



## COMPARISON OF THE QUALITY OF THE BUSINESS ENVIRONMENT IN THE SLOVAK REPUBLIC AND POLAND

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### Abstract

The enterprises belonging to the SME sector are characterized by flexibility, dynamic approach to the economic environment, they respond quickly to the changing needs and preferences of potential customers and adapt to them. In this way, they significantly contribute to increasing efficiency of the functioning of the entire economy and constitute an important part of the regional development.

The SME sector, as the key one for the world economy, encounters, however, many barriers to development on the business environment, such as, including legal regulations, restrictive labor laws, amount of tax, limited access to sources of financing, low innovative performance and other. The propose of this article is examine, analyses and assess the current situation and trends related to the development of entrepreneurial environment in Poland and Slovak Republic in light of the macroeconomic environment development in both countries. The conditions for the development of the SME sector on the basis of the empirical research refers to the identification of the conditions of the business environment and its impact on small and medium enterprises conducting their activity in Poland and in the Slovak Republic. Analysis of the results of empirical research indicated the multidimensionality of the discussed problem and the great similarity in the barriers to the development of the SME sector. The main method used in the research was the questionnaire survey method and the method of comparison of the results obtained.

KEY WORDS: Small and medium-sized enterprises, business environment, barriers to the business environment

### Introduction and theoretical background

Economic environment and factors that most directly affect the quality of the entrepreneurial environment and its synergistic effects affect the functioning of the corporate sector, which is reflected in the development of economy-wide macroeconomic indicators. For small and medium-sized enterprises that operate in the economic and political environment of the state are important the following factors:

- funding opportunities for business development and innovation
- access to capital, investment opportunities,
- market position,
- quality and structure of human resources,
- risk pertaining to entrepreneurial activity, possibilities of its elimination,
- stability of political environment.

Micro, small and medium enterprises have in national economies, but also in the EU economy significant attention. The importance of this business segment is growing particularly in transition economies, therefore for its development it is necessary to create suitable business environment by using the tools of state and EU economic policy. (Koišová et al.2016) Of the total number of businesses in Slovakia micro, small and medium-sized enterprises create a 99% share, they constitute 73.6% of employment and 52.8% of the total value added being created.

In 2015, based on data of the Slovak Statistical Office, the total number of active SMEs in Slovakia was 531,063. Of that number the individuals - entrepreneurs were represented by 64% and SMEs - legal entities by 36%. Of the total number of active SMEs, micro

enterprises had the largest representation of 96.9% (in count 515 236), small enterprises 2.4% (12,984) and medium-sized enterprises 0.5 % (2843).

In 2015, according to the Statistical Office of SR, the gross domestic product in current prices was 78 070.8 million EUR. In year-to-year comparison it increased increase by 3.6%. Gross output and value added have a significant impact on the GDP formation.

Gross production created by SMEs (legal entities) in non-financial sector in current prices increased in 2015 year-to-year by 6.3%. In absolute terms it was 53 638,7 mil. EUR. The gross production of micro-enterprises increased by 0.6% to 12 892.3 million. EUR. The gross production of small businesses increased by 2.1% to 15 515.8 million. EUR and gross production of medium-sized enterprises increased by 12.4% to 25 230,5 mil. EUR.

The share of SMEs (legal entities) on value added formation in non-financial corporate sector in 2015 reached 52.3%, representing a year-to-year decrease by 0.5 p.p. In absolute terms it is 19 141.7 mil. EUR.

Besides large enterprises the sector of SMEs plays a key role in export performance and import intensity of Slovak economy. In 2015 export performance reached 93.8% and import intensity reached 91.4%. Export of SMEs in 2015 increased by 5.7%, which represents 18 170.5%. In 2015 compared with 2014 year-to-year the share of SMEs on total export remained unchanged, it was 29.3%. In terms of size structure the share of micro enterprises on total export in 2015 reached 10.5%, small enterprises in total export reached 6.0%, exports of medium-sized enterprises was 12.8%. The share of large enterprises reached 70.7%.

The share of the micro, small and medium-sized enterprises, generally of the SME sector, in the total number of enterprises has not changed and, for years, amounted to 99.82% of the total number of the companies operating in Poland. The absolute majority (96%) in this group is microenterprises employing up to 9 employees. This is more than the average for the European Union, where microenterprises amount to 92.5% of all the enterprises (Starczewska-Krzysztozek, 2014).

In 2014, in Poland, there operated more than 1.84 million non-financial enterprises, described as active enterprises. Small and medium enterprises constitute as much as 99.8% of these entities (Figure 1.2). The data for years 2010-2014 indicate that the number of active enterprises has been increasing. In 2010 it amounted to about 1.73 million and in 2013 – to more than 1.77 million. However, in 2013, compared to the previous year, the value of this index decreased by 1.3%. The largest growth of enterprises was recorded in 2014, compared to 1 771 thousand in 2013; this increase amounted to 4.0%.

In 2014 there operated 1 839 thousand non-financial enterprises belonging to the SME sector and they amounted to 99.8% of the total number of enterprises.

Due to the basic legal form 91.1% of SMEs belonged to natural persons. Legal persons and entities without legal personality constituted 8.9% of the SME sector. The enterprises from the SME sector most frequently conducted commercial activity (27.0% of the total number of this group of enterprises) and professional, scientific and technical activity (12.7%), and subsequently building and industrial activity (respectively: 12.5% and 10.3%).

In 2014 the sector of enterprises has a significant share in generating gross domestic product (GDP). Polish enterprises generate 73% of GDP, and the companies belonging to SME generate 48.5% of GDP, i.e. every other zloty of this value. From among all the groups of enterprises, microenterprises have the largest share in creating GDP – about 30% (Report PARP, 2015).

Between 2010 and 2014 small and medium enterprises grew on average at a similar rate as the entire Polish economy and their share in GDP remained at a similar level. However, their condition was more susceptible to economic fluctuations than in the case of large companies, particularly to the dynamics of the domestic demand. As a result, the volume of production of this group of enterprises exceeded the pre-crisis level until in 2014. In turn, at the beginning of the analyzed period, medium enterprises had a low share in creating GDP in Poland, compared to the previous years, however, in 2013 there was recorded an increase, compared to the year of 2012, by 3.9%, and in 2014 another increase, by 3.3%, compared to the previous year. (Report PARP, 2015).

In years 2010-2014 the employment in the enterprises of the SME sector was at a relatively similar level. In microenterprises, with up to 9 employees (including selfemployment companies), it amounted to about 38.5%. In small enterprises, with 10 to 49 employees, in the analyzed period, there were employed about 13% of all the employees in Poland; in medium enterprises, with 50

to 249 employees, there were employed on average 18% of all the employees in Poland.

Two of the five employees working in enterprises in Poland are the people working in the entities run by natural persons (amounting to 91.2% of enterprises in Poland). The vast majority (93.5%) of natural persons working in the companies are the ones employed in micro and small enterprises (3.2 million people), of whom 79.3% work in microenterprises. Medium enterprises run by natural persons in 2014 provided jobs to every twentieth employee and large enterprises – to every hundredth. (Report PARP, 2015).

## Theoretical background

The world scientific and economic literature embraces many publications that analyse the role, position and importance of small and medium-sized enterprises for the social and economic development of countries. Publications on SMEs also analyse their impact on the development of various areas in the economy, and ways and forms of financing the development of small and medium-sized enterprises. Moreover, there are publications presenting research findings on SMEs issue in individual countries. In this section of the scientific article, a brief overview of world technical literature dealing with the subject matter according to selected areas is provided.

Gupta et al. (2013) write growth-oriented firms are a significant contributor in a nation's economic gain, but the concept of growth is different for different entrepreneurs. Growth can be defined in terms of revenue generation, value addition, and expansion in terms of volume of the business. It can also be measured in the form of qualitative features like market position, quality of product, and goodwill of the customers. Spangenberg, (2004) states „An economic imperative is not mentioned, nor is one of the challenges an economic one (if distributional issues are not – in a more classical sense – regarded as economic issues). Instead, the economy is perceived as a basic headed: its current way of working is a driving force behind most of the problems, but it could also be a force for the better, contributing to the solutions of problems by creating enough wealth to solve them. Although a vibrant economy is no end in itself, it is considered essential for the long term satisfaction of material needs by providing jobs, income, social security and consumption opportunities.” Love and Roper (2015) emphasise the contribution of local business eco-systems and partnering to both SME innovation and export performance. This creates the potential for localised policy initiatives which can help form or strengthen local partnerships to boost SME competitiveness. Enterprise upgrading aims to analyse the performance of firms over time. A firm's performance is contingent on the interaction of a number of internal and external forces at different times of the business cycle. This idiosyncratic complexity has made it difficult to develop a universal model or a comprehensive theory of firm development. Brunswicker and Vanhaverbeke (2014) identified five strategies that SMEs adopt for searching: minimal searchers, supply-chain searchers, technology-oriented searchers, application-oriented searchers, and full-scope searchers. They also identified that each strategy entails a

mix of interactions with external sources of innovation such as customers, suppliers, universities/research organizations, IPR experts, and network partners. Going beyond technology road mapping methods (TRMs) to adopt the market pull strategy of technology-product integration. Reeg (2013) dealt with the enterprise upgrade in his "concept of enterprise upgrading" in terms of its impact on enterprise performance growth and work productivity growth in modern enterprises. In this relation, he also elaborated the influence of clusters on SMEs development. Enterprise upgrading aims to analyse the performance of firms over time. A firm's performance is contingent on the interaction of a number of internal and external forces at different times of the business cycle.

Entrepreneurs require external finance, both formal and informal, for a variety of purposes including business start-ups, working capital needs, fixed capital formation, and possibly even for debt financing. However, formal credit institutions such as banks mostly provide loans to well-established SMEs for specific working capital and investment purposes Ruziev, K., and Midmore, P. (2015):

According De Moor et al. (2016) [8]. These authors found that the SME debt finance gap in Poland is decreasing in contrast to the EU, and that the Polish SMEs have better access to debt finance. This result is relevant for the evaluation of the current and future support measures of the Polish and EU government for stimulating and attracting domestic and foreign investments.

Another criterion showing the role of the sector of small and medium enterprises is their impact on the level of innovativeness of the country's economy. The level of innovativeness, which undoubtedly affects the process of entrepreneurship refers both to new companies and the ones already existing on the market (Okr glicka, 2015). While reviewing the subject literature one may also come across the statements that innovations affect the survival of companies and often determine their establishment.

According to E. Stawasz (2011), 'innovation' is an ambiguous term, filled with multiple content. It is usually believed that it includes both impulses, reasons and places (institutions, groups of people) of creating new technical knowledge and factors conditioning this process.

In theory the issue of financing innovation of the SMEs is often discussed. According Madrid-Guijarro, Garcia-Perez-de-Lema, Van Auken, (2016) to reduce financing constraints on their innovation, SMEs should establish long relationships and low debt concentration with their main bank. The more banks a firm works with, the greater its financing constraints. Lee, Sameen, Cowling, (2015) write the worsening in general credit conditions has been more pronounced for non-innovative firms with the exception of absolute credit rationing which still remains more severe for innovative firms.

Wynarczyk, P. (2013) emphasize the importance of relationships with external stakeholders, especially with customers, as a main basis of small firms' competitiveness. Web technologies evolution and social media diffusion have offered businesses a new tool, with new and partially unexplored potentialities. These tools can enhance small firms' ability to manage relationships

with customers and other stakeholders. Fear that this technological innovation could be harmful precisely to small businesses. The latter, in fact, have so far taken advantage of their ability to treat and manage customer relationships with a very personal approach, in which entrepreneur is often personally involved. Also confirm that small firms are worried for the risk of losing personal contact with key customers, as small entrepreneurs generally wish to engage with them on a face-to-face basis.

The issue of SMEs development barriers in their own countries is discussed by the following authors. Samitowska (2011) claim: In the case of the developed economies, economic success to a large extent depends on effectively functioning SME. The firms under discussion have been competing with companies from the developed countries particularly since Poland joined the European Union. Barriers they encounter, e.g. lack of adequate support from the state, limited support from business environment institutions, or ineffective management of financial resources might widen competitive gap between Polish and foreign firms.

Risk is inherent in all business functions and in every kind of activity. Knowing how to identify risks of the entrepreneurial, attribute them a value and a priority scale, design actions and mechanisms to minimize risks, and continuously monitor them, are essential to guarantee companies' survival and create sustainable value. This is especially true for small- and medium-sized businesses that are most exposed to the harmful effects of the risks, due to limited resources and structural features and barriers of the development. (Havierniková et al., 2016)

SME sector must simultaneously absorb resources and workers from the large enterprise sector and at the same time help to create a labour market situation in which the process of reorientation and fundamental reorganization of the large enterprise sector can be carried through without threatening social peace. In addition to slowing down the restructuring process, the failure to develop the SME may increase the volume of required transfer payments for unemployment, early retirement and other programmes and (under certain fiscal policy assumptions) crowd-out investment and other employment creating expenditures (Cook, Nixon, 2000).

## The goal and description of the research

The review of the subject literature in the field of the conditions for enterprise development and determinants affecting the development contributed to the formulation of the scientific problem of the article, which is based on the assumptions concerning the functioning of the contemporary micro-, small and medium enterprise in the business environment. The selection of the research problem was determined by the disturbances observed in the development of enterprises of the SME sector in the turbulent environment and the changes resulting from the quality level of the business environment.

The main objective of the conducted research was to compare the conditions for the development of small and medium enterprises (the SME sector) in different countries, whereas the specific objectives were:

- to determine the opportunities for gaining external sources of financing for the
- development of small and medium enterprises,
- to examine the conditions for innovation development in the SME sector,
- to identify the risk of small and medium enterprises

### Methods and methodology of the scientific article

The research was conducted in Poland and the Republic of Slovakia in 2016. A total of 390 enterprises, classified as SMEs by the size class of employment, took part in the research, including 197 Polish and 193 Slovakian enterprises.

The research tool used for the study was the own questionnaire consisting of 38 questions and the demographics. The structure of the questionnaire allowed the authors to identify the group of questions concerning the most important conditions for the development of the examined sector referring to the business environment. The questions included in the questionnaire were closed-ended and semi-open questions. The questionnaire was completed by the owners or managers of enterprises in paper form. The questionnaire was anonymous, which, in the authors' opinion, encouraged the respondents to express opinions on the development of their enterprises.

The conducted quantitative research allowed for using statistical methods. During the research analysis there were used descriptive statistics and correlation measures (Szajt, 2014). Test probability value at the level of  $p < 0.05$  was found significant, whereas  $p < 0.01$  was found highly significant. While recording the questions concerning the impact of the business environment on the development of enterprises of the SME sector, there was used a five-point Likert scale, which allowed to obtain more detailed opinions of the respondents. When analyzing the collected data there was used the statistical software – Statistica 12.5. Therefore, the authors do not provide the procedure of the calculation of individual relationships or correlations but only present the obtained results along with the interpretation and the conclusions.

### The analysis of Polish enterprises

The analysis of the population of the surveyed enterprises conducting their business activity in Poland, carried out by the size class of the company, allowed for the conclusion that the largest group was micro-enterprises (47.7%) employing up to 9 employees, followed by small companies (38.1%) with 10 to 49 employees. Moreover, among the surveyed population, there were identified 28 medium enterprises (14.2%) conducting business in the area of Poland, employing 50 to 249 employees (Table 1).

**Table 1.** The structure of Polish enterprises by their size class (n=197)

Size classification	Number of indications	% of indications
micro-enterprise	94	47.7
small enterprise	75	38.1
medium enterprise	28	14.2
Total	197	100.0

Source: Own work based on the survey

The analysis of the surveyed enterprises in terms of the type of the conducted activity allowed to identify the following areas: production, agriculture, trade, construction and transport. It occurs that among the surveyed population the most numerous group was the entities of the trade industry (32.5%), followed by the companies dealing with production (nearly 20%). Moreover, 29 respondents (nearly 15%) declared that they ran their business activity in other industries than the listed ones. A fairly large group stated that they conducted a mixed activity (16.7%), and most frequently these indications referred to production and trade as well as trade and transport. (Table 2).

**Table 2.** Types of the conducted activity of Polish enterprises by sectors (n=197)

Sectors of the activity of the company	Number of indication	% of indications
production	39	19.8
agriculture	3	1.5
Trade	64	32.5
construction	21	10.7
transport	8	4.1
other areas	29	14.7
mixed activity	33	16.7
Total	197	100.0

Source: Own work based on the survey

Among the surveyed population the largest group was enterprises declaring sole proprietorship.

**Table 3.** Legal form of the conducted activity of Polish enterprises (n=197)

Legal form of the company	Number of indications	% of indications
sole proprietorship	122	62.0
general partnership	16	8.1
civil law partnership	14	7.1
limited liability company	33	16.7
joint stock company	5	2.5
cooperative	7	3.6
Total	197	100.0

Source: Own work based on the survey

It occurs that the most popular form of business in Poland was declared by as much as 62% of all the respondents. Another group of enterprises was limited liability companies (16.7% of all the responses). Moreover, among the declarations concerning the legal form of enterprises belonging to the SME sector, there were identified: general partnership (8.1%), civil law partnership (7.1%), cooperative and joint stock company (Table 3).

### The analysis of Slovakian enterprises

The analysis of the population of the surveyed companies conducting their business activity in the

Republic of Slovakia carried out by the size class of the company allows for the conclusion that the largest group was micro-enterprises employing up to 9 employees amounting to 46.1% of the surveyed companies. Another group, in terms of the size, was small enterprises with 10 to 49 employees (34.2%), followed by medium enterprises, employing 50 to 249 employees, whose number was 38, amounting to 19.7% of all the surveyed companies (Table 4).

**Table 4.** The structure of Slovakian enterprises by their size class (n=193)

Size classification	Number of indications	% of indications
micro-enterprise	89	46.1
small enterprise	66	34.2
medium enterprise	38	19.7
Total	193	100.0

Source: Own work based on the survey

While analyzing the surveyed population in Slovakia in terms of the industry, it occurs that the most numerous group was enterprises from the agricultural industry amounting to nearly 30% of the respondents (57 indications).

**Table 5.** Types of the conducted activity of enterprises in the Republic of Slovakia by sectors (n=193)

Sectors of the activity of the company	Number of indication	% of indications
production	40	20.7
agriculture	57	29.6
trade	19	9.8
construction	20	10.4
transport	11	5.7
other areas	40	20.7
Mixed-activity	6	3.1
Total	193	100.0

Source: Own work based on the survey

Another group, in terms of the number, was manufacturing companies amounting to nearly 21% of the respondents and the ones declaring a different area of the activity from the identified ones, also amounting to nearly 21% of the surveyed population. Trading companies amounted to nearly 10% of the population and transport companies – to 5.7% of all the respondents. Mixed-activity, i.e. the indication of more than one industry, referred only to 6 respondents (Table 5).

**Table 6.** Legal form of enterprises in the Republic of Slovakia (n=193)

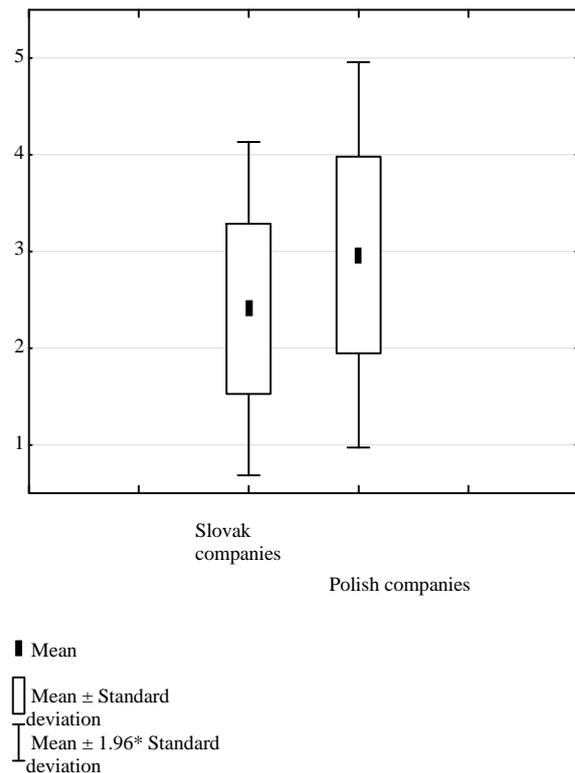
Legal form of the company	Number of indications	% of indications
sole proprietorship	50	25.9
limited liability company	121	62.7
joint stock company	18	9.3
other forms	4	2.1
Total	193	100.0

Source: Own work based on the survey

### Financing the activities of small and medium enterprises

The opportunities for financing the activities of enterprises of the SME sector are completely differently perceived by entrepreneurs in Poland and the Slovak Republic. This perception, among others, depends on the type of the conducted activity, size of the company, implemented innovations or time of the operation on the market, which is often associated with the experience of an entrepreneur.

**Figure 1.** The assessment of the access to external sources of financing a business activity in Poland and the Slovak Republic



Source: Own work based on the survey.

The research indicates that 72 enterprises of the SME sector in Poland and as many as 148 enterprises of the SME sector in

Slovakia declare that they have difficult access to external sources of financing and this refers both to the access to the European Union funds, grants, bank loans and other instruments of the financial market. The access

to external sources of funding was assessed by the surveyed enterprises in Poland at the level of 2.96 whereas, in Slovakia, even lower, at the level of 2.41 on a 5-point Likert scale, where 1 amounted to definitely difficult access and 5 to definitely easy access (Figure 1).

The further analysis of the research results indicates that the variable of the accessibility to external sources of financing is positively statistically important at a rather low level with the development of innovative projects by the enterprises of the SME sector in Poland. Therefore, it can be concluded that the easier access to external sources of financing business the enterprise has the more regularly it implements innovative projects in Poland. At the same time, there was not found statistical correlation between the accessibility to external sources of funding and the implementation of innovative projects by the companies of the SME sector in the Slovak Republic (Table 1).

**Table 7.** Gamma rank correlation between the size and age of enterprises and the level of burdens of the SME sector in Poland and Slovakia

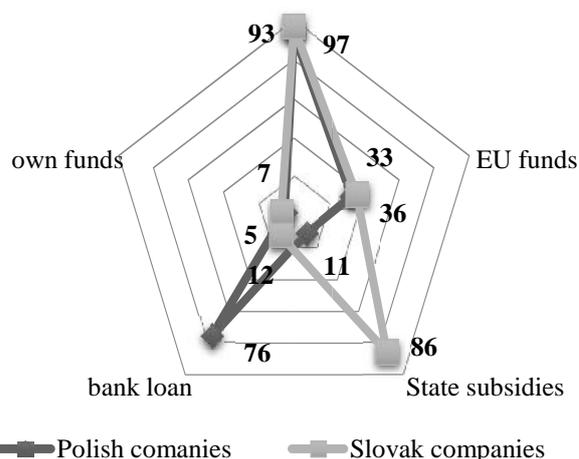
	<b>Regular implementation of innovative projects in the enterprise</b>
	<b>*Gamma rank correlation (p-value&lt;0.05)</b>
Accessibility to external sources of financing business activities in Poland	0.178*
Accessibility to external sources of financing business activities in Slovakia	0.113

Source: Own work based on the survey.

Interestingly, the research indicates that, in Slovakia, the smaller the enterprise, i.e. the fewer employees it hires, the easier the access to external sources of financing (Gamma rank correlation=-0.178; p-value<0.05). Such a statistically significant relationship was not found in the case of small and medium enterprises conducting their business activity in Poland. (Table 7).

### Innovations and opportunities for the development of small and medium enterprises

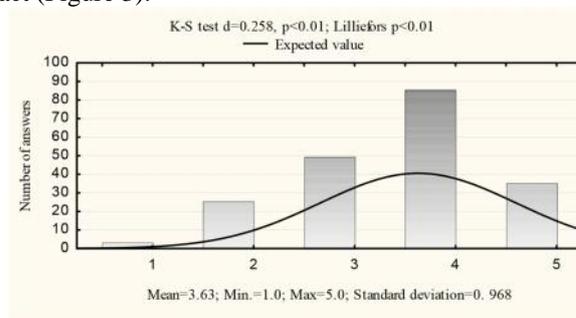
The conducted research of the SME sector indicates that, in Poland and the Slovak Republic, innovations are most frequently financed from the profits of enterprises. Such declarations were made by 47% of the Polish entrepreneurs (93 indications) and more than 50% of the Slovak ones (97 indications).



**Fig.2.** Basic sources of financing innovations in small and medium enterprises in Poland and the Slovak Republic

In the case of Polish enterprises of the SME sector, another source of financing innovations was the bank loan (76 indications) and EU funds (33 indications) - 16.7% of all the responses. It occurs that own funds of entrepreneurs are most rarely the source of financing innovations. In the case of the Polish enterprises, this situation refers to only 2.5% of the respondents. In the case of the Slovak enterprises of the SME sector, the second most frequently indicated source of financing the implemented innovations is State subsidies (86 indications) and the EU funds (36 indications). The same as in the case of the Polish enterprises, the implemented innovations are most rarely financed with own funds of entrepreneurs (6.2% indications) (Figure 2). Simultaneously, it should be pinpointed that the surveyed entrepreneurs, both in Poland and the Slovak Republic, identify a few sources of innovations in their enterprises. There are often two or three sources which, according to the declarations by the respondents, occur simultaneously.

For the significant part of the surveyed population, both in Poland and Slovakia, the implementation of a different type of innovations in the process of a business activity is an important tool of the competitive struggle on the market. It occurs that as many as 120 Polish enterprises of the SME sector (60.9% of indications) declare that the implemented innovations are the basic tool of fighting against competition, and 35 companies firmly declare this fact (Figure 3).



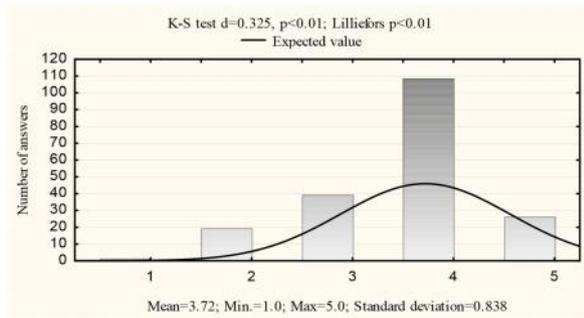
**Fig. 3.** The implemented innovations are the basic tool of the competitive struggle in Poland (n=197)

Source: Own work based on the survey

In the case of the Slovak enterprises of the SME sector, the implemented innovations are the basic tool of the

competitive struggle on the market for as many as 134 companies (72.4% indications), including 26 respondents for whom it is definitely the basic fighting tool which brings about an increase in competitiveness of the analyzed enterprises (Figure 10).

In Figures 3 and 4 there are presented the answers of the respondents, where 1 amounts to 'the implemented innovations are definitely not the basic tool of the competitive struggle', and 5 amounts to 'definitely yes', i.e. the implemented innovations are definitely the basic tool of the competitive struggle on the market on a 5-point Likert scale.



**Figure 4.** The implemented innovations are the basic tool of the competitive struggle in the Slovak Republic (n=193)

Source: Own work based on the survey.

Interestingly, the further analysis of the research indicates that the variable of 'the implemented innovations are the basic tool of the competitive struggle' is negatively statistically significant with the age of the company of the SME sector in Poland. Therefore, it can be concluded that the younger the enterprise, i.e. the shorter it operates on the market, the more often the implemented innovations affect an increase in competitiveness of the analyzed company (Table 8).

**Table 8.** Gamma rank correlation between the age of the company and 'innovations are the basic tool of the competitive struggle for the SME sector in Poland' (n=197)

	Age of the company
	*Gamma rank correlation (p-value<0,05)
Implemented innovations are the basic tool of the competitive struggle	-0.181*

Source: Own work based on the survey.

The research indicates that the variable of 'the implemented innovations are the basic tool of the competitive struggle' is positively statistically significant with the size of the company of the SME sector in Slovakia. Therefore, it can be concluded that the more employees the company hires the more often the implemented innovations increase competitiveness of the analyzed company (Table 9).

**Table 9.** Gamma rank correlation between the size of the company and 'innovations are the basic tool of the

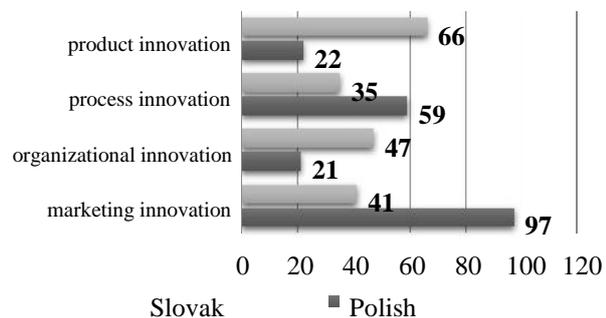
competitive struggle for the SME sector in the Slovak Republic (n=193)

	Size of the company
	*Gamma rank correlation (p-value<0,05)
Implemented innovations are the basic tool of the competitive struggle	0.257*

Source: Own work based on the survey.

The surveyed enterprises, both in Poland and the Slovak Republic, declared that, while implementing a different type of innovations, they aim at increasing their level of competitiveness on the market. Among the Polish enterprises of the SME sector there were most often implemented marketing innovations (97 indications of the respondents), followed by process innovations (59 indications). For comparison, among the Slovak enterprises of the SME sector, there were most frequently product innovations (66 indications) and organizational ones (47 indications) (Figure 11). Moreover, the respondents declared that, when conducting business, there are often implemented various innovations and, simultaneously, in many areas of activity, however, during the research, the focus of attention was the most often implemented innovations when conducting a business activity.

Innovative projects in the surveyed populations are launched respectively by 81 Polish entrepreneurs (41.1% of indications) and as many as 134 Slovak companies (69.4% of indications), belonging to the SME sector. It also occurs that the projects in question are launched regularly in a 5-year cycle, according to the declarations of the respondents from both countries.



**Fig.11.** The types of innovations implemented in small and medium enterprises in Poland and the Slovak Republic

Source: Own work based on the survey

The variable of 'regular implementation of innovative projects in the company' (a 5-year cycle) is positively statistically significant with the variable of the size of the company in both surveyed populations. Therefore, the larger the company the more regularly it implements

innovative projects. It also occurs that this correlation in the case of the Slovak enterprises is stronger ( $\gamma=0.430$ ) compared to the Polish companies ( $\gamma=0.289$ ) (Table 10).

At the same time, the conducted analysis indicates that the variable of ‘regular implementation of innovative projects in the company’ (a 5-year cycle) is positively statistically significant with the variable of ‘the implemented innovations are the basic tool of the competitive struggle’, i.e. along with the more systematic (regular) implementation of innovative projects in the surveyed small and medium enterprises, both in Poland and the Slovak Republic, the adopted strategy becomes the basic tool of the competitive struggle.

**Table 10.** Gamma rank correlation between the size of the company and ‘regular implementation of innovative projects by small and medium enterprises in Poland and Slovakia’

	Size of the company
	*Gamma rank correlation (p-value < 0,05)
Regular implementation of innovative projects in the company in Poland	0.289*
Regular implementation of innovative projects in the company in Slovakia	0.430*

Source: Own work based on the survey.

**Table 11.** Gamma rank correlation between ‘regular implementation of innovative projects in companies’ and ‘innovations are the basic tool of the competitive struggle for the SME sector’

	Regular implementation of innovative projects in the company
	*Gamma rank correlation (p-value < 0,05)
Implemented innovations are the basic tool of the competitive struggle on the Polish market	0.433*
Implemented innovations are the basic tool of the competitive struggle on the Slovak market	0.281*

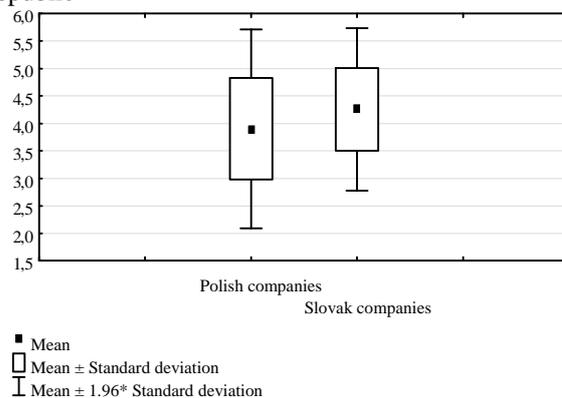
Source: Own work based on the survey.

The surveyed companies, both in Poland and Slovakia, assessed the selected aspects concerning the innovation policy of the State. This assessment included the issues associated with the appropriate amount of information on the applied innovation policy respectively in both countries and whether the State encourages the companies of the SME sector to implement innovations.

### Risk in the business activity of the SME sector

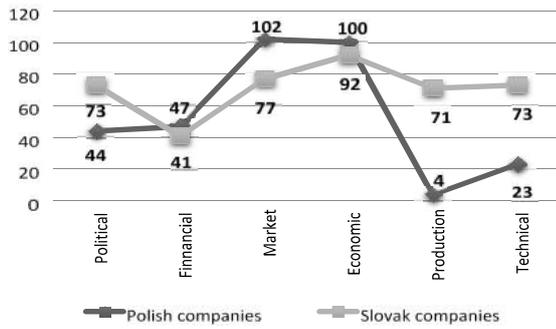
The risk of conducting a business activity refers to all entrepreneurs, it is an indispensable element of the operation of organizations on the market. The level of business risk was another aspect assessed by the surveyed Polish and Slovak small and medium enterprises. The research results indicate that the level of risk is high in the opinion of the surveyed Polish population and it amounts to 3.99 on a 5-point Likert scale. The respondents conducting business in the area of Slovakia acknowledged that the level of business risk is higher and amounts to 4.25 on a 5-point Likert scale (Figure 12).

**Fig. 12.** The level of business risk in the sector of small and medium enterprises in Poland and the Slovak Republic



Source: Own work based on the survey.

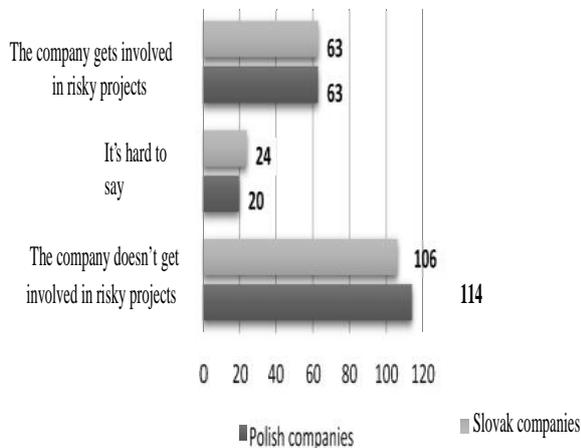
Polish enterprises declare that the business activity conducted by them is most often exposed to market risk which is usually associated with the sales price of goods and services, types of concluded contracts and high level of competition (102 indications, which amounts to more than 51% of the surveyed population). In the opinion of the Polish respondents, the risk in a business activity is also quite often associated with economic conditions, among others, the prices of energy, fuels, materials necessary for production, high personnel costs of the staff as well as foreign exchange rate risk and the amount of duty or inflation level (100 indications). Political risk, resulting from the changes within the ruling parties, changing legal regulations and new tax proposals was indicated by 44 respondents (22% of indications). On the other hand, financial risk, which is closely related to the accessibility to external sources of financing for the sector of small and medium enterprises, financial burdens and payment liabilities of entrepreneurs, was indicated by nearly 21% of the respondents (41 indications). Interestingly, a very small number of Polish entrepreneurs declare that, when conducting business, their company is exposed to technical risk, resulting from the implementation of new technologies or innovations and production risk, associated with the availability of production factors (Figure 13).



**Fig. 13.** Types of risk in the activity of small and medium enterprises in Poland and the Slovak Republic (the possibility of selection of more than one response)

Source: Own work based on the survey.

In the Slovak Republic, the enterprises declare that their business activity is most frequently exposed to economic risk (47.6% of indications) and market risk (39.9% of indications), resulting from the same determinants as the ones listed in the case of the Polish companies. However, what is interesting and different, political risk and technical risk were indicated in the second position, by respectively 37.8% of the Slovak respondents (73 indications), and the risk associated with the availability of production factors was indicated by 71 respondents, which amounts to 36.8% of the Slovak enterprises. The lowest level of risk threatening the business activity of the Slovak companies, in the opinion of 41 respondents, referred to financial risk. This risk was associated with the accessibility to external sources of financing for the SME sector, financial burdens and payment liabilities of entrepreneurs etc. (Figure 13).



Chi squared test=0.614; p-value = 0.987

**Fig. 14.** The share of small and medium enterprises in projects with a high level of risk in Poland and the Slovak Republic

Source: Own work based on the survey.

The conducted research indicates that the Polish and Slovak enterprises of the SME sector rather do not get involved in risky projects. As many as 114 Polish enterprises and 106 Slovak enterprises do not take actions in the area of risky projects. The enterprises which take risky projects (the same number of enterprises in both analyzed countries - 63 indications) declare that the

projects launched by them allow them to gain competitive advantage (Figure 14). The value of Chi squared test (p-value  $p > 0.05$ ) indicates that the null hypothesis is supported, i.e. there is no statistically significant correlation between the variables.

At the same time, the research shows that the variable of 'the level of business risk is statistically significant with the variable of 'the implemented innovations are the basic tool of the competitive struggle for the population of the surveyed companies in Poland and the Slovak Republic'. Positive correlation is slightly stronger in the case of the Polish enterprises, however, in both surveyed groups, it can be concluded that along with the use of innovation in order to fight on the competitive market there is an increase in the risk of conducting business, i.e. the more innovations the company implements the more risky its activity is (Table 15).

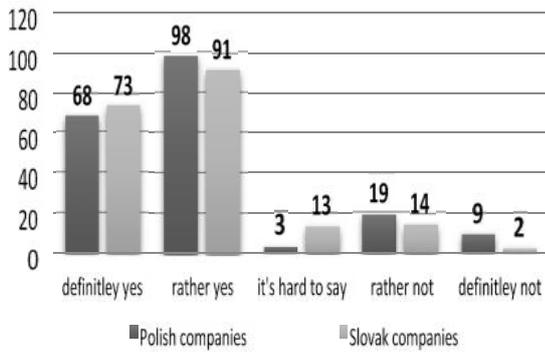
**Table 15.** Gamma rank correlation between 'the level of business risk' and 'innovations are the basic tool of the competitive struggle for the SME sector'

	The level of business risk
	*Gamma rank correlation (p-value < 0,05)
Implemented innovations are the basic tool of the competitive struggle on the Polish market	0.204*
Implemented innovations are the basic tool of the competitive struggle on the Slovak market	0.172*

Source: Own work based on the survey.

The surveyed population of enterprises in most cases notice that the level of risk associated with conducting business changes depending on the business cycle in the market economy. Such awareness of the entrepreneurs may result e.g. from many years of experience in conducting own business which, in the case of the analyzed group, refers to more than 70% of the population.

The research also indicates that 166 Polish enterprises, i.e. nearly 84% of the respondents and 164 Slovak companies, i.e. 85% of those questioned specify that, in times of crisis, the level of risk associated with conducting business increased for the sector of small and medium enterprises (Figure 15).



**Fig. 15.** In times of crisis business risk of the SME sector increased

Source: Own work based on the survey.

At the same time, statistically significant positive correlation between the variables shows that the larger the company the higher the business risk in times of crisis in Slovakia ( $\gamma=0.173$ ). Therefore, this risk increases in the case of the enterprises that employ a larger number of people while still belonging to the SME sector (Table 16). Similar statistically significant correlation ( $p\text{-value}<0.05$ ) was not found in the case of the Polish enterprises from the SME sector.

**Table 16.** Gamma rank correlation between the size of the company and ‘in times of crisis business risk of enterprises of the SME sector increased’ in Slovakia ( $n=193$ )

	Size of the company
In times of crisis business risk of the SME sector increased	*Gamma rank correlation ( $p\text{-value}<0,05$ ) 0.173*

Source: Own work based on the survey.

The opinions of the surveyed Polish enterprises indicate that there is an increase in financial risk when conducting a business activity. Among the determinants affecting an increase in the level of business risk, among others, there were identified high credit burdens of enterprises from the SME sector (the rating of 3.92) and poor legal protection of enterprises (the rating of 3.91 on a 5-point Likert scale) (Table 17).

**Table 17.** The selected factors of business risk in the opinion of Polish entrepreneurs of the SME sector ( $n=197$ )

	Mean	Min	Max	Standard deviation
Under the present conditions, in the business environment, there is an increase in financial risk due to high credit burdens	3.92	1.0	5.0	0.907
Due to poor legal protection of enterprises, there is an increase in financial risk when conducting business	3.91	1.0	5.0	0.789

Source: Own work based on the survey.

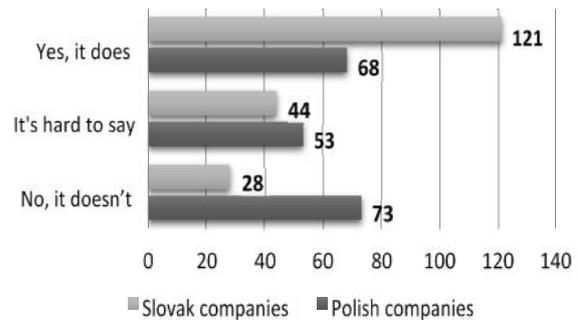
In the opinion of the surveyed Slovak enterprises, ‘financial risk, when conducting business, increases due to high credit burdens of the SME sector’ was assessed at the level of 3.54, and ‘poor legal protection of enterprises’ respectively at the level of 3.99 on a 5-point Likert scale (Table 18).

**Table 18.** Selected factors of business risk in the opinion of Slovak entrepreneurs of the SME sector ( $n=193$ )

	Mean	Min	Max	Standard deviation
Under the present conditions, in the business environment, there is an increase in financial risk due to high credit burdens	3.54	1.0	5.0	0.984
Due to poor legal protection of enterprises, there is an increase in financial risk when conducting business	3.99	1.0	5.0	0.777

Source: Own work based on the survey.

This indicates that, in both countries, entrepreneurs notice that the risk of conducting a business activity is affected by the listed factors at a similar level.



Chi squared test=35.745;  $p\text{-value}=0.000001$

**Fig. 16.** The number of enterprises of the SME sector using commercial insurances in Poland and the Slovak Republic

Source: Own work based on the survey.

One of the methods of decreasing the level of risk when conducting business is the use of commercial insurances. However, it occurs that this situation is slightly differently perceived by the surveyed populations of small and medium enterprises in both countries. The activities of this type are much more frequently taken by Slovak entrepreneurs since such declarations refer to as many as 121 respondents (nearly 63% of indications), who declare that they use commercial insurances whereas, in Poland, the decisions of this type are taken

much more rarely and by a significantly smaller group of enterprises. The declarations of the purchase of insurances for business are made only by 35% of the respondents, therefore, nearly by every third entrepreneur. However, the value of Chi squared test ( $p$ -value  $p < 0.05$ ) indicates the necessity to reject the null hypothesis and to accept the alternative hypothesis, therefore, there is statistically significant correlation between the variables, i.e. there is noticeable a specific tendency in the responses of both countries (Figure 16).

Interestingly, in the case of the Polish enterprises, there is positive statistically significant correlation between the variable of the size of the company and 'the use of commercial insurances to reduce the risk of conducting businesses. Therefore, it can be concluded that the larger the company, i.e. the more employees it hires, the more often it purchases insurance policies to reduce the level of risk of the conducted activity in Poland (Table 19).

**Table 19.** Gamma rank correlation between the size of the company and 'SMEs use commercial insurances in Poland'

	Size of the company
SMEs using commercial insurances	*Gamma rank correlation ( $p$ -value < 0,05)
	0.204*

Source: Own work based on the survey.

However, such correlation was not found in the case of the Slovak enterprises in spite of the fact that the purchase of insurance policies for business activities conducted there is a more frequent practice.

## Conclusions

The sector of small and medium enterprises has a great development potential. The opportunities for the development of the SME sector also occur in the case of the already existing enterprises and the support for the growth of the discussed sector is only possible by removing the barriers. The barriers impede the development of entrepreneurship and negatively affect the operation of enterprises on the market. Most barriers of the analysed sector result from the business environment, therefore it is worth attempting to assess the impact of the business environment and the conditions for the development of small and medium enterprises from the aspect of business risks.

On the basis of the conducted research aimed at the comparison of the conditions for the development of small and medium enterprises (the SME sector) in Poland and the Slovak Republic there have been identified the areas of the business environment that may determine the development.

On the basis of the conducted research of the sector of small and medium enterprises running their business activities in Poland and operating in Slovakia, it can be concluded that a large group of companies have difficult access to external sources of financing and this refers both to the access to the European Union funds, grants,

bank loans and other instruments of the financial market. However, it occurs that:

- In Slovakia, the smaller the enterprise, i.e. the fewer employees it hires, the easier the access to external sources of financing,
- The easier access to external sources of financing business the enterprise has the more regularly it implements innovative projects in Poland,

For the significant part of the surveyed population, both in Poland and Slovakia, the implementation of a different type of innovations in the process of a business activity is an important tool of the competitive struggle on the market. It occurs that as many as 61% Polish and 72% Slovak enterprises of the SME sector declare that the implemented innovations are the basic tool of fighting against competition. Moreover, one can conclude that:

- the younger the enterprise, the more often the implemented innovations affect an increase in competitiveness of the analyzed company in Poland,
- the more employees the company hires the more often the implemented innovations increase competitiveness of the analyzed company in Slovakia.

It also occurs that this correlation in the case of the Slovak enterprises is stronger compared to the Polish companies, moreover:

- the analysis of the research results indicates that the Polish enterprises assess the amount of information on the innovation policy of the State, addressed to the SME sector, better than the Slovak companies.
- problems in Poland and in Slovakia in accessing external funds due to the complexity of the process of approval of applications and documents and strict criteria for the assessment of financial capacity, the result of which is reducing funds for a business activity.

As many as 73% of the Slovak enterprises and 46% of the companies of the Polish SME sector indicate that the forms of financial aid in the country are not properly designed and configured.

From the point of view of business risk The surveyed population of enterprises in most cases notice that the level of risk associated with conducting business changes depending on the business cycle in the market economy and this risk increases in the case of the enterprises that employ a larger number of people in Slovakia.

The opinions of the surveyed Polish and Slovak enterprises indicate that there is an increase in financial risk when conducting a business activity. Among the determinants affecting an increase in the level of business risk, among others, there were identified high credit burdens of enterprises from the SME sector and poor legal protection of enterprises.

One of the methods of decreasing the level of risk when conducting business is the use of commercial insurances. The practice indicates that Slovak enterprises much more

frequently make use of this type of insurances, compared to Polish enterprises. However, the results show that the actions taken and the cooperation with insurance companies in the business environment may contribute to the improvement in the operation of enterprises on the market.

The research indicates that the most frequent barrier to the development resulting from the business environment of enterprises in Poland is:

- political instability,
- instability and ambiguity of tax regulations,
- burdens associated with obtained revenues of companies.

The factors influencing the improvement in the quality of the business environment of the enterprises conducting business in Poland and the companies running their business activities in the Slovak Republic were found very similar.

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### References

- Brunswick, S., W. Vanhaverbeke, W., (2014), Open innovation in small and medium-sized enterprises (SMEs): External knowledge sourcing strategies and internal organizational facilitators, *Journal of Small Business Management*, Vol.53(4), pp. 1241-1263.
- Cook, P., Nixon, F., (2000), Finance and Small and Medium-Sized Enterprise Development, Available online: [www.gdrc.org/icm/micro/finsme.html](http://www.gdrc.org/icm/micro/finsme.html).
- De Moor, L., Wiczorek-Kosmala, M., & Joanna Blach, J. (2016). SME Debt Financing Gap: The Case of Poland. *Transformation in Business and Economics*, 15 (3) pp. 274-291.
- Gupta, P., Seetharaman, A., & Raj, J. R. (2013). The usage and adoption of cloud computing by small and medium businesses. *International Journal of Information Management*, 33(5), pp. 861-874. <http://dx.doi.org/10.1016/j.ijinfomgt.2013.07.001>
- Havierniková, K., Okr glicka, Lema ska-Majdzik, A. (2016) Cluster cooperation and risk level in small and medium sized enterprises. *Polish Journal of Management Studies*, 14(2), pp.82-92.
- Koišová, E., Masárová, J., Kraj o, K. (2016). Trends in economic performance development of the EU, 2016. *Actual Problems of Economics*, 185, (11) pp.42-52.
- Lee, Neil, Sameen, Hiba and Cowling, Marc (2015) Access to finance for innovative SMEs since the financial crisis. *Research Policy*, 44 (2). pp. 370-380. DOI: <https://doi.org/10.1016/j.respol.2014.09.008>
- Love, J., Roper, S., (2015), SME innovation, exporting and growth: A review of existing evidence, *International Small Business Journal*, Vol. 33(1), pp. 28-48.
- Madrid-Guijarro, A., Garcia-Perez-de-Lema, D., Van Auken, H. (2016). Financing constraints and SME innovation during economic crises. *Academia-Revista Latinoamericana de Administracion*,
- Okr glicka, M., (2016), Internal Innovativeness and Management of Current Finances of Enterprises in Poland, [in:] Bilgin, M. H., Danis, H., Demir, E., Can U. (eds.), *Business Challenges in the Changing Economic Landscape*, Springer International Publishing, Vol. 1, pp. 225-237.
- Raport o stanie sektora malych i rednich przedsi biorstw w Polsce w latach 2013–2014, PARP, Warszawa 2015, p. 19.
- Reeg, C., (2013), *Micro, Small and Medium Enterprise Upgrading in Low- and Middle-Income Countries*, Bonn, Discussion Paper 15/2013, Deutsches Institut für Entwicklungspolitik.
- Report Małe i rednie firmy w Polsce – bariery i rozwój, Polityka Insight, 2016.
- Report on the State of Small and Medium Enterprises in the Slovak Republic in 2014, (2015), Available online: [http://www.sbagency.sk/sites/default/files/sprava\\_o\\_stave\\_msp2014.pdf](http://www.sbagency.sk/sites/default/files/sprava_o_stave_msp2014.pdf), [9.09.2016].
- Report on the State of Small and Medium Enterprises in the Slovak Republic in 2014 (2015), Slovak Business Agency, Available online: [http://www.sbagency.sk/sites/default/files/sprava\\_o\\_stave\\_msp2014.pdf](http://www.sbagency.sk/sites/default/files/sprava_o_stave_msp2014.pdf) [10.04.2017].
- Ruziev, K., and Midmore, P. (2015). Connectedness and SME Financing in Post-Communist Economies: Evidence from Uzbekistan. *The Journal of Development Studies*, 51 (5), pp.586-602
- Samitowska, W. (2011). Barriers to the development of entrepreneurship demonstrated by micro, small and medium enterprises in Poland, *Economics & Sociology*, Vol. 4(2), pp.42-49.
- Stawasz, E. (2011). ródła innowacji, [in:] K.B., Matusiak (red.), *Innowacje i transfer technologii Słownik poj*, PARP, Warszawa, pp. 341-342.
- Szajt M., (2014), *Przestrze w badaniach ekonomicznych*, Sekcja Wydawnictwa Wydziału Zarz dzania Politechniki Cz stochowskiej, Cz stochowa 2014.
- Wynarczyk, P. (2013). Open innovation in SMEs: A dynamic approach to modern entrepreneurship in the twenty-first century. *Journal of Small Business and Enterprise Development*, 20(2), 258–278. DOI: <http://dx.doi.org/10.1108/14626001311326725>

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