp. 24-25).

We can distinguish such basic forms of business ownership: a sole proprietorship, a civil partnership, a general partnership, a professional partnership, a limited partnership, a limited joint-stock partnership, a limited liability company, a joint-stock company, state-owned enterprise, and cooperative. A *sole proprietorship*, also known as a sole trader, is owned by one person and operates for its benefit. The owner operates the business alone and may hire employees. The entrepreneur is the sole owner of the entire achieved profit. A *civil partnership* is established as a result of a written agreement by two or more partners. Each partner is entitled to an equal share in profits and participates in losses in the same ratio, regardless of the type and value of the contribution (art. 867 kc). *General partnership* is an organizational and legal form of the activity of partners, which is established to achieve a common goal. The common goal of the partners can be achieved by making a contribution and – if the contract so provides – cooperation in a different way (Nieradka-Bernasiak et al., 2012, p. 14). Each partner has the right to equal share in profits and participates in losses in the same ratio regardless of the type and value of the contribution (art. 51 ksh). A *professional partnership* is created by partners in order to provide a freelance profession in a company running a business under its own name (art. 86 ksh). A *limited partnership* aims to conduct business under its own name, in which, at least one partner is liable without limitation (general partner), and the responsibility of at least one partner (limited partner) is limited to creditors for the liabilities of the company (art. 102 ksh). A *limited joint-stock partnership* aims to conduct business under its own name, in which at least one partner is liable without limitation (general partner) to creditors for the liabilities of the company, and at least one partner is a shareholder (art. 125 ksh). A *limited liability company* can be created by one or more people (art. 151 § 2 ksh). The company's partners may have one or more shares. A *joint-stock company* (art. 1 § 2 ksh) is a capital-type organiza-

tion with a variable composition of owners. It is equipped with share capital created by shareholders, divided into a designated number of shares of equal nominal value (Sołtysiński, 2016, pp. 2-3). A joint-stock company is an organization of partners. *State-owned enterprise (Ustawa o przedsiębiorstwach państwowych)* can generally be defined as an economic entity, for which a substantial part of corporate control is performed by state bodies and which generates a significant part of revenues from the sale of goods and services on the market (Kwiatkowski 2016, p. 62). *Cooperative* is defined as a voluntary association of an unlimited number of people, with variable composition and variable share fund, which, in the interests of its members conducts a joint business activity (*Ustawa prawo spółdzielcze*).

A firm's owners, are those persons who share two formal rights: the right to control the firm, and the right to appropriate earnings (Hansmann, 1988, p. 269) and other benefits. While micro and small enterprises are focused on satisfying the economic benefits of their owners, the activities of other enterprises are focused on a much wider package of benefits for the owners. According to Gaur (2013, p. 124) shareholder wants:

1. Increased dividends: The shareholders are the investors of their personal savings into a business with an intention of earning more.
2. Higher market value for shares: The shareholders like to earn by selling their shares when the market value is good. Hence they wish the market values of the shares they have to continuously increase.
3. Increase in facilities and privileges: The shareholders expect the facilities and the privileges given to them to increase continuously, as they have invested their money to run your business.

Activities that bring benefits to owners can cover many aspects (Fig. 1). They include (Konieczna, 2015, pp. 292-293):

- Meeting the economic needs, i.e. the financial needs;
- Offering more favorable conditions for the provision of services to the owners of the organization (e.g. services in the first place);
- Influencing the economic efficiency of the owner of the organization (eg. by facilitating business contacts, advice, guaranteed sales, professional training, provision of technical equipment, facilities, etc.);
- Offering higher selling prices for owner-producers;
- Offering lower prices for supplies;
- Meeting the business needs;
- Meeting the communal needs;
- Meeting the cultural needs;
- Meeting the educational needs;
- Meeting the social needs;
- Meeting the housing needs.



Figure 1. Activities for the organization's owners

Source: compiled by author on the basis of (Konieczna, 2015, pp. 292-293).

3. Research methodology and results of conducted research of activities for cooperatives' owners

Cooperatives' executives were asked to indicate activities for cooperatives' owners. Because of the tendency of the representatives of cooperatives to participate in the research, the research had been conducted on a sample of 41% of the dairy cooperatives from Świętokrzyskie and Małopolskie provinces from Poland using the interview questionnaire. Respondents could indicate several activities. The results of conducted research of activities for cooperatives' owners are presented in Table 1.

Table 1. Activities for cooperatives' owners

Activities	Świętokrzyskie Province	Małopolskie Province
Meeting the economic needs	67%	25%
Offering more favorable conditions for the provision of services to the owners of the organization (e.g. services in the first place)	100%	25%
Influencing the economic efficiency of the owner of the organization (e.g. by facilitating business contacts, advice, guaranteed sales, professional training, provision of technical equipment, facilities, etc.)	0%	0%
Offering higher selling prices for owner-producers	0%	25%

Activities	Świętokrzyskie Province	Małopolskie Province
Offering lower prices for supplies	33%	75%
Meeting the business needs	67%	100%
Meeting the communal needs	33%	50%
Meeting the cultural needs	0%	0%
Meeting the educational needs	0%	0%
Meeting the social needs	0%	0%
Meeting the housing needs	0%	0%

Source: own work.

Taking into account results shown in Table 1 it is seen that:

- 67% of cooperatives from Świętokrzyskie Province meet owners economic needs, while only 25% of cooperatives from Małopolskie Province do this;
- all cooperatives from Świętokrzyskie Province offer more favorable conditions for the provision of services to the owners of the organization whereas only 25% of cooperatives from Małopolskie Province do this;
- only 25% of cooperatives from Małopolskie Province offer higher selling prices for owner-producers, while cooperatives from Świętokrzyskie Province do not have such offer;
- 75% of cooperatives from Małopolskie Province offer lower prices for supplies, whereas only 25% of cooperatives from Świętokrzyskie Province do this;
- all cooperatives from Małopolskie Province and 75% of cooperatives from Świętokrzyskie Province meet the business needs;
- half of cooperatives from Małopolskie Province and one-third of cooperatives from Świętokrzyskie Province meet the communal needs;
- cooperatives from both provinces do not influence the economic efficiency of owners of the organization, and do not meet cultural needs, educational needs, social needs or housing needs.

Comparing this research results with results of conducted research in southern-east Poland (Tab. 2) it is seen that more cooperatives from Świętokrzyskie Province offer more favorable conditions for the provision of services to the owners of the organization, and meet business needs. In the same time more cooperatives from Małopolskie Province offer higher selling prices for owner-producers, meet the business and communal needs.

Table 2. Results of conducted research in southern-east Poland of activities for cooperatives' owners

Activities	Southern-east Poland
Meeting the economic needs	75%
Offering more favorable conditions for the provision of services to the owners of the organization (e.g. services in the first place)	55%

Activities	Southern-east Poland
Influencing the economic efficiency of the owner of the organization (eg. by facilitating business contacts, advice, guaranteed sales, professional training, provision of technical equipment, facilities, etc.)	10%
Offering higher selling prices for owner-producers	10%
Offering lower prices for supplies	55%
Meeting the business needs	55%
Meeting the communal needs	35%
Meeting the cultural needs	0%
Meeting the educational needs	0%
Meeting the social needs	0%
Meeting the housing needs	0%

Source: (Konieczna, 2015, p. 192).

4. Conclusion

Enterprises not only meet the financial needs of their owners, but what has been shown in the article, a number of other needs. As the analysis of the research results shows the financial needs fulfill 67% of cooperatives from the Świętokrzyskie Province and 25% of cooperatives from the Małopolskie Province. In the same time 100% of cooperatives from the Świętokrzyskie Province offer more favorable conditions for the provision of services to the owners of the organization (e.g. services in the first place), while 100% of cooperatives from Małopolskie Province meet the business needs. Out of 11 identified activities for the organization's owners, cooperatives have indicated 7 of them, which is significant anyway, because it is common to claim that enterprises only meet financial needs.

It is justified to conduct further research based on a larger group of enterprises divided into various organizational and legal forms, so as to be able to determine whether satisfying specific needs results and is attributed to a specific organizational and legal form, or it has no significance.

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PART II **CHALLENGES OF THE NETWORK ECONOMY**

Collaborative Economy as the Main Retail Trend

Natalia Raksha

1. Introduction

The collaborative economy – also known as “the sharing economy” or the “peer-to peer economy” – is not a new concept since its origins can be traced back to that most primitive of economic transactions, barter. However, defining the collaborative economy as it is today is a more complex exercise, as it encompasses many and various activities, which are in constant mutation.

Broadly speaking, the collaborative economy is the economy made by people for people. From the supply side, it is a way to transform skills, services or the trade of goods into a professional activity. From the demand side, it is a way to have access to goods – to buy or to rent, used or new – in an easy and sustainable way.

There are actually two collaborative economies: one for profit and one non-for-profit. The one for profit (ridesharing, private accommodation, collaborative food markets, etc.) can be considered as an alternative business model, while the one non-for-profit relates to the sharing and exchange of goods similarly to barter (home swapping, clothes swapping, services exchange, etc.).

Horizontal networks and community participation, as well as online networks and peer-to-peer platforms form the basis of the concept. The matching between supply and demand is made directly from person to person without any middleman, and the only requirement for its functioning is an Internet connection. The system allows people to have the possibility to rent any of their possessions their flat or house, their drill, their lawnmower, or their car – providing them with the opportunity to earn an additional income.

2. Three market forces drive the collaborative economy

The rise of the Collaborative Economy is driven and enabled by the market forces that are converging now. As these trends accelerate, so too will the Collaborative Economy. In our research, we found that the following drivers:

2.1. Societal

Increasing Population Density: Population density enables sharing to occur with less friction. Lyft, RelayRides, and other car-sharing services thrive in urban areas like Boston and San Francisco. Access to more people mean more points of supply in the Collaborative Economy.

Drive for Sustainability: There is growing awareness about the environmental impact of our consumption habits. Freecycle, a gifting website of used goods, states: “It’s all about reuse and keeping good stuff out of landfills”. Reselling, renting, co-owning, or gifting maximizes usage and reduces the impact of physical goods that were once bought and discarded after limited use.

Desire for Community: A latent desire to connect with people and communities is re-surfacing. Airbnb guests prefer the experience of staying in a home or a neighborhood. Kickstarter funders get to know the makers, inventors, and entrepreneurs behind projects.

Generational Altruism: A recent UCLA poll found that over 75% of incoming freshman believe it’s “essential or very important” to help others in difficulty, the highest figure in 36 years (Gorenflo, 2013, pp. 155-157).

2.2. Economic

Monetize Excess or Idle Inventory: Previously idle resources can be now be shared and often monetized. Uber enables professional town car drivers to pick up customers when their cars are not already reserved. David Hornik of August Capital summed it up concisely: “Anytime there’s a resource that stays idle for much of its lifetime, there’s an opportunity to take advantage of it”.

Increase Financial Flexibility: As owners begin to find uses for idle inventory, the possibility emerges for earning income and gaining greater financial independence and empowerment. oDesk found that 72% of workers seek to “quit their jobs to be independent and would use online freelancing services as a way to move forward. Sites like Etsy remove the barriers for aspiring entrepreneurs. Vivian Wang of Sasson Capital shared the following insight: “We have entered the new world of the perpetual freelancer and micro-entrepreneur. Collaborative Economy companies are building new tools and platforms to help them lead the way”.

Access over ownership: Consumers also benefit in the Collaborative Economy. Individuals who can’t afford luxury goods can now rent them; businesses can hire on demand workers or rent on-demand space. An Airbnb-sponsored study found that nearly 6 out of 10 adults agree that “being able to borrow or rent someone’s property or belongings online is a great way to save money”. This trend will likely increase as a generation of young adults reduces debt amid the current recession (Gansky, 2016, p. 399 and subsequent).

Influx of VC Funding: Investors are key to the rise of the Collaborative Economy. In our analysis of 200 sharing startups, there has been an influx of over \$2 billion in funding, with the average funding per startup at \$29M. In other internet-related markets, VC funding has been a core force in accelerating the growth of an industry.

2.3. Technology

Social Networking: Social networking facilitates peer-to-peer transactions by matching up supply and demand that wasn't previously possible. Sites like Airbnb also use Facebook's open graph so that users can identify ratings and rankings from their Facebook friends. These features help build trust between buyers and sellers.

Mobile Devices and Platforms: Many startups in the Collaborative Economy are mobile-driven. For example, Lyft has a thin website that directs users to download its mobile app to start using the service. The rise of smartphone adoption means that customers can increasingly offer or locate goods and services anytime, anywhere. Our analysis of the 30 top sharing sites found that many are focused on offerings in the app stores for iPhones (53%) and Android (50%).

Payment Systems: E-commerce and payment platforms are required to broker transactions between buyers and sellers. We found that 27 of the 30 top sharing startups rely on online or mobile payment systems tied to credit cards. Yet there are also examples of gifting or swapping that do not require monetary exchange – but depend instead on digital reputation. In the future, expect new forms of value to include nontraditional currencies, like Bitcoin; or new forms of measurement that account for resale or multiple users in the total cost of ownership.

3. Collaborative economy impact

3.1. Impact one: Effect on country's gross domestic product (GDP)

Sharing for money or sharing activities that are similar to business-to-consumer activities are relevant to economic performance. For example, Internet platforms such as freelancer.com match workers and enterprises for project-based cooperation. In this case, these projects' value added is measured by GDP. The booking commission that Blablacar takes for car sharing is a part of employee compensation and owner profit. These components of car-sharing activities also find their way into GDP. However, the payment that a non-professional Airbnb host receives from renting out her apartment often cannot be measured by GDP. The act of sharing a couch to provide strangers with free accommodation has no monetary value, and is definitely not contained in today's measure of GDP.

In the high scenario, peer-to-peer commerce as a percentage of household expenditures is approximately 80 percent of the share of sharing households. With this assumption, peer-to-peer commerce in Italy generates a value added of roughly 6 billion Euro per year, or 0.95 percent of GDP. In the more conservative scenario, it is assumed that sharing households spend as much a share on peer-to-peer commerce as they spend on online shopping. In this case, the Italian value added of peer-to-peer commerce is approximately 0.5 billion Euro per year, or 0.1 percent of GDP (Feubli & Horlacher, 2015).

Obviously, the two measurement approaches lead to similar results. Moreover, even in the high scenario, the sharing economy adds only little to Swiss GDP, at least today.

The GDP impact of the sharing economy is of similar size as other activities that cannot be measured exactly, such as other parts of the shadow economy. While the overall impact is small, the strong growth of sharing activities suggests GDP growth calculations could be underestimating real growth as activities shift from the traditional sectors to the sharing economy. This shift of activities might be happening on a larger scale, but the net effect remains small. In addition, GDP calculations do not capture all beneficial aspects of the sharing economy. However, the wide usage of GDP as a measure ranges across many important economic indicators, from sovereign credit ratings to the tax base of a country. If, in the future, sharing activities become more widespread, this shift to less measurable activities will require a new way of looking at GDP.

3.2. Impact two: Effect on traditional competitors

The immediate effect is the loss of jobs in traditional sectors. Much of the row over the expansion of the sharing economy is related to traditional sectors faced with higher transaction costs for the reasons noted above. Traditional companies, such as taxi services, often must buy and service their assets, provide a dispatch center and administrative management, and offer long-term employees benefits such as health care and pensions. Companies such as Uber rely upon drivers to provide and service their own autos, thus considerably cutting such expenses. Dispatch is mediated through the software, eliminating most administrative jobs, outside of software management, updating, and operations research. While a center for handling customer and driver issues is needed, that is also true of traditional companies (Pacini & Hira, 2018).

3.3. Impact three: Effects on labor markets

As alluded to above, a third, less clearly articulated concern has taken root in reaction to the expansion of the sharing economy. Relatively low-skill, common service jobs such as hotel desk clerk or taxi driver have long served as con-

duits for income mobility for marginalized groups, particularly immigrants. The sharing economy requires the ownership of assets, thus squeezing out participation from lower income groups. In theory, lower income participants could pool their savings and purchase an asset that they could then jointly operate, but thus far, we have not seen such efforts on a wider scale. Sharing economy companies also make the argument, with some merit, that allowing for non-traditional suppliers can expand supply to marginal groups. For example, routes not well served by public transportation and where volumes are too low or sporadic to allow for cost justification, could be more easily served by local drivers willing to take care of demand as it arises. Similar claims are made about accommodations that sharing opens up the possibility for lower income clientele who could not afford a normal hotel to travel more and earn more through rentals to peers. Conventional industries are by contrast more costly to trade in, as seen by license and additional fees associated to the purchase of a taxi, versus the lower costs of a private car as used by Uber drivers. Yet, workers in sharing economy have a minimum level of IT literacy, which means such work opportunities are not available to the unskilled.

3.4. Impact four: Access to services and goods expands

One of the biggest benefits of the sharing economy is the potential reduction of the limitations of distance. As noted above, there are jobs now that can be performed anywhere there is internet access. This potentially allows for the greater participation of remote communities in the economy, and reduces the need for investments in public infrastructure to create access. Perhaps an even greater benefit is the possibility to reduce consumption through reuse and recycling, giving a circular dynamic to the economy (EMF, 2016). The fact is that some durable, expensive, and environmentally costly goods such as autos are used only a small fraction of the day (Katzev, 2003). The rest of the time, they sit unused in parking lots. Thus the internet, by reducing transaction costs, can allow for the use of assets throughout the day, freeing up parking spots in the process. Companies throughout the world are increasingly using ridesharing apps so that employees from disparate branches or different companies going to the same destination can share the costs. This, in turn, could drastically reduce congestion. Of course, it will also mean a secondary reduction in demand for traditional durable products. In most cases, the internet expands choices for consumers everywhere, particularly for used items. While effects in Western countries may be deleterious to some labor markets, such as programmers, it offers new avenues for workers in the developing world.

4. Conclusion

As the sharing economy is here to stay, there is urgent necessity of policy and regulation to guide its growth. Issues such as safety, workers' benefits, and anti-trust are clearly at the forefront and require serious regulatory review and proposals. The decline of traditional economy sectors could be eased by differentiating levels and types of service through regulation, and by improving inter-sector competitiveness by streamlining regulations. For example, users might see the use of a traditional London taxi as a premium service, with the ability to charge higher rates given the new level of competition. Drivers could be trained to offer additional services such as tourist information that a casual driver would lack. Oligopolistic tendencies also raise the specter of worker exploitation. Regulation regarding minimal safety standards for vehicles and background checks for drivers as well as liability insurance would go a long way towards helping the sharing economy to grow.

Perhaps even more concerning to public authorities is the difficulty in taxing sharing economy activities. Traditional providers rightly complain that they are usually subject to greater taxation, such as hotel taxes, that sharing companies avoid. Beyond the competitive concerns, the loss of public revenues is a serious issue. A wholesale rethinking of regulations is sorely needed, with streamlining and efficiency as key drivers (Miller, 2016).

It is still unclear whether this is optimal for public ownership, concession, or for private companies to offer such services. On the one hand, like most shared infrastructure, in this case public spaces and roadways, it would be inefficient to have multiple competing operators. However, because so much about the disruptive force of the sharing economy is unpredictable, flexibility in markets is essential. Changes in demographics, usage patterns or growth in certain corridors require adjustment, and the public sector tends to be less sensitive to such adjustments. If sharing leads to the liberalization of labor markets, it does not mean that would be entrepreneurs should lose all social safety nets or protection; on the contrary, moving regulation towards basic standards of protection of workers in the internet economy will help it grow even faster and make it more inclusive.

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Social Media Experiences in Museum*

Katarzyna Sanak-Kosmowska, Iryna Manczak

1. Introduction

Modern museums operate as marketing-oriented entities, and implement marketing solution used by enterprises (Sobocińska, 2015). The traditional perception of museums and their functions is increasingly extended to new areas of activity. Importantly, the selected institutions have considerable potential which enables them to perform the role of cultural centers that influence public opinion (Murzyn-Kupisz & Działek, 2014). It is worth noting that in the last decade, a lot of competition was seen between cultural institutions. Continuous adaptation to customer needs and expectations is a key tool for building a strong brand. This requires engagement in marketing ventures that are diverse and fit in the current market trends. Contemporary museum institutions take different kinds of action aimed at attracting potential visitors to attend exhibitions or other museum projects. The museums communicate about these activities and on-going events in the virtual environment, which more and more often involves social media as well.

A special place is occupied by those museums that have the status of national institutions. In the literature, it is assumed that the activities of national museums are mainly associated with tradition. Importantly, such museums provide an example for organizational units in possession of outstanding collections, while their activity is a reference point for the development of the principles of organization of Polish museum science. The most distinguished national institutions are the frame of reference for the functioning and development of trends in the environment of cultural institutions in Poland.

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The aim of the article is to present selected areas of marketing communication used by museums. An attempt is made herein to identify the marketing activities of three Polish national museums in social media. The considerations were based on an analysis of selected projects implemented in the social media of the National Museum in Krakow, the National Museum in Warsaw and the National Museum in Wroclaw.

2. The National Museum – key characteristics

In Poland, there is a number of institutions responsible for the organization of cultural activities. To a large extent this can be justified by the diversity and multiplicity of social needs reported by participants in culture, as well as the existence of various entities that promote contemporary forms of culture, including the study of cultural heritage (Manczak, 2016). It is worth mentioning that a particularly important place among the cultural institutions is occupied by the museums. The featured cultural institutions play the role of organizational units, whose *raison d'être* and nature of activity are seen and noticed in the era of globalization (Folga-Januszewska, 2010). Already Żygulski (1967) noted that a museum in the modern sense can exist only when the situation when its collection is open to the public where it serves an appropriate social function. Contemporary museums create numerous opportunities for active participation in culture and they get involved in creating partnerships with various external entities.

The literature lists different types of museum institutions. A public museum is an example of an institution entrusted with a public task by a public entity (Wytrążek, 2011). In legal commentaries, it is pointed out that the definition of a museum includes organizational entities of different nature, whether public facilities or non-administrative entities. However, their common feature is the lack of bias to profit-making and implementation of statutorily defined objectives, falling within the public interest (Antoniak, 2012).

Table 1. Museums according to organizer

Type	Listing
State museum	The organizer is the Minister of Culture and National Heritage (national museums, royal castles, specialized museums with the rank of national museums, museums of martyrdom)
Local museum	These institutions are organized by local government units
Private museum	These institutions are created by such entities as universities, associations, foundations, religious organizations, legal and natural persons
Co-operated museum	The organizers can be government administration units and local government as well as private entities together based on an agreement, and they share the responsibility for the activities

Source: (Zalasińska, 2013).

The group of public museums is represented by state and local government institutions. According to the current legal order, state museums must be created by the government administration. In turn, the local government units are responsible for local museums. It is worth noting that the adoption of the criterion of organizer allows us to divide museums into state, local, private, and co-operated institutions (Tab. 1). There is a belief among researchers that the governing bodies and those engage in strategic management and supervision of museums, are primarily responsible for the protection and promotion of heritage, as well as for obtaining necessary human, physical and financial means (Waltoś, 2009).

Most often it is assumed that socially useful goals (tasks) of museums relate primarily to aspects such as the protection and dissemination of heritage (Golat, 2005). However, comparing together all the thematic areas specified one must agree with the opinion that their primary task is to safeguard the collections held and pass them on to future generations, followed by the dissemination of culture in a manner that is attractive to the recipient (Zalasińska, 2013). To a large extent, the activities of the museum also have a dual character. On the one hand, they constitute a natural environment for works of art which are placed under the care of museums. In this sense, a distinguished cultural institution is identified as the temple of art. On the other hand, museums function as places of dissemination of knowledge and education, and therefore are seen as schools (Matt, 2006).

A special group of museums are those organizational entities that have the status of national museums. First of all, it should be emphasized that in the current and past legal orders alike, no conditions to be fulfilled before a selected museum can be considered a national museum have been specified. According to some researchers, such institutions were created in countries that lost their independence (Poland, Bohemia, Hungary), or sought to obtain it (Finland) (Kiciński, 2001). As a result, it is also believed that the name and status of a national museum is mainly related to tradition (Pruszyński, 1989). Therefore, the name was used, in principle, since its inception by institutions in Krakow and Warsaw (Zalasińska, 2013).

Currently, the status of the national museum in Poland is enjoyed by institutions such as the National Museum in Krakow, the National Museum in Warsaw, the National Museum of Agriculture in Szreniawa, the National Museum in Kielce, the National Museum in Gdansk, the National Museum in Poznan, the National Museum of Przemysl, the National Museum in Szczecin, and the National Museum in Wroclaw. According to Żygulski (2005) connected the term "national museum" mainly with collections belonging to the entire nation, inalienable, being developed according to an established program. Importantly, the program of the first national museum in Krakow was formulated and adopted around 1910. It is worth noting that the program was never extended (Zalasińska, 2013). In the light of the submitted comments it may be assumed that the

National Museum in Krakow stands out significantly against all other such institutions in the country.

To sum up the considerations conducted so far, it is concluded that the National Museum is an example of a particular conceptual category. Under the current legal system, no normative category of “national museum” exists. In Poland, a group of institutions of this type is made up of organizational units that have exceptional collections or a special historical status.

3. Social media – an overview of concepts

With the rapid development of information and communication technologies, the importance of marketing communications implemented in the virtual environment has increased. Social media are a special case of online communication, allowing for direct and multidirectional exchange of information.

In the literature, one can find many suggested definitions of social media. One of them was suggested by Kotler (2010), who identified them as websites that are co-authored by the users themselves through which they can express themselves and collaborate with others. Social networks, which is one of the types of social media, are a kind of online communities grouped together in a specific website, where users exchange of information, experience and interests to meet their need for contact with other people. Websites of this type, unlike traditional “static” ones, are defined as “dynamic” because of the extensive interaction between users (Szewczyk, 2011).

The aim of participating in social networking is maintaining ties with other users, known from one’s real life or simply sharing similar interests, hobbies or problems. The basic functions of each social networking site include (Sanak-Kosmowska, 2018):

- providing opportunities to establish and maintain contact with the other members of the community,
- self-presentation through a set of information included in the user’s profile,
- sharing content prepared by the user within a group or the whole community,
- monitoring the activity of other members of the group and evaluating it.

These functions can be implemented by individual users as well as by companies and institutions that decide to incorporate social media into their online marketing communication strategy.

Social network user communities worldwide are dominated by young people aged up to 34. Social media can be used to build brand image and change purchasing behaviors in this group because of the way of life of the Y generation, characterized by, among others, a desire to stay in touch with a reference group, sharing digital content and being accustomed to the speed and immediate responses.

Polish enterprises and cultural institutions are becoming eager to use social media in the promotion of their activities. They use them primarily for marketing purposes, and to cooperate with customers or business partners. Research conducted by the Central Statistical Office (GUS) indicates that the percentage of enterprises using social media is growing steadily. In 2013, this rate reached 19.1% and in the last five years it has increased by 11.2%. Currently, every third large company (employing 250 or more people) uses at least one type of social media (GUS, 2018).

4. National Museums in Poland – selected examples

For the purpose of further considerations, selected three national museums will be presented: the National Museum in Krakow, the National Museum in Warsaw and the National Museum in Wroclaw. The discussion undertaken herein included the marketing activities of the selected institutions in selected social media. The main aim of this article was to examine whether national museums in Poland did use social networking sites and how they used their marketing potential.

4.1. The National Museum in Krakow

The National Museum in Krakow is considered the first museum of its kind in Poland. The institution was founded in 1879, pursuant to the resolution of the City Council. At the time of the creation of the museum it was owned by the municipality of Krakow. In this way, the city made an attempt to protect the institution from direct intervention by the occupying Austrian authorities (Dziedzic, 2005). It is worth noting that by the end of the First World War, Krakow's National Museum was the only such a large facility available to the public in Poland.

Currently, the National Museum in Krakow is an example of an institution with the biggest number of collections, buildings and permanent galleries in Poland. In 2010, the institution received the status of a scientific unit in the arts. Importantly, it was the first award of its kind in Poland. The Museum development strategies for 2007-2013 and 2014-2020 concerning its research activity, along with maintenance and operation of the exhibitions, one of the three key domains of the institutions (*Działy naukowe MNK*, 2019).

The collections are presented in several branches (including the main building, the Cloth Hall, the Czapskis Museum, the Czapski Pavilion, the Matejko House, the Szolajski House, the Czartoryski Museum,¹ the Czartoryski Library,

¹ In 2016, the collections of the Czartoryskis become an integral part of the National Museum in Krakow.

the Szymanowski Museum in Zakopane, the Mehoffer House, the Ciolek Palace, and the Europeum). The collections under the care of the institution counts nearly 900 thousand of exhibits, and the institution's mission is to promote Polish and foreign art (*Historia MNK*, 2019).

The National Museum in Krakow has accounts on selected social networking sites: official fanpage on Facebook, an Instagram profile, a Twitter account and its channel on YouTube. It is worth noting that the Krakow museum invites one to visit its affiliate sites already from the home page. All the accounts are kept updated and the communication run by the institution is dynamic and interactive. The result is the large range of the profiles. For example, in May 2019, the Facebook account had a little less than 59,000 likes, while the Instagram account was followed by almost 15 thousand, and the Twitter account by 6,000. The museum published slightly different posts on each of these social networks, tailored to the needs of the customers. In the case of Facebook, these were primarily invitations to exhibitions and accompanying events (promoted in the form of events). The profile was dominated by photos and videos, and posts were moderately popular (mostly likes, not many shares). The posts and video on Instagram were much more popular, as an average they received hundreds of likes, but the viewers rarely left comments. Interestingly, the published images of the works of art from the collections of the National Museum in Krakow, the administrators published fun facts about the works or links to current events in the descriptions. Posts of this type are the most popular. The Twitter account was dominated by information about events and posts shared from other profiles devoted to Krakow museums (eg. The Ministry of Culture and National Heritage, DailyArt).

Particularly noteworthy is the campaign "Travel with the Lady" campaign, started by the National Museum in Krakow in December 2018. This cyclical competition is implemented jointly with the Krakow Balice airport on Instagram, though the museum encouraged participation in other social networking sites as well. Users who posted a picture of a bookmark with the image of "Lady with an Ermine" (distributed free of charge in the branches of the museum) done on a flight or at the airport, and described them properly (with #podrozujezdama #travelwithlady hashtags), have a chance to win prizes sponsored by the Museum. By May 2019, more than 200 such images were posted on Instagram.

4.2. The National Museum in Warsaw

The National Museum in Warsaw was launched in 1862. In the 1860s, two important institutions were established: the Society for the Encouragement of Fine Arts (1860) and the Museum of Fine Arts (1862). They provided an example of initiatives with the goal of taking care of art and artists, and obliged themselves to lift the artistic culture in Polish society, to collect, display and store

works of art. The activities of the entities established largely determined the fate of the National Museum in Warsaw, which inherited the collection of the Society for the Encouragement of Fine Arts (*Historia MNW*, 2019).

Today, collections of the National Museum in Warsaw count approx. 830,000 works of Polish and world art from antiquity to the present day, including paintings, sculptures, drawings and engravings, photographs, coins, applied art, and design. The museum has four branches: the Poster Museum in Wilanów, the Xawery Dunikowski Museum of Sculpture in the Królikarnia Palace, the Museum of Design in Otwock Wielki and Museums in Nieborów and Arkadia (*Historia MNW*, 2019).

Like the National Museum in Krakow, the National Museum in Warsaw also has affiliate pages on social networking sites, advertised already at the level of its official website. In addition to Facebook, Twitter, YouTube and Instagram, the Warsaw National Museum also has an official profile on Google Arts&Culture and on Trip Advisor. The fanpage of this institution has more than 60,000 likes, while more than 24,000 people checked in there (as of May 2019). The posts relate primarily to news and events at the museum. On Twitter, the administrators devote more attention to informative posts, for example, reports from press conferences. The Instagram profile, as in the case of Krakow's National Museum, mainly contains photos of items from the collection of the Warsaw National Museum with descriptions to encourage discussion. The most popular posts are themed, for example, the 50 sets Marshal Piłsudski's mustache published on the occasion of the 151th anniversary of the Marshal's birth.

4.3. The National Museum in Wrocław

The National Museum in Wrocław was established in 1947. It was solemnly made available to the public in 1948. Until 1970, the institution operated under the name of the Silesian Museum. In the 1970s, the museum was raised to the status of a national museum. The National Museum in Wrocław has four branches: the Main Building, Panorama of the Battle of Raclawice, the Ethnographic Museum and the Museum of Contemporary Art in the Four Domes Pavilion².

The collections of the National Museum in Wrocław now count more than 200,000 objects representing all fields of art, ranging from medieval Silesian stone and wood sculpture, Silesian, Polish and European painting, through modern and modernist sculpture, drawing, graphics, and a very rich collection of arts and crafts from bygone eras from antiquity through the Middle Ages to the early twentieth century, to collections of books and documents (*O muzeum MNWR*, 2019). The collections mainly include artifacts from Wrocław and Lower Silesia.

² The branch was opened in 2016.

A considerable part of them comes from the collections of former German museums. It is worth noting that the resources of the National Museum in Wrocław also include works of art donated in 1946 by the then Soviet authorities from the Lviv art gallery.

The National Museum in Wrocław actively uses social networking sites, encouraging the viewers to visit its accounts on Facebook, Instagram, Twitter, and Youtube. The Facebook site had more than 17,000 fans, while the Instagram profile had almost 7,000 followers. The Facebook profile provides information on current events and publications issued by the museum. The marketing communication is dominated by photos and videos, however, the posts do not enjoy large popularity. In the case of Instagram, the communication also includes news, presents items from the collections and temporary exhibitions, and reports on events such as the Night of Museums. Interestingly, account administrators have used the Instagram profile also for recruiting volunteers for this event. Like the National Museum in Krakow, the Wrocław museum has organized a competition for its followers: the Museum Selfie Day (January 16, @museumselfieday). Those posting their photos from the museum in social media with descriptions #MuseumSelfie #nationalmuseuminwroclaw could compete for the best picture to receive awards. As in the case of the competition organized in Krakow, most user pictures were not published on the profile of this national institution.

5. Conclusion

Today's museums strive to maintain the balance between modernity and tradition. This requires conducting marketing activities that fit into the current market trends. For this purpose, the museums use social media.

On the basis of the considerations one can recognize that the social networking profiles of the analyzed national museums provide information on current events and other projects. The profile administrators are trying to maintain relationships with users, as well as customize the message to the needs of selected audiences. The visitors are encouraged to post photos or participate in competitions. Moreover, in the studied social networking sites one can find information about selected works of art belonging to museum collections. It was also found that the accounts examined are frequently updated, and the ongoing communication manifests significant dynamics.

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Ontology Based System for Distributed Information Resources Integration

Dariusz Put

1. Introduction

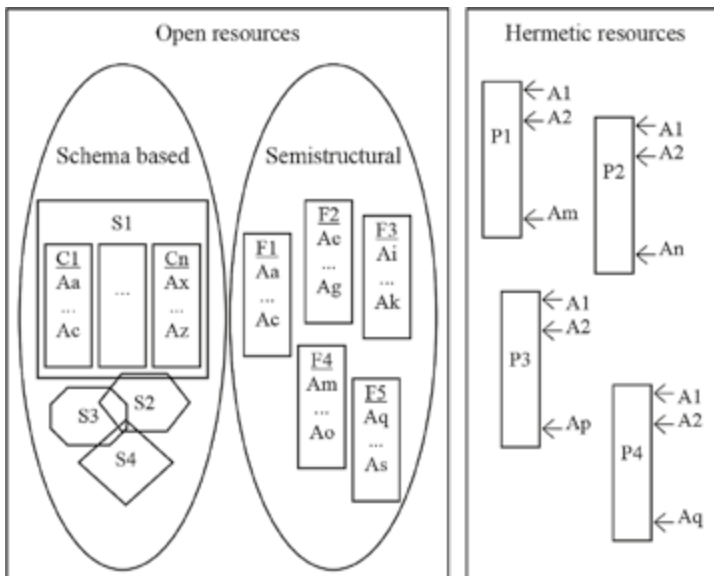
Development of information and telecommunication technologies contributes to arising of new organisational structures, including network and virtual enterprises (Bolisani, 2010), technology parks (Cumming et al., 2019) and fractals (Raye, 2014). Different organisations may cooperate only if solutions for coordination of their processes and integration of their systems and information resources have been elaborated in advance. Since integration is very often indispensable, elaborating of systems that enable linking of heterogeneous information resources is necessary. The new organisational structures change dynamically, so traditional integrated solutions based on central databases are not always appropriate because they are not flexible and scalable. There is why systems enabling the exchange of dispersed data and information have to be elaborated. In the paper information resources categories are discussed. Strategies of information integration are recognised and the proposal of the architecture of information resources integration system based on co-shared ontology is talked over.

2. Information resources categories

Employees, fulfilling their everyday tasks, gather data and information using heterogeneous applications and systems. They also use information resources stored in business partners systems, delivered by other organisations and collected from multiple sources. As a result, data and information have diverse structures and their merging is only possible if an appropriate integration system is implemented. When embarking on designing such a system it is necessary to identify categories of information resources and think over the possibility as well as usefulness of joining not only information resources being instances of the same

concept but also those belonging to different information resources categories. As far as inner structure of information resources is concerned, data and information may be divided into two main categories (see Fig. 1):

- Open. Their inner structure is searchable during the process of queries formulation. Only some of attributes may be selected. Attributes describe resources (concepts), they are also the subject of queries. Open resources may be divided into two groups:
 - schema based (structural), stored mainly in traditional database systems, characterised by unchanging schema during a system operation,
 - semistructural, not based on any schema, their internal structure may be changed during system operation.
- Hermetic. Their inner structure is not searchable during the process of queries formulation. They may be processed only with the use of dedicated applications. Attributes describing hermetic resources (metadata) are used for queries formulation.



S – schema, C – concept, F – fact (object or event), P – file, A – attribute

Figure 1. Information resources categories

Source: own work.

In Figure 1 schema based information resources are illustrated as S1–S4. Every schema is of a different shape, which represents the fact that schemas may have various structures. Figures representing schemas overlap which express the possibility to represent (at least partly) the same domain by different schemas. Schema S1 is described more precisely by information about concepts C1–Cn. In-

stances being representatives of the same concept are described by the same number of attributes. Semistructural data, as not based on previously defined schema, is represented by facts F1–F5, characterised by different attributes. Facts F1–F5 may represent any object or event belonging to the same or different categories. Due to the lack of schema, the identification of two or more instances as representing the same concept requires some kind of analysis of metadata and (or) values of attributes. Hermetic resources are represented as files P1–P4. They are described by different number of attributes. The attributes are placed outside figures representing files, which indicates that they are only used for describing resources and are not delivered to users. The aim of a query is, in this case, obtaining a file (or files) selected on the basis of attributes describing it (them). Another difference between open and hermetic resources is the possibility of processing received data. Open resources may be processed – e.g. aggregations or calculations are possible, in the case of hermetic resources such operations are useless.

As far as the possibility of linking information resources collected from various systems is concerned they have to be described by metadata. The designing of a schema containing a description of all shared information resources has to be preceded by identification of data and information as well as categories of information resources gathered and made accessible by individual sources constituting the integrating system. Integration of heterogeneous information resources is impossible if solutions enabling their categorisation and proper identification as well as rules of their connections are not established in advance.

3. Information resources integration strategies

The problem of data and information integration is complex for a considerable number of reasons: people, the contradiction of individual organisations businesses, different understanding of resources, variety of employed data models and query languages, dynamic change of information, diversity of semantics, possible conflicts in metadata, redundancy, replication, bad or unknown quality of data, faint knowledge about expectations of future users. There are a great many integration strategies aimed to link various data and information collected from systems having heterogeneous architecture. For example, in the integration called *Big I* all information resources are organised according to one data model. There is one system embracing the whole organisation and all data is stored in one place (see e.g. Gulledge, 2006). This kind of integration may be practically implemented by applying one of existing MRP/ERP systems. The maintenance of such a system is relatively not expensive (there is no necessity to design middle layers as well as extra interfaces), although the cost of implementation may be comparatively high and the whole process complex, time consuming and risky

(see e.g. Put & Soja, 2008). The drawback of such a solution is also the lack of flexibility. In the integration called *little i* component systems are heterogeneous, information resources are not gathered in one place, middle layer enabling cooperation between such systems has to be designed and implemented. Such integration concerns also Web resources and involves the process decomposition on information integration, textual content syntax, semantics and structure sub-processes (Su et al., 2018).

Taking under consideration the way information resources are organised and stored, two main integration strategies have to be pointed out (see Fig. 2):

- implementation of uniform, commonly shared database, and migration of all data to newly created system,
- developing of some kind of interface over existing, distributed and heterogeneous information resources.

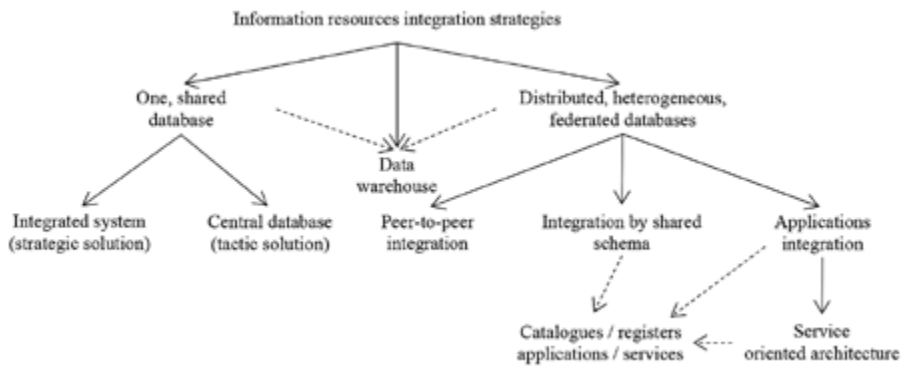


Figure 2. The classification of information resources integration strategies

Source: own work.

The strategy linking distributed resources is based on the federation of independent information resources repositories. Integration may be achieved by the use of schema containing metainformation about all co-shared distributed resources, the solution linking systems peer-to-peer or the system where individual repositories are linked with the use of cooperating applications or services (see Fig. 2). Users and applications access information resources through predefined interfaces that may be of various kind: catalogues, registers, applications or services. Metadata catalogues make information about shared data (databases, the Internet resources, plain files, services) accessible. Catalogues are created according to schema defined for one or many cooperating organisations. The aim of one main catalogue is to join various partial catalogues – it constitutes “catalogue of catalogues”. The catalogues are searched by all users with the use of user-friendly (i.e. graphic) interfaces. They may also be searched by applications and informa-

tion agents. Metadata registers contain metadata consistent with defined structure, employed models, dictionaries and schemas. The task of registers is to deliver methods for data designing and decoding as well as for sharing the environment in organisation by designers and architects. The register of such metadata is crucial if the overriding aim is to obtain unambiguous data understanding.

Development of the Internet and, especially, Web services, have had an influence on starting research into elaborating integrating solutions involving the Internet technologies. The strategy based on the federation of independent resources has become a natural base for designing such systems. Global exchange by computer networks, often perceived as an alternative solution to traditional strategies, involves a considerable number of organisations which expect to benefit from applying such systems. However, as far as elaboration and implementation of the systems are concerned, some risks have to be taken under consideration (Fawcett et al., 2005):

- technical aspects are much more complicated than in traditional systems,
- possible benefits will be achieved mainly by big organisations, dominating on the global market, which may force their business partners to implement some solutions (e.g. the implementation of expensive system).

The lack of benefits for all organisations makes obtaining consensus enabling global data and information exchanging via the Internet difficult (Fahey, 2004; Luening, 2002).

Data warehouse is a solution that joins characteristics of two previously mentioned. In such a system a central database is designed but existing systems remain unchanged. Central repository is created and employed to store shared, historical resources and local systems operate without changes in their structures. Data stored in such central database is used for analyses whereas sub-systems gather operational data.

4. Integrating system based on shared ontology

The proposed integrating system consists of four layers comprising modules fulfilling separated tasks that have to be performed during integration process and enabling to search for necessary information. These layers are (see Fig. 3):

- local information resources layer,
- local communication wrappers layer,
- global (shared) layer,
- user interface layer.

Local systems constitute the local information resources layer. In these sub-systems heterogeneous data and information are stored. Such information resources are gathered with the use of adopted strategy or without previously

defined plan, they are centralised or distributed, use various data models, query languages, applications, systems and technologies. The proposed system is based on the assumption that the local information resources layer stay unchanged. The process of designing of the integrating system may be independent of linked components, so organisations involved in it may operate without any obstacles. In addition, implementation of a newly created integrating system is not a problem for existing systems and does not influence operational and analytical processes in organisations.

The local communication wrappers layer is designed and implemented independently in individual sub-systems. It constitutes a connection between local resources and shared layers. Before making accessible own information resources, their owners have to analyse possessed data and information and prepare meta-information about them. This layer is a kind of interface to this part of information resources stored in sub-systems that is going to be made accessible for all actors, so it is necessary to create a solution corresponding with the metadata module designed in the shared layer. It may be two-way process. At the beginning of the implementation of the integrating system *global-as-view* method is used where metadata module is modified on the basis of the structure of the local layer (Katsis & Papakonstantinou, 2018). When the number of sub-systems increases, local shared information resources module is designed on the basis of the content of the metadata being a part of the global layer. This is called *local-as-view* method (Katsis & Papakonstantinou, 2018). The queries re-formulators (converters, translators) are also included into the local communication wrappers layer. Their task is to convert queries received from the global layer to query languages applied in their own systems. The converters are defined at the local layer, so local systems structures may be of any architectures. Queries reformulated by the converters are consistent with query languages applied in sub-systems. If data and information are distributed, such a solution facilitates preparing shared information resources, because there are no extra requirements as far as their structures are concerned. As an input the converters receive queries formulated with the use of unified query language. As an output they send queries in languages used in this layer, specific for individual sub-systems, to the local information resources layer.

The global layer is designed and shared by all actors. It is necessary to achieve a compromise during its preparation, because taking into consideration all aspects connected with data and information access will make the process of queries formulation too complex. The global layer consists of four components: metadata module (also called global schema, ontology or broadcasting module), access module (localizer), integrating module (mediator, integrator) and metadata actualizer. The access module identifies sub-systems comprising searched in-

formation resources and sends queries to identified this way local systems only. Such a solution has three advantages:

- response time decreases,
- sub-systems that do not have searched information are not employed,
- the amount of data sent via computer network is minimised.

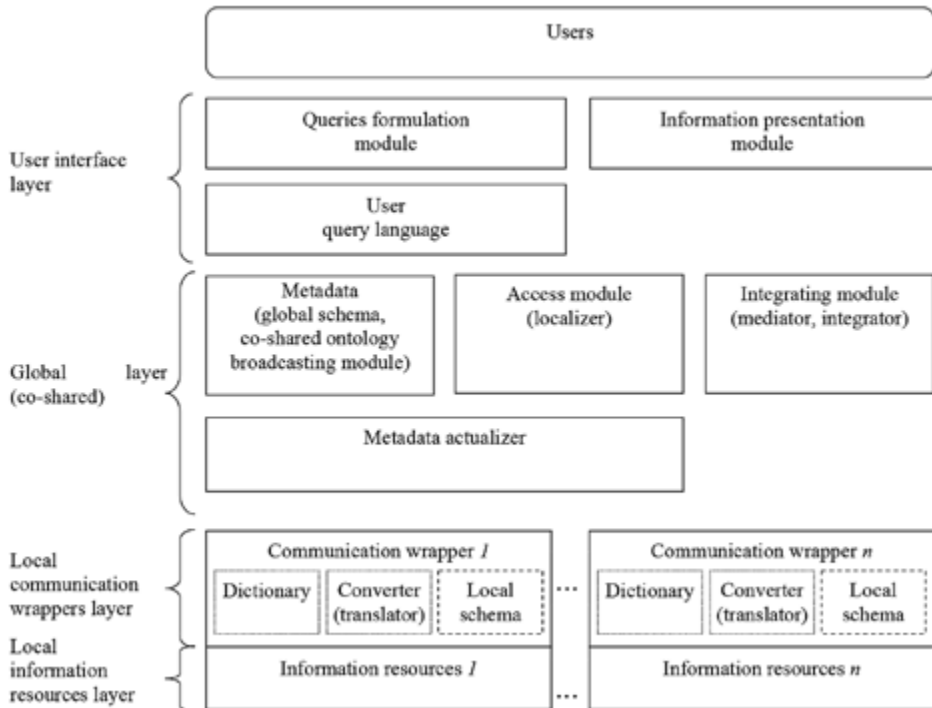


Figure 3. The architecture of the proposed system

Source: own work.

The mediator is responsible for integrating resources received from sub-systems in response to users' queries. The resources are initially prepared in the local communication wrappers layer so the final integration is not complicated. The metadata module is the core of the system. It comprises meta-information about all shared resources and their localization in individual sub-systems. This information is used by both users during the process of queries formulation and access module for choosing sub-systems to which queries are sent. The global schema is dynamically modified during the system operation and its actual content is accessible to users in the process of queries formulation. Its structure and modification methods have to be established. The modification methods comprise the rules of including and changing metadata constituting information about acces-

sible resources. The metadata actualizer is an application which constantly monitors data and information sources and after detecting any changes automatically adjusts the global schema content so that metadata about accessible resources is always up to date. Furthermore, this module informs local systems about such modifications in the global schema that are essential as far as searching for local repositories is concerned.

There are three components of the user layer: the interface enabling queries formulation, the established user query language and the solution responsible for presentation of information resources received in response to users' queries. From among three modules comprising the interface layer only one – the user query language – has to be uniform, globally defined. Two remaining modules may be standardised or designed locally for or by individual users.

On the basis of adopted strategy, in the proposed system the main emphasis may be put on flexibility of a solution, non-complicated structure of query language and possibly non-complicated structure of shared elements at the expense of the system expressiveness and the increase of the complexity of communication wrappers structures. Let us call such systems user oriented. If the main emphasis is put on designing a system as expressive as possible, which results in receiving precise answers for detailed queries (including the possibility to formulate aggregates, use aggregate functions or create calculations), the user query language has to be more complex and, as a consequence, the system becomes less flexible, because shared elements, used e.g. for queries formulations, have to have complex structure. Let us call such systems information oriented. In information oriented systems the structure of global schema is also complex. The fundamental issue is to establish rules that make possible designing of maximally expressive systems so as it will be possible to contain there all necessary metadata about shared resources together with connections between individual concepts. As far as the resources searching process is concerned, such systems are characterised by high effectiveness. Users receive precise information, there is no need to additional information processing. However, such a solution is possible only if users are familiar with a query language (which in this situation is complex) as well as they have access to metainformation about shared resources and are able to use it. An increase of the complexity of the query language leads to extending expectations as far as users' knowledge, skills and abilities are concerned. As a consequence, the query language becomes complicated and complex queries may be formulated only by specialists. In user oriented systems only wrapper communication modules, being components of the local communication layer, have complex structures. However, such a solution is more user-friendly – users do not have to possess abilities and knowledge concerning queries formulation.

Taking under consideration desirable characteristics of integrating systems identified on the basis of existing solutions analysis, the proposed system has the following features:

- the structure consists of four layers,
- every layer consists of modules fulfilling separate tasks,
- integrated sub-systems remain unchanged,
- the system may be used for creation of solutions integrating all possible categories of information resources: hermetic, open (schema based and semi-structural) and services,
- enables the integration of any database management systems and other repositories,
- every piece of information is an instance described by attributes,
- instances represent concepts – information about instances is accessible for users and applications through concepts,
- the structure of concept depends on the category the concept belongs to: all concepts are described by attributes and information about their contents or, in the case of services, their tasks. In addition, services are characterised by information about input (necessary for proper operation of applications) and output data,
- metainformation about shared information resources is designed as ontology,
- the ontology has a directed graph structure,
- the structure of the ontology is dynamically modified during a system operation, so it is not necessary to actualise of sharing modules or even to re-design them,
- a syntax of user query language is as simple as possible, so queries may be formulated even by inexperienced users and designing of translators reformulating queries created by users to query languages used in individual sub-systems is non-complicated, it is also easy to design graphic user interface assisting users in the process of queries formulation,
- queries execution is two-stage – the query language enables to choose information resources only partly processed, they must be additionally transformed by users – this feature of the system is a consequence of the assumption that the user query language structure is as simple as possible,
- during the process of queries formulation it is necessary to have an access to the content of the ontology, which may be fulfilled by graphic interface, so the process of information resources choice is intuitive and user friendly,
- some of tasks fulfilled during the integration process are performed in the local layer which means that in sub-systems constituting the integrating system modules performing these tasks have to be designed,
- design and implementation of the system are evolutionary,

- shared modules structures (global and local schemas, localizer) are designed on the basis of XML technology (e.g. RDF, OWL), so it will be possible to link a designed system with other similar solutions,
- communication protocols have to be established for all modules, so as modules structures may be freely modified, because co-operation with other components will take place on the basis of exchanging metadata or information resources in established forms.

5. Conclusion

In this paper the desirable characteristics of systems integrating heterogeneous information resources are identified. Data and information categories are classified and essential features of a system integrating independent repositories are identified. Because some of mentioned characteristics are contradictory, it is necessary to compromise during designing an integrating system and a choice between expectations and possibilities has to be made. A compromise has to be also taken under consideration when a solution is designed together with business partners. As a result of elaborated characteristics, the integrating system is proposed. It is based on the assumptions that the complexity of user query language is minimised. The architecture of the proposed system and tasks fulfilled by its components are discussed. Before designing such a solution, details concerning structures of its components and the rules of their communication have to be elaborated. The methodology of designing such a system has to be established. All matters comprising the integrating process have to be worked out, e.g. the structure of ontology and its components (concepts), the ontology modification rules, methods enabling the identification of concepts and instances representing the same real object or event, shared resources organisation and tasks fulfilled by global and local layers have also to be identified.

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Trust and Asymmetry of Information versus Relationships between Entities in Retail Trade

Grażyna Plichta

1. Introduction

Entities functioning on the contemporary market are dependent in their relationships on the possessed information and trust. As a rule, they set the aim to build appropriate relationships with partners to the transaction, however, the result of these activities depends on numerous factors, including the information possessed. The access to reliable information, obtaining it on partnership terms and without unnecessary impediments, and the ability to exchange significant contents between interested parties is not obvious. When on two sides there are partners who do not have the same position on the market, e.g. a trade company and a customer, we have a situation in which one of the parties taking part in the exchange process has more information than the other one, that is, information asymmetry occurs. Uneven distribution of information important to the entities to the transaction may cause various results. It will definitely not build trust, but it undoubtedly influences the shape of the relationships and the decisions taken by consumers. Such a situation creates premises to analyse the problem of trust from the point of view of factors shaping its level. Due to the fact that trust is a category typical for exchange processes, the problem includes not only the issues of benefits resulting from the presence of trust, but it is also related to costs or even losses for the interested parties, which may be brought about by its low level. We can adopt the thesis that in the situation of information asymmetry trust is a necessary element which influences building relationships between entities in retail trade. The bigger information asymmetry between entities in retail

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trade, the bigger uncertainty and thus the lower level of trust. The lack of trust or its too low level impacts directly consumers' decisions. The assertions formulated above can lead to the conclusion that the lower the trust, the worse perspective as for building relationships between partners to the transaction.

The paper undertakes the problem of shaping relationships between entities in retail trade and attempts to show the role of information asymmetry and trust factor in this process. The deliberations are based on the theoretical assumptions and the analysis of accessible data.

2. The ways of shaping market relationships and building relationships with customers – the outline of the problem

The success of enterprises functioning on the market is an effect of various activities, among others of all these which include the recognition and fulfilment of meta needs of consumers. In retail trade they are related, among others, to acquiring knowledge about consumers, two-direction dialogue between parties to the transaction and cooperation between firms and consumers. They aim to achieve permanent relationships with customers and their long-term loyalty, thus, they are important qualities of relationship marketing.

Defining relationship marketing in an unambiguous, commonly accepted way and the way which would precisely define its essence and scope is not easy. As an independent concept, relationship marketing was introduced by Leonard Berry, who was one of the first researchers to investigate relationships with customers in an in-depth way. He understood relationship marketing as attracting, maintaining and enhancing customer relationships (Berry, 1983, p. 26; Otto, 2001, p. 46). A similar definition was formulated by Grönroos, although in his approach he emphasized a special role of the bond with partners and customers, enriching the relationship between them and the issue of mutual keeping of promises (Grönroos, 1997, p. 327). Kotler understood the phenomenon as building, maintaining and strengthening value-creating strong relationships with the customer and other external partners (Kotler et al., 2002, pp. 531-543). On the other hand, what is important in relationship marketing for Copulsky and Wolf is the creation of databases with information about existing and potential customers. According to Gordon, the essence of this process is the continuous process of searching for and creation of new values for individual customers and joint sharing benefits on partnership terms (Gordon, 200, p. 35). What is important is interactional, direct and multisided character of contracts between sellers and buyers and permanent connections between partners to the transaction (Fonfara, 1999, p. 59). On the other hand, D. Peppers and M. Rogers claimed that it is important to maintain individual contacts with customers because they are the

most important and most valuable asset of the firm. Palmer and Bejou defined maintaining after-sales contacts as crucial in relationship marketing (Pizlo, 2008, pp. 89-98).

The most important aspect on which relationship marketing focuses is creating and maintaining bond with the customer. It concentrates mainly on activities aiming at maintaining already acquired customers, and not on acquiring new ones and concluding so-called one-time transactions. Activities undertaken within that scope aim at the integration and interaction with the customer, broadly understood investing in customers and acquiring information about their individual needs. The most important characteristics of relationship marketing include:

- orientation at an individual customer and focus on retaining them,
- systematic activities to raise the quality of customer service,
- constant monitoring of the process of communication with the customer,
- caring about the quality of the products offered,
- improving communication and technological processes in contacts with customers,
- conducting marketing activities in real time,
- establishing partnership contacts both inside the firm and with customers.

The initiation of the relationship requires the occurrence of the element of trust and this, in turn, is possible when the parties have necessary information. A longer and deeper relationship between parties to the transaction requires knowledge on two sides, gradually complemented, among others thanks to the conclusion of subsequent transactions. Most often, the first transaction results in the occurrence of a relationship based on rational trust (cognition-based trust is another name for it), which is built on the acquired information, some sort of calculation and a considerable risk margin. Repetition of subsequent transactions by customers confirms rational trust and at the same time means that the seller has such qualities as, among others: reliability, dependability, honesty. Those qualities are very important to build the seller-buyer relationship but if the relationships are built only based on rational trust there is a risk that a (dis)loyal customer will have no problem to give up the relationship when the competitors will have a similar offer. Retaining the customer (loyalty) is the creation of trust based on affection which is released by the conviction that the seller has nothing to hide, shares information and cares about the common good (Miszczak, 2016, pp. 101-102).

In relationship marketing the customer is the most important, they are in the centre of interest on each level of communication. The firm which functions according to the idea of relationship marketing should “intuitively sense” customers’ expectations and preferences. In practice, it means the way of conduct which is characterized, among others, by:

- individual approach to the customer,
- giving support in the decision-making process,
- avoiding pushiness and aggressiveness in contact with the customer,
- direct contact and assertiveness in relationships with the customer,
- openness to sublime needs of different categories of customers,
- specific level of service during and after the conclusion of the transaction,
- appreciating the customer and not treating them in a subjective way,
- showing tangible signals to customers (e.g.: loyalty cards),
- keeping constant contact with the customer, two-way communication,
- proper tailoring the product to the customer's needs (customization),
- maintaining constant contact even after the completion of the transaction,
- professional customer service on each stage of the sales process (Grego-Planer, Liczmańska & Petrykowska, 2013, pp. 256-267).

In the process of building permanent relationships with customers and establishing partner relationships with them an important role is played by the personnel whose task is to “bind” the customer with the company for longer. In accordance with the philosophy of relationship marketing it should be remembered that:

- for the company already acquired customers are always “cheaper” than spending money (incurring costs) for the search of new customers,
- in principle, the customer's value should be assessed in time (LTV- customer lifetime value),
- increasing the level of retaining the customer is beneficial for the company's earnings,
- gradual building of relationships should lead to obtaining loyalty,
- in building the relationship each of the parties should leave space for the flexibility of behaviours (Synowiec, 2016, pp. 99-111).

Taking into consideration building relationships we can distinguish in this process five strategic forms of enterprise activities, defined as:

- Core service strategy – designing and conducting activities enabling to maintain permanent bond with customers. The essence of the strategy is to arouse constant interest in new customers by adjusting services to their needs, as well as raising their quality. The strategy includes building long-term relationships being the basis of the services offered.
- Relationship customization – collecting and developing information about consumers' needs. The essence of these activities is, among others, recognition of the specificity, characteristics and requirements of individual consumers. To study consumer needs and customs in addition to classical sources also electronic databases are used.

- Service augmentation – offering additional services which are competitive and distinguish the firm against competition. Considering building customer loyalty also the quality of a product or service is important.
- Relationship pricing – applying marketing strategies emphasizing the necessity to shape prices in such a way that relationship with customers and their loyalty will be long-term.
- Internal marketing – the main axis of relationship marketing, stressing the same significance of the level of satisfaction of the company employee and customers' satisfaction. The essence of this strategy is the manifestation of the level of satisfaction in the company in the quality of the services provided (Berry, 2002, pp. 59-77).

It should be added that more and more often customers become for enterprises an active party of the established relationships. In particular, it concerns representatives of “Y” and “Z” generations who initiate relationships with enterprises by themselves. The phenomenon is called Customer Citizenship Behaviour – CCB.

In the process of building relationships with end customers the 5I concept proposed by Peppers and Rogers and used in relationship marketing is considered, where 5I means:

- identification – meeting the consumer in order to establish a dialogue,
- individualization – adjusting the offer to individual consumer's needs,
- interaction – initiation of the dialogue and understanding for changing needs.
- integration of relationships and knowledge in the organization - coherence and coordination of internal activities,
- integrity of relationships – winning consumer trust to the firm and of the firm to the consumer (Bilińska-Reformat & Dewalska-Opitek, 2018).

Nowadays, owing to the presence of modern communication tools available on the Internet, blogs or Internet forums are interesting ways of building customers' trust and good relationships with them (relationships between the store with customers). Using them shows the company as a modern one and not afraid to conduct a dialogue with consumers, and a specialist in the field (willingly sharing its knowledge). Available IT tools and their functionalities enable fast exchange of information on any topic. In the case of transactions conducted in retail trade it means a situation when consumers, without incurring high costs, can obtain necessary information from other participants of the market and rationally make a decision about a possible transaction.

Building relationships is a process demanding a lot of involvement, patience and gradual improvement. The need to create and shape proper relationships between the participants of broadly understood exchange (of goods, information,

among others) takes place both on the micro-economic and macro-economic level. The occurrence of economically and socially strong bonds which formed thanks to them leads to an increase in mutual trust, and thus to minimising transaction costs.

3. Information asymmetry versus uncertainty between parties to the transaction in retail trade

Information understood as the access to significant data is a desired good on every market, also in trade. In retail trade consumers often make their purchasing decisions conditional on information concerning the object of the transaction, important from their point of view. If the need to purchase a good occurs, for the buyer it is important to have all important information on the subjective transaction. However, the problem lies in the fact that the access to full information is not possible. Most often, a potential buyer obtains only some of the information, that is a scope accepted by the seller that is the entity which usually has a stronger position on the market. The situation when there is a different distribution in the access to information important to entities to the transaction is asymmetry of information. Its occurrence causes negative results to all participants of the market - also to those who have a stronger position on it. Unfortunately, it cannot be eliminated.

The phenomenon of information asymmetry was noticed, among others, by Akkerlof, according to whom its occurrence is very strongly influenced by the lack of buyers' knowledge of important qualities of goods and services. When there is information asymmetry and low transparency of the market so-called adverse selection occurs. The revaluation of the value of goods and services may occur and, as a result, those with the highest quality are eliminated from the market, and so-called the "market for lemons" forms (Akerlof, 1970, pp. 488-500).

Information asymmetry causes uncertainty between parties to the transaction. In the case of the seller uncertainty may result, for example, from the fact of having incomplete information about consumers, their needs and expectations. In the case of consumers uncertainty may be, e.g., an effect of having limited information about the offer, the price, and the quality of the available goods. The need for information does not mean that there is free access to it. Therefore, actions must be taken consisting in acquiring information (screening) and providing information (signalling). As a result, it may happen that a transfer of information (signalling) will be built by the seller and passed to potential customer, which will make the offer of the company be groundlessly perceived better than of competitors. Consequences arising from signalling used by sellers influence the growth of buyers' demand for reliable information. In practice, problems related

to asymmetry of information and hidden intentions of parties concern each party, customers as well. For example, quite often during market research customers give false information about their needs and preferences. We can assume that the system of exchange on the market “looks for” forms decreasing uncertainty (Weibe & Adler, 1995, pp. 61-71).

As it was mentioned above, information asymmetry is mainly influenced by the lack of the identification of qualities of many goods and services before the purchase. A way to reduce it can be, for example, to search for information and so-called experiencing during the use or consumption. However, the result of this type of activities depends on the properties of individual goods or services which can have the character of:

- properties which may be recognized in the process of information search,
- properties recognizable in the process of use or consumption (experiencing),
- properties lying in the area of trust (difficult to recognize before and after the purchase).

The access to desired information about the qualities of goods in the area of buyers' interest means a potential possibility to actually verify it by consumers, therefore, we can distinguish:

- “search qualities” – qualities identified by consumers before the purchase,
- “experience qualities” – qualities identified in the process of use or consumption,
- “credence qualities” – qualities the consumer is not able to assess, even based on visible properties. He must trust the seller and his promises (Corsten, 1998, pp. 73-92).

The mentioned non-symmetry in the customer – enterprise relationships and the resultant deficit of important information causes that the consumer cannot check if a given product has all the qualities it should have. He can only trust that this is the case (Grudzewski et al., 2009, p. 129). It is an example of classical information asymmetry in retail trade. Most often, the consumer has access to such an amount and quality of information that is accepted and beneficial to the seller. The imbalance between the parties to the transaction arises, among others, from the fact that the partner of the consumer (the weaker entity) is the company with its organization, financial, technical, information and other advantage. Due to the aforementioned asymmetry and the lack of certainty that the firm will not use its advantage in an unauthorized way, trust is the factor which may determine purchasers' decision on the market. In spite of non-parametricity in the access to information, parties make a decision about the transaction always when it is beneficial to them. Moreover, they cooperate as long as it is beneficial to them from the point of view of different criteria, e.g. the price - benefit. How-

ever, when a better offer occurs on the market, customers often change the seller. It happens even when the resignation from the cooperation means cost for the customer arising from alternative costs (*ex-ante*), related to the search for a new seller and getting familiar with his offer. In such situations we cannot talk about customers' loyalty and the fact of building specific relationships with them.

Building good, long-term relationship with customers is possible but only when their needs are identified and satisfied and trust is strengthened.

4. Trust versus shaping relationships between entities

In trade relationships those partners are valued who help each other to achieve the goals set and minimise risk. The way to "tame risk and counteract uncertainty" is trust – the basic factor of all transactions and building relationship (Grudzewski et al., 2009, p. 15). Trust is particularly important on the contemporary market on which unpredictable consumers' behaviours occur, which are, among others, the result of fast pace of the development of innovations and virtualization of transactions. The value of trust has not only a positive influence on decisions made by consumers but also reduces time of preparation to the relationship. It is a key to the creation of proper and appropriate interpersonal relationships (Rudzewicz, 2018, p. 56). Trust is not the object of trade although it enables or facilitates trade exchange. It influences the number and the quality of relationships where customers play the role of the trusting and sellers become the entities of trust. It is also perceived through the prism of other benefits, among others the promotion of information exchange, encouragement to participate in transactions and building cooperation networks (Grudzewski et al., 2007, p. 31). Trust is a multidisciplinary term (Sztompka, 2004) which is defined variously, and conceptualisations of trust, competing with each other, reflect various contexts of the analysis of the term (Bugdol, 2010, p. 23). In majority of the definitions there is a statement that it occurs in the conditions of uncertainty and the environment of risk. The synthetic comparison of the definitions of trust can be found in numerous papers, among others by Sztompka (2007, pp. 69-70), Grudzewski et al. (2009, p. 16), Wierzbiński (2009, pp. 26-27), Sankowska (2011, pp. 31-33) and Rudzewicz (2018, pp. 58-59). This notion is closely related to important aspects of this phenomenon, such as readiness to trust the other party and the assessment of its credibility. Trust is a multidimensional notion, and credibility and honesty are often distinguished dimensions, as they influence the creation of permanent relationships between parties to the transaction. In addition to credibility, reputation is also distinguished (Bugdol, 2010, pp. 23-30). Credibility is a crucial factor affecting the permanence of the relationship and a constant element in the stream of marketing based on building permanent relationships

with buyers. An entity which seeks trust of the other party must be characterized by credibility. According to the research conducted by KPMG¹, credibility is very important for building good experiences of customers in Poland. In the era of digitization, when more and more actions related to buying and using products and services are made by means of electronic channels, the basis of credibility for nearly two-thirds of “digital Poles” is the opportunity of having a direct conversation with the customer service employee by the phone or in the company establishment (KPMG, 2017). In the case of a trade company, building credibility can consist in fulfilling all promises made to market partners (e.g. customers). In this way a specific reputation of a reliable company is created, which, among others, cares about the quality of a product, service, communication and cooperation with customers. Reputation is a kind of an investment which enables, among other things, to gain trust and all positive aspects related to it. It should be emphasized that building reputation is long-term and not an easy process. It is built for a long time, consistently meeting expectations of others, even when it seems unbeneficial. However, the costs, sacrifices and efforts incurred may finally pay off because good reputation becomes a valuable asset and generates a “positive return” in the form of an increase in sales (Sztompka, 2007, pp. 172-173). Building credibility and, in consequence, relationships on the B2C market, which are beneficial to both parties, are influenced by activities such as: reliable exchange of information between a trade company and buyers, building contacts between the firm and the customers considering trust, systematic improvement of the quality of service, stability of prices, customer orientation and the manner of passing information which will be clear and transparent for both parties to the transaction.

Trade companies which can build relationships with their customers are able to build an advantage over competitors in the industry. Trust between a weaker party (the customer) and the company means that, in order not to lose this trust, the company should not conduct activities which are discrepant with the customer’s interest. In the socio-economic space one can theoretically function without trust, but it is much more beneficial and easier to function in the environment of trustworthy entities where everybody, regardless their position on the market, can rely on each other. The presence of trust reduces uncertainty and in social life and in market contacts it undoubtedly brings only benefits. We contact or conclude transactions more willingly with an entity we trust. However, findings

¹ Report from the research „*Jak budować pozytywne doświadczenia klientów. Analiza wiodących praktyk zarządzania doświadczeniami klientów na rynku polskim*” [How to build positive experiences of customers. An analysis of leading practices of managing customer experiences on the Polish market]. The research was conducted to the order of KPMG by an external research agency in the first quarter 2017 with CAWI method (Computer-Assisted Web Interview) on a sample of over 5,000 respondents, representative for residents of Poland above 16 years old.

of CBOS research² indicate that Poles are distrustful, invariably since 2002. Only between 2008 and 2010 the level of trust increased, but generally there is lack of inclination to put trust in partners on the market. Objectively, without minimum trust in business contacts it is hard to build any relationships. However, data obtained in 2018 do not give rise to optimism as they indicate that only a little more than one-third of respondents are committed to the principle that trust in business relationships pays off as a rule (34% of respondents). Only a bit higher percentage (37% of respondents) are cautious and claim that putting trust usually ends badly. The synthetic trust index³ built based on the obtained data, that is the index describing a generalized and general attitude in social relationships makes it possible to claim that two-thirds of respondents (68%) declare lack of trust, and one-fourth of respondents (25%) demonstrate the attitude of strong distrust. Only one-fourth of respondents (25%) can be called amiable, approaching others more often with trust than with distrust. A lot of trust towards others can be assigned to only every eleventh respondent (9%). The research findings prove that trust in Poland can be called a “rare good” and the approach characterized by distrust is still common. The highest distrust is characteristic for people with poorest education and with the lowest income per capita. The higher education and income, the lower distrust and more open attitude to others. Inhabitants of bigger cities are more “trustful”, especially of cities above 500 thousand inhabitants (CBOS, 2018).

In spite of some generalized attitude to this phenomenon (the CBOS research cited), it should be emphasized that the presence of trust between parties to the transaction, the customer – the company, is really desirable. It enables to overcome doubts, obstacles, inconveniences, it supports building relationships, and first of all it enables to reduce risk. According to Falkowski and Tyszka, the strive to reduce risk is multi-faceted since, for example, the buyer’s uncertainty concerning the quality of a good, services includes functional risk, and inadequacy of the price, possible hidden costs include financial risk. Moreover, the risk of undesirable side effects occurs, arising from the fear of harmful effect of the product and psychological risk, that is uncertainty related to personal satisfaction from the product (Falkowski & Tyszka, 2001). Activities which build trust between the customer and the company, that is consumer trust, include:

² Announcement from the research “O nieufności i zaufaniu” [“On distrust and trust”]; The research entitled: “Aktualne problemy i wydarzenia” [Current problems and events] (333). The research conducted with Computer Assisted Personal Interview (face-to-face) method on 1-8 February 2018 on a representative random sample of adult citizens of Poland; CBOS, No. 35/2018, pp. 3-4.

³ Synthetic trust index considers properly recoded and aggregated declarations concerning shared beliefs in adopted trustful versus distrustful attitude in social relationships. The index adopts values from -3 (high distrust and carefulness) to +3 (a lot of trust and openness).

- providing assistance in every situation and moment when the customer asks for it (the customer should feel that he can count on free help any time),
- flexibility in service provision and support from the staff,
- fulfilment of promises made,
- taking care about the proper amount of goods (not allowing the occurrence of shortages),
- patience and leniency towards the customer,
- openness to information from the customer about what functions badly in the company (possibility to eliminate mistakes and apply improvements),
- constant development (constant improvement of the offer, for example, not to let competitors turn out better),
- taking care about the workforce satisfaction (positively influences the customer service level),
- offering only good and proven products (Rudzewicz, 2018, p. 62).

Nowadays, a good way to build trust among consumers is omni-channelity, namely the possibility to purchase in a multi-channel way. Depending on their preferences, consumers would have the possibility to obtain information about the product and its prices, as well as sales and service in various channels (traditional and digital ones). However, it should be stressed that building fully omni-channel solutions which would enable consumers smooth passing among channels in the purchasing and service process is a huge challenge to firms.

Building consumer trust is conducted by, among others, the overall attitude of the consumer, a professional attitude of the party to the transaction (the seller), emotional relationship between the consumer and the representative of the party to the transaction, legal and institutional protection of the consumer, specific perspective of the repeatability of the transaction and previous purchasing experience (Sagan & Plichta, 2014, p. 224). Purchasing experience is particularly important to so-called digital Poles (that is, those buying via the Internet) – about 40% of them choose a seller guided by extra-price factors, mainly good experience from previous shopping. Building consumer trust (KPMG, 2017).

According to KPMG research, building consumer trust is one of the greatest challenges on the contemporary market, following expansion and sales increase. It can be a key success factor, but it requires loyalty of the company towards customers, not the opposite. What is important is the quality of the information provided by the seller. It usually leads to increasing the frequency of transactions, and in a longer term it influences the formation of permanent relationship based on trust.

5. Conclusion

Entities functioning on the market depend in their relationships on possessed information and trust. The information resource and trust level are currently treated as the main elements influencing decisions made and shaping relationship between parties. Trust is necessary to minimize the consequences of information asymmetry and build the relationship between the seller and the buyer. We can say that trust supports engagement in common relationships. As an important intangible asset it is a necessary element influencing positive relationships between entities in retail trade. In the conditions of uneven access to reliable information, it particularly supports consumers in taking proper decisions. In a broader context, the presence of this important capital enables minimization of transaction costs. The higher its level, the bigger chance that the relationship between entities (sellers and buyers) will be on the level enabling longer cooperation and taking decisions satisfying each party.

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Absorptive Capacity as an Asset of Virtual Teams

Monika Stelmaszczyk, Joanna Ożga

1. Introduction

Nowadays, the changing technology, increasing competition and globalisation is not only the chance, but also the challenge for many enterprises. Today's companies need to be fast, solve customers' issues quickly, and build new project teams efficiently (Atwater & Carmeli, 2009). In the face of these growing challenges, companies increasingly decide to adopt 'virtual' work environments. In fact, for many organisations, virtual teams have become the essence of their operation in the global market (Gibson et al., 2011). Members of such teams have the necessary expertise to implement specific projects or tasks regardless of their country of origin, cultural background, temporal or spatial limits (Scott, 2015).

A virtual team is one with a clearly defined aim that unites all team members possessing skills necessary for implementation. It is characterised by the lack of one central location. According to Jarvenpaa and Leidner (1999), a virtual team is a temporary, geographically dispersed, culturally diverse, and electronically communicating work group. In this definition, Jarvenpaa and Leidner take into account the unique aspects of cultural diversity, which is essential in understanding the concept of a global virtual team. However, virtual teams can be both global and domestic and cultural diversity is not a mandatory criterion in the definition of virtual teams (Kanawattanachai, 2007). In this paper, we define the virtual team as a temporary work group (Jarvenpaa, 1999), whose members are separated by one or more forms of discontinuity, e.g., geographic or temporal discontinuity (Chudoba et al., 2005). These discontinuities have a direct impact on the behaviour of team members; they determine the team's characteristics and affect internal processes for example by forcing it to use new communication tools (Wilson et al., 2013). Virtuality affects intra-group cohesion and strength, and extra-group network range (Suh et al., 2011) and influences team performance (Chudoba et al., 2005).

There are some empirical studies dealing with the virtual teams (Hertel et al., 2005) but none of them identifies absorptive capacity as a key factor in success of virtual team. As knowledge constitutes one of the crucial resources for organisations and helps firms to improve their performance, we see it as a research gap, which should be closed in this paper.

2. Theoretical framework and propositions

2.1. Absorptive capacity

Notwithstanding numerous scientific analyses of virtual teams, a number of important questions are still to be answered. As virtual teams focus on knowledge-intensive tasks, (Chung & Jackson, 2013), the question about the ability to acquire and exchange the knowledge appears to be crucial. This ability is widely discussed under the term absorptive capacity (Tortoriello, 2015). Existing studies offer limited understanding of the concept of absorptive capacity in virtual teams. As one of the few researchers focusing on this area, Batarseh et al. (2017) included this concept in their research model. They observed that the absorptive capacity of virtual teams is the mediating variable in the relationship between diversity (deep-level and functional-level diversity) and innovation. In the majority of studies, the attention to absorptive capacity is given particularly at the enterprise level (Rafique et al., 2018; Yao & Chang, 2017; Chang et al., 2012; Volberda et al., 2010). Some analyses are also being made of the team-level by studying absorptive capacity's implications for the results of the team achieved (Ali et al., 2018; Lowik et al., 2016; Tan, 2015; Kor & Mesko, 2013). However, in the most studies, these relationships are determined for traditional (mostly offline) work groups. Knowledge about the absorptive capacity of virtual teams and the factors that shape it remains scarce and poorly systematised.

It is also unclear, if the relationship within a virtual team and the relationship to the virtual team leader might influence the absorptive capacity within this team. The dispersed virtual expertise and the ability to combine the experience of different persons to create common knowledge are the factors that build the intellectual power of the team. The role of the virtual team leader is to create a climate of awareness of the knowledge and experience of its members (Jarvenpaa, 2008). In cases where knowledge is identified as a key source of competitive advantage, sharing it (especially to improve the team's absorptive capacity) is essential to meet the company's objectives.

Which factors are determining the absorptive capacity in the virtual team is still a white page in the research. The present study is an attempt to fill the research gaps in this area as well as to contribute to the dynamic capabilities' approach (Eisenhardt & Martin, 2000).

2.2. Influence of leader-member exchange on knowledge sharing

The basis for the concept of LMX is the social exchange theory (Blau, 1964; Gouldner, 1960). LMX is understood as the quality of relationships between supervisors and subordinates (Dienesch & Liden, 1986). It implies that leaders are in special relationships with each of their employees. A high level of LMX indicates that the team leader establishes high quality relationships with most or all team members (Boies & Howell, 2006). Employees who experience high quality LMX relationships tend to feel obliged to reciprocate (Volmer et al., 2012). The high quality of these relationships motivates subordinates to achieve team goals and to help in achieving the leader's objectives. Moreover, its effect on the growth of mutual trust, commitment and work satisfaction has been observed (Ilies et al., 2007).

Recognizing the usefulness of the social exchange perspective in understanding knowledge sharing, scholars have found that leader characteristics are predictors of knowledge sharing (Wang & Noe, 2010). Kim et al. (2017) define the role of leaders as a key factor for knowledge sharing in organizations. Given the powerful position of supervisors, LMX could be a strong factor in promoting knowledge sharing also in virtual teams. Furthermore, scholars indicate that leaders can increase the willingness of employees to share knowledge (Srivastava et al., 2006). The high quality of LMX relationships can also influence knowledge sharing (Kim et al., 2017; Li et al., 2014). Renzl (2008) proves the influence of LMX on knowledge sharing.

Given the above considerations, we assume that LMX will have a direct effect on knowledge sharing in virtual teams. We propose that:

P1: There is a positive relationship between LMX and knowledge sharing.

2.3. Knowledge sharing and absorptive capacity

In order to identify and acquire valuable external knowledge, the team must first recognize the value of that knowledge (Ortiz et al., 2018). This ability is largely determined by the scope of its related prior knowledge (Cohen, 1990). Therefore, it is essential that the virtual team possesses a diversity of internal knowledge resources. At the same time, each team member possess specialised knowledge in various domains (Alsharo et al., 2017). The absorptive capacity, according to Cohen and Levinthal (1990), is the ability to recognise value, assimilate, and apply useful external knowledge. It can also be seen as the problem-solving and learning capability (Kim, 1997). Zahra and George (2002) define the absorptive capacity as the set of strategic organisational routines and processes, identifying four dimensions: 1) the acquisition of general external knowledge; 2) assimilation (i.e., analysis and understanding of information from external

sources); 3) transformation (i.e., combining the existing knowledge with acquired and assimilated knowledge; and 4) exploitation (enabling the expansion of existing competences or creation of new ones based on the use of the external knowledge acquired and transformed). In their view, these dimensions are organisational capabilities that generate mutual growth to produce the absorptive capacity. The absorptive capacity enables creation and implementation of new knowledge necessary to build other organisational capabilities. Each of these definitions emphasises the orientation on external knowledge. For purposes of this study, it is assumed that the absorptive capacity of a virtual team is the ability to acquire, assimilate, transform, and exploit external knowledge.

In order for a virtual team to recognise, understand, and apply new knowledge, it must possess knowledge related to the information it is going to acquire. In other words, the prior (base) knowledge allows for the understanding of new knowledge only if some part of it is closely connected to that new knowledge (Cohen, 1990). A creative use of new knowledge is possible if the base knowledge is diverse, yet linked to the absorbed external knowledge.

Base knowledge, as well as newly acquired knowledge, effects team performance. The effects are increased when employees share information, best practices, observations, experiences, preferences, lessons learned, or feelings (Liao et al., 2007). This means that sharing the base as well as the acquired external knowledge plays an important role in the functioning of virtual teams. The question arises whether sharing the knowledge possessed by the team can directly impact the team's absorptive capacity.

The identification and assimilation of new external knowledge depends on the ability to recognise its value. This evaluation of external knowledge is determined by the scope of prior internal knowledge (Cohen, 1990). It can be assumed that sharing specialised knowledge by members of virtual teams will affect the absorptive capacity of these teams. In view of this, we propose:

P2: There is a positive relationship between knowledge sharing and absorptive capacity.

The knowledge sharing within virtual team encompasses knowledge exchanges with peers, in order to facilitate communal problem solving, idea development, and the creation and implementation of new procedures (Probst et al., 2012; Cummings, 2004). Knowledge tends to be highly personal (Davenport, 1998), and is most often transmitted by means of direct exchange between given individuals (Probst et al., 2012). These virtual team members are far more likely to share knowledge using information and communication technologies rather than face-to-face conversations.

Hence, we propose the research model for this study as in Figure 1.

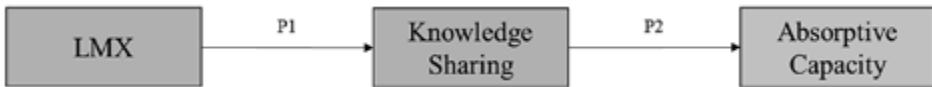


Figure 1. Proposed theoretical model

Source: own work.

3. Conclusion

The literature already defines success factors in virtual teams, such as identity, trust and communication (Webster & Wong, 2008). Our conceptual study adds to the framework the importance of absorptive capacity in terms to enable the efficacy and general ability to innovate in virtual teams.

Prior studies have attempted to explain the factors influencing the absorptive capacity in traditional (non-virtual) teams. Although the virtual work setting emerges, there are not enough studies explaining the conditions for effective knowledge sharing and absorptive capacity in the dispersed teams. The lack of face-to-face communication changes the way the virtual team members share information. This could also has an implication on the role of leaders and their leadership style. We assume that the good quality of relationships between the distance leader and the virtual team will boost knowledge sharing and consequently the absorptive capacity of that team.

The future research on relationship between the knowledge sharing and the absorptive capacity should concentrate more on the social relations between the members of the virtual team, as the social exchange theory suggests (Blau, 1964).

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Eco-innovative Energy Management Systems: Practical Advices for the Enterprises Based on the Empirical Survey and Simulation Approach*

Anna Kowalska-Pyzalska

1. Introduction

Nowadays, energy markets, which are very complex in technical, economic and legal terms, experience fundamental changes related to the obligatory increase of renewable energy sources in the energy-mix, raise of energy efficiency in generation, transmission and consumption, and reduction of greenhouse gas emissions (see, e.g. Climate Policy 3x20, Winter Package). To fulfill ambitious goals and to increase the competitiveness and innovativeness of energy sector, eco-innovative energy management system should be implemented by the energy sellers and suppliers. Such a system includes, among others: smart metering (SM) that allows remote management and control over the delivery and energy consumption, together with the access to smart metering information systems (SMP), as well as, demand side management and demand response tools (DSM/DR) (Każmierczyk-Piwko et al., 2017).

At the same time, the energy market is characterized by the consumers' lack of interest and indifference towards the products and services offered by the firms (Kowalska-Pyzalska, 2018). It is due to the fact that electricity is an abstract good, treated by many of the customers as a quasi-public good (Hargreeaves et al., 2013). Moreover the consumers are often not aware of the possibilities they might have in the energy market. Energy sellers and suppliers often do not take enough effort to encourage the interest and engagement of the customers and to make their offer more attractive to catch the consumers' attention. Finally, within the

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energy market a so called intention-behaviour gap is observed, which means that consumers' positive opinions towards certain products or services do not transfer into a decision to purchase them (Gadenne et al., 2013; Kowalska-Pyzalska, 2018).

That is why enterprises in the energy market are now focused on the introduction of such innovative products, services and business models, that will meet the interest and recognition of the customers (Kaźmierczyk-Piwko et al., 2017; Gerpott & Paukert, 2013), which is quite a challenge. From the point of view of enterprises, marketing of innovative products and services allows to keep up with changes in the environment, and even to overtake and create them. It is also an important tool for building a competitive advantage and the company's image on the outside (Karpińska et al., 2017).

The aim of this paper is to provide the enterprises with some practical hints how to overcome the consumers' reluctance and indifference and how to create innovative energy services and products, being a part of eco-innovative energy management systems (EMS), to satisfy consumers' needs. Among various innovative products and services currently offered to the customers, this paper will discuss mainly smart metering information systems (SMP) which allow consumers to monitor and manage their energy consumption.

The structure of the paper is as follows. In Section 2 the concept of the energy management system is introduced. Section 3 presents and discusses the findings from up-to-date literature including both: empirical and simulation analysis of consumers' acceptance and engagement of SM and SMP. Finally, Section 4 provides some recommendations for the enterprises how to raise consumers' interest and engagement in the energy market.

2. The role of smart metering in the energy market

The unbelievable development of information and communication technology has led to introduction of the concept of smart grids (SG) that may revolutionize the exchange of information between energy producers, market operators and customers. To implement the SG approach, the roll-out of electricity smart meters (SM) among consumers is needed. SM provides feedback about energy consumption not only to the energy suppliers, but also by means of SM information systems (SM platforms, SMP) to the customers. Apart from SM and SMP, innovative EMS includes enabling technologies, such as smart plugs, smart devices and applications, in-home displays, web-based consumers portals for easier and/or automated monitoring and management of end users' energy consumption (Ellabban & Abu-Rub, 2016; Faruqui & Sergici, 2010).

Further, EMS includes also demand side management and demand response (DSM/DR) tools that range from education (e.g. marketing interventions

meant to engage consumers in energy saving) through time-based programs (e.g. dynamic electricity tariffs, for which the price of electricity varies depending on its price on the wholesale market or in specific, predetermined time intervals) and incentive-based demand response programs mainly offered to enterprises, at which they may decide on participation in power reduction programs on demand of the transmission system operator (Hu et al., 2015; Kowalska-Pyzalska & Byrka, 2019).

It is easy to notice that innovative EMS gives consumers a great chance to benefit from a set of technologies which allow them to monitor and control their energy consumption (Kahma & Matschoss, 2017; Ellabban & Abu-Rub, 2016). Due to national roll-out of SM in most of the European countries, EU Member States are obliged to implement SM to 80% of consumers (Directive 2009/72/EC). One of the main aims of this roll-out is to enable active participation of consumers in the energy market by adjusting their energy demand to the current electricity prices (Chawla & Kowalska-Pyzalska, 2019). As part of the ongoing exchange of traditional energy meters for SM, most energy providers allow consumers to access data on current energy consumption, and to compare consumption with other households with a similar consumption profile or average consumption in a given month or a year. The data is made available to consumers through applications on the phone, tablet or via the website. Raising awareness about consumers' energy consumption may also lead to financial benefits, due to energy conservation and lower electricity bills.

From a point of view of the enterprises in the energy market, such as energy sellers and suppliers, SM can make balancing between demand and supply of electricity much easier due to the access to the real-time information (Faruqui & Serguci, 2010). SM can also reduce the cost of customer services through much more accurate billing and avoiding site visits, e.g. meter readings (Chawla & Kowalska-Pyzalska, 2019).

3. Consumer engagement and acceptance of energy management system

According to the European Commission, in order to implement climate policy objectives, it is necessary to involve and accept proposed solutions by final recipients, that is consumers (Winter Package). For this purpose, empirical and simulation studies are conducted around the world aimed at proposing various innovative products, services and business models as well as appropriate strategies for their implementation, so that they will meet the interest and recognition of consumers (see e.g. Gerpott & Paukert, 2013; Gans et al., 2013; Rixen & Weigand, 2014; Zhang & Nutall, 2011). Some pilot programs are also launched to verify the effectiveness of the proposed solutions (Faruqui & Serguci, 2010; Hu et al., 2015).

Also, within the modern, current trends in innovation management, such as open innovation or user-driven innovation approach, the customer is treated as an essential element of any innovation – from the moment a new product or service concept is created, till its implementation into the market (Karpińska et al., 2015; Kubiński, 2017). That is why it is crucial to explore consumers’ socio-economic factors responsible for their willingness to accept and pay for a given good. Such knowledge may help to properly target innovation in order to increase its market attractiveness and thus positively influence the purchasing behaviour of consumers.

3.1. Consumers in the energy market

Although the EMS, including SM, SMP and other enabling technologies, may offer many advantages to the customers, the recently conducted surveys have shown low interest and hesitance to accept novelties in the energy market (Krishnamutri et al., 2012; Kahma & Mastchoss, 2017). It has been also shown that most of the consumers do not have enough knowledge about the energy market. But, at the same time consumers claim to be willing to save energy by consuming less (Ellaban & Abu-Rubi, 2016). Some studies have proved that only those consumers, who were already involved or at least interested in energy savings, were willing to learn about their energy consumption by means of SMP. Generally, the majority of consumers stay indifferent towards energy and do not pay much attention to monitoring their energy usage (Kowalska-Pyzalska & Byrka, 2019). The most common reasons of the lack of consumers’ interest towards SM, SMP and other elements of EMS are summarized in the Figure 1.

Barriers of consumers’ acceptance of energy management systems			
bounded rationality of consumers	confusion of choice & lack of advice	lack of knowledge & understanding	privacy & data security concerns
negative perceptions & negative word of mouth	disbelief in climate change	lack of trust	discomfort of usage / unwillingness to change habits

Figure 1. Barriers of consumers’ acceptance of EMS
 Source: own work (see Kowalska-Pyzalska, 2018 for review).

On the other side, among the most important incentives that may encourage consumers’ acceptance and interest, the literature mentions the following: financial savings and benefits, governmental subsidies and financial support, social influence, satisfaction from being pro-environmental, personal values, beliefs and attitudes towards environment protection (Kowalska-Pyzalska, 2018; Good et al., 2017). In particular, consumers engage in energy saving, counting on lower elec-

tricity bills. The second important premise that encourages consumers to accept innovation is the social impact. What neighbours and friends do turns out to have a huge impact on consumers' behaviour and decisions (Nolan et al., 2008). Ecological motivations as well as some psychological factors may also have a positive impact. Undoubtedly, financial support is also very important, e.g. investment subsidies. Other factors that may be significant include: perceived difficulty in changing the supplier of energy or differences between the offers of different suppliers and producers, the presence of substitutes on the market, access to information, price level, distribution channels, service and promotion (Kowalska-Pyzalska, 2018).

To illustrate better the way how consumers' acceptance and engagement towards SM and SMP is studied, three surveys will be presented: first an empirical survey regarding the consumers' determinants of acceptance to use SMP offered together with a modern SM (Kowalska-Pyzalska & Byrka, 2019), and then two simulation studies using an agent-based model (ABM) to verify which strategies are the most effective ones to encourage consumers to start using the SMP (Weron et al., 2018; Kowalska-Pyzalska, 2016).

3.2. Empirical survey

To investigate socio-economic and psychological factors influencing consumers' tendency to monitor energy consumption in general (also using traditional methods) and with the help of SMP, the Bamberg's self-regulated behavioural stage model (SSCB) (Bamberg, 2013), which assumes that acceptance of innovation is a stage process, has been implemented (Kowalska-Pyzalska & Byrka, 2019).

The survey was conducted using the CATI method on the sample of N=500 adult Wrocław residents, because in this city in the years 2015-2017 the company Tauron Dystrybucja S.A. carried out a comprehensive exchange of energy meters among households, thus allowing them access to data on energy consumption through the free e-licznik (SMP) application. In order to examine the level of knowledge and interest of consumers of this application, following data were analysed: demographics, pro-ecological commitment, knowledge of the energy market, previous experience and behaviours aimed at monitoring energy consumption, stages of readiness for SMP use (according to SSCB model) and attitudes and behaviour towards monitoring energy consumption. The following four stages were distinguished: the F1 pre-decision stage: "I am not interested whether I have a smart meter installed and I never use a SMP. I do not intend to change my behaviour"; (F2) pre-actional stage: "I would like to monitor energy consumption more often, but I am not sure how to achieve this goal"; (F3) actional stage: "My goal is to organize my time to monitor energy consumption, e.g. through SMP. I am going to check if I have a smart meter installed and ac-

cess to SMP”; (F4) post-actional: “I often monitor the energy consumption in my household through SMP. I intend to continue this action in the coming months and even intensify it”. A 5-point Likert scale was used for each phase to determine the extent to which the respondent agreed with the statement.

It was found that as many as 25% of respondents do not monitor energy consumption at all, and over 40% use traditional methods based on tracking electricity bills. Only 4% of respondents use innovative solutions. The initial correlation analysis as well as the estimation of factors affecting the individual 4 stages of readiness for accepting SMP using the logit model showed that the F1 stage is negatively related to pro-ecological attitudes and perceived ease of monitoring implementation (perceived behavioural control). It means that the more pro-ecological a person is and does not see any difficulty in implementing regular energy consumption monitoring, the less will be positively related to the F1 stage. A positive relation between a respondent’s perceived ability to monitor energy consumption with stages F2-F4 was revealed. Knowledge of the energy market has proved to be important only in the case of stage F3, in which the consumer expresses the will to obtain additional information allowing him to improve the process of monitoring energy consumption.

In all phases, it was shown that the perceived possibility of monitoring energy consumption (both in the traditional way and with the help of SMP) is crucial when consumers engage in this type of behaviour. This means that for the suppliers of SMP and other intelligent solutions on the energy market (e.g. smart plugs), it is necessary to show consumers the simplicity and advantages of those products when monitoring energy consumption.

The results obtained show that in order to successfully introduce SMP to the market, companies should first of all ensure the level of consumer awareness about the product itself and the benefits of its use (marketing innovation). The willingness to monitor energy consumption is also correlated with pro-ecological attitudes, knowledge of the energy market and a sense of control, which should be used by enterprises in the design of the innovations themselves as well as marketing strategies accompanying their implementation.

3.3. Agent-based modelling of consumers’ adoption

Agent-based modelling (ABM) allows to link relations and behavioural patterns between individual market participants and check the effect of introducing additional incentives such as: subsidies, education and training, advertising, or social impact, on the spread of the analysed products and services on the market (Kiesling et al., 2012).

Based on the ABM proposed in (Maciejowska et al., 2016) the diffusion of SMP was investigated. The aim of this study was to show what internal and

external factors strengthen the diffusion of SMP among customers. Using the marginal price mechanism, it was shown how an individual assessment of the difficulty of receiving SMP combined with positive or negative social impact and advertising can affect the spread of SMP on the market. Since the diffusion of SMP and other technologies associated with SM is in the initial phase, and the level of consumer interest is low, it was important to conduct analysis from the point of view of suppliers of these services. The model was calibrated on the basis of the information collected from the pilot programs and literature review (Kowalska-Pyzalska, 2016).

The analysis of the results showed that SMP suppliers should be aware of the impact of word of mouth on the demand reported by consumers: both positive and negative. Adaptive difficulties perceived by consumers should also be taken into account (e.g. reduced comfort or the need to change habits). In an attempt to reduce the perceived difficulty of adopting a given innovation, producers should encourage consumers to use a free trial of a given device or to use a given service within a certain period of time. They can also offer automatization of energy consumption dependent on the market price, so as to reduce the need for price control by consumers. The educational campaign and the dissemination of positive information about SMP in the mass-, and social media may also help (Kowalska-Pyzalska, 2016).

Diffusion of SMP was also the subject of the study presented in the paper (Weron et al., 2018). When building an ABM, it was recognized that the condition for successful SMP diffusion is first of all awareness of its existence. This, in turn, is mainly influenced by: advertising, social impact, education and training. In addition, a certain level of skills related to the usage of an internet platform or a telephone application is required to use SMP. The ABM uses elements of the SSCB model, which was already mentioned in the discussion of the work (Kowalska-Pyzalska & Byrka, 2019) and the impact of training and educational campaigns on: (1) the transition from the pre-decision phase to the action phase and (2) the effective dissemination of innovative SMP tools.

The obtained results give valuable tips for SMP providers. In particular, they indicate that providers of these services, wishing to attract consumers to them, should rather apply training and educational programs tailored to individual groups of consumers, rather than general education and marketing campaigns. It has also been shown that the manipulation of the time that the client needs to make a decision (e.g. by means of promotion in a given time interval) affects the rate of diffusion. It is also important that companies undertake actions aimed at maintaining by customers the appropriate level of knowledge and skills acquired during training, for example by reminding them about SMP by means of text messages, e-mails or information brochures.

4. Conclusion

From the point of view of energy sellers and suppliers, marketing of EMS will help them realize the goals of energy policy introduced by the international regulations. It is also an important tool for building a competitive advantage and the company's image on the outside. From the consumer's point of view, innovations in the energy market can contribute to the growth of social well-being by improving the functioning of the power system, improving the security and reliability of energy supply, increasing technical, economic and environmental efficiency. Introducing innovative products and services on the energy market is therefore a driving force for the development of both enterprises and the entire economy.

The enterprises and suppliers of SMP and other intelligent solutions on the energy market (such as for example smart plugs), must show consumers the simplicity and advantages of those products when monitoring energy consumption. Enterprises should ensure the level of consumer awareness about the product itself and the benefits of its use (marketing innovation). The willingness to monitor energy consumption is also correlated with pro-ecological attitudes, knowledge of the energy market and a sense of control, which should be used by enterprises in the design of the innovations themselves as well as marketing strategies accompanying their implementation.

It is also recognized that awareness of SMP is mainly influenced by: advertising, social influence, education and training. In addition, a certain level of skills related to the usage of an internet platform or a telephone application is required to use SMP. Hence, to attract consumers' attention and interest, enterprises providing these services should apply training and educational programs tailored to individual segments of consumers, rather than general education and marketing campaigns, which have occurred to be less effective in diffusion of SMP. It has been also shown that enterprises should undertake some marketing interventions to maintain an appropriate level of knowledge and skills acquired during training, for example by reminding consumers about SMP by means of text messages, e-mails or information brochures.

According to the latest models of innovations in enterprises, without the acceptance or interest of the consumer in the product or service offered, it is not possible to effectively market it and thus generate revenues and profits of the company. In the case of the energy market, innovations play an additional role – they can contribute to increasing energy, economic and ecological efficiency, thereby improving the level of socio-economic development. Hence, the results of the presented research can be a valuable hint for companies and organizations in-

volved in the implementation of EMS. Knowing how the opinions and decisions of customers depend on is extremely important for the entrepreneur, because it allows to develop well the product or service features and marketing strategy. There is no doubt that consumers' needs evolve under the influence of a number of factors, including those related to economic development, cultural changes and globalization. The company, as a result of the analysis of these changes, gains the chance to create products more adapted to the needs of consumers.

4.1. Recommendations for the enterprises

Based on provided analysis, the following recommendations can be proposed for the enterprises when implementing innovations in the energy market aimed at consumers:

- As acceptance of both innovative products and processes is associated with risk and uncertainty, it is necessary on the one hand to increase the consumer's conviction that an innovation can bring more benefits than costs, and on the other, raise consumer awareness about a given product through marketing innovations.
- Depending on the strategic objectives regarding price level and share in the energy market, companies should strive to weaken or strengthen social impacts between market participants. The social impact can be effectively used as an element of marketing strategy when implementing innovations through, for example, the introduction of competition between market participants.
- To increase the level of consumer acceptance and interest in energy innovations, and thus to reduce the gap between positive opinions about these innovations and the decisions to adopt, the following actions should be taken:
 - offering consumers trial contracts and participation in pilot programs, which will raise awareness and knowledge about a given innovation, reduce the perceived difficulty of adoption and facilitate the decision-making process,
 - organizing training and educational programs tailored to individual customer groups that are more effective than general information campaigns and to ensure that customers do not forget their knowledge,
 - involving consumers in the process of creating innovations. To make this possible, it is necessary to change the thinking of enterprises about consumers. Consumers should be treated as the resource and potential of every organization, which is still not practiced everywhere in relation to energy market enterprises.

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Part III

CHALLENGES

FOR THE THEORY AND PRACTICE

OF ORGANIZATIONAL MANAGEMENT

Competitiveness – Systemic Approach*

Iwona Szczepaniak

1. Introduction

A systemic approach to studies on the competitiveness has been proposed for the first time by the economists from the German Development Institute – Esser et al. (1996) Analysis of the international situation and of the enterprises' functioning in international markets in the context of rapid technological and organisational changes made the authors of this approach believe that of key importance for building the systemic competitiveness of economies are actions taken at all levels of socio-political and economic life in the state. Competitiveness is not a phenomenon which occurs automatically, as e.g. an effect of changes in the macroeconomic environment only or an effect of entrepreneurship at the micro-economic level. It is rather an effect of complex and dynamic interactions between the government, enterprises, intermediary bodies and organisational capacity of the society (Kosior, 2017, pp. 11-12).

Competitiveness can be understood and assessed from various perspectives and using various approaches. In this article, attention will be focused on the systemic approach to competitiveness which allows, on the one hand, to make a relatively broad and cross-cutting assessment of this phenomenon and, on the other, to analyse various factors affecting the competitive capacity of the national economy, its sectors and enterprises.

The structure of the article is as follows: its first part presents various models of the systemic competitiveness, the authors of which decomposed the concept of competitiveness into interconnected components; the second part analyses factors influencing the competitiveness from a systemic perspective and organised at the levels: meta, macro, meso and micro.

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2. Components of the system of competitiveness

Competitiveness is an extremely complex and multidimensional phenomenon. This results from the fact that this category is linked to many scientific theories and concepts. In addition, as pointed out by Gorynia (2002, pp. 48-60), competitiveness is a theoretical and abstract concept. This means that it is not directly linked to a specific context and there are no explicit referents, i.e., objects, persons or phenomena to which this term refers. The multidimensionality and specific nature of the concept of competitiveness makes it difficult to develop a uniform and generally accepted definition and, consequently, it is frequently attempted to decompose this term into other less general concepts. In the literature of the subject, we can find various models that treat competitiveness as a specific system encompassing specified subsystems, among which there are strong cause-and-effect links.

One of the first models that included a systemic approach to the competitiveness of countries, industries, enterprises and commodities was the model presented in the 80s by Buckley et al. (1988, pp. 175-200). In the presented 3-P concept, the authors identified three subsystems regarding various stages of the competitiveness process, i.e.: *performance*, *potential* and *process* (Fig. 1). The *potential* describes a contribution to the process of competing, *performance* – an outcome of competing, in other words, the competitive position while the *process* – actions which allow to transform the *potential* into *performance*. Various kinds of feedback occur between the individual categories. The *potential* determines the *process* i.e. the way of managing competitiveness and leads to achieving *performance* i.e. specific outcomes of competing. The *process*, i.e. the way of managing competitiveness affects the size of the *potential* and *performance*. *Performance*, in turn, determines the size and quality of the *potential* and affects the *process* i.e. the way of managing competitiveness. In this sense, competitiveness should be treated dynamically as the neverending process of competing (Buckley et al., 1988, pp. 175-200). The authors of the model highlight a need for a holistic approach to analysis of competitiveness. Assessing *performance* (competitive position) only is not conducive to gaining knowledge about the sustainability of competitive advantages. Focusing on the (competitive) *potential* only does not provide information about the level of using this potential and the competitive results obtained. Interest only in the *process*, i.e. way of managing competitiveness, is insufficient due to the absence of reference to the effects of actions aimed at transforming the *potential* into *performance*.

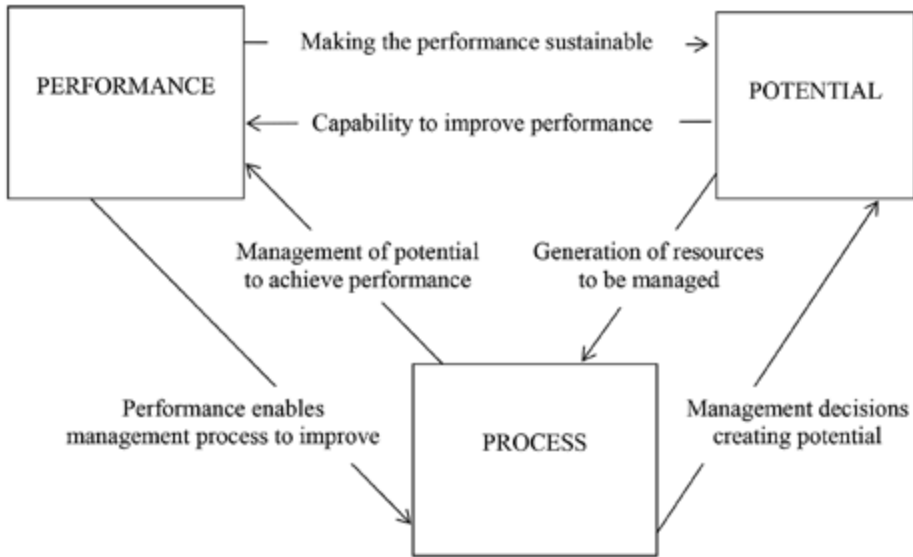


Figure 1. The interrelationship between measures of competitiveness

Source: (Buckley et al., 1988, p. 178).

Referring to the aforementioned model, Gorynia (2009, pp. 48-66). suggested to decompose the concept of competitiveness into the following three dimensions:

- Potential competitiveness (competitive capacity, competitive potential, competitiveness potential),
- Competitive strategy (competing instruments),
- Implemented i.e. *ex-post* competitiveness (competitive position).

He presented a detailed description of the individual components from the perspective of a single enterprise. In these terms, the competitive potential can be considered in a narrow and broad sense. In a narrower perspective, it constitutes all resources used or available for use by the enterprise. This applies to primary, secondary, and consequential resources. In broader terms, the competitive potential also encompasses corporate culture, corporate organisational structure, strategic vision and behavior specific to the enterprise (strategy development process). The competitive position has been defined as a specific result of the process of competing. As regards the enterprise, it presents the result of evaluating an offer by buyers. The competitive position is a result of having applied a specific competitive strategy (a set of competing instruments) towards the competitive potential (a set of resources and competences). The competing strategy can be understood as an answer to questions concerning the areas in which the enterprise is to compete (markets and segments), products it is to offer and ways of achieving the sustainable competitive advantage in specific markets (Gorynia, 2007, p. 34). Gorynia (2009, p. 63) also stressed that subjects located at a certain level of

economic analysis can be assessed against a background of their competitors in terms of each of these three competitiveness components, i.e. potential, strategy and competitive position. As a result of this assessment, a competitive difference can be identified. The positive difference means a competitive advantage and the negative difference – a competitive gap.

An important conceptual approach has been proposed by Stankiewicz (2005, pp. 86-91) who referred his model to the competitiveness of enterprises, and made the following subsystems the components of the competitiveness system:

- Competitive potential – all tangible and intangible assets of the enterprise which are necessary for this enterprise to be able to function in the market arena of competition,
- Competitive advantage – effect of applying the competitiveness potential in a way which enables the efficient generating of an attractive market offer and effective competing instruments,
- Competing instruments – measures deliberately created by the enterprise to acquire customers for a presented or proposed (future) offer,
- Competitive position – result of competing in a given sector, achieved by the enterprise and considered against a background of the results achieved by competitors.

The author indicates that the individual components of the system are subject to the impacts of the environment and he classifies this environment as general and competitive (Stankiewicz, 2005, pp. 86-91). The general environment is of macro-nature and applies to, *inter alia*, the socio-political system of the state, the law, the policy of the government and international institutions, regional and international agreements, political situation, demographic and cultural conditions, ecology requirements, natural resources and knowledge. The competitive environment is identified with 5 forces of Porter, which are: competitors, opportunities for new competitors to enter the sector, suppliers, buyers and substitution products. Between the components of the system, there are cause-and-effect links. According to this model, potential is a source of competitive advantage, by determining its type, size and sustainability. This advantage, in turn, gives a basis for preparing an offer and using specific competing instruments which lead to achieving a given competitive position. Further maintenance of a competitive position requires a continuous repetition of this cycle.

A similar mechanism of creating systemic competitiveness is applied by many other economists in their work. A similar concept to that presented by Stankiewicz has been proposed by, *inter alia*, Szczepaniak by decomposing the concept of competitiveness into: competitive potential, competition strategy, competing instruments and competitive position (Fig. 2). The author also divided each of these subsystems into a possessed (previously built) component and built com-

ponent. The individual elements of the competitiveness system apply to its various areas and show strong interconnections. Most generally, it can be concluded that the competitive potential of an enterprise determines the application of a specific competition strategy which gives rise to selecting specific competing instruments, and these, in turn, allow to achieve a specific competitive position. In fact, the relationships between the four elements of the „competitiveness” system are, however, multidirectional and much more complex. Decisions taken regarding one subsystem shall affect functioning of other subsystems. The competitive position – as is clear from the basic dependence – is the result of competition, but at the same time it is the basis for competing at the level resulting precisely from the position. Setting the goal of achieving a specific competitive position requires in turn formulation of competition strategies, selection of effective instruments for competing, and detailed analysis of the competitive potential to be made in advance. However, the possessed potential may prove insufficient and only its development by new resources and competences (i.e. building a new competitive potential) will allow to implement a specific competition strategy and create competing instruments and, as a consequence, will allow to achieve a planned competitive position. Of importance is also to maintain the appropriate quality of cooperation with the external environment, which, on the one hand, affects the enterprise and, on the other, changes under its influence (Szczepaniak, 2014, pp. 11-27).



Figure 2. „Competitiveness” system and cause-and-effect links among its components

Source: (Szczepaniak, 2014, p. 17).

Those and other relations among the individual components of the “competitiveness” system are a reason for which management of competitiveness is nothing more than a continuous impact, i.e. planning, building, using and achieving, with regard to four subsystems: competitive potential, competition strategy, competing instruments and competitive position, which only collectively determine the competitiveness of sectors and of entities forming these sectors (Szczepaniak, 2014, pp. 16-18).

The mechanism of creating systemic competitiveness is also applied by Romanowska (2009, p. 203) in her studies. When compared to the model by Stankiewicz, the author's concept does not include competing instruments. In turn, it includes the competition area and the competitive strategy. The competition area has been defined as the scope of the market in which the enterprise uses its competitive advantage. On the other hand, the competitive strategy is defined as a way of achieving the chosen competitive advantage so as to achieve the planned competitive position. The model assumes the occurrence of one-way relations among the individual components.

Skawińska (2002, p. 83) developed the concept by Stankiewicz, by including in the model many additional indicators describing the individual components of the system. In considering competitiveness at the enterprise level, as the ways of building sources of competitive advantage she identified, *inter alia*, restructuring, technological progress, innovation. In the context of competitive advantage these were, *inter alia*, material and financial potential, quality of processes, logistics, and when it comes to competing instruments – these indicators were, *inter alia*, quality and price of products, payment terms, or company's reputation. The competition item has been described by: bargaining power of customers, position of competitors, credit and fiscal policies etc.

Another interesting concept in the context of considering competitiveness as a system is the concept proposed by Flak & Głód (2012, p. 57), which is used in the studies carried out under the Company Competitiveness Barometer project. The authors presented an integrated company competitiveness model, including five components: competitive potential, competition strategy, competitive advantage, competitive position and competition platform. The competitive potential, as in the case of other models, has been defined as resources that the enterprise possesses or should possess in order to be able to use them in building, maintaining and strengthening competitiveness. The strategy has been identified as an adopted action programme aimed at achieving a competitive advantage in relation to entities of the competitive environment which is used to implement basic objectives of the enterprise. The competitive advantage is the enterprise's ability to deliver tangible and intangible assets to the buyer through the market. In turn, the competitive position are synthetic market and economic results of the company. The competition platform is a set of characteristics of the macro- and microenvironment in which the enterprise of the given sector is functioning (Flak & Głód, 2012, p. 218). Particular attention should be given to the presented relations among the individual components of the model. The authors assumed that the potential affects the competitive advantage and this advantage affects the competitive position in the short term. In addition, they expressly stressed the existence of feedback between the competitive position and the competitive po-

tential, with the impact of the competitive position on the potential having been defined as long-term. All components of the enterprise's competitiveness are also affected by the competition platform. On the other hand, the further environment has an identical impact on all enterprises in the sector, while the closer environment has a various impact on individual enterprise in the sector and this impact is short-term.

In considering the decomposition and systemic approach to competitiveness, attention should also be paid to the terminology proposed by Bieńkowski, who, when analysing the competitiveness of the American economy during the presidency of R. Reagan, noted that it could be identified in terms of its competitive capacity and competitive position. The author defined the competitive position as a level of economic development achieved by the given state, which is reflected both in a level of national income and in a level of efficiency of using manufacturing factors as well as foreign trade position. In turn, the competitive capacity includes all that determines competitive opportunities in foreign markets and achieving a certain competitive position by the given economy. It can be assessed based on a number of factors describing the structure and use of production resources, socio-economic system, economic policy of the government and international economic environment (Bieńkowski, 1995, p. 32). The approach to the competitiveness of the economy proposed by the author can be applied both to enterprises and sectors. A common feature of the competitive capacity at various economic levels is its long-term nature. It can be considered that an entity has a competitive capacity if it can face the competition in the long term. The competitive position, regardless of the level of analysis, refers mainly to the acquisition of market shares.

An overview of views on the systemic competitiveness allows to notice certain differences and similarities. The models present in the literature of the subject significantly represent and explain the links among the key concepts related to the competitiveness category. We can find in them a direct reference to the factor-based and result-based competitiveness. The factor-based competitiveness, also known as sources of competitiveness, competitive potential or competitive capacity, determines the competitiveness practicable in the future. In contrast, the result-based competitiveness, usually defined as the competitive position, is shaped by the factor-based competitiveness and relates to the achieved, actual competitiveness (Gorynia, 2002, pp. 68-69). Thus, both approaches point to different but complementary aspects of competitiveness. Taking both approaches into account enables relatively comprehensive and extensive analysis of competitiveness of a given economic entity.

Some differences in the presented models relate to the nomenclature of individual components of competitiveness, ways of coming from inputs to outputs

as well as nature of their interrelations. Some authors point to one-way relations, treating the competitive position as a result of competing. Others assume that the competitive position is also a starting point for determining the factor-based competitiveness (two-way relations).

Summing up this part of the considerations, it should be stressed that due to the complexity and rather theoretical nature of the category of competitiveness, its decomposition into individual components should be a starting point for measuring and assessing the competitiveness of enterprises, sectors or economies. The systemic approach to competitiveness may therefore be applied at all levels of economic analysis. However, taking into account the differences among the individual models, they should be adapted in a well-thought manner, corresponding to the needs.

3. Main factors affecting competitiveness from the systemic perspective

In order to better understand the systemic approach to competitiveness and prospects for its development, it is advisable to include various causal factors which can be located at four levels: meta, macro, meso and micro (Fig. 3). Simultaneously, in the light of accelerated processes of globalisation and economic integration, it is necessary to include changes in the international environment which not only affect the general conditions of competition but also determined the importance of the individual factors located at the above-mentioned four levels of systemic competitiveness. The objective of actions in such a complex international and national environment should be to transform comparative advantages into competitive advantages based on actions leading to the increased productivity of production factors. The productivity is very often used in economic analyses as one of the most important indicators of competitiveness. Also in systemic terms, the increases or decreased competitiveness is related to the increased or decreased productivity, which is mostly measured by GDP *per capita*, labour productivity and multi-factor productivity. The authors of the systemic approach (Esser et al., 1996; Messner, 2013; Meyer-Stamer, 2008) presented the main factors at each identified level, which can be related to the increased or decreased productivity, and therefore, with changes in competitiveness.

The first level of key importance to competitiveness is the meta level. The conditions at this level include socio-cultural factors as well as standards and values that govern the fundamental societal choices and affect the system of political and economic organisation in a given state. These factors shape the areas fundamental to the competitiveness of the economy, its sectors and enterprises, namely: approach to entrepreneurship, level of social capital, capability of cooperating and mutual learning, willingness to share knowledge, openness to change and innova-

tion (Fig. 4). The social and political system shaped by these factors can be either open and competition-oriented or closed and geared towards protectionism in international economic relations. The international competitiveness appears only in those societies whose policy for improving competitiveness is based on a lasting consensus and jointly developed and customised strategies (Esser et al., 1996; Messner, 2013; Meyer-Stamer, 2008).

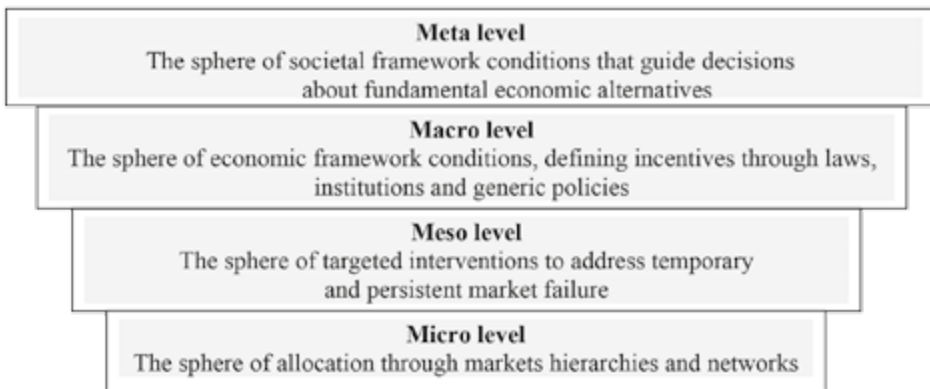


Figure 3. The four levels of systemic competitiveness

Source: (Meyer-Stamer, 2018).

Furthermore, competitiveness is affected by the macro-level factors i.e. macroeconomic, political and legal conditions. Among the most important policies at this level we should mention the budgetary, fiscal, monetary, currency, trade and competition protection policy. What is of key importance to maintaining and growth of the competitiveness of the economy, its sectors and enterprises is the macroeconomic stability which means keeping the inflation, budget deficit, exchange rate and public debt within the limits which can be managed (Fig. 4). In addition to the stable macroeconomic policy, of importance, in terms of the competitiveness, is the stability of political institutions, confidence in the state and its institutions as well as the efficient law enforcement system, *inter alia*, antitrust law (Esser et al., 1996; Messner, 2013; Meyer-Stamer, 2008). The stable macroenvironment creates safe conditions for investments and promotes taking new development initiatives. Of importance is also the quality of regulations and general policies of the state.

Equally important as the stable policies at the macro level are appropriately developed policies at the meso level. Policies and activities located at this level are dedicated to specific sectors, areas of operation of the state, regions or socio-economic issues (Fig. 4). Their appearance usually results from the state's response to the permanent or temporary unreliability of the market in certain areas. This

is about such policies such, e.g., industrial, regional, infrastructure, environment, research and development, technology (Esser et al., 1996; Messner, 2013; Meyer-Stamer, 2008). Of great importance for the development of competitiveness is also the trade policy leading to the protection of the internal market against import, and the agricultural policy directly affecting the competitiveness of the agri-food sector.



Figure 4. Determinants of systemic competitiveness

Source: (Meyer-Stamer, 2018).

Direct competitiveness results depend also on actions undertaken by enterprises and other entities at the micro level. Relevant in this context are: in-

creased level of using possessed resources, managerial skills, implemented business strategies, response to developments, innovation management, developed cooperation networks, alliances and other forms of cooperation among companies (e.g. in a form of clusters), interactions between suppliers, producers and customers (Fig. 4). Providing the economy or a given sector with resources having specific properties stems from both natural conditions (location of the country, access to raw materials and other natural resources, demographic factors etc.) and from systemic conditions resulting from the functioning of individuals and social groups in certain economic, political and socio-cultural conditions. In an era of the knowledge-based economy, the labour force skills and competencies of managers, including the ability to manage innovation, are considered one of the fundamental factors determining the competitiveness of enterprises (Esser et al., 1996; Messner, 2013; Meyer-Stamer, 2008). The appropriate level of education and competencies of human resources determine other conditions of competitiveness at the micro level.

At each level of the economy, its competitiveness was determined by various groups of entities that used various methods and tools in their respective areas and in a characteristic way. Of these, the most important were: social acceptance for the adopted model of the economy and its orientation on the world market; basic orientation system of legal, political, economic and general organization of society, which stimulated innovation and strengthening of competitiveness; the ability of business entities to create development strategies.

The presented factors located at the individual levels tend to intermingle, thus affecting the mutual interactions shaping the systemic competitiveness of economies, sectors and enterprises. In addition, many of them are also affected by international conditions related to the progressive processes of globalisation, integration and liberalisation of states and economies. For this reason, analyses of the systemic competitiveness still remain a major research challenge. However, the systemic approach to competitiveness continues to raise a large interest among leading economists and international institutions. The currently created international economy competitiveness rankings are based on the general system approach. There are also new proposals for organising the systemic factors shaping the competitiveness of modern economies. An undoubted advantage of the systemic approach is simply the fact that the adopted analytical framework can organise competitive analyses of both whole economic, sectors and of individual enterprises. What is equally important, they also enable a cross-cutting assessment of the prospects for the development of their competitive potential (Kosior, 2017, pp. 15-16).

4. Conclusion

The decomposition of the concept of competitiveness into the individual subsystems should be a starting point for measuring and assessing the competitiveness of economies, sectors or enterprises. In a broad range of views on the conceptualisation and system approach to competitiveness we can see both similarities and differences. The models present in the literature of the subject significantly show the links among key concepts related to the competitiveness category. We can find in them a direct reference to factor-based and result-based competitiveness. Therefore, both views point to other, but complementary, aspects of competitiveness. Taking both aspects into account makes it possible to analyse completely the competitiveness of a given economic entity. The system approach to competitiveness can be applied at all levels of economic analysis.

In order to better understand the systemic approach to competitiveness and prospects for its development, it is purposeful to analyse various causal factors which can be located at four levels: meta, macro, meso and micro. Simultaneously, in the light of the developing processes of globalisation, integration and liberalisation, it is necessary to include the changes in the international environment which not only affect the general conditions of competition but also determine the importance of the individual factors located at the above-mentioned levels of the systemic competitiveness.

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Innovations Versus Sustainable Development

Stanisław Marciniak

1. Sustainable development in the times of 4.0 economy and in the future

At the beginning of the XXI century two ideas were formulated that are being currently vigorously implemented into the economic and social reality. One of the ideas is sustainable development, and the other one is the 4.0 economy, and in the future – 5.0.

In order to be able to analyze their functioning in real conditions, both ideas should be defined. We use the term sustainable development to mean development that ensures shaping of proper relations of categories and factors that represent the economic, social and environmental size, described by adequate measures.

Economy 4.0¹ is economy, especially industry characterized by the creation of smart value chains basing on the dynamic self-organizing and optimizing socio-technical systems, referred to as smart factories. They comprise of spontaneously emerging virtual networks that consist of workers, machines and equipment, as well as supporting IT systems (Bendkowski, 2017).

5.0 economy consists of creating smart value chains basing on the dynamic self-organizing and optimizing socio-technical systems and biotechnical systems, referred to as smart economic and social units. They comprise of spontaneously emerging virtual networks that consist of workers, machines, equipment and supporting IT systems (Bendkowski, 2017).

¹ The term 4.0 economy includes the 4.0 industry term that encompasses various types of services.

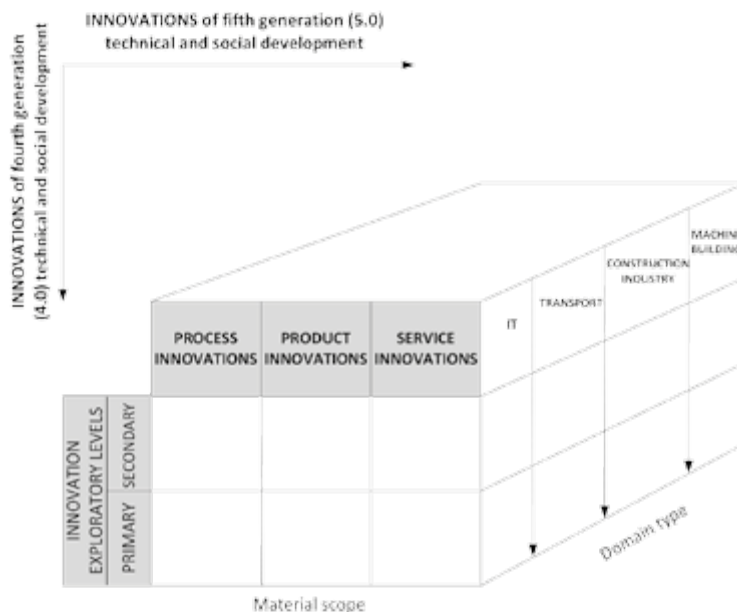


Figure 1. The classification of innovations in the modern economy

Source: own study.

2. Types of innovations in modern economy

Dealing with the problem of innovation as a carrier of development it is appropriate to conduct the classification. Innovations in modern economy² may be classified according to various criteria. They include the widely known classic criteria, such as: domain type or material scope, degree of novelty or project primary or secondary character. The classification may be also conducted basing on the criterion of the degree to which the requirements of economic development are fulfilled in line with the adopted paradigms. The last of the mentioned classification division may be seen as prospective since it takes into account the newly-adopted ideas of economic and social development e.g. the increasing computerization.

An example of the four-criteria classification has been presented in Figure 1.

The presented four-criteria classification is based on various criteria, such as: subject scope, type of activity, level of discovery or level of technical and social development. The oldest classifications are based on subject scope and nature of the field. In the first dimension, we distinguish process innovations, both production, product and service, product innovations not having a process character

² Modern economy of the future means economy functioning in line with principles of sustainable development and basing on the principles of 4.0 or 5.0 economy.

and service innovations not having a process character. In the second dimension, it is possible to adopt different domain division, because this type of classifications are many in both theory and business practice.

In conclusion, it must be emphasized that the multi-criteria classification, presented in the diagram, shows how various the approach to research innovation processes may be.

3. Features of innovations in the economy of sustainable development

The designed innovations, that are later implemented in economy based on sustainable development, should be characterized by appropriate features. The key ones may include the fulfillment of:

1. the principles of sustainable development,
2. the requirements of the holistic evaluation,
3. ensuring adaptability to the environment requirements,
4. ensuring flexibility due to the changing conditions of turbulence character,
5. the possibility to transfer innovation ideas between various sections (branches), which may increase the process of improving their efficiency and effectiveness (the synergy effect).

Due to their importance, I will devote a few sentences to each of the mentioned features.

Requiring innovation to fulfill the principles of sustainable development, we observe that, in the pre-design, design and implementation phase of innovation, the executors should ensure that they affect the environment properly in the economic, social and ecological dimension. The proper impact in the mentioned three dimensions should be observed in the full life circle of the innovation.

Requiring innovation to fulfill the principles of holistic evaluation, we notice that such an approach to the problem of innovation creation, implementation and exploitation may allow it to have proper impact in line with the requirements of sustainable development. In order to facilitate the occurrence of such a regularity it is necessary to adopt a holistic evaluation system applied by policy-makers and project executors.

The necessity of adaptability to the environment requirements is mainly due to the assurance of effective and efficient innovation operation in the long term. In that timeframe the innovation may be influenced to a varying degree in many dimensions.

Flexibility allows, most of all, for efficient and effective matching to i.e.:

- environment turbulence,
- changes occurring in the economy during innovation designing and implementation,
- exploiting the synergy and complementarity effect.

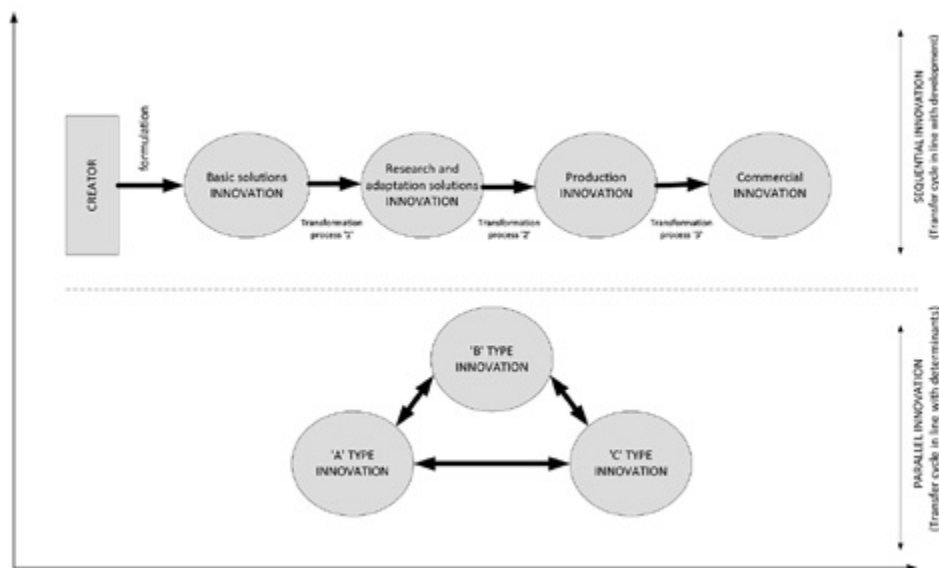


Figure 2. The process of innovation transfer (sequential and parallel transfer)

Source: own study.

Since innovations have high transfer capabilities between economy sections and branches, as well as the branches of social security, we may achieve additional results that enhance their effectiveness and efficiency. In order to achieve the goal, what might help is not just a quick and rational transfer of innovation projects, but also the proper application of synergy and complementarity principles.

4. Innovation transfer as one of the main processes occurring within the economic and social activity

In the economies of independent nation states, as well as in economic communities, proper legal and financial principles should be followed, enabling to enhance intensity and effectiveness of internal transfer of innovation. The principles may effectively facilitate breaking so called isolationism barriers which, due to interventionism activities, in many cases turn out to be typical in the conditions of market economy. However, in the conditions of target free market as it is currently understood, they should not have the possibility to have strong impact on innovative activities in any phase of economic development.

There may be numerous principles that determine the processes of innovation transfer. They include, i.e.:

- preference for innovation through legislation adequate for the development phase,

- financial provisions favorable for innovation at the specific level,
- functioning of organization facilitating innovation transfer both in sequential, as well as parallel form which was presented in Figure 2.

By sequential transfer we understand development and transfer during the realization of all process phases in line with the theory of innovation life cycle.

By parallel innovation transfer we understand development and transfer when innovations occur between various economy sections, sectors and branches. As stated above, both forms of transfer have been presented in Figure 2. Based on the figure, we may observe the complex in time of process of innovation transformation into an established technical and organizational solution (Aznar-Sánchez et al., 2019).

5. Methods of innovation evaluation in the times of sustainable development

When increasingly complex technical and organizational innovations are occurring, an important research problem becomes the construction of an evaluation method of the arising solutions and phenomena, adequate for the existing reality. It may have the character of a business model. The suggested solution regarding the evaluation tends to turn into a research problem, when we want to comply with the principles and requirements of sustainable development (Stock et al., 2018).

In order to fulfill specific rules and requirements, not only internal but also ones resulting from the environment behavior, the method of innovation evaluation should be characterized by proper features. Four of them should be the most important, such as:

1. holistic approach,
2. adequacy,
3. flexibility,
4. coherence.

Holistic approach leads to the necessity to assess all the factors that determine evaluation, regardless of their character. The factors occur in all possible dimensions, such as economic, technical, social or environmental dimension.

Adequacy ensures that the evaluation matches the specifics of the evaluated innovation as well as external and internal conditions where it will function.

Flexibility enables to use the innovation evaluation for a system not affected by environment changes occurring in time and matching it to the innovation development in time.

Coherence allows to fulfill the principle of lack of internal contradictions within the evaluation method regardless of the phase of the innovation devel-

opment, type of innovation, change in conditions of functioning resulting from changes in the environment functioning etc.

The presented features of the evaluation process are compatible with features of innovations that have been already described in the paper. Fulfillment of the features is necessary for the stimulation of innovation emergence and development in all areas of human activity, especially in the conditions of compliance with principles of sustainable development. It must be emphasized that only sufficient intensity of realization of innovation processes may lead to social and economic development in the long term e.g. in the period of ten or twenty years.

In order to achieve the quantitative and qualitative effects of innovation, and the latter seem more important in economies of high development level, one needs to break numerous barriers, (Devezas et al., 2017) which will be further discussed.

5. Barriers and conditions of designing and implementing efficient innovations

Within the framework of the subject, barriers and conditions of innovation design and implementation have been distinguished. The term barrier means a situation where it is impossible to realize the innovation (so called the character of hard limit) due to the impossibility to fulfill certain rules (regulations). The term condition is a situation when it is difficult or even impossible to achieve a sufficient level of innovation efficiency or effectiveness (so called soft limit) due to certain rules (regulations).

In the economic and social reality the occurring barriers and conditions may apply to all the phases of innovation development. It regards the early phases (devising the concept, design) as well as later phases (implementation and commercialization of solutions).

The most important barriers occurring in economic practice include:

- unfavorable laws,
- no absorption 'from the economy' of innovators,
- quantitatively and qualitatively weak scientific and research potential,
- total or partial lack of sources of innovation financing.

Conditions of design and implementation of effective innovations include the necessity to:

- take into account all the possible dimensions of sustainable development in the design projects,
- proper adaptation of laws to the existing economic situations,
- internal or external securing of funding,

- internal or external information support,
- optimization of operations due to the current technical and organizational structure of research and development units (it may be possible to fulfill the condition more easily in flexible organizational structures),
- training of innovation designers, executors and explorers towards future effective and efficient functioning in sustainable economy.

The above mentioned barriers and conditions are not the only ones that may affect the realization of the innovation process when taking properly into account the principles of 4.0 economy and sustainable development.

However, they seem to be the most important among those that determine innovative activities within the adopted ideas.

6. Perspectives of the direction for innovation development in the conditions of sustainable development

In the paper I have adopted the thesis that only the proper quantitative and qualitative development of innovation allows to fulfill such an economic and social objective, which is the achievement of sustainable development. Therefore, one needs to consider the preferential actions undertaken both currently and in the future, whose realization by each entity and the government may contribute to social and economic sustainable development proposed and predicted by research teams.

In order to evaluate the concept of the adopted actions in the future, it is necessary to define clearly the time points when one or another sub-objective of sustainable development would be achieved in the future. In turn, in order to monitor the process of achieving the specific synthetic goal, the final time point concerning the forecast adopted by designers and policymakers should be defined in advance.

Time point concerning the development forecast should determine actions undertaken inside the economic units as well as in the surroundings. Applying such principles of conduct enables to fulfill directions of future innovation development that should ensure sustainable development of the economy as a whole.

It seems that the determinants of directions in economic development realized by innovations should be:

- increasing expenditure on innovation activities,
- necessary restructuring on companies as well as economy due to target development,
- increase in the level of knowledge and skills of staff implementing innovation activities,
- increasing the ability to gain information regardless of sources,

- increasing scientific and industrial cooperation activities in the innovation sector, defined for each country and the economic community where it functions,
- rationalization of all expenditures in order to achieve as high as possible management efficiency.

It appears that it is necessary to clearly define actions undertaken within the six mentioned determinants in order to achieve future goals whose carriers are various innovations occurring in numerous dimensions. However, it must be emphasized that only they can and should ensure sustainable development of the specific country in the timeframe applied in the research and implementation of tasks.

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The Innovativeness of Green Sector Enterprises

Adam Sulich, Małgorzata Rutkowska, Jerzy Tutaj

1. Introduction

Business managers today face new tasks that impose stormy times on them and organizations they manage in turbulent business environment. The dynamics of the observed changes is undisputed and is the result of globalization forces. Among many tasks, the ability to manage change, which is now the only constant element of running a business, is of key importance for creating the success of an organization. Organizations adopt different goals and strategies, becoming intelligent, learning or developing organizations through self-improvement. Therefore, managers need to know how to effectively make changes and how to transform their businesses so as to strengthen competitiveness. The competitive position of the organization is an effect of the implemented strategy. The organization needs to learn how to constantly renew its resources and create different innovations to increase its flexibility in adapting to the constantly evolving market and the ability to maintain its distinctive competence. The organization must create a number of conditions that will allow it to take into account future opportunities and foster the emergence of an innovative strategy that ensures the optimization of conditions of functioning in relation to the environment.

Green sector enterprises are a special case of organizations that depend heavily on the natural environment condition, the state's economic policy and technical progress. The green sector consists of enterprises that in the Polish economic reality have been classified under the Polish Classification of Activities (pol. *Polska Klasyfikacja Działalności*), which classification is based on the international classification (fr. *Nomenclature statistique des activités économiques dans la Communauté européenne*, NACE). The green sector consists of selected sections, in which the so-called green workplaces or green jobs. In this article, the concept of the green sector also means companies that produce the same or similar products or provide services are considered as environmental or ecolog-

ical. Therefore, the green sector gathers organisations which impact on environment is positive or at least neutral.

The purpose of this article is to analyse the main cause of innovation in the green sector among Polish enterprises, which are green innovations (eco-innovations) measured by number of green patents and green jobs. On this background Polish economy greening process was compared with chosen European Union member states.

2. The Green Economy

Greening of the economy and its development are processes related not only to the desire to increase economic efficiency but also to ensure that it takes place in accordance with natural environmental conditions. Such a course of conduct is generated by the concept of sustainable development. This concept promotes a holistic approach to development integrating the economy, society, and the environment. Understanding development in this way is a process that affects almost all areas of management. It is associated with a social change in the hierarchy of values, in which, along with economic growth, the human being and his quality of life and the protection of the natural environment in which we live are recognized as the highest value. The processes of globalization through the pursuit of the development of production cause, on the one hand, threats to man and his environment, on the other hand, in accordance with the concept of sustainable development presented above, aim at eliminating the negative effects of these processes. A set of events, actions, and effects occurring in the global economy with a positive and negative impact on people and the environment.

Economic development, and hence the growing number and diversity of products appearing on the market, mean that eco-innovation activities are becoming increasingly important. However, the environmental pollution is a threat to the current economic development. In the situation of increasing environmental pollution and depletion of natural resources, ecological investments are in the centre of interest both researchers and decision-makers.

Therefore, the concept of green economy is associated with the problems and the philosophy of sustainable development as well as innovation. Already at the beginning of the 21st century, some important assumptions for the development of innovation in the green sector were adopted. In response to the economic crisis, solutions were sought that would combine efforts for sustainable development and solving the problem of unemployment.

The United Nations Environment Program (UNEP) called in 2008 for an agreement, the so-called *Global Green New Deal* was a very first step towards

implementation of sustainable development principles into business. The purpose of this agreement was to create opportunities and opportunities to emerge from the global economic crisis through the development of green economy sectors. In the *Global Green New Deal Report - Policy Brief*, issued in March 2009, were recommended investments in areas that are key to the environment which are especially: renewable energy, public transport, waste management, and recycling. Also, in 2009, there have been many significant changes in legal legislation. The OECD Council in June 2009 decided on the development of a Green Growth Strategy. The goal of this strategy was to support green investments and technological innovations.

OECD announced in 2011 a set of indicators to support statistical evaluation of the effects of strategy implementation. It should be emphasized that the proposed measures complement the gross domestic product (GDP), so that the overall prosperity of the society and the level of greening of the economy can be determined. In addition, the OECD Council proposed that each member country should prepare indicators adapted to its socio-economic situation, based on its achievements. Although these documents created a frame for each country action indeed not many of them did so. Therefore, according to many analyses provided by OECD the economy of Poland does not belong to innovative economies, and its state is not determined by inventions and patents, and the current economic development depends primarily on the economy based on coal and agriculture (Rutkowska-Podołowska & Pakulska, 2016).

3. Green sector in Poland

The green sector is made up of enterprises producing products and environmental services for various purposes, the common denominator of which is the impact on the natural environment. The green sector is created by enterprises that offer services and products that do not have a negative impact on the environment also in the process of their provision or production. The green sector can also be defined as the area in which green jobs are created (Rutkowska-Podołowska, Sulich & Szczygieł, 2016). For statistical purposes, the green sector can be defined as presented in Table 1.

The largest number of people employed in green jobs works in agriculture and related industries. This proves observation that Polish economy is based on this sector of activity. Moreover, majority of energy produced in Poland is based on coal combustion.

The international statistics assume a conventional division into enterprises whose sole purpose is to protect the environment (*core business*). These are companies that manage waste, sewage treatment utilities, companies providing

sanitary services, and companies that deal with production and services related to environmental protection (*non core business*) are, for example, manufacturers of measuring and control devices, companies dealing with training activities, research and development, etc. It follows from the above that the new green sector develops not only on the basis of new types of activities, but also the absorption of existing enterprises in the past, collection and utilization of waste, and disposal of sewage.

Table 1. Green sector as a composition of selected section of Polish Classification of Activities

Green Sector		Employed				
Section	Characteristic	2008	2010	2012	2014	2016
A	Agriculture, forestry, hunting and fishing	2128,3	2376,1	2378,0	2388,1	2390,9
D	Production and supply of electricity	152,7	159,1	143,4	117,4	111,6
E	Water supply, sewerage, waste management and remediation activities	132,0	140,9	143,5	147,7	153,0
M	Professional, scientific and technical activities	472,6	481,3	531,4	586,0	651,0
N	Administration and support activities	347,5	411,7	425,4	467,0	540,3
S	Other service activities	202,4	200,7	217,6	262,3	295,4

Source: (GUS, 2018).

Companies usually use the latest technologies, which reduce the amount of raw materials needed to produce products, and what is associated with it, less waste is created. However, new consumption patterns are not always burdensome for the environment. Organizations and countries are introducing regulations that limit environmentally harmful activities and reduce the risk to the environment.

Macroeconomic processes and regulations affect the operations of enterprises. In enterprises, sustainable development is primarily associated with this way of operating, so that it is as least burdensome to the environment. The increase of ecological awareness in the enterprises of the green sector causes that this issue is already taken into account at every stage of the creation and functioning of the company and the sector. That is why in business activities sustainable development is mainly associated with:

- use of ecological materials,
- ecological way of processing raw materials,
- the production of such products which, after a period of their use by the consumer, may be destroyed in an ecological manner or may be recycled.

Considering the above-mentioned ways of dealing with the concern for ecological development, the 3R rule was formulated in the strategies of enterprises' activities, is:

- reduce – reducing the consumption of materials,

- reuse – reuse of what is possible,
- recycle – the use of materials suitable for reprocessing into wholesome raw materials.

The implementation of these principles is necessary for the process of greening the company, because it contributes to significant changes in production, and through changes in products contributes to new strategies of enterprises and sectors. What is more, sustainable development of enterprises and sectors becomes the basic determinant of not only the direction of changes in these entities, but also an element of their competitiveness. Ecological products and their ecological production become the basic factor of the company's competitiveness.

4. The innovativeness and its meaning to the green sector

The broadly understood ecology is not only preventing the negative impact of humans on the environment but above all, it is creating benefits for the whole economy. The green sector of the economy includes responsible resource management, the use of economic instruments conducive to environmental protection, and sustainable consumption. In this sector, production and development is largely based on renewable energy sources, which are a way to ecological production of electricity and heat. That is why many countries, especially the European Union, are trying to increase the number of innovative and ecological investments.

There are many definitions of the concept of innovation in the subject literature. The best known is the one that was introduced by Schumpeter in 1912, which distinguished innovation from the invention. In his view, “innovation is possible without all that we identify with the invention because the invention does not necessarily have to induce innovation” (Schumpeter, 1939). For the purposes of this article, it was assumed that “an innovation is a new or significantly improved product (good or service) placed on the market or the introduction of a new or significantly improved process in a company. Innovations use the results of technological development, new combinations of existing technology or the use of other knowledge desired by the enterprise” (Woźniak, 2006). Innovation plays an important role in building and maintaining a competitive position and competitiveness of individual enterprises, regions or entire countries (Nowakowska, 2010).

The importance of innovations for enterprises with the contemporary dynamics of development, competition and globalization of markets is obvious. Companies cannot simply settle for accidental favourable circumstances. Instead, they must create conditions conducive to the systematic search for innovations, because today the greatest successes are achieved by the original form of activity, not by striving to outperform rivals in conventional factors of activity (Penc, 1999).

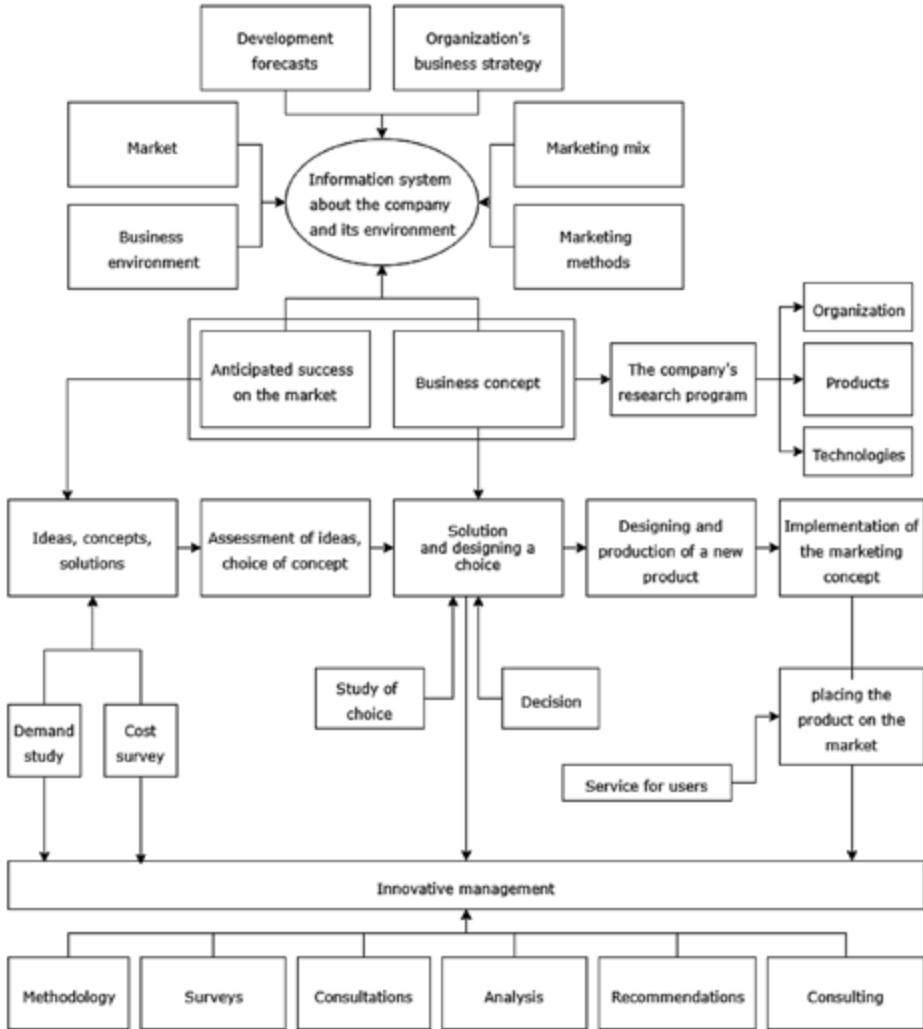


Figure 1. Management procedure for controlling the innovative process in the organization

Source: own elaboration based on (Penc, 1999, p. 302).

Therefore, among the enterprises of the green sector, the implementation of innovations means that their creation is not an accidental, occasional activity, but a programmed activity consisting of seeking development opportunities, developing new technologies, new products and forms of marketing as well as constant staff training so that they are able to create innovations and their implementation according to the challenges and needs of the market.

Green enterprises can use different exemplary strategies for creating and introducing innovations. However, they have to decide themselves how to act inno-

vatively without improvisation, which is the strategy of creating innovations and their use to ensure a good position on the market.

The innovation creates a long-term framework for various innovation-friendly activities and coordination of these activities, inspiring ideas and effective use of information. This scheme presented in Figure 1 can be supported by some indicators of innovativeness. One of them is a number of green patents in selected EU countries presented in Table 2.

Table 2. Patents related to recycling and secondary raw materials (thousands)

Country	Year	2006	2007	2008	2009	2010	2011	2012	2013
EU-28		229,33	211,04	265,82	281,57	284,93	305,19	346,84	363,78
Belgium		4,86	4,22	6,4	10,44	11,12	7,79	6,87	15,42
Czechia		2,39	6,00	2,02	7,24	8,27	5,92	9,95	7,33
Germany		81,66	78,03	92,04	92,88	71,41	86,81	82,65	92,65
Poland		12,33	10,83	24,8	20,17	33,00	39,08	53,82	34,5

Source: (European Commission, 2019).

Creating a knowledge-based economy is to a large extent related to the need for cooperation in the field of knowledge transfer between universities, non-governmental organizations and business. A special role is attributed to the development of science, as a result of which new products and services are created. The implementation of inventions and innovative solutions translates in a clear way to improving the quality of human life while respecting the natural environment. Transfer of knowledge perfectly describes the pyramid model (Fig. 2).

The knowledge transfer presented above in Figure 2 and in Table 2 is best visible in Germany, which influence on European economy is not disputable. Therefore, Poland as Germany's neighbour country in this analysis is second among chosen EU countries. As the presented in Figure 2 highest level of knowledge has highest impact on process of knowledge to practice transfer, and this occurs mostly among small groups leaders who initiate the changes.

5. Conclusion

The concept of green economy and green jobs are relatively new ideas, still valid due to the ongoing climate change and environmental degradation, as well as increasingly occurring financial, economic, migration and famine crises. The activities leading to savings and improvement of the effectiveness of undertaken actions are becoming more and more important, the aim of which is not only to temporarily solve the existing problems, but also to prevent their occurrence in

the future. One of the trends of change gaining in this context is the transition from a basic economy to a green and sustainable economy. The efforts of individual countries and supranational institutions focus not only on the promotion of the green economy, but also on innovative solutions to the challenges of the modern world. This innovation consists in the greatest possible involvement of science and its discoveries as part of the transfer of knowledge to the economy.

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The Logic of Value Creation of an Innovative Enterprise – Case Study

Zbigniew Malara, Janusz Kroik

1. Introduction

Innovative companies are an area of numerous studies in the management sciences. A particularly cognitively interesting is a situation when a company actively supports processes of creating value innovation and builds its market position on this basis. Such a group should include businesses operating within the academic businesses incubator (ABI). Operations of this type planned therein should have an ordered formula and include threads that correspond to the logic of value creation. The present study shows results of research aiming at development of a framework for target research within ABI. For this purpose, a company was selected that had demonstrated creative innovativeness regarding values within over ten years. Diagnosis of the sources, premises and solutions found in the selected company allow for outlining such a framework and is a pilot study for the target research planned at the turn of 2018/2019.

The logic of value creation is a crucial issue for the process of scaling the business model. In a spectacular case, it is possible to achieve a no-competition state known as the blue ocean (BO), which results from the value innovation logic (VIL) (Kim & Mauborgne, 2005, p. 30). It differs from: customer-oriented initiative; market niche; technological innovation, markets identified with creative destruction; distinction; low costs resulting from the traps of the thought process (Kim & Mauborgne, 2015, p. 57). Thus, “hard confirmation” of whether the company is heading towards BO is necessary (Kim & Mauborgne, 2018, p. 34). The company selected for the study, operating for 18 years, emphasises the use of BO logic in its strategy (BOS), therein seeing the primary source of market success. This provides an interesting area for a more in-depth analysis of its approach to VIL and evaluation of conditions fostering its development. Based on this, the reasonable scope of research on conditions for value innova-

tion for companies from ABI will be determined. The notion of “value innovation” may be referred to different management contexts (Krawiec, 2011), which results in the fact that it requires a multi-aspect analysis. An initial assumption was adopted that a company with the BO strategy should broadly use the guidelines from scientific publications fostering VIL in the period of its transformation and consolidation.

The purpose of the study was to diagnose: sources, premises, attitudes fostering innovation under conditions of long term implementation of BOS by a small enterprise from the IT industry and development of the scope of measurements for the target research. The research method is a case study analysis, for which confirmation of the formulated assumption is sought (Wójcik, 2013). The sources of data are structured interviews with the manager determining the company strategy. Detailed questions were prepared, using publications concerning BOS and VIL focused on the problem being tackled. The threshold issue, from the point of view of BO, was analysis of the so-called patterns traps of thinking, as well as ways of motivating teams. An important problem was also the assessment of priorities in competing through product innovation and through development of relations with the customer (Osterwalder & Pigneur, 2011, p. 83).

The title of the study is: “The Logic of Value Creation of an Innovative Enterprise - Case Study”. The use of the term “logic” in the title emphasizes the assumption adopted by the authors, that in the case analysis conducted, there is a specific structure of activities and methodological solutions that support innovation, which are in accordance with the guidelines indicated by various authors in the literature and used in organizational practice of companies. Further in the article, it was demonstrated based on the constructed measurement tool (interview template with the main manager) that allowed to formulate the supposition that the use of this tool is possible for other innovative companies. In the first case, the suggestion applies to IT companies.

2. Creation of VIL

Value innovation, as already mentioned, has the multifaceted nature, and it does not need to result in the appearance of new markets. In fact, such a situation is rare in business practice, but also an opportunity for innovative companies. It can be assumed that VIL, with implementation of BOS, is a counterbalance for product and technological innovations (Krawiec, 2011, p. 71). In the standard formula of value creation, we distinguish three ways of focusing competitiveness, i.e. through product innovation, customer relationship management and through infrastructure management. In turn, there are different conditions

for these methods: economic, market and organisational. Table 3 presents their special character and the level of preferences for the first two methods of competition focusing (the third could not be connected with the situation of the selected company).

Creation of value innovation (and its logic) depends on the product development cycle phase (Sigismund et al., 2011). It is worth emphasising the diversity of situational contexts for the use of the description of value creation in scientific publications related to management (Malara & Kroik, 2015, p. 13-21). In consequence, innovation regarding values may be interpreted differently, e.g. innovative tactics aiming at seizing greater value (Michel, 2015, p. 138) or an innovative business model that may be evaluated in six dimensions (characteristics) of the so-called transformability (Kavadis, Lados & Loch, 2017, p. 72). Having several of them gives it a conventional transformative (innovative) power. This is also affected by the thread of social responsibility (Malara & Kroik, 2012, p. 11).

3. Business characteristic

The company selected for the study is a small enterprise (proper name DELs) from the IT industry. The IT market has both global corporations and the dominant small entities¹. The IT industry (and its segments) is an interesting area for research on BOS, due to its high dynamics of development and technological innovations. Recently, concentration and deconcentration processes can be seen in this industry (Gry-online.pl, 2018). The dispersion and deconcentration processes take place mainly among companies producing applications and software, including the examined company.

DELs has been operating since 2000. The company's Management Board emphasises that the strategic intention is based upon BO. The source of success is ascribed to employees, constituting a small, committed team. DELs deals mainly with creation of dedicated IT systems for organisation and control of logistic processes, including cash logistics. The company also specialises in designing IT systems for the purposes of control and settlement of work time. Nearly the entire offer of the company consists of its own systems. The (informal) mission of the company contains priorities related to supporting and developing a friendly employee environment and a business ecosystem based on: craftsmen's reliability, fairness, full commitment, trust, and friendship. This is combined with knowledge about the latest RFID technologies (biometrics, Internet), creating a unique value of the offer. The key customer of DELs is Macro Cash and Carry (Makro).

¹ More than 90% of companies (Bankier.pl, 2015).

After 2000, an IT system for the management of the cash circulation logistics and control process was created for Makro and implemented in all its facilities (not only in Poland). The implementation of this system enabled continuation of cooperation and continuous system improvement.

The company provides an up-grading service adequately to the needs of the main customer and the technological innovations generated from its own experience in cooperation. The Management Board states that the company's business model functions in an identified, sustainable market niche for very exceptional applications of IT computer systems². The initial idea for VIL resulted from professional knowledge of the main shareholder of the Company (President of the Management Board) with regard to cash logistics. Despite the attempts of other entities, the Company is not affected by competition, creating barriers from high competence requirements and lack of interest of the key customer of the company in other offers.

4. Structure of diagnostic questions

1. The assessment of premises referred to the term "value innovation" in the conditions of the BO strategy required formulation of a few dozen questions³.
2. The first subgroup of questions resulted directly from four premises formulated by the authors of the BO strategy and recommendations for the process of its transformation. The diagnosis in this respect referred (separately) to two periods. The first one covered the complete transformation cycle of the strategy. The second one assessed the special character of preservation of BOS premises.

The second subgroup consisted of a set of questions that identified the sources and priorities of competition which typically take place during focusing of competition on product innovations and during management of relations.

The subsequent five sub-groups of questions originated from an analysis of guidelines from publications, which may apply to the notion of value innovation.

A separate, eighth subgroup constituted questions related to studying the innovative climate inside the organisation. In total, there were 56 diagnostic questions, which is presented in Table 1.

² Several patents were obtained, among others, regarding the method of monitoring physical shipment up to the speed of 60 km/h.

³ The respondent was the main shareholder (President of the Management Board), having the dominant, strategic role in the company.

Table 1. Map of diagnostic questions on value innovation during implementation of the blue ocean strategy declared by DELs

Subgroups of the question set	Cognitive expectations	Number of questions
1. Blue Ocean Strategy	Verification of the declaration	4 questions about the degree of focus on market-forming factors (in relation to two periods)
2. Priorities of competition	Indication of the dominant inclination of DELs' competition: Product innovations, relations, infrastructure	9 questions about priority scales
3. Transformative business model (TBM)	Determination of the number of features of the business model (TBM)	6 questions about distinguished characteristics of the business model
4. Components of value in the offer	Listing of attributes of the current offer of the basic product for DELs' customers	3 questions about the effect of the offer's attributes on customer loyalty
5. Optimisation of division of the offer's value	Assessment of DELs' offer potential to get a higher margin	5 questions about the use of the indicated recommendations
6. Jobs to be Done Theory	Capacity and necessity to use theory guidelines in practice of activities and decisions of DELs	7 questions identifying the company's approach to the customer in the sphere of the purchasing process
7. Patterns of thinking about BOS	Assessment of the way of thinking of DELs' decision-makers	7 questions, one general and six referring to the traps of thinking
8. Conditions for innovation in the company in the context of BOS transformation and adaptation process	Partial evaluation of the work environment as a source of organisational creativity and innovation	15 statements with three situations to choose from

Source: own work.

5. Selected results of the diagnosis

5.1. Guideline for BOS

Assessment of the known BOS guidelines was applied to two periods. The first one covered the years 2001-2009 (strategic BO transformation). The second one covered the years from 2010 up to this day - development of improvements of the offer for Makro under conditions of adaptation of BO premises (Kim & Mauborgne, 2005, 2015).

These two periods were assessed with regard to four aspects of pursuits (objectives) resulting from guidelines for the BOS strategy. Four grades [0,1,2,3] were used to express such objectives. Table 2 contains the obtained results.

The first period can be considered as characterised by high pressure in the pursuit of the use of BO features and effective implementation of value innovation based on new technological ideas. As a result, the economic margin allowed for investing in human capital and technical-organisational instrumentation. The company is still benefiting from this situation.

Table 2. The pressure of objectives constituting BOS for the transformation and adaptation period

Analytical period Type of objectives	TRANSFORMATION Period of 2001-2009	ADAPTATION Period of 2010-
Pursuit of elimination of factors traditionally characterising the IT segment [ELIMINATION]	Average pressure (2) arising from overcoming barriers in solving specific digitalisation problems	Low pressure (1) product improvement is made within the already-known standards of the IT segment
Pursuit of reducing factors typical of the IT segment [REDUCTION]	Average pressure (2) in search for methods of programming cash movement	Average pressure (2), focus on more and more effective solutions in the System. New fields of cooperation with Makro apply to a proposal strictly tailored to the partner's needs
Pursuit of increasing the level above the standards of factors typical of the IT segment [INCREASE]	Low pressure (1) due to seeking solutions more unconventional than improved	Average pressure (2) arising from the Company's proposal for Makro in improvement of the System
Pursuit of creating new factors, previously unseen in the IT segment and their introduction to the offer [CREATION]	High pressure (3), innovations based on new applications protected by a patent.	Low pressure (1), consolidated position of the Company, the lack of real rivals with a reputation and potential matching the Company reduces the pressure to create value above the standards of the IT segment

Source: own work.

5.2. Pressure of competition factors

The initial problem was to explore the priorities of competition (item 2 in Tab. 1). The scale of importance was determined by four possible states of attaching importance to priorities [3,2,1,0]. Answers are presented in Table 3. The Table does not include competition by infrastructure.

Table 3. Assessment of importance (priorities) of the premises of competition used by DELs in the current strategic situation

Competing for: Reality	Product innovations	Customer relationship management
Economic (E)	Early actions with a possibility to demand a higher price. LARGE (3)	High costs of customer acquisition, maximum use of their possibilities. LARGE (3)
Competitive, market (M)	Struggle for talents; low barriers; good conditions for many small companies. NONE (0)	Struggle for scope; quick consolidation; domination of few large companies. NONE (0)
Organisational (K)	Focus on employees; dotting on the most creative people. LARGE (3)	Focus on service; thinking primarily focused on the customer. SIGNIFICANT (2)

Source: assessment in comparison to proposal (Osterwalder & Pigneur, 2011).

Results of the M reality may confirm the situation typical of BO. A cognitively interesting assessment was the assessment of the premise entitled "struggle for talents", typical with product innovations in a highly competitive environment.

The company has a unique comfort in this respect, the source of which is the mission and the personnel policy formulated on its basis.

5.3. Transformational features of the business model and components competition of the offer value

DELS’ business model was studied with regard to 6 transformative features of the model (subgroup 3, Tab. 1) (Kavadis, Lados & Loch, 2017). Two of them, entitled *Increasingly personalised products or services* – ones that are more and more tailored to individual and sudden customer needs, and *Agile and adaptive way of operation* – flexibility and ability to quickly adapt to the changing needs, resulted directly from the interviews. The other two required a more in-depth analysis, as a result of which the feature entitled *Price dependent on use* could be, with a certain additional interpretation, considered met.

The problem of ordering the value components (subgroup 4, Tab. 1) was analysed in the context of maintaining the customer’s loyalty (30 components in total) (Almquist, Bloch & Senior, 2017, p. 51). Attention was paid to the distinctness of DELS’ situation with regard to the strategic client (Makro) and the requirement to maintain uniqueness of solutions. For other customers, the feature of product quality was pointed out.

5.4. Innovation with regard to price

According to the research plan (box no. 5 from Tab. 1) (Michel, 2015), we evaluated the practice (as at today) and the tendency (in the future) of innovative pricing, focused on intercepting value. Five tactics (innovations) were analysed. Table 4 provides results of the diagnosis.

Table 4. Tactics (innovations) of value interception in the practice of DELS

Type of tactic being postulated (interception innovation)	Current use	Probability of future implementation
Change in the pricing mechanism	One of the proposed mechanisms is used (<i>value-based pricing</i>)	Continuation of the used mechanism
Change in the payer	None of the two specified payer variants is used	Introduction is not planned
Change in the price carrier	The recommended package and all-inclusive formula is used	Continuation of the tactic with regard to two price carriers
Deferment of the payment date	The system’s formula is thoroughly used (<i>installed-base pricing</i>)	Continuation of this formula of deferment of the payment date for additions created for the system
Change in the buyer segment to new/absent ones	What dominates here is the focus on current customers and maintaining them in the need improvement state	It is assumed that the pressure to change will increase

Source: own work.

Three of the five tactics deemed as innovative are used and will be continued in the future.

5.5. Impact in the psychological sphere

The sixth subgroup of 7 questions concerned the so-called “Jobs to be Done theory” (JTBD) (Duncan et al., 2017, p. 63). It is recognised as the search for value innovation in the sphere of impact on the customer’s psychology (opposition to typical assessments from the correlation analysis). Answers to them were clearly positive, which leads to a conclusion that the practice of translating the customer’s experience into the procurement process is convergent with JTBD guidelines.

5.6. The patterns – traps in thinking about BOS

We evaluated each of the 6 possible traps for BOS (subgroup 7, Tab. 1) (Kim & Mauborgne, 2015). The greatest attention in this respect was caught by the trap of the pattern of thinking about the market niche as a BO sphere (the interview used the term strategic niche). Definitely rejected were patterns of thinking about: low-cost strategy (trap 6); technological innovations instead of marketing innovations (trap 3); the need for creative destruction (trap 4). We also studied in-depth the nature of DELs’ operations with regard to customer-oriented initiatives (trap 1), which is easily absorbed in practice. However, owing to the symptoms of the JTBD approach, it was recognised that there exists a protection against this trap. The same conclusions concerned the pattern of distinguishing on the market (trap 5). The Company conducts in-depth analyses of the quality-price relation.

5.7. The climate for innovation in the process of transformation and adaption of BOS

The creators of the BOS concept emphasise the organisational aspect for the process of transformation and future adaptation of the strategy. They point out the possibility of a procedural approach to exploring and establishing BOS, offering six stages of the procedure. The procedure itself was not examined, assuming that DELs is already the beneficiary of BO (according to the data of Tab. 3). The transformation period was dominated by the option of creating, while the adaptation period - by the option of improving effectiveness.

The separated field of operations (eight in Tab. 1) (Kim & Mauborgne, 2018) fostering BOS refers to ensuring organisational and motivational conditions, without which the stage of transformation and adaptation could not be continued. The study was divided into two periods of evolution of the strategy by formulating 15 statements (Luecke & Katz, 2005; Koblak & Jędra, 2017, p. 31). Three levels of articulation of a higher state of commitment of the respond-

ent-leader were adopted, measured by the frequency of motivational activities. Three options of answers were adopted: 1 – seldom/never, 2 – rarely/sometimes, 3 – often/always. The average value of commitment, according to the aforementioned questions, amounted to 2.53 in the transformation period (2001-2009) and 2.67 in the adaptation period (2010-2018).

6. Conclusion

The procedure adopted and described in the article includes a number of methods widely used in the theory of management sciences and organizational practice the following assumptions:

1. Case study - a method particularly appreciated by management practitioners and ennobled by theoreticians (see bibliography).
2. Proprietary proposal (method) that allows estimating the value of innovation and using a logical scheme (template).
3. Proprietary survey questionnaire taking into account key problems, questions and measuring scales along with their interpretation.
4. Participant observation and interview enabling response (confirmation) as to the company's use of the "blue ocean" strategy.
5. Preparation of results and their interpretation in relation to the value of innovation (their creation, absorption, implementation) in various periods (two) of its development.

The conducted analysis indicated that the company conducted a strategic transformation under BO conditions, without fulfilling them in some strictly ordered manner. It seized the opportunity, originating from the idea for a technological solution creating a new market for the global partner. Maintenance of the state of lack of competition within the adaptation period is based on the attribute of uniqueness, thanks to the possessed competences. This calls for recognising this period as the evolutionary change of BOS under conditions of partnership with Makro. It was also demonstrated that the manager does not fall into the traps of a thought process. An interesting situation appeared in the case of the struggle for talents (Tab. 3). It turns out that a matured and motivated staff of IT engineers does not introduce the pressure of competition on the labour market. It seems that this may be a temporary situation.

The conducted diagnostic research with the use of questions referring the creation of VIL under BO conditions gave a quite precise image of conditions for the period of transformation and adaptation. The results confirm the assumption formulated in the introduction.

The results of the research allow for accepting a large portion of the diagnostic questions for the needs of the research on the target group of enterprises

grouped within ABI. In this research, the analysed company DELs will become a reference point in the interpretation of the obtained results.

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The Role of Self-Perceived Age in Advertising Strategies*

Dagmar Lesakova

1. Introduction

The constantly rising size of the age segment 60+ forces the companies to investigate the self-concepts of the older consumers. Research studies demonstrated that stereotypes of older people in media or in society are not always identical by the perception of themselves hold by older people. Many seniors “think young” and expect to be treated in this way (Ward, 1972). People (especially with subsequent age) perceive themselves to be younger (or older) than is their chronological age and this “self-perceived” or “cognitive age” can influence their behaviour (Barak & Schiffman, 1980). Marketing and advertising researchers investigate “self-perceived age” with the aim to improve the understanding of older consumers and to identify how they see themselves (Schewe, 1988).

The concept of self-perceived (or cognitive) age was found in sociological research. In 1956 Blau investigated age identification, asking older people whether they identify themselves as middle-aged or as old. Various other studies of seniors examining this concept used terms such as “subjective age” (Ward, 1997; Markides & Boldt, 1983), “perceived age” (Linn & Hunter, 1979) or “age identification” (Guptill, 1969; George et al., 1980; Baum & Russel, 1983). The term “cognitive age” as a synonymous to self-perceived age was used in the marketing literature by Barak & Schiffman (1980), Barak & Gould (1985) and Barak (1987). The concept of cognitive age can be applied to people of any age, because even young and middle-aged adults could have their cognitive age different from their chronological age (Guptill, 1969). However, most frequently is the self-perceived / cognitive age explored among seniors.

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2. The concept of self-perceived (cognitive) age

One of the most frequently used variable in marketing and consumer behaviour research is chronological age. It is easily measured and is an objective and universal variable, that is used frequently (Churchill, 1979). Chronological age indicates the point at which a person can drive or drink alcohol, or receive a state pension. Chronological age is the most commonly used variable to describe the ageing process (Wei, 2005). Although chronological age has important influence on consumer behaviour, it has also its limitations. No two persons age in the same way at the same time. The biology of ageing is dependent on genetic inheritance and on the environment. Consumers not only inherit their physical features, but also their susceptibility to disease and the predisposition to other facets of ageing. The environment also affects longevity. Personal intervention to the ageing process can be achieved also by weight control, diet, non-smoking and a reduction of psychological stress. Therefore, some individuals do age more gracefully than others and it is improper to group people by chronological age and assume that the same physiological and psychological changes have occurred.

This leads to the broadening of the concept of age. The idea that a person is as young (or as old) as it feels, is more useful in understanding the behaviour of older people. For this reason, self-perceived (or cognitive) age rather than chronological age directly influences people's attitudes and behaviour and is used in consumer behaviour research of seniors (Barak & Schiffman, 1980; Barak, 1988). In sociology is the cognitive age defined as "an age perceived by a person self and considered as an element of self-concept" (Barak & Gould, 1985). It is a theoretical variable; and as such, it is most easily defined by specifying its relationships with other variables.

Gwinner and Stephens (2001) state that cognitive age could explain some consumer behaviours better than commonly used variables, such as income or education. Wilkes (1992) noted that a younger cognitive age led to higher self-confidence, greater work-orientation and more participation in entertainment and cultural activities. Based on research of Wilkes (1992), Mathur and Moschis (2005) found that differences in cognitive age did not merely reflect differences in chronological age. They argue that cognitive age of a person is influenced by life events that serve as benchmarks of transitions into social roles at different stages in life. Additionally, health-related events, such as chronic conditions, make people realize their ageing, thus affecting their cognitive age (Mathur & Moschis, 2005).

The proportion of older people in the population who feel younger than their chronological age, is estimated in various sociological studies about 50-75 per cent. It is documented that about half of seniors over 60 feel 10-15 years

younger (Barak, 1987). The cognitive age of people in their 60s is consistent with the lives they are leading. However, in the situation of a dramatic life change/ life event, such as retirement, age-related physical illness or loss of a spouse, people may shift to older cognitive ages. Cognitive age is also significantly correlated with some variables which have significant impact on the standard of living, such as disposable income or education. Seniors with less money and lower education feel themselves to be older than those with better financial situation and higher education.

Social and psychological differences exist also among people in the same chronological age, but with different self-perceptions. People, who perceive themselves as being cognitively old, engage in less social, cultural or educational activities. People who feel old, evaluate their life situations as unfavourable and have lower self-esteem.

Age perceived by seniors themselves is an important knowledge in developing marketing and advertising strategies. Campaigns targeting seniors aged 60+ should portray them with other family members, in active way, and to avoid to picture them as sick, poor and powerless. Barak and Gould (1985) found in their research that older people perceived by themselves to be cognitively young, were less traditional, old-fashioned and have had a higher self-confidence. Cognitively young seniors use to spend more frequently the time out of their home, they have less anxiety and concern about ageing and are engaged in more activities. Mathur et al. (1998) also found that cognitively young elderly exhibit greater satisfaction with their health and social life and have a greater interest in outdoor activities, travel, work/self-enrichment, learning new things and computers.

3. Methodology and data

The goals of our paper are threefold: 1) to explore the concept of self-perceived age in elderly segment and how it relates to chronological age; 2) to explain the application of self-perceived age in marketing; and 3) to demonstrate the importance of self-perceived age measures for marketing and advertising campaigns. The research will build upon the work done already in the area of seniors and cognitive age (Barak & Schiffman, 1980; Mathur & Moschis, 2005; Schiffman & Sherman, 1991). In our paper we intend to contribute to the literature by addressing the impact of self-perceived age on communication and advertising, as well as explore the impact of cognitive age on brand loyalty and information seeking. This paper presents first a literature review on cognitive age, then we discuss the methodology, results and implications of the results for advertising. The question is raised: why is the concept of self-perceived age useful in marketing and how it can be measured. We reveal the influence of self-per-

ceived age on attitudes and behaviour, which is relevant for marketing and advertising. Finally, we investigate the impact of self-perceived age on attitudes toward new brand trial and information seeking among elderly. The answers to these questions are found based on empirical research in seniors segment.

The research sample focused on people that were contacted in Clubs of seniors in urban areas. Personal interviews were conducted with 486 adults aged 60+. The sample consisted from people aged between 60-89 years, with an average age of 72 years. A description of the sample demographic structure is provided in Table 1.

Table 1. Descriptive information on sample

Items	Proportion / Respondents
<i>Gender</i>	
Male	42% / 204
Female	58% / 282
<i>Chronological age interval</i>	
60-69	37% / 178
70-79	42% / 207
80-89	21% / 101

Source: own calculation.

Cognitive age is usually measured by two methods (Wilkes, 1992). The first and oldest method is age identity identification, indicating the age category (young, middle-aged, old) in which seniors perceive themselves to be, and is used most frequently in gerontology studies. The cognitive age is expressed by a single-item measure as a response to the question “which of the following adjectives best describes you“. Adjectives used include either 5-categories scale (young, middle-aged, elderly, old, very old), or 3-categories scale (Ward, 1977; Linn & Hunter, 1979; Markides & Boldt, 1983).

The basis of the second method was the acknowledgment of the ageing as a multidimensional process, comprising biological, psychological and sociological dimensions. In this sense the cognitive age is expressed by different dimensions of aging by asking people: how old they think they look (biological dimension), how old they feel (psychological and biological dimensions), and how old they think their behaviour and interests are (social dimension). The original definition of cognitive age comes from Kastenbaum et al. (1972), who asked respondents how old they felt in terms of interests, things which they do, looks and feelings (Kastenbaum et al., 1972). In marketing was the term cognitive age used first by Barak and Schiffman (1980), who revised Kastenbaum’s method from 1972 into a decade matching format (Barak & Schiffman, 1980; Barak & Gould, 1985;

Barak, 1987). The cognitive age scale is frequently used as the measure of self-perceived age in marketing research of seniors.

In our research both two methods of self-perceived – cognitive age were applied. The first was the method of age identification with its single-item categorical measure. We asked respondents, which of three adjectives – “young, middle-aged, old” best described them. The second method used was the age decade scale, consisting of four dimensions “feel age, look age, interests age and do age“.

4. Results and discussion

Analysis of the single-item cognitive age measure is based on a simple frequency tabulation (Tab. 2). The results of single-item measure indicate that nearly half of the sample respondents perceive themselves as being “middle-aged“, whereas slightly less than a quarter of the sample feel “old“ and one in three feel “young“. Comparison of chronological age (Tab. 1) and single-item measure (Tab. 2) suggested that respondents aged 60-69 years feel themselves “young“ and all those aged over 80 years feel themselves to be “old“.

Table 2. Results of single-item measure

Single-item measure	Proportion/Respondents
Feel “young” / “younger”	31%/150
Feel “middle-aged”	45%/221
Feel “old”	24%/115

Source: own calculation.

The method of “age decade scales“ contains nine interval scales (Tab. 3). On the age decade scale respondents have to indicate their average feel, look, do, and interests ages. It is then compared to chronological age. We found that “look age” proved to be closest to chronological age than any other of the three other dimensions.

Table 3. Results of age decade scales

Age decade	Feel* % / Respond.	Look* % / Respond.	Interests* % / Respond.	Do* % / Respond.
Teens	0	0	0	0
20s	0	0	0	0
30s	4.4 / 2	1.5 / 1	10.4 / 5	4.4 / 3
40s	16.1 / 8	8.8 / 6	23.5 / 12	11.8 / 7
50s	29.5 / 16	25.1 / 16	26.4 / 15	27.9 / 16
60s	26.5 / 15	36.7 / 24	20.5 / 11	32.4 / 18

Age decade	Feel* % / Respond.	Look* % / Respond.	Interests* % / Respond.	Do* % / Respond.
70s	14.7 / 8	17.6 / 12	10.3 / 5	13.2 / 8
80s	8.8 / 5	10.3 / 7	8.8 / 4	10.3 / 6
90s	0	0	0	0
Cognitive age (years)	54	66	52	58

*Response to statements: "Most of the time, I feel like I am in my..."; "Most of the time, I look like I am in my..."; "My interests are those of a person in his/her..."; "I do the things, which a person does in his/her...".

Source: own calculation.

Cognitive age seems to be an useful concept for marketers. It gives a more precise understanding of the attitudes and values of older consumers, which have an impact on consumer behaviour. Thus, the marketers can develop a better understanding of the customer decision taking and based on the knowledge of cognitive age they can improve creative execution, advertisements development and media selection.

Older people, who are cognitively young are not very different from chronologically middle-aged and younger consumers. They usually lead active lives and purchase the same (or very similar) goods and services (Moschis & Mathur, 2006). Seniors who are cognitively young do not necessary require any special targeting. In contrast, seniors who are cognitively old, are suitable targets for goods and services which help them to make the life easier and to see the future in less negative perspective (Rentz et al., 1983).

Knowledge of cognitive age helps in creative execution of advertising based on a clearer understanding of the self-concepts of older target segments. It means, it may help advertisers to avoid some stereotypes that could be rejected by seniors, or that could offend cognitively young seniors. In creating the advertisements it is to be remembered that the average look age of 60+ people is about 8-10 years younger than chronological age, and that the average interests age is about 10-15 years younger. In our research we found the highest coincidence in look dimension between chronological age and cognitive age (Tab. 4). Higher differences have been identified in both age age measures in dimensions feel-age and interests-age (12 vs 14 years).

Table 4. Correlations between chronological age and the age decade scales

	Age decade scales			
	Feel age	Look age	Interests age	Do age
Chronological age	0.71	0.89	0.74	0.80

Significant at $p < 0.05$

Source: own calculation.

A traditional assumption is that younger age groups are more likely to switch brands and that older consumers are more brand loyal and thus difficult to persuade to buy a new brand or product. Several research studies have shown that younger consumers are more likely to experiment with brands, while older consumers are more likely to remain brand loyal. However, the brand loyalty has a declining trend among all age groups. The impression that the elderly people are not interested in new brands or products and services is rapidly becoming a myth. We found that cognitively younger consumers present a higher willingness to try new brands and to switch among brands. In terms of cognitive age we might expect that cognitively younger consumers will be more willing to try new brands or to be brand-switchers (Tab. 5). Correlation between “feeling young” and new brand trial is relatively high (0.76) and even in the group feeling “middle-aged” the value of correlation coefficient is only slightly below 0.7 (0.65). However, the willingness of seniors to try new things is not only a function of feeling younger, but it may also be a function of income or education. People with higher income tend to feel younger and to be more open than those with less money.

Advertising targeted at cognitively young seniors may promote trying new products, since we found these people to be positive towards new brand trial. Respondents who felt younger, and who actually were younger, expressed more willingness to try new brands and seek information and were less likely to display cautiousness in buying. Thus, the level of innovativeness is not influenced by chronological age, but rather by cognitive age.

Table 5. Correlations between single-item measure and consumer behaviour

Single item measure	New brand trial Correlation coefficient (%)	Information seeking Correlation coefficient (%)
Feel “young”	0.76	0.86
Feel “middle-aged”	0.65	0.73
Feel “old”	0.39	0.52

Significant at $p < 0.05$

3-point scale, where 1=less likely to try new brand and seek information; 2=likely to try new brand and seek information; 3=very much likely to try new brands and seek new information

Source: own calculation.

The knowledge of cognitive age (in addition to chronological age) is important for advertising decision and the choice of media channels, which are most efficient in influencing elderly segment. People who are cognitively young, are easier to reach, because they are more likely to seek new information, to watch advertisements and to read the product labels. The advertising that reach chron-

ologically middle-aged and younger target segments may be also effective for the seniors who feel cognitively young. On the other hand, the cognitively old seniors are harder to reach. They are bound to products and media that are known and familiar to them. To pursue the cognitively old people to buy a new product / new brand, requires to use convincing methods, such as free samples / in-store sampling, to encourage trial purchase. It is recommended to stimulate word-of-mouth, since cognitively old seniors believe more to this form than to printed advertisements.

While seniors react negatively to the stereotypical image of being sick, poor and frail, they also do not want advertisements that deny evidence of ageing. Seniors want ads that show people living a full and active life. It can be recommended not to use in targeting senior market age-related labels, such as “third age” or “elderly”, as these are perceived negatively. Instead, we recommend to use labels “60+” and generally “senior” (particularly for those 65+). Marketers can even create a younger cognitive age in consumers through enhanced marketing communication.

The age decade scale is the preferred measure of cognitive age providing several advantages. First, it gives a more accurate estimate of cognitive age than the single-item scale, because it uses nine scale points and four items. It is expected that the estimates will be more accurate, if there are more points and more items on a rating scale. Second, the four dimensions of the age decade scale are easy for respondents to understand and answer. This is an important advantage, given the difficulty, which older people often have with scale questions. Third, analysis and interpretation of the age decade scale is relatively simple.

Finally, self perceived age is a useful concept in marketing and advertising decision taking, that may be used as a supplement to chronological age. Advertisers can employ it to achieve more effective creative content and more efficient media selection. Self perceived age is not a substitute for chronological age, but it can enhance the understanding of a large and diverse segment of senior consumers.

5. Conclusion

The main finding from exploring the age self-perception is that the majority of older people do not identify with the age category “old”, but prefer to consider themselves to be “middle aged”. Our research, which has applied two methods to measure the self-perceived age of older people, documented that: first, significant differences exist between self-perceived age and chronological age, and second, the look age dimension exhibits the highest correlation with the actual age in comparison with other dimension of self-perceived age. The results demonstrate

that the vast majority of seniors feel “middle aged” or “young” and are not ready to admit they feel “old”.

We have been able to demonstrate the relation between cognitive age and new brand trial. Our results suggest that seniors who perceive themselves as “younger” are more ready to trial new brand or to switch to another brand. This suggests that even those seniors who feel “middle-aged” in terms of cognitive age, still constitute an attractive part of the senior market to be addressed by marketers. Thus, seniors are an important market for business to serve, but marketers need to recognize that additional segmentation variables, such as self-perceived age rather than chronological age, are useful to understand best this market. As people age they do not necessarily become less interested in consumption and it would be a mistake to ignore such a big market.

Self-perceived age seems to be a useful concept for marketers and advertisers as a supplement to chronological age. It enables a deeper insight into the multidimensional segment of seniors and helps to understand the self-concepts, attitudes and behaviour of older people. Chronological age remains in marketing a valuable segmentation variable, the most important and standard demographic measure. Nevertheless, the self-perceived age makes the picture of seniors more clear and precise.

Self-perceived age, no doubt, is a useful concept for marketers and advertisers as a supplement to chronological age. It enables a deeper insight into the multidimensional segment of seniors and helps to understand the self-concepts, attitudes and behaviour of older people. With more people becoming senior citizens the cognitive age makes the picture of seniors more clear and precise.

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Systems for Reporting Irregularities in Enterprises

Dorota Dziedzic, Agnieszka Żak

1. Introduction

The scale of economic misconduct in enterprises is increasing year after year. This trend may be observed not only in Poland but all over the world. Despite the fact, that most of this increase is connected with better methods of detection of the abuse, this phenomenon is still concerning.

The term *whistleblowing* was created in the 1970s in the United States. It references the way of calling for help initially used by the police officers¹.

Characteristic features that distinguish whistleblowing from negatively perceived informing are (Hans, 2013):

- noble reasons – signaler is not looking for his/her own profit but for social good,
- a discovery of important meaning to society – signaler reveals unaccepted dangers, risks and anomalies that are a threat to health and life, principles of social coexistence or environment,
- a threat to the signaler – signalers often expose themselves to significant danger, they risk their careers in the name of protection of interest of other people.

Independently of noble intentions and effectiveness of revealing fraud, the opinion on the disclosing person is not clear. The research show (*Bohaterowie...*, 2012) that in Poland, the level of social acceptance of whistleblowing and whistleblowers is relatively high but related to specific situations and personal “profit and loss account”. Because of that, cultural approval for unethical phenomena such as molestation or corruption still exists. According to Corruption Perception Index

¹ Because the subject of this article are systems for reporting irregularities, in-depth analysis of terms whistleblowing and whistleblower is willingly omitted.

– CPI, prepared annually by Transparency International (2018), in 2018 Poland placed 36th out of 180 countries (gathering 60 points out of 100).

The research conducted by Public Opinion Research Center shows that after small decrease in 2013, the notion that bribery is ingrained in our mentality and comes from belief that it will help get things done quicker or better, increased again (from 55% to 61%) (see: *Korupcyjne...*, 2017). Similar conclusions come from a report on economic abuse in enterprises worldwide prepared by EY (2016)². The result for Poland shows that corruption in our country is still a serious problem. The view about this phenomenon being common in the Polish business is shared by 1/3 of the respondents. According to the report, this number is smaller than in other countries of our region (46%) but still significantly bigger than in developed countries (21%). Respondents pointed to loyalty towards employer (20%) and loyalty towards coworkers (18%) among factors that prevent from reporting abuse. The report also suggests means of coping with abuses in companies specifying system for reporting irregularities as one of the most effective tools for gathering information on fraud in organizations.

2. Literature review and theoretical framework

There are two types of whistleblowing distinguished in the literature (Near & Miceli, 2016; Lewicka-Strzałecka, 2014; Vanderkerckhove, 2006) internal and external.

The first type should be an integral part of the code of ethics. Enterprise that enables and makes it easier to report irregularities shows that they care about detecting and eliminating these types of behavior. System for reporting misconduct can be of various forms. It can be a complaint box, online or intranet questionnaires, dedicated e-mail addresses or phone numbers where you can report wrongdoing anonymously. There can be also a group of specifically assigned “ethics spokesmen” or “ethics advisors” which are people open to direct communication on misconduct. These solutions may be implemented using internal resources (e.g. employees from internal audit, law or compliance departments) but also via outsourcing with the use of experience and tools from specialized external companies (*external whistleblowing*). Building ethical culture characterized by openness as well as educational and informational campaigns directed to employees are also important (Sroka, 2013).

² The report is based on interviews conducted with a group of 2825 managers from the biggest enterprises from 62 countries and regions. There were 50 interviews conducted in Poland. The research took place between October 2015 and January 2016. See (*Światowe...*, 2016).

Systems for internal reporting of irregularities are created to avoid consequences of misconduct and unethical behavior of employees or management. These kinds of behaviors may harm not only the organization but, in the long term, they may also negatively impact company's stakeholders (local community, environment, vendors, etc.).

There are many benefits that come from implementation of solutions that enable employees reporting of irregularities. The most important of them are:

- system for reporting misconduct – it's an important and strong signal that affirms that ethical values declared by the organization are reflected in the actions of management and regular functioning of the enterprise,
- collecting information on (potential) irregularities in one database - enables analysis, inference and implementation of unified procedures and assessment criteria,
- tools enabling reporting of misconduct – being an excellent mean of CSR communication they can strengthen trust of various groups of stakeholders (clients, contractors, etc.),
- possibility to protect enterprise's image – the system increases chances for information to reach relevant, competent employees in the first place. They may then take immediate action before the information gets outside of the company what may be significantly important when it comes to enterprise's reputation.

In terms of external whistleblowing, employees may report misconduct to external entity with which the company is collaborating. As it was mentioned before, one of the instruments used in system for reporting irregularities in organization is a helpline that can be outsourced. Employee's bigger sense of security, when they don't dread "leaks", is one of the biggest advantages of this solution. It is also important in a situation, when signaler reports issue that regards managers of the organization.

Whistleblowing based on cooperation with external partner brings many benefits for both employees and companies that use this tool for reporting irregularities. The most important of them are listed in Table 1.

Unethical behavior occurs most frequently inside organizations but it may also happen during collaboration with vendors, clients or competitors as well as while contacting public administration, offices and control bodies. For this reason, when enterprise decides to use whistleblowing, it's worth informing its external environment in order to use it also for identifying irregularities. Enabling external stakeholders access to reporting system may protect the organization against numerous market risks and become an efficient element of *employer branding* (Bielińska & Żak, 2018).

Table 1. Benefits of using external whistleblowing, based on OCI (National Intervention Center in Poland)

Benefits	
for employer	for employee
increased chance for detection of undesirable activities, more effective prevention of such events in the future	increased sense of safety thanks to the ability of reporting even the most difficult issues anonymously
support for building ethical work environment, increase of employees' engagement	possibility to receive advice and help with regards to mobbing, molestation or other issues concerning employee relationships
decrease of the number of irregularities and misuse as a result of clear and safe reporting system	bigger engagement and sense of being important partner in building ethical work environment
minimizing risk of diminution of the reputation or financial loss by cause of early detection and management of cases of fraud or misconduct	increased sense and meaning of one's work
effective element of employer branding - enhancement of ethically operating enterprise among its internal and external stakeholders	belief, that the company is a good employer whose operational ethics are important part of its business
decreased possibility of settling disputes in court but higher chances of positive result if they occur	
reduction of income losses in the long term	

Source: own study based on (Wencel, 2017).

When analyzing issues of whistleblowing it is beneficial to use hard data gathered during research than using only analysis of the literature. The facts speak for themselves.

Result of 10 year-long work of Forensic investigations and fraud risk management team in PwC published in 2017 shows that 338 investigations conducted at that time were initiated by (*Sygnalista...*, 2017):

- incidents reported by a signaler – 69% of cases,
- information on misconduct revealed during internal control – 22%,
- information passed on via other channels of communication (e.g. media, law enforcement authorities, accidentally) – 9%.

The report entitled *Investigations of Economic Crimes (Kto i jak...*, 2018) published by PwC in March of 2018 shows that in the past two years in half of Polish enterprises fraud was detected. This was a significant increase in comparison to previous study conducted in 2016 - such declaration was made by 36% of respondents. Increasing range of misconduct can be also seen in Central and Eastern Europe, where 43% of companies are tackling irregularities (12% more than in 2016) and all over the World, where the average is 49% (13% higher than in 2016). As a result of discovered frauds and misconduct every other enterprise in Poland lost over 400 thousand zloty in the last 24 months. Moreover, 20% of companies that took part in the study were unable to estimate level of financial loss they experienced. More and more fraud is committed by employees – people

from inside of the companies were responsible for 55% of reported abuse and 54% of these actions were conducted by managers. Inspections in the company as well as operational systems of whistleblowing contribute to detection of misconduct. In this year's study as much as 45% of fraud was reported by signalers (36% increase in comparison with 2016).

Effectiveness of reporting by signalers was also confirmed in ACFE's report published in 2018 *Report to the Nations. 2018 Global study on occupational fraud and abuse* (ACFE 2018). These reports were the most effective tool in revealing fraud (40% of cases). Internal audit was significantly less efficient (16% of cases). According to ACFE's study, signaling misconduct is far more effective in organizations with more than 100 employees (44%) than in the ones employing less than 100 workers (29%). The research shows that half of declarants were employees of the organization. Signalers most frequently reported instances of corruption (50%), embezzlement (38%) and financial fraud (38%). Channels for information that were used the most were dedicated help lines (42%), dedicated e-mail addresses (26%) and web applications (23%).

3. Research method and characteristics of the group of respondents

The authors of the article chose online survey as the research method. The study was conducted in the first quarter of 2019 in the group of 51 Polish respondents and it consisted in 43% of higher managers, in 29% of middle managers, in 24% of specialists and in 4% of enterprise owners. The answerers were mostly employed in medium (35%) and big (41%) enterprises, limited liability partnerships (45%), joint-stock companies (30%) and state-owned enterprises (12%) of southern Poland. The main business profiles of these enterprises were services (53%), production (39%) and commerce (8%). Among the respondents 57% were men and 43% women. The age and period of employment are presented in Tables 2.

Table 2. The age of respondents and period of employment in particular enterprise

The age of respondents	
≤ 25	2.0%
26-35	45.1%
35-45	37.3%
46-55	13.7%
56-65	3.9%
Period of employment in particular enterprise	
1-5 years	41%
6-10 years	35%

11-15 years	14%
16-20 years	4%
21-25 years	6%

Source: own study.

Respondents answered 36 substantive questions³ and demographic questions. Collected data will be used in a series of articles on the topic of whistleblowing and in comparative studies.

4. Findings – systems for reporting irregularities in Polish enterprises

As follows from respondents' answers, in 49% of organizations they work in, internal system of reporting irregularities is not operating and they are not aware if such system exists (Fig. 1). In 37% of organizations system for reporting misconduct works (Fig. 2). 98% of respondents in this group was informed about existence of this system and became familiar with its principles of operation.

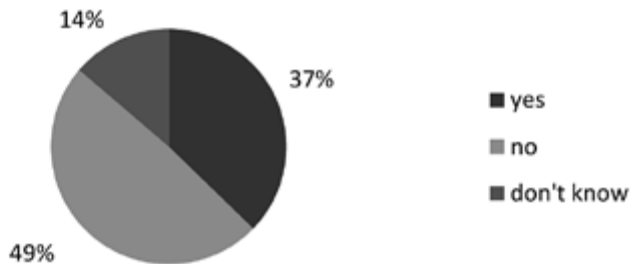


Figure 1. Does internal system for reporting irregularities operate in the organization you are working in?

Source: own study based on the research.

Enterprises, that introduced this system are mostly companies employing over 250 workers (56%) out of which 60% were production firms, 30% were companies offering services and 10% firms operating in commerce. Interestingly, 14% of respondents didn't know if such system operated in their company or if it even existed. Only in one enterprise such system was not operating despite information released to employees about implementation of the system and conducted trainings.

³ Majority of questions were closed-ended (single and multiple choice). Semi-closed and open-ended questions were also used.

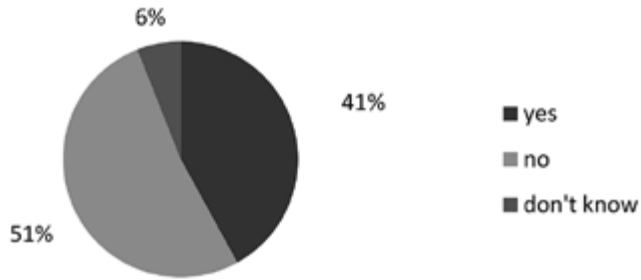


Figure 2. Did your employer inform workers about implementation of the system and present principles of its operation?

Source: own study based on the research.

Respondents that answered positively to question that concerned internal system for reporting irregularities were asked to characterize it (Fig. 3). In almost 70% they were convinced that the system guaranteed confidentiality of reported data but only in half of the enterprises it guaranteed possibility of anonymous reporting. 1/3 of respondents agreed that the system ensures protection for the person reporting incident against retaliation. 37% said that the system warrants reliable and objective check of reported information and determines type and characteristics of following actions.

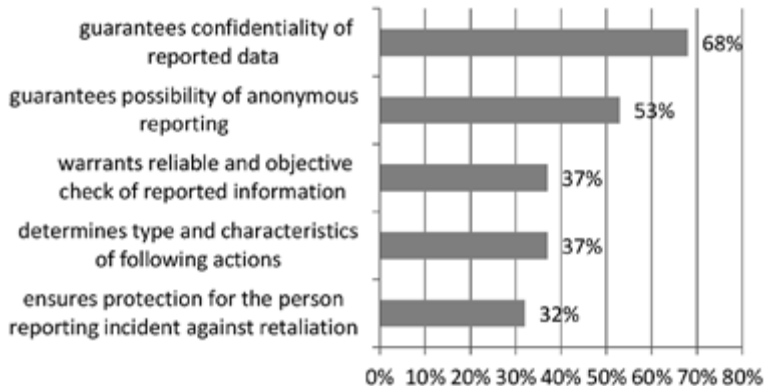


Figure 3. Characteristics of internal systems for reporting irregularities

Source: own study based on the research.

In respondents' workplaces misconduct is mostly reported to immediate supervisors (82%) but not all of them agree that it should be this way (63% vs. 82%; Tab. 4). In 31% of companies fraud is reported to dedicated services or

assigned person. Almost 60% of respondents say that this solution is desirable. 12% of them agrees that public authorities should be informed about irregularities but it happens only in 4% of enterprises. 4% of respondents also thinks that public opinion should be informed about such incidents but this type of action is never undertaken in their companies.

Answerers also proposed who should receive and revealed who is actually receiving information about misconduct in their workplaces.

Table 3. Who – in your opinion – should receive information about irregularities in the organization

Reporting irregularities	Should receive	Receives
immediate supervisor	63%	82%
dedicated services in the organization/assigned person (e.g. ethics spokesman, compliance officer, auditor, etc.)	59%	31%
public authorities able to take specific action regarding reported irregularity	12%	4%
public opinion	4%	0%
other	6%	12%

Source: own study based on the research.

In the “Other” category in “should receive” part, the following answers were mentioned:

- HR,
- person not connected to employees of the company,
- person involved in reported irregularity.

In the “Other” category in “receives” part, respondents listed:

- there is no clear information on who should be informed,
- president of the company,
- person involved in reported irregularity,
- there are complaint boxes where one can leave a message.

It's worth mentioning that only 2% noted that information about fraud should be reported directly to person involved in particular misconduct. They agree that pointing it out to person that committed the fraud in most cases results in cease of such actions.

The most common way of reporting misconduct (Fig. 4) is personal notification to relevant person or group of people (75%). Other mentioned ways are: passing information via complaint box on company's premises (12%), internal helpline (10%) and special e-mail inboxes (10%). Interestingly, everyone that used specific inboxes also used internal helpline. In 6% of enterprises except for direct report to relevant person, information is also delivered via complaint boxes on the premises.

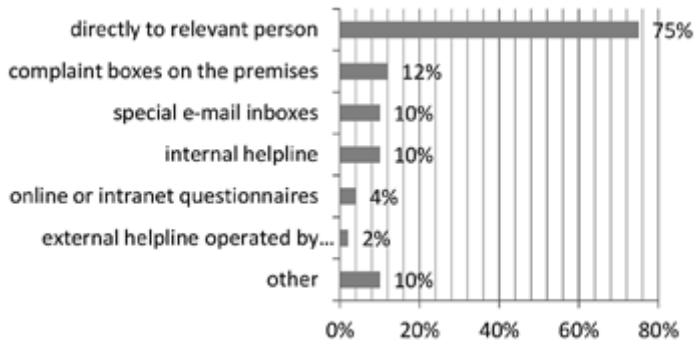


Figure 4. Means of reporting irregularities

Source: own study based on the research.

5. Conclusion

The study shows that tools that are being implemented and actions undertaken to create ethical standards in the organization should not only consider regulations but also cultural specifics and conditions of the enterprise. Efficient whistleblowing system must be effective and adjusted to organizational culture in the firm. Proper adjustment to the culture is of key importance because signaling of irregularities is an ambiguous phenomenon also difficult to evaluate. For this reason it is necessary to define irregularities that potentially may occur or are already happening in organization and to create criteria for assessment of behavior of people signaling misconduct (in order to distinguish ethical signaling from negatively perceived informing). A good solution is to engage employees in design of a catalogue of mechanisms enabling fraud information transfer. Workers will be more willing to report incidents if they perceive that as their common interest. If they are certain about that, signalers will not be recognized negatively (Hans, 2013).

Another matter is support from management. Employees encouraged to pass information on misconduct will not only expect guaranty of safety and support but also effective reaction from the management. It's not always possible because, as it was mentioned before, 54% of abuse in Polish enterprises is the effect of actions of management members (*Kto i jak...*, 2018).

Another challenge may be the creation of whistleblowing system in big multinational corporations. Situation, where implementation of solutions enabling reporting irregularities is an effect of copying already existing corporate rules (that are applied in particular capital group) may lead to resistance and lack of acceptance from employees. Because of that it is important to include local specifics and conditions related to culture in particular country or organization while creating procedures and systems.

Enterprises that are considering above problems while creating systems for reporting irregularities and that will make series of decisions regarding smaller, practical difficulties (e.g. who should receive information on abuse, who should analyze it?) and doubts (e.g. of legal nature regarding interpretation of personally identifiable information protection act in the context of signalers) will be able to expect benefits mentioned earlier in the article.

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Employees' Autonomy and Company's Innovativeness in Small and Medium-sized Enterprises*

Rafał Kusa, Agnieszka Peszko

1. Introduction

Company's capacity to innovate constitutes one of the key factors of its success. Innovations have become a driving force of the economy and major determinant of the country's socio-economic development. In order to build up competitive advantage, companies need to have skills to create and implement innovations. People play a fundamental role in this process. The more workers are able to come up with innovative solutions to problems, the more innovative the company will be. It is possible for an enterprise to trigger workers' innovative behaviors only if it creates appropriate conditions for their self-fulfillment.

The paper discusses and assesses the association between employees' autonomy and firm's innovativeness. The aim of the paper is to examine the relationship between these two factors in small and medium sized enterprises. The study focuses on the available literature on the subject and the authors own research. To correlation analysis was applied to achieve the research goals. The sample consists of 104 SMEs operating in the Malopolska Region in Poland.

The structure of the paper is as follows; firstly, we introduce the previous research related to innovativeness, employees' autonomy and relationship between both variables. Secondly, we describe the methodology of our study. Thirdly, we present the results. Finally, we discuss the results and point out the limitations of our examination as well as recommendations for future studies.

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2. Background

Economic sciences owe the first definition of innovation to J.A. Schumpeter. He defined innovation as an inimitable, fundamental and radical change (Schumpeter, 1960). These days the innovation discussed in various studies, more often includes both fundamental changes to new products and processes – new for the industry as well as for enterprises, and simple modifications to existing products, processes and practices (Matusiak et al., 2011, p. 112). Products, processes and methods (technical, organizational and marketing) may be called innovations if they are new or substantially improved, at least from the viewpoint of the company introducing them. A business entity, which implements new solutions that have not been applied before, is referred to as an innovative enterprise, whereas innovative activities are understood as all activities of a scientific, technical, organisational, financial and commercial nature, which aim at the commercial application of a new solution (*Podręcznik Oslo*, 2008, p. 48).

The research shows that Polish businesses hold one of the last positions in Europe when considering: the amount of expenditures assigned to innovative activities, the percentage of entities implementing innovative solutions, the position held in respect to research and development activity, both in terms of expenditure, the number of organisations engaged in such activity, and the average value of marketed production of new or significantly improved goods (Wiśniewska & Janasz, 2018, pp. 139-149). In the latest European Innovation Scoreboard for the year 2018, where the European average for innovation amounted to 100 points, Poland, with the score of 53.6 points, appears only in the 25th position among 28 countries (*Europejski...*, 2018, p. 2). Poland was preceded only and insignificantly by Croatia, Romania and Bulgaria. Sweden remains the European champion of innovation closely followed by Denmark, Finland and the Netherlands. Such a poor score in the ranking comes as no surprise when we look at the percentage of innovation active enterprises in our country compared to other European countries. Among all the European countries, the highest average share of innovation active industrial companies in the years 2014-2016 was reported in Switzerland (60.2%), and the lowest in Romania (6.4%). The percentage of such companies in Poland was 18.6%. The highest share of innovation active enterprises in the service sector is in Iceland (50%), the lowest in Romania (6.6%), and in Poland it amounted to 12.3% (*Działalność...*, 2017, p. 21). The share of innovation active enterprises in the overall number of enterprises in Poland has practically not changed from 2011. It fluctuates around 14% (GUS, 2019).

Now level of companies' innovativeness in Poland results not only from low level of outlays on research and development activities, but is also largely depend-

ent upon workers. According to Kotler (2013, p. 276) „intrinsic motivation is sufficient to draw out workers' full potential". Most of the internal determinants are organisational circumstances. They include suitable conditions for effective open communication, information exchange, ability to listen to employees' opinions and delegate powers and responsibilities, teamwork, stimulation of independent thought and action – that is the participation of employees in the management of the organisation (Moczulska, 2011, pp. 39-42; Mowbray, Wilkinson & Tse, 2015, pp. 385, 387). There is a substantial body of scholarly literature that covers the analysis of the impact of workers on the degree of company's innovativeness. For example, studies on the impact of organisational culture (Gadomska-Lila, 2011, pp. 124-132), motivation (Huczek, 2013, pp. 31-38), employees' key competences (Dewicka, 2013, pp. 19-27), and their direct participation in the decision-making process (Szelągowska-Rudzka, 2016, pp. 23-29) on the increase of the Polish workers' innovative activity. The autonomy is considered as one of the factors that may have an impact on company's innovativeness. Only such organisations which provide their workers with proper degree of autonomy and independence, are innovative enough to be successful (Mendel, 2002, p. 32). Autonomy, in the organizational context, “refers to the independent action of an individual or a team in bringing forth an idea or a vision and carrying it through to completion” (Lumpkin & Dess, 1996, p. 140). Employee's autonomy increases their self-efficacy (Globocnik & Salomo, 2015). High level of autonomy is associated with employees' engagement and firm's performance (Shantz et al., 2013). Unfortunately, the research shows that the majority of workers in Poland are not fully involved in the work. It is not only a matter for Poles. The latest report “State of the Global Workplace” (*Gallup Report*, 2017, p. 22) has shown that only 15% workers worldwide are emotionally involved in the carried out work-related activities. The result for Poland was 14%. The same has been confirmed by the report “Power of innovation culture” (Prokopowicz, Pawlak-Mihułka & Rudnicki, 2018, p. 4). According to its findings, workers list the following main causes of the fall in employees' motivation to create innovation: low financial resources allocated to innovations, low level of leader's commitment as well as limited decision-making autonomy. Thus, Human Resources Management (HRM) plays an important role in strengthening employees motivation, however some weaknesses of HRM (e.g. recruitment, assessment and compensation) can be perceived as possible restraints on organizational innovativeness and entrepreneurship (Glinka & Gudkova, 2011, p. 228). Organizations should focus on how people can be innovative and creative, and on building responsibilities and trust (Dhliwayo, 2010, p. 146). Employees' autonomy increases their intrinsic motivation toward knowledge sharing (Foss et al., 2009). Rwigema and Venter posit that to retain innovative employees “room should be given to intrapreneurs to experiment and innovate, and

to unleash their creative potential to the large gains for the corporate parent” (Dhliwayo, 2010, p. 144). Employees’ motivation to innovate is associated with a company’s entrepreneurial orientation and capability-based HRM (Zhang et al., 2016). Employees autonomy (namely, internal organisational practices that provide employees with time, freedom and independence to conduct their work) determine the economic benefits of open innovation (Burcharth et al., 2017).

The role of employees’ autonomy and firm’s innovativeness is reflected in the Corporate Entrepreneurship Assessment Instrument (CEAI). It is a measure scale dedicated for large companies, focused on five areas: management support for corporate entrepreneurship, work discretion, rewards/reinforcements, time availability and organisational boundaries. There are items related directly to employees, including managers. They refer to senior managers’ support to innovators, encouraging employees to take calculated risk, giving them free time to develop their good ideas, encouraging them to talk to employees from other departments about ideas for new projects, employees’ responsibility and freedom to decide about their jobs, autonomy and self-control, variety of work methods, managers’ support to remove obstacles and roadblocks, rewards and their dependency on achievements, and time for getting tasks done (Morris & Kuratko, 2002, p. 249).

Autonomy, together with innovativeness are perceived as dimensions of entrepreneurial orientation (EO). EO is one of the most recognized constructs reflecting organizational entrepreneurship. It consists of several dimensions, like risk-taking, innovativeness, proactiveness, employees autonomy and competitive aggressiveness (Covin & Slevin, 1989; Lumpkin & Dees, 1996). In the EO scale proposed by Hughes & Morgan (2007, pp. 657-658), some items relate directly to employees’ autonomy (acting and thinking without interference, the way of performing jobs, freedom and independence to decide on their own how to go about doing their work, freedom to communicate without interference, authority and responsibility to act alone, and access to all vital information). In this scale, innovativeness is measured as well. The relevant questions pertain introducing improvements and innovations, creativity in methods of operation, and seeking out new ways to do things within the business. However, in this scale innovativeness and employee’s autonomy are interpreted as components of entrepreneurial orientation, which is a multidimensional construct.

Based on the previous studies and concepts presented in the literature, we propose the following hypothesis: there is a positive correlation between employees’ autonomy and company’s innovativeness in small and medium sized enterprises.

3. Methodology

The aim of the paper is to examine the relationship between employees' autonomy and company's innovativeness. To examine the relationship between these two factors, we use correlation analysis. We have employed and modified selected items from Hughes and Morgan (2007, pp. 657-658) entrepreneurial orientation scale.

The employee's autonomy indicator consists of four items: employees are given freedom and may initiate and implement changes in the way of doing their work; employees are given authority and may act alone to perform their work tasks; employees are expected to act creatively and alone when solving organisations problems; employees have access to all vital information. The firm's innovativeness index comprises four items: Our organization seeks out new ways of doing things; we actively introduce improvements and innovations in our organization; our organization is creative in its methods of operation; the share of "new for the market" products, implemented to the market in the last 12 months in total income. The company's performance index includes four items: relative to competing products, those of our business have been more successful in terms of sales; we have been able to attract totally new customers/beneficiaries this year; we have succeeded in sustaining our customer base and achieving repeat orders; relative to our competitors, we achieve better economic results.

Cronbach's alpha coefficient for our indexes are respectively 0.65 for autonomy, 0.76 for innovativeness, and 0.72 for performance. The values related to innovativeness and performance represent good strengths of association of sub-items (Hair et al., 2011), what means that the variables were internally consistent and measured the same construct. Cronbach's alpha coefficients for autonomy was lower in our sample (0.65), however such value may also be acceptable in research in the social sciences and exploratory studies (Kedmenec & Strašek, 2017), what is a case of our examination. The employees' autonomy coefficient consisted of only four components, was a novel proposal. However, this value indicates the need to improve this coefficient in the future.

Our sample consists of 104 SMEs operating in the Malopolska Region in Poland. They represent a wide range of industries and operate both in urban and rural areas. The convenience sampling was implemented to select the respondents. The data was collected using PAPI technique between December 2017 and January 2019.

4. Results and discussion

The results of our analysis are presented in the Table 1.

Table 1. Correlation matrix

Variable	Mean	St. dev.	Company's innovativeness	Employee's autonomy	Company's performance
Company's innovativeness	4.24	1.08	1.00		
Employee's autonomy	4.68	1.12	0.27***	1.00	
Company's performance	4.99	0.94	0.50***	0.30***	1.00
Number of employees	45.72	53.08	0.01	-0.01	0.01

*** $p < 0.01$

Source: own elaboration.

Results presented in the Table 1 support our hypothesis and indicate a positive correlation between employees' autonomy and company's innovativeness in our sample consisting of small and medium sized enterprises. However, this correlation is weak within our sample. This result corresponds with the previous findings of Burcharth et al. (2017) who reported the correlation between employees autonomy and firm's innovativeness at the similar level (however they operationalized both variables in other way). The results show that the company's innovativeness is not significantly correlated with number of employees. Additionally, the findings reflect a positive correlation between company's innovativeness and performance, as well as employees' autonomy and company's performance. This is in line with previous findings by Hughes and Morgan (2007), who observed such relationship among companies at early stage of their development.

Despite the demonstrated relationship between the workers' autonomy and the level of company's innovativeness, SME's employers still rarely support the creation of favourable conditions for the development of their workers' competences and creativity. The efforts in this area are mainly made by large companies (Kraśnicka & Wronka-Pośpiech, 2014, p. 121). SME workers often display a lack of trust in their employers, have a negative opinion on the atmosphere at work and thus keep their intellectual values for themselves (Dewicka, 2013, pp. 25-26). In order to stimulate the development of innovativeness of enterprises in the SME sector, one needs to make the employees interested and committed to innovativeness. Our research results show that one of the factors contributing to innovativeness may be providing workers with the sense of autonomy in carrying out their duties.

Our study has some limitations. Firstly, our examination focuses only on basic relationship between two variables, i.e., employees' autonomy and company's innovativeness, however an impact of other factors is possible, both internal and external ones. The imposed elements describing autonomy, innovativeness and performance indexes are selected subjectively and do not cover all aspects of the issue. Additionally, the relationship is analysed with a simple statistical method. Secondly, the study focuses on small and medium sized enterprises, while employees' autonomy and company's innovativeness can interact differently within entities of other types, e.g. big corporations or non-profit organizations. Thirdly, some limitations result from sample characteristics, namely, our sample is small in size and selected with a non-random sampling technique. Additionally, method of collecting data is based on self-descriptive responses which imply subjective components and may result in self-evaluation bias. Finally, our study shows only a part of the picture of a company's innovativeness and it relates to a selected group of enterprises (SMEs) in a particular geography (Malopolska region in Poland).

Thus, the presented results should not be generalized beyond the context of this study. The above-mentioned limitations open field to further research.

5. Conclusion

The findings of this study suggest that employees' autonomy and company's innovativeness in SMEs are associated positively. This supports our hypothesis, however the strength of the relationship is weaker than expected in the light of some previous studies (presented in the first part of this paper).

The relatively weak association suggests the importance of other factors that were not a subject of this study. The complexity of determinants of workers' innovative behaviours points to the need to look for multidimensional tools describing and stimulating this phenomenon. This indicates some recommendations for future studies. In particular, it is recommended to examine the relationship between employees' autonomy and company's innovativeness in the wider context, including another factors that can interact with autonomy and innovativeness within an organization. Along with studying this association, the role of entrepreneurial ecosystem needs to be investigated as well. The enterprise's environment has a major impact on its innovativeness. Moreover, the perspective of employees can be relevant, e.g. an employee's personality traits, knowledge, competences, aspiration, motivation, creativity and readiness to take initiative. It is also an interesting aspect to what extents employees' autonomy is motivating employees to innovative activities, and when it ends as entirely opposite result than anticipated and may demotivate.

In spite of the observed limitations of the study, the correlation between the company's innovativeness and the sense of workers' autonomy has once again been confirmed by the authors' study and that is what it was aimed at.

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Operational Risk Faced by Start-ups

Ryszard Pukała

1. Introduction

Intense modernisation of the Polish economy observed in recent years has been based on an ever broader use of innovative solutions and products. This process inscribes itself into a visible global trend that is a driving force behind the fourth industrial revolution (*Industry 4.0*). Start-ups represent a significant aspect in the process of ongoing changes and in exploiting the potential generated by modern technologies. The start-ups constitute a component of a certain technological system that is largely based on combining new solutions with regard to the theoretical and practical dimensions of innovative entrepreneurship. The intense innovative activity is triggered by a high potential for innovations, which becomes a groundwork for reaching a higher level of innovative development and enhancing operational creativity by the economic system. Creating conditions for the development of modern start-ups facilitates creating new jobs, considerably increases productivity and contributes to the growth of the national and global economy. Each developmental stage of a start-up can include various barriers and risks that disturb and pose a threat to its operation. Bypassing these barriers and eliminating the risk in the start-up development process is practically impossible, therefore ongoing monitoring of hazards and using tools that limit risk materialisation represent a very important element that stabilises the operation of such entities. Beyond doubt, such activities should contribute to stabilising start-up development and achieving market success.

2. Operational risk of an enterprise

Managing the operational risk of an enterprise is a very difficult and complex task. Complications within this process mostly derive from doubts concerning the essence and source of risks that have an impact on an entity. Additionally,

it is a process that covers the organisational strategy as well as procedures for implementing this strategy. All issues related to risks faced by an enterprise that took place in the past, are taking place now and can take place in the future should be solved.

Operational risk management should be a constant element within the framework of each enterprise's organisational culture. Moreover, the introduction of risk management is related to defining responsibility for results, assessment of achievements and appropriate remuneration, and thus, to promoting efficient operation at each level of an organisation. Becoming familiar with the nature and scope of potential risks allows selecting appropriate measures that prevent or minimise its effects.

Ongoing operation of an enterprise is accompanied by an operational risk that influences financial results and the value of an enterprise. Identification of this impact is not an easy task, as the risk itself is a complex category, as I already mentioned above. Moreover, the financial result and the value of an enterprise are influenced by numerous factors that interweave. Therefore, their selection and analysis in isolation is difficult. The risk is also related to the character of a business activity, strategic objectives of enterprises, a hierarchy of values adopted, an internal structure and a degree of external dependency. It is hard to unequivocally define a universal classification of risks a business entity is exposed to. This is caused by a multi-layered impact of numerous factors that either directly or indirectly influence its operation. As regards an operational risk faced by an enterprise, we need to concentrate on a group of external factors related to (Kosieradzka & Lis, 2000, p. 28):

- management processes,
- assets (materials and energy),
- human resources,
- operating resources,
- production processes.

All abovementioned factors enable us to define the operational risk as a disturbance of the activity of a company caused by external factors (Marshall, 2001, p. 25). This definition is coherent with a formal definition of an operational risk that has been introduced by the Basel Committee on Banking Regulation. According to this definition, an operational risk is the risk of losses caused by improper or faulty internal processes, human errors or external factors (*Working...*, 2001). Both definitions concern financial institutions, however due to their universality they can be applied to every type of enterprise. In this case, such a broad definition of an operational risk allows a comprehensive approach to risks related to corporate activity. Furthermore, it makes it possible to determine how well an entity is prepared in organisational and material terms to efficiently execute its

tasks, also in a situation where factors that disturb normal operating procedures come into play. In this very context, we need to emphasize that operational risk management, apart from identification of risks, consists in arriving at solutions that secure the operation against factors that disturb it and in devising and implementing solutions that maintain the continuity of operation when such factors materialise. Therefore, this is an ongoing process, taking account of a broad spectrum of factors that have impact on the operation of an enterprise. A framework diagram of operational risk management procedures is presented in Figure 1.

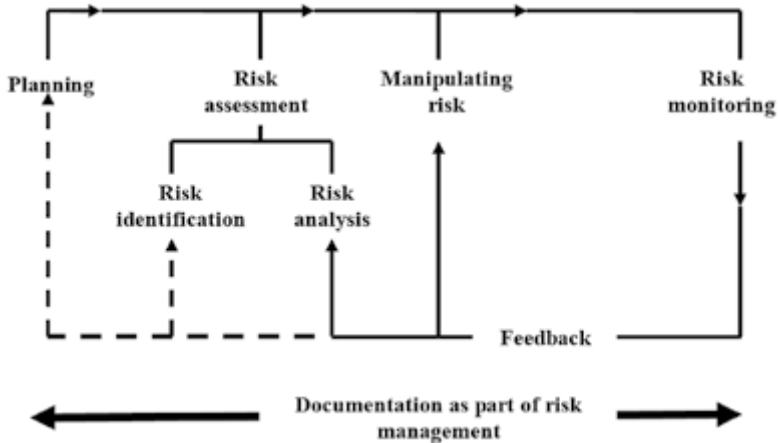


Figure 1. Operational risk management process

Source: (Conrow, 2000).

Comprehensive risk management is supposed to lead to a situation where an enterprise (its owners and managerial staff) is aware of the risk and the entity's exposure to it. This means that the risk has been identified and its causes have been investigated. Plus, a manner in which the risk materialises and the scope of its potential effects have been taken into account. It allows making decisions and introducing solutions aimed at limiting the effects of risk materialisation.

3. Start-ups as high-risk enterprises

Start-ups are enterprises that are generally classified as small and medium-sized enterprises (SME), susceptible to the same developmental factors and limitations as the entire sector (Danielak, Mierzwa & Bartczak, 2017). In practice, there is no clear-cut definition of such companies. Most commonly, these are innovative enterprises that function within a network, relative young or novice, use the Internet to conduct their activity and rest on solutions that are common for the Industry 4.0. They are often subject to special state protection, utilise public

funds and various sorts of benefits and preferential treatment, since they give rise to hope of returning the overlays as well as increasing competitiveness and significance of a given economy. With regard to start-ups, we can distinguish certain features that appear in various definitions. They have all been aggregated in Table 1.

Table 1. Features of start-ups

No.	Feature	Description of a feature	Remarks
1	Legal form of an enterprise	Most frequently a limited liability company	Another popular form is a natural person conducting a business activity
2	Scope of operation	Generally, new technologies, automation (robotics), artificial intelligence, biomedicine, IT, etc.	Plus other services, mobile apps, communication and sales tools, etc.
3	Operational risk	A very high percentage of insolvencies	Ca. 90% of companies declare insolvency after two years of operation
4	Growth rate	Very high	As regards companies that achieve market success
5	Lifespan	Most frequently up to 5 years	Start-ups sometimes transform into mature companies – this is preconditioned not only by the lifespan (e.g. after 5 years of operation), but also other phenomena, such as payment of dividends by owners, entry into the stock exchange market, growth stabilisation, etc.
6	Form of funding	Mainly venture capital and business angels	Own funds backed up by public funds dominate in Poland
7	Role of the state	Inspiring, supplying, protective	Often non-refundable support as part of subsidies from specially extracted funds
8	Relations with the surroundings	Frequent cooperation with research centres and higher education institutions	A broad use of business incubators and collaboration with technology parks is typical for Poland
9	Founders	Young people dominate	We can also single out a group of scientific workers, deciding to commercialise their studies

Source: own study based on (Bialek & Nowak, 2018, p. 66).

Therefore, start-ups are characterised by innovativeness and represent enterprises that introduce or use new technologies. They are also burdened by high operational risk and volatile growth rate. Their lifespan is relatively short and they are generally founded by young people. Start-ups utilise public funding and subsidies aimed at supporting their operation and they are very often related to the R&D sector. Finally, they are frequently funded by venture capital and business angels, as these entities verify the presented ideas through the prism of their efficiency and profitability.

It is worth stressing that the scope of corporate (start-up) risk undergoes constant evolution. New risks are generated by new technologies or by utilising new raw materials. According to Ortyński (2010, p.13), we can isolate three groups of enterprise risk:

- 1) risk at the manufacturer's premises related to its operation and employees,
- 2) risk outside the manufacturer's premises caused by humans and nature (related to warehousing, stocking and transporting products to co-operators, distributors or final recipients),
- 3) risk related to the operation of a product at the final recipient's premises.

Therefore, the application of an efficient risk management system in an enterprise requires the introduction of appropriate procedures for monitoring the execution of the risk management strategy in all aspects it deals with.

4. Operational risk faced by start-ups in the light of own studies

Start-ups are classified as innovative enterprises that are burdened by a high operational risk. The operational risk is understood as a broad spectrum of factors that have impact on the operation of an enterprise and that have a different meaning for innovators, investors and other participants in the innovation process. The risk is an important element that stems from the execution of a business solution and arises together with uncertainty, which is an unavoidable condition for the functioning of an enterprise. We need to emphasise that a practical realisation of new and innovative ideas is always coupled with two main problems that emerge in a strict relation to each other:

1. A result of innovative operation – which is achieved under a high degree of uncertainty, which in turn leads to an increased risk (compared to traditional forms of business activity).
2. Shortage of resources – while embarking on the execution of an innovative project, even if funds are sufficient (which is a rare case), an entrepreneur often has to cope with problems with creating new supply channels, purchasing additional equipment, creating a sales network, advertising, etc. A deficit in resources increases uncertainty and risk faced by an innovative entity, whereas the increased risk forms an obstacle for acquiring funds for the project execution.

Uncertainty that accompanies innovative projects is related to the unpredictability of results and unexpected tasks related to the process of developing innovations that arise during the execution of the project. It is also related to an inability to accurately foresee a market reaction to innovations.

Among a broad spectrum of risks, the operational risk related to the emergence of errors in transactions, losses resulting from maladjustment or faultiness of internal processes, human activities and technical systems or external events, is perceived as the most threatening for the development of start-ups.

To investigate the degree of exposure to operational risk, a survey was conducted using the CAWI (*Computer Assisted Web Interview*) and CAPI (*Computer*

Assisted Telephone Interview) methods. The survey was conducted from November 2018 to January 2019. Questionnaires were sent to the owners and board managements of 1,000 start-ups operating in Poland as part of technology parks. After verifying the fulfilment of innovation criteria and receiving the agreement for sending the survey, we received 202 fully completed questionnaires. The survey was anonymous and the results were analysed in a way that made it impossible to identify individual subjects. The results of the survey were subject to an analysis using methods applied in the domain of mathematical statistics. The calculations were carried out in line with appropriate procedures provided for by the *Statistica 10.0* package. The analysis used a descriptive statistical method that allows setting basic statistical measures that in turn allow describing the distribution of respondents' answers to subsequent questionnaire items. The measures were as follows:

- location (place of concentration): arithmetical mean (\bar{x}),
- dispersion: standard deviation (S_d),
- shape of distribution: skewness.

The results of analyses are presented in Table 2.

Table 2. Assessment of exposure to operational risk – basic statistical measures and results of the analysis of normality of distribution

Category	Statistical measures			Normality analysis
	\bar{x}	sd	skewness	p
[1] Interruption of operation	3.34	1.33	-0.19	0.001
[2] Destruction/damage of corporate property	3.10	1.14	-0.03	0.090
[3] Disturbances in the sales process	3.43	1.04	-0.32	0.319
[4] Product withdrawal	3.25	1.25	-0.06	0.084
[5] Insufficient preparation for the loss of operating continuity	3.36	1.04	-0.24	0.675
[6] Outsourcing risks – low quality of subcontractors	2.99	1.10	0.04	0.844
[7] Loss of reputation	3.68	1.04	-0.23	0.063
[8] Risks related to mergers/takeovers	2.67	1.17	0.34	0.100
[9] Lack of outlets	3.46	1.18	-0.44	0.004
[10] Inability to develop and implement innovations	3.06	1.11	-0.18	0.065
[11] Failure to implement a strategy	3.28	0.99	-0.16	0.261
[12] Too slow a development of an enterprise/at odds with a business plan	3.51	1.01	-0.07	0.091
[13] Failure to reach product scalability	3.50	1.01	-0.22	0.564
[14] Errors made while testing the product/service	3.39	1.04	-0.38	0.092
[15] Errors made while designing the product/service	3.36	1.09	-0.53	0.001
[16] Errors made while diagnosing demand for product/service	3.50	1.13	-0.50	0.107

Source: own calculations.

As shown by the results of conducted analyses:

- arithmetical mean values range between 2.67 and 3.68, which shows that the respondents' conviction as regards the degree (impact) of the risk can be expressed as average or high;
- standard deviation values range between 0.99 and 1.33 (coefficient of variation in the range between 28% and 38%); therefore, the variation of grades as part of particular categories is typical for this type of studies;
- skewness modules are located in the range between 0.03 and 0.53 – therefore they indicate low asymmetry of distribution of results of the assessment in particular categories. Most cases indicate the left-hand asymmetry (negative coefficient values);
- the Chi-square test makes us assume that the majority of empirical distributions are normal distributions ($p > 0.05$). An exception is the distribution of results of the assessment in categories no. 1, 8 and 15 ($p < 0.05$).

Owners and managerial staff of start-ups are aware of hazards and attach great importance to processes taking place in an enterprise and related risks. This awareness is particularly significant under conditions of high operational risk faced by such entities, the majority of which unfortunately fail to withstand high risk, development pressure or insufficient funding and go bankrupt. To expand on the operational risk, the Figure 2 below presents the ranking of their importance for the development of start-ups.

As shown by the results of analyses, the respondents perceive category no. 7 (loss of reputation) as the main threat for the start-up activity, followed by three other categories strictly related to the operation of an enterprise: no. 12 (too slow a development of an enterprise/at odds with the business plan), no. 13 (failure to achieve product scalability) and no. 16 (errors made while diagnosing demand for product/service). The exposure to these risk categories was considered as high (average values – at least 3.5 points). The two least important categories are related to the innovativeness of an enterprise: no. 8 (hazards related to mergers/takeovers) and no. 10 (inability to develop and implement innovations), as well as no. 2 (destruction/damage of corporate property) and no. 6 (outsourcing risks – low quality of subcontractors). The exposure to these categories of risk was considered as average (average values – from 2.7 to 3.1 points). At the same time, we need to emphasise that difference between category no. 7 (the highest value) and category no. 8 (the lowest value) are relatively small, which means that the respondents indicate the entire spectrum of operational risks as having importance for the development of start-ups and having large impact on the possibility of insolvency, if a single risk, or – in particular – a group of risks, materialises.

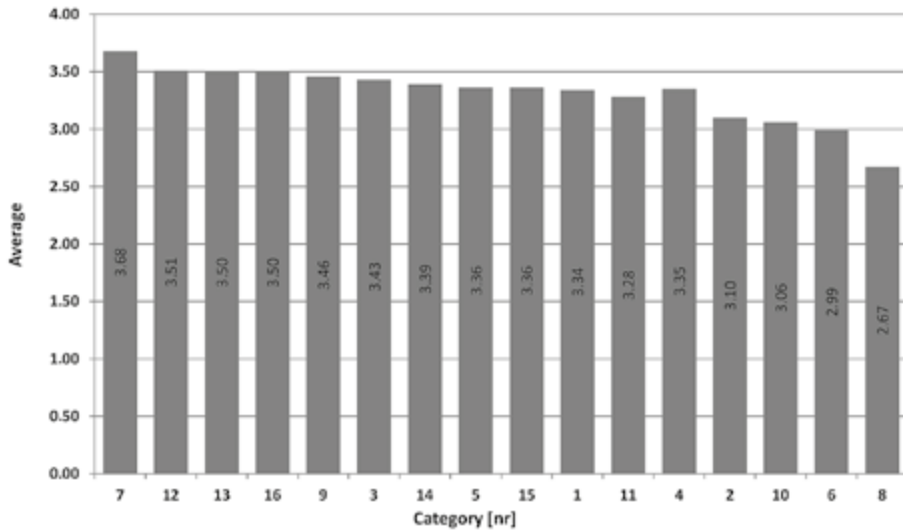


Figure 2. Ranking of operational risk components according to an average value

Source: own calculations.

5. Conclusion

Start-ups play an ever greater role in the national and global economy. Their dynamic development is one of the driving forces behind innovativeness. In quest for an optimal method of achieving scalability, these entities are exposed to a very broad spectrum of changeable risks. If such risks come into being, they can disturb the operation of such an entity and lead to their bankruptcy. Operational risks are of key importance here. The most important ones include:

- loss of reputation
- too slow a development of an enterprise/at odds with the business plan
- failure to achieve product scalability
- errors made while diagnosing demand for product/service.

As we can see, they have a strategic meaning for the development of a start-up, while the emergence of any of them can lead to insolvency of an entity. Therefore, in spite of problems faced by start-ups with regard to funding the ongoing operation and development investments, such enterprises should undertake measures to manage the risk, including the implementation of risk management instruments. This would enable them to limit the effects of risk materialisation and help develop their operation while aiming at achieving market success. Beyond doubt, this is a very important activity, since start-ups can become a main-spring of innovative economy. By quickly establishing cooperation with large and medium-sized enterprises, they increase their own productivity. Rapid reaction

to flexible market changes is also a very important characteristic feature of these entities. We know that changes in consumer requirements take place virtually on a daily basis, while the innovations concerning products and technologies lead to winning new consumers and opening up to new outlets. Therefore in this context, start-ups become an important component of innovative entrepreneurship, which in turn contributes to implementing new solutions aimed at enhancing the quality of life in the society and making use of technological solutions that are to an ever greater extent tailored to the needs of an individual customer.

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Restructuring Advisor

Ewa Janik

1. Introduction

One of the effects of entering into force of the provisions of the act of 15 May 2015 Restructuring Law (consolidated text: Dziennik Ustaw of 2019, item 243 with amendments) was the extension of the catalogue of regulated professions by adding to it a restructuring advisor. Similarly to other regulated professions, the profession of a restructuring advisor can be performed by professionals prepared for undertaking restructuring activities and for exercising functions, both within the frameworks of a judicial proceedings and a non-judicial one, provided by the statutes: Restructuring Law, Bankruptcy Law (consolidated text: Dziennik Ustaw of 2019, item 498 with amendments) and the Code of Civil Proceedings (consolidated text: Dziennik Ustaw of 2018, item 1360 with amendments). A license obtained according to the procedure stipulated by the Law of 15 June 2007 on the Restructuring Advisor's License (consolidated text: Dziennik Ustaw 2016, item 883 with amendments) constitutes a confirmation of the restructuring advisor's professional qualifications.

In the mentioned above legal act there have been determined in detail: the principles and procedure of awarding the license, the refusal of its awarding and withdrawal or suspension of the powers following from it. Within the hereby article the requirements requested from the persons wishing to perform the profession of a restructuring advisor, put by the legislator, have been presented. The attention has also been paid to the amendments postulated to be introduced not only to the Law on the Restructuring Advisor's License, but also to the Bankruptcy Law and Restructuring Law (the Sejm print no 2089), in which the legislator provides interesting solutions, consisting in introducing, within the group of licensed restructuring advisors, a new category of "qualified" restructuring advisors. Besides an obligation of possessing a license, a qualified restructuring advisor will have to demonstrate adequate qualifications and vast professional ex-

perience necessary to perform functions in complicated restructuring and bankruptcy proceedings. The effect of the revision will be not only the intensification of supervision over the activities of restructuring advisors, but first and foremost, implementing the criteria of an appropriate restructuring advisors' selecting process, which will undoubtedly strengthen the protection of the interests of the proceedings' parties.

2. The license of a restructuring advisor

The license of a restructuring advisor is awarded according to the principles and procedure stipulated by the law¹, to a physical person meeting the following requirements (art. 3 of the Law of 15 June 2007 on the Restructuring Advisor's License): 1) being a citizen of an EU member state, the Swiss Confederation or the European Free Trade Association (EFTA) member state – a party of the European Economic Area; 2) knowledge of the Polish language in the degree necessary to perform the activities of a syndic, supervisor or administrator; 3) full capacity to act in law; 4) completing higher education and receiving a master's degree or an equal one in a state referred to in point 1; 5) having an unblemished character; 6) administrating a bankrupt's assets, an enterprise or its separated part in the Republic of Poland or a state referred to in point 1 for at least 3 years during 15 years before applying for a license of a restructuring advisor; 7) having no criminal or fiscal criminal record; 9) not being put into the insolvent debtors' registry provided by the National Judicial Registry; 10) having passed an exam before the Exam Commission appointed by the Minister of Justice².

The license of a restructuring advisor is awarded for unspecified time by the Minister of Justice in the form of an administrative decision². Moreover, a person who has been awarded an appropriate license, is enrolled to the public list of restructuring advisors. The persons possessing such licenses are obliged to regularly train for the purpose of improving their professional qualifications and skills (art. 53 par. 4 of the Law of 15 June 2017 on the Restructuring Advisor's License). These requirements are supposed to make a restructuring advisor a trusted subject guaranteeing professional, thorough and honest exercising of ac-

¹ This body can freely determine the premises obliging to award a restructuring advisor's license; in the decision process it cannot omit any of those which are enumerated by the legislator. More extendedly see a decision of WSA in Warsaw of 5 December 2017, sygn. akt: VI SA/Wa 1436/17 and a decision of NSA of 9 May 2017, sygn. akt: II GSK 2465/15.

² A fee for issuing a license document of a restructuring advisor is 200 zł, additionally a sample of this document is determined by the annex to the order of the Minister of Justice of 17 December 2015 on the sample of the restructuring advisor's license and the amount and procedure of paying a fee for its issuing (Dziennik Ustaw 2015, item 2187).

tivities according to the abovementioned legal provisions. In economic practice there have become to appear opinions, that access to the profession of a restructuring advisor is too broad because of the lack of a requirement to demonstrate a directed experience while applying for a license.

3. Entitlements of a restructuring advisor

The license of a restructuring advisor entitles to perform the following actions: of a syndic according to the act of 28 February 2003 Bankruptcy Law, of a supervisor and administrator according to the act of 15 May 2015 Restructuring Law and of an administrator in the execution performed by enforced management according to the act of 17 November 1964 the Code of Civil Proceedings. Moreover, a person possessing such a license is empowered to perform the activities of restructuring consulting, which comprises counselling, granting opinions and explanations, as well as other services in the field of restructuring and bankruptcy (Benduch, 2015; Janik, 2016).

The restructuring advisor's profession requires interdisciplinary skills following from transection knowledge and experience in all the aspects of an entrepreneur's activities, especially in his economic and legal environment.

4. Actions undertaken by a restructuring advisor on the example of the restructuring law

According to the provisions of the Restructuring Law, the procedure of appointing a restructuring advisor and the functions performed by him in a restructuring proceedings depend on selecting one of four their independent types, i.e. a proceedings on approving the arrangement (Art. 210-226 of the Restructuring Law), an accelerated arrangement proceedings (Art. 227-264 of the Restructuring Law), an arrangement proceedings (Art. 265-282 of the Restructuring Law) and a reorganizational proceedings (Art. 283-323 of the Restructuring Law). Such a wide range of possible proceedings and exercising functions enables entrepreneurs (Art. 43¹ in connection with Art. 33¹ § 1 of the Civil Code), capital companies not conducting economic activities, partners of personal commercial companies accountable for their obligations without restrictions by all their assets and partners of professional partnerships to choose a way of acting, depending on the economic and financial situation of an insolvent or endangered by insolvency enterprise (Kubiczek & Sokół, 2015). A restructuring advisor can perform certain functions, such as: an arrangement's supervisor, a judicial supervisor or an administrator.

The activities undertaken as an arrangement's supervisor (art. 37 par. 2 of the act of 15 May 2015 Restructuring Law) (supervision over the actions of a debtor in a proceedings on approving the arrangement) comprise:

- concluding civil law contracts with the debtor on performing supervision;
- preparing a restructuring plan;
- preparing arrangement proposals together with the debtor;
- preparing a list of debts and a list of arguable claims;
- collaboration with the debtor in the field of efficient and lawful collecting of votes observing the creditors' rights;
- submitting a report on a possibility to execute the arrangement (Adamus, 2015)³.

As a judicial supervisor he will control the actions of the debtor entrepreneur, who has been left the administration of his own property (art. 26 and 40 of the act of 15 May 2015 Restructuring Law). Among his actions there are:

- informing the creditors about opening a restructuring proceedings;
- preparing, in a period of two weeks, a restructuring plan, a list of debts and a list of arguable claims, in case an accelerated arrangement proceedings is conducted;
- assessing arrangement proposals and, if necessary, advising as to changing them in order to assure lawfulness and a possibility of their executing;
- undertaking actions for the purpose of casting the possibly largest number of valid votes by the creditors;
- participating in the assembly of creditors and in submitting an opinion on a possibility to execute the arrangement;
- informing the debtor about the available sources of financing, including public assistance, and collaborating with him in order to get one.

In case of taking the function of an administrator, a restructuring advisor obtains additional powers for the purpose of realizing a reorganizational proceedings (art. 52 of the act of 15 May 2015 Restructuring Law):

- immediate overtaking the administration of the reorganizational mass and administrating it;
- preparing an inventory list along with its assessment;
- preparing and realizing a restructuring plan;
- preparing a list of debts;
- assessing arrangement proposals, including advice in the field of changes in order to assure their lawfulness and a possibility to execute them, in case it is necessary;

³ A report of the arrangement supervisor on a possibility to execute the arrangement should comprise at least the information on the debtor's property situation and its changes during the process of collecting the votes, his debts and a possibility to execute the arrangement.

- undertaking actions for the purpose of casting the possibly largest number of valid votes by the creditors;
- participating in the assembly of creditors;
- submitting an opinion on a possibility to execute the arrangement;
- having a possibility, among others, to sell the redundant components of the bankrupt's property, to withdraw from disadvantageous mutual agreements or to conduct deep restructuration of employment in the enterprise, in case of a reorganizational proceedings (Benduch & Janik, 2016).

5. A qualified restructuring advisor

The legislator has pointed out, that the services of restructuring counseling and exercising certain functions in the abovementioned proceedings can be performed by a physical person who possesses an adequate license. The restructuring advisor's license is awarded according to the principles and procedure provided by the statute on the basis of Art. 3 of the Law on the Restructuring Advisor's License. It is worth underlining, that the persons possessing professional licenses of syndics have become licensed restructuring advisors since 1 January 2016, i.e. one should be directed here by a principle of so-called automatic awarding of the entitlements of a restructuring advisor (Zimmerman, 2018). It is ought to consider, whether syndics possess sufficient experiences to participate in restructuring proceedings.

A bill amending the Law on the Restructuring Advisor's License provides, as a novelty, separating a group of qualified restructuring advisors from among the licensed restructuring advisors. A qualified restructuring advisor will be awarded this title on his application by way of an administrative decision.

The basic criterion of awarding this title will be documenting the conducting, wholly or partly, in the period of the last seven years before submitting the application:

- 1) at least four bankruptcy proceedings and two proceedings of an arrangement type (new restructuring or arrangement kind of proceedings based on the act of 28 February 2003 Bankruptcy and Restructuring Law in the version being in force before 31 December 2015), or six proceedings of an arrangement character⁴;

⁴ The condition of conducting the whole of one of the proceedings referred to in par. 1 is considered to also be fulfilled in case, when such a proceedings has been conducted wholly by a commercial company referred to in Art. 157 par. 2 of the act of 28 February 2003 Bankruptcy Law or in Art. 24 par. 1 of the act of 15 May 2015 Restructuring Law, in which a person, possessing the license of a restructuring advisor, has been a partner accountable for the company's obligations without restrictions by all its assets or a member of the management board representing the company during all the period, when this proceedings was lasting.

- 2) manifesting the conducting of one type of proceedings, wholly or partly, in the period of the last three years before applying: in case of conducting an arrangement or reorganizational proceedings related to an enterprise, in which the amount of debts exceeded 10 000 000 zł, with the number of over 100 participants.

Moreover, the legislator proposes, that exclusively qualified restructuring advisors could be appointed to exercise functions in restructuring and bankruptcy proceedings related to the entities, possessing the parameters exceeding those, which are determined as a top limit of considering an entrepreneur as a medium one according to the act of 6 March 2018 Law on Entrepreneurs (Dziennik Ustaw of 2018, item 646 with amendments) (the Sejm print no 2089).

The proposed solutions are not supposed to restrict access to this profession, but to guarantee, that more difficult cases in the field of restructuring and bankruptcy proceedings would be entrusted to advisors awarded a title of a qualified restructuring advisor. Increasing the requirements towards advisors is, first and foremost, to assure stronger protection of the participants in the above-mentioned proceedings. Supervision of the activities of restructuring advisors will be entrusted to the Minister of Justice (the Sejm print no 2089)⁵, independently from the supervision performed by the courts and judge-commissioners.

In the bill on the amendments of the Law on the Restructuring Advisor's License, the legislator proposes the introduction of a solution, which would subject persons applying for the restructuring advisor's license to verification (the Minister of Justice would require information), whether he is disclosed as a person referred to in Art. 2 of the Law in the National Debtors' Registry (Art. 3 par. 1 point 9 and Art. 11a par. 2 of the Law on the Restructuring Advisor's License – Art. 20 point 1 and 2 of the bill).

According to Art. 157 of the Bankruptcy Law and Art. 24 of the Restructuring Law, it will also be important, that to perform syndics' duties, and in restructuring proceedings also the function of a judicial supervisor or an administrator, exclusively a person possessing an account of a restructuring advisor can be appointed. The list of restructuring advisors will also contain information, whether a person enrolled on the list possesses an account in the tele-information system serving judicial proceedings (the Sejm print no 2089). It should be underlined, that the list of restructuring advisors with a qualified title will be

⁵ The Minister of Justice will dispose powers to conduct a visitation of the whole activity of a restructuring advisor or an inspection of a chosen issue in his activity, as well as to require to present him the documentation created by the advisor in connection with the lasting bankruptcy and restructuring proceedings (e.g. an access to the acts of the finished or lasting bankruptcy and restructuring proceedings, in which the restructuring advisor is exercising or has exercised the functions of a supervisor, administrator or syndic).

a repository of the information about restructuring advisors and the cases of successfully conducted by them proceedings.

Advisors, as so-called “restructuring medical doctors”, will be obliged to have thorough knowledge not only in the field of law, economy and finances, but also in the area of management and marketing. They should act effectively and achieve measurable benefits, and only then they will gain entities, which will wish to use their services.

6. A psychological dimension of the restructuring advisor’s profession

In the characteristics of the restructuring advisor’s profession one cannot omit his skills and psychological knowledge, which have been pointed out by Wydrzyński in his work entitled “About Psychological Aspects of Performing a Restructuring Advisor’s Profession” (Wydrzyński, 2016). The author makes an accent on the fact, that performing this responsible profession, besides thorough substantial knowledge, also requires patience, benevolence and sensitivity.

Moreover, reliability and timeliness are also the features attesting advisors’ professionalism. One cannot forget about observing the ethical rules of performing this profession, either. Therefore, it should be underlined, that a restructuring advisor is a profession requiring permanent improvement of qualifications and professional skills in all the dimensions of its exercising, i.e. professional, social and psychological.

7. Conclusion

Reassuming all abovementioned deliberations, it should be pointed out, that in the nearest future one should expect the arising of a professional market of restructuring and bankruptcy services, in the frameworks of which there will function not only licensed restructuring advisors, but also „qualified” restructuring advisors, who will be able to offer their clients a packet of versatile skills and practical experience in preparation and conducting restructuring and bankruptcy proceedings. The service market offered by qualified restructuring advisors will function correctly, when it shows the examples of effectively conducted proceedings, as well as those, who stand behind these successes. Restructuring advisors should act efficiently and achieve measurable benefits, and only then they will gain entities wishing to use their knowledge and experience.

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The Role of Succession in the Family Firms

Karolina Worytkiewicz

1. Introduction

The aim of the article is to present the problem of succession in Polish family enterprises. In particular, factors that play a key role in the succession process were analysed. The succession is a complex process, it applies to all areas of the enterprise, starting from the company's strategy through human capital management, finances or organizational culture. Handing over the enterprise to the successor causes fundamental changes in the functioning of the family enterprise. The process of succession is a special moment for the company and may decide on the continuity of its operation and further development. The article is an overview, it contains a critical analysis of literature and interpretations of the results of research carried out as part of the research program "Study of family businesses" of the Polish Agency for Enterprise Development.

2. Definition of the family business

In today's economy, family businesses are becoming more and more important entities in many industries, their development and ensuring continuity is very important for the national and global economy. Family businesses are present in the economy from the beginning, they constitute the basic form of entrepreneurial in local activity. Often the development of a family enterprise is strongly related to the development of the family, their life cycles are connected on many levels. Currently, there is growing interest in the subject of family enterprises, this is related to their participation in the economic sphere, which manifests itself in the creation of GDP and in the social sphere in which they play a significant role in the labour market. Data on the number of family businesses in Poland are divergent and are often the subject of disputes between researchers. This is due to the lack of the definition of a family enterprise in the literature of the subject, which can be acceptable to most of the researchers.

It is associated with a large diversity, in the category of “family business” you can find micro, small, medium and large enterprises, as well as international corporations. Despite many studies and analyses, the family enterprise category is still not systematized. When trying to define a family enterprise, there is a need to take into account both the objective criteria related to the size, ownership and manner of managing the subject as well as subjective, related to values of attitudes, family involvement. One of the first definitions of a family business was defined by Delelley, according to it “a company is considered a family business when it has been closely identified with at least two generations of a family and when this link has had a mutual influence on company policy and on the interests and the objectives of the family. Such a relationship is indicated when one or more of the following conditions exists (Delelley, 1964, pp. 93-105):

- Family relationship is a factor, among others, in determining management succession.
- Wives or sons of present or former chief executives are on the board of directors.
- The important institutional values of the firm are identified with a family, either in formal company publications or in the informal traditions of the organization.
- The actions of a family member reflect on or are thought to reflect on the reputation of the enterprise, regardless of his formal connection to management.
- The relatives involved feel obligated to hold the company stock for more than purely financial reasons, especially when losses are involved.
- The position of the family member in the firm influences his standing in the family.
- A family member must come to terms with his relationship to the enterprise in determining his own career.”

One can often find the term family business very close to the definition of a small enterprise Fleming (2000, pp. 105-107) defines a family business as “any activity that involves at least two members of one family working in a firm owned by one of them”. Most often, the definitions in the subject literature focus on the aspects of ownership and management. According to Bertrand and Scholar (2006) “family businesses are characterized by a concentration of ownership, control and often key management positions among family members, even after the retirement of the firms’ founders”. There are, however, family businesses that are not directly run by the family, or whether the family does not have the majority of shares. The specificity of family involvement in running a business means that the family enterprise is different from the others and there is a need to conduct scientific research in this area (Miller & Rice, 1967, p. 44). According

to Petzinger (1999, p. 44), the family business has become a model for all companies. The reason for this is the fact that today's company more than at any time in the (same) century is built on the basis of relationships – means the material from which families are also built.

It is important that the family should behave like the owner and has the competence and will to control the company and its development, even if managed by paid managers. It is obvious that a family business cannot be defined only in terms of objective criteria, such as ownership, size or management, but also must take into account subjective factors, such as values and attitudes represented by the owner and family, financial responsibility, commitment family in running a business, long-term orientation of running a company and the process of succession.

Defining the concept of a family enterprise is difficult for at least two reasons. The first is the fact that a family business is not a one-dimensional entity, but a very diverse one. The lack of formal criteria means that this group includes enterprises of various legal forms, ownership, size and various management methods. Secondly, in the concept of a family business, two groups are combined – family and enterprise, which differ in their pedigree, history or social perception. They have different goals in principle, the family aims to run a common household, to provide the needs and security for its members. The enterprise is aimed at satisfying the needs of third parties, economic independence, and profit-making (Safin, 2007, pp. 17-18). Many scientific disciplines, not only management, but also economics, sociology, law or finance are involved in research on defining the concept of a family enterprise. Such a wide range of interest makes it difficult to find one universal definition.

An analysis of the literature on the subject shows that the definitions of a family enterprise appearing refer to the criteria of ownership and management, there are few definitions containing the aspect of succession, that is, the intergenerational transfer of ownership and power. Ward and Astrakhan (1990, pp. 2-3) notes that none of the definitions of a family enterprise can be universally accepted. They pay attention to the criterion of company succession, an important aspect in defining a family enterprise will be the willingness to hand the company over to future generations, and to exercise control by two or more family members.

With reference to the presented definitions, reference to the Polish reality is justified. Research that has been carried out so far by Polish scientists shows that most Polish family businesses are run by the first generation of owners, and the issue of succession only appears on the planning horizon. However, in the matter of ownership, formally the majority of family businesses are owned by one person. It is therefore justified to adopt a broad definition of a family enterprise as

an economic entity in which the ownership control and possible management of the entity remain in the hands of the family representatives (Sułkowski & Safin, 2005, p. 92). This means that at least two family members must be involved in a family enterprise, and this involvement can take different forms, not necessarily formally legalized.

In the survey conducted for the Polish Agency for Enterprise Development in 2009, a broad definition of a family enterprise as a type of business entities in the SME sector in Poland was adopted. This definition combines management and ownership criteria. According to this definition, a family business is any economic entity from the sector of micro, small or medium enterprises, of any legal form, registered and operating in Poland, in which (*Firmy...*, 2009, p. 30):

1. at least two family members work together in this enterprise,
2. at least one member of the family has a significant influence on the management,
3. family members have significant or majority shares in the enterprise.

When describing a family enterprise, one should always remember three measurable criteria, such as ownership, management and willingness to keep the company in family for the next generation (succession).

3. Characteristics of the family businesses

Family businesses are a specific type of business entity. The main goal of the family business is to ensure the financial security of family members and to maintain control over the company. A common feature for family businesses is the long-term perspective and family identification with the existence of the enterprise.

An important feature of family businesses is the coupling of two elements - a family and a company. The interrelationships between these components determine the way of functioning, values, financial policy, goals or vision of the family enterprise. The first attempts to describe the specifics of a family enterprise were made in the sixties and seventies of the twentieth century using a theoretical model. The model assumed the existence of two overlapping subsystems: family and enterprise. He was described in detail by Tagiuri and Davis. Already in the seventies, they pointed to the need to distinguish between ownership and management relationships. In the literature on the subject, there is a list of a family business as a system of overlapping three subsystems (Gersick et al., 1997, p. 6):

- Family,
- Company,
- Property.

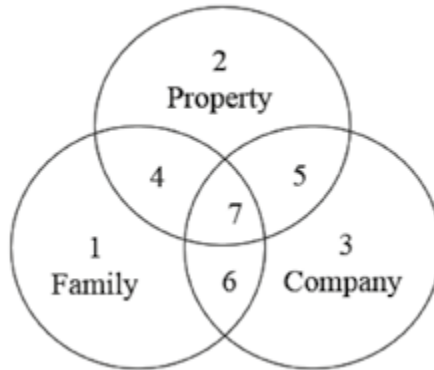


Figure 1. Cycles of the Family Business

Source: (Gersick et al., 1997, p. 6).

These subsystems interact with each other and penetrate to create seven areas. Each of the family members and people working in the enterprise should be in one of the following sectors:

- Sector 1 – family member who is not the owner or employee of the enterprise;
- Sector 2 – a shareholder who is not a member of the family and is not an employee of the enterprise;
- Sector 3 – employee who is not a family member or shareholder;
- Sector 4 – a family member who is a shareholder but does not work in the enterprise;
- Sector 5 – a shareholder who is not a family member working in the enterprise;
- Sector 6 – a family member who is not a shareholder working in the enterprise;
- Sector 7 – a shareholder who is a family member and works in an enterprise.

The model presented above met with wide acceptance because it included a perspective that took into account the various points of reference of people depending on the position occupied in the company. The three subsystems of a family enterprise presented in the model influence the development and development of entrepreneurship in family businesses, the approach to creating material resources of the enterprise, gaining human resources or managing the enterprise.

The distinguishing features of family businesses on the market are primarily the common value system, which is the rules and principles of the company's operation. Significant from the point of view of the family company will certainly be the maintenance and further development of the company, as well as transfer it to the next generations. The attributes of a family business include loyalty, conscientiousness, commitment, respect and attachment to tradition, and job security. The family is often emotionally connected with company. In family businesses,

full commitment and dedication can be observed more than in other companies. The company is perceived as “a child” by the owner who created it from scratch and consistently develops it. In family businesses there is a stronger identification with company values and internal compliance as to the mission and vision of the organization, this is due to the large sense of community, belonging and identity of family members involved in business (Skojny, 2006, pp. 7-9).

It is worth paying attention to the size of family businesses, the majority of them are small and medium-sized enterprises, which do not require very formal forms of running a business. This form favours flexibility and adaptation to changes in the environment. Family businesses do not need large bureaucracy, which results in ease in making decisions, setting goals and introducing necessary corrections or changes (Gibiec, 2006, pp. 15-16). The mentioned flexibility and the ability to adapt to the changing conditions in the company's environment causes that family businesses are more resistant to the occurring crises or the lack of market conditions. They can quickly adapt to the conditions prevailing during the crisis, making a decision on limiting expenses, reducing operating costs or even temporarily suspending the payment of remuneration to family members working in a company, it is fast and requires no talks or procedures.

4. The essence of succession in a family business

The definition of succession according to the Cambridge dictionary online is a) the order in which or the conditions under which one person after another succeeds to a property, dignity, title, or throne; b) the right of a person or line to succeed. In a company, succession means that the owner owns and/or manages the family business of the designated successor, which includes the position of the new owner or manager of the company. The process of succession is a characteristic factor distinguishing family enterprises. It is an inseparable element of the strategy, since its success depends on the survival and future of the company. The problem of succession is one of the key problems faced by family enterprises.

The intergenerational transfer of knowledge and property, which is the most important element of a long-term strategy, is at the same time the most difficult problem and threat to the family business. Company inheritance is an unavoidable process. Very often, the owners are reluctant to approach the topic of succession. There are many reasons for this attitude. According to Fleming, the reasons why the founders avoid planning and talking about the transfer of power and property are, among others, the fact that the subject of succession often causes conflicts within the family, resistance to control and power, fear of change (Fleming, 2000, pp. 105-107). In Poland, succession is often a taboo subject in family enterprises. This is a topic taken on an occasional basis, several times

a year. Owners are afraid of moving away from the company, which may result in a feeling of inaction and uselessness. The process of succession is associated with the appearance of a new group of owners or managers in a company that often introduces new principles, values and views. When transferring power, knowledge and property, each party must learn to function again in the new reality.

The guidelines for an effective succession process according to Fleming (2000, p. 106) are:

- The family should put the company's interests first.
- When sharing positions, you should consider merit, not the desires of family members.
- A better solution will be to sell the company from handing it over to an incompetent successor.
- Evolutionary inheritance should be used.

The best solution is systematic transfer of both power and ownership and knowledge in the enterprise to the next generation.

According to research, 50% of Polish family businesses indicate succession as a key challenge, in Central and Eastern Europe it is 27%, and in the world 36%¹. It should be noted that in Poland, family businesses now operate over 20-25 years, which means that they are often managed by the founders and only face the challenge of the first, in their history, succession. Owners treat their companies as their own children and are very much connected with the company. This fact evokes enormous emotions and fears that accompany the process of making decisions about succession as well as succession itself. The first change in the management of a company is a key moment for its operations, but also an important event for family life. It is necessary to redefine the vision and mission of both the enterprise and the family as well as redefining the value system and changing the regulations regarding ownership, power and management of the family business. Succession is a very complex problem of family businesses, it covers its entirety by its strategy, organizational culture, ownership structure and personnel strategy.

5. Succession in a family business as a process

Transfer of knowledge, property and power from one generation to the next should be treated as a long-term process. Adaptation to changes by both owners

¹ The research was carried out as part of the research program "Family Business Research", implemented for the Polish Agency for Enterprise Development and a pilot project co-financed by the European Commission "Business Transfer Program II (BTPII) implemented by teams of researchers and trainers from seven European countries (Austria, Finland, the Netherlands, Poland, Portugal, Italy, Sweden).

and successors as well as employees or people associated with the enterprise will take time. Succession cannot be treated as a one-off event, it involves the legal transfer of property and intangible assets such as knowledge, patents, and rights. The research shows that family businesses are mostly at the planning stage and preliminary talks about succession.

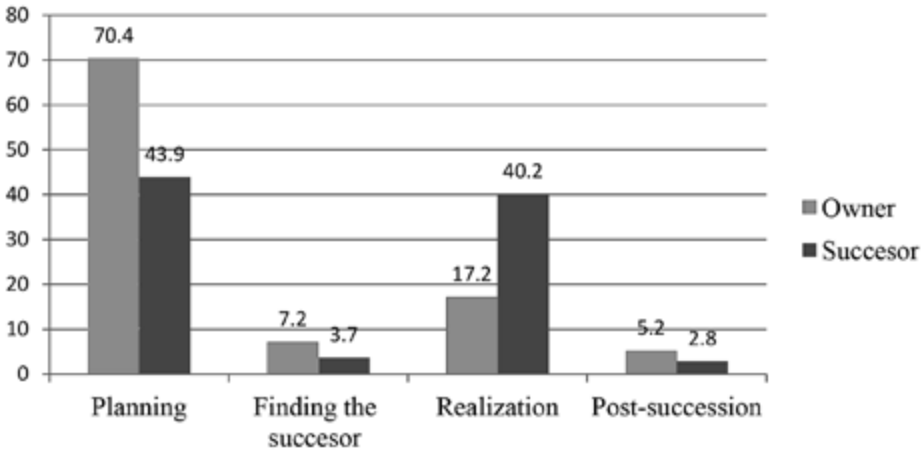


Figure 2. Stages of the succession process

Source: (Kody..., 2013, p. 5).

As Figure 2 shows, more than 70% of owners of family businesses are at the stage of succession planning. Often there is a lack of any activities related to succession. Analysing the results of research, it can be said that only 17% of Polish enterprises are at the stage of transferring ownership, power and knowledge, and only 5% are after the process of succession.

The process of appointing a successor, preparing him for a new role, as well as all legal and tax matters extend the duration of succession. Therefore, family businesses should plan the process of succession in advance (Jeżak, Popczyk & Winnicka-Popczyk, 2004, p. 59). It should also be noted that the lack of succession planning is one of the main factors of collapse, sales or major problems after the owner's withdrawal. The process of succession is time-consuming, labour-intensive, dynamic and complicated. It is necessary to manage the entire process, supervise it and participate in it all interested family members. Owners of family businesses in Poland agree that succession is an important process and should be planned in advance (Kody..., 2013, p. 7). At the same time, succession in Poland is not formalized and often has an unofficial character. Almost 50% of owners (47% of respondents) in the manner of confirmation of succession chose the form of an oral proposal, only 13% consisted in transferring shares, and only in 6% it was a written declaration of the owner (Kody..., 2013, p. 8).

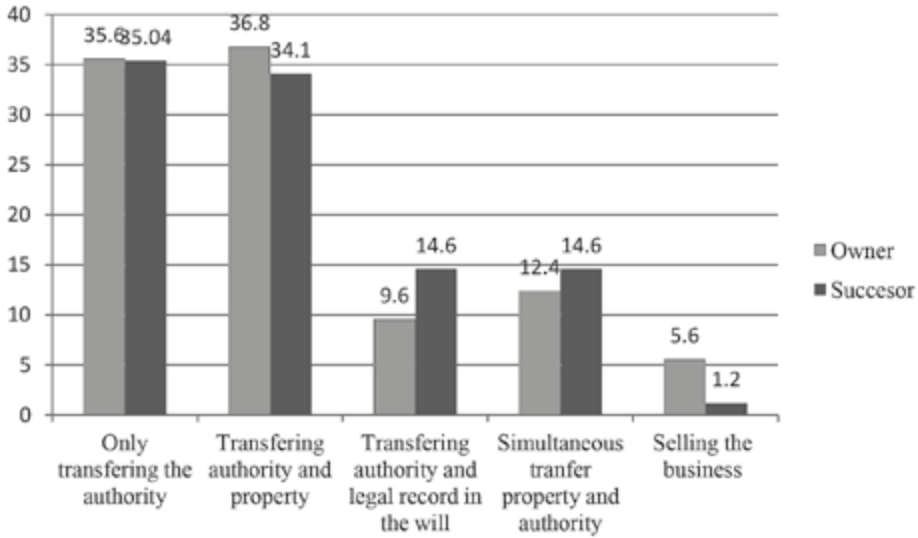


Figure 3. The way of transferring the authority

Source: (Kody ..., 2013, p. 6).

Therefore, succession is a unique process each time. During the succession, there are two tracks of action, transfer of power and transfer of ownership. They may run simultaneously, however, it is advisable first to transfer the power, i.e. to entrust the management of the company, and then transfer the ownership of the enterprise (Walsh, 2011). In Polish family businesses, the way of transferring the enterprise takes a twofold form. In approximately 35% of cases, the owner transfers only to the authorities, in a comparable percentage, power and property are transferred, but not at the same time. Only 12.4% of owners declare the simultaneous transfer of power and property, it means full succession (Kody..., 2013, p. 6). Although owners of family businesses in Poland consider succession to be a significant process that should be planned in advance, for more than 40% of them, this process should last about a year. Only slightly more than 20% of owners of family businesses are aware that the process of succession should last for more than 5 years

Family businesses are not yet aware that the succession process is very complex and depends on many factors. In order for succession to be effective and run properly, it should be planned well in advance. By chronologically setting subsequent events and stages, which often must follow one another and cannot be carried out simultaneously. Formalization of succession processes is one of the most important factors for successful succession in the company. As many as 78% of enterprises that had written plans fulfilled all points (Halter, Schrettle, & Baldegger, 2009).

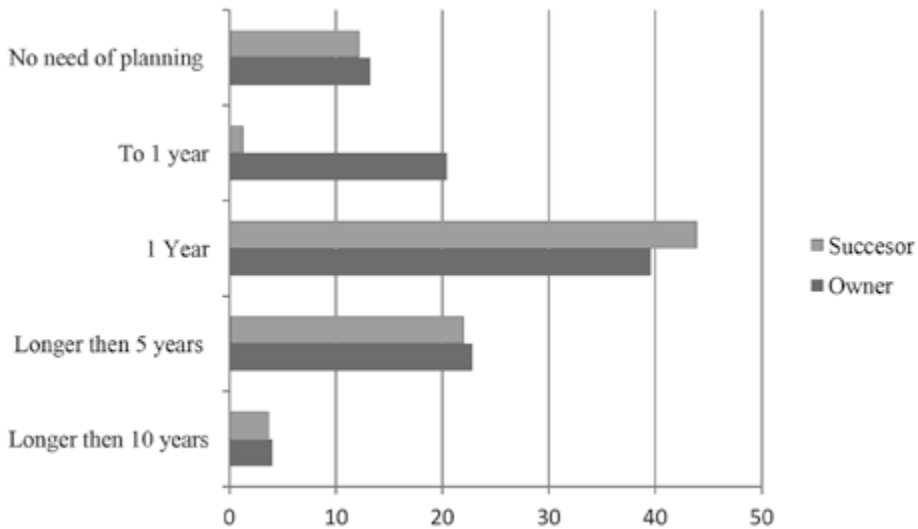


Figure 4. Time needed for succession process

Source: (Kody..., 2013, p. 8).

The key factor of the succession process is communication, both between the owner and the successor, and between the owner and employees, clients and suppliers. Properly informing stakeholders about planned succession can save the company from shocks and misunderstandings. According to prof. Blikle in family businesses you need to have a much greater skill of dialogue and building relationships than in others companies, you also need to care for positive relationships in the family, because they translate into the life of the company (Kody..., 2013, p. 11).

Succession in family businesses in Poland is still a difficult topic. The succession is undoubtedly difficult and very emotional. However, family businesses need to be aware that succession is an inevitable process and the lack of plans to do it may be the main reason for problems in the event of death or illness of the owner.

6. Conclusion

Family businesses play an important role in the market economy, they are the most natural form of entrepreneurship and the strength of development for countries. The majority of Polish family businesses operate in the SME sector and constitute the largest group of enterprises in Poland. The activity of a family business is connected with many challenges and dilemmas. Starting from the continuity and succession of the company through the need to overcome family con-

flicts that significantly affect the company's operations. The process of succession is the most important stage of development, which determines the continuation and survival on the market. It is complicated, time-consuming and involves many problems. In Poland, more than half of family businesses are just facing the challenge of first succession. They are not sufficiently prepared for this process. At the same time, knowledge about managing the succession process is limited. As studies show, the awareness of the difficulties associated with carrying out succession is low. Polish family businesses have no knowledge or experience in transferring the business to next generations. That is why support of family businesses is so important, by developing solutions that will help to carry out effective succession.

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Permanent turbulence of the environment brings about the necessity to conduct continuous research enabling to diagnose correctly the most important present and future economic and management challenges for the states, individual regions, enterprises and public organisations. Undertaking on that basis adequate activities by individual governmental entities and organisations requires them to possess appropriate knowledge and consider numerous determinants from the area of economics, management, politics, law or social conditionings. Undoubtedly, this publication is a helpful source of information and knowledge. It addresses a lot of problems from the level of the global economy, national economies, activities of sectors, the functioning of networks and managing economic and public institutions. The presented issues include the subjects of trade, tourism, finance, competitiveness, employee competences, work systems, organisational behaviours, information systems, risk, restructuring and innovativeness. This considerable portion of knowledge is included in the chapters presenting findings of empirical and theoretical deliberations.

The content of the book is divided into three parts, namely:

1. Global, regional and sectoral challenges for the contemporary economy.
2. Challenges of the network economy.
3. Challenges for the theory and practice of organizational management.

This monograph is a result of conducted scientific cooperation of the academic environment of the Faculty of Management, Cracow University of Economics with other scientists from Poland and abroad, in this case coming from such countries as the US, Egypt, Ukraine, Slovakia, Slovenia, Serbia and Germany. The monograph is a part of the cycle of publications with the common title *“Knowledge – Economy – Society”*, which is one of the effects of many years’ scientific collaboration. As scientific editors we would like to thank all the Authors for accepting our invitation to co-create this publication and their dedication and contribution to its creation.