

Do SMEs in Slovakia face real difficulties in obtaining financing? Comparison of the studies from Slovakia and the EU

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Abstract. Financial crises and worsening economic and business conditions reduce the number of enterprises in Slovakia. Many relevant institutions declare that barriers for doing business are increasing and many small companies have problems with financing. We decided to compare several scientific research studies from Slovakia and provide an answer to the question: Do SMEs in Slovakia really have problems with obtaining financial resources or is it just an overused assumption? Do companies face this type of financial risk? The aim of this article is to bring an answer to this question on the basis of the results of two scientific research studies conducted in Slovakia and focused on business and finance. The first was conducted in cooperation with the Association of Young Entrepreneurs and the second was part of international research at the Pan-European University in Bratislava and The University of Tomáš Baťa in Zlín. Both were realized in 2011-2013. The paper compares the obtained evidence with the statistical data from the EU. The comparison of Slovak and EU results concerning the situation with SMEs access to financing in Slovakia allowed to identify the differences and similarities regarding the stated hypotheses. This comparison offers a wider view on the situation in Slovakia and other EU countries. The results of our

Received:
April, 2016
1st Revision:
June, 2016
Accepted:
October, 2016

DOI:
10.14254/2071-
8330.2016/9-3/3

study provide interesting conclusions. Slovak research studies explain that problems with access to financing of SMEs are in some way more pressing than according to the EU statistical data, but all research studies provide clear evidence about the difficulties SMEs face in obtaining finance in Slovakia.

Keywords: small and medium-sized enterprises, access to finance, barriers in financing, financial risk, business risk, obtaining finance, financial resources

JEL Classification: G32, G39

1. INTRODUCTION

Almost every public and official economic document states that small and medium-sized enterprises (SMEs) are the backbone of market economy. Usually they represent 50% of value added and cover two thirds of employment. According to Henderson and Weiler (2010), they are the engine of economic growth. Due to these reasons such authors as Sobeková, Sipko and Solík (2015); Karpak and Topcu (2010); Cumming, Johan and Zhang (2014); Gawel (2010) and others devoted their research to the study of SMEs. In the EU and also in the US SMEs form nearly 99% of all enterprises (Bhaird, 2010). According to the data from the Statistical office of Slovak Republic, SMEs represent 99.9% of all the companies in this country. It seems to be obvious that SMEs are very important for each economy, and their proper growth can be achieved only in case of sufficient financing. We include problems with obtaining capital to the group of financial risks of SMEs. We also consider that the lack of capital is one of the biggest problems they face. This is the reason why we decided to research the situation in Slovakia and also to compare it with the situation in other EU countries.

The aim of this article is to find answers to the following research questions: Do SMEs in Slovakia really have problems with obtaining financial resources or is it just an overused assumption? Do Slovak SMEs face this type of financial risk? Does the situation in Slovakia differ from the situation in the EU overall? And how does the situation in Slovakia look in comparison with other EU countries? We used research data from two scientific research studies carried out in Slovakia in 2011 and 2012 to bring answers to these questions. The first one was called *Barriers of Young Entrepreneurs in Doing Business in Slovakia*. It was conducted in cooperation with the Association of Young Entrepreneurs. The second one was *Current Trends in the Area of Business Risks of Small and Medium-sized Enterprises* and was conducted in the selected regions of Czech Republic and Slovakia as part of the international research at the Pan-European University in Bratislava and The University of Tomáš Baťa in Zlín. We have also used data from the survey of the European Central Bank and the European Commission. In the final part of this article we compare the situation in Slovakia using the results of our own research studies and the formal statistical data of the EU, and evaluate the situation in Slovakia in comparison with other EU countries.

The first part of the paper is focused on the review of difficulties in financing of SMEs in literature. The second part explains scientific research methods used in the paper to prove the Slovak SMEs face too intensive financial risk and they have problems with obtaining finance. The third part presents the results from two surveys and comparison of the obtained data with the EU statistics. We consider that the main contribution of the paper presents statistical evidence that Slovak SMEs really face financial risks connected with obtaining capital, and this risk is among the most intensive ones. Another valuable contribution of this paper is comparing financing of SMEs in Slovakia with other EU countries.

1.1 Difficulties in Financing of SMEs – literature review

Small and medium-sized companies are a special group of entities. On that topic many authors (e.g. Belás et al., 2015a, 2015b, 2015c, Dong, 2014, Cheng & Tang, 2012 etc) declare that SMEs have problems with access to funding which leads to a real problem in to their growth worldwide. The lack of finance is categorized as one of the types of financial risks and this is the reason why we connect insufficient capital of SMEs with financial risks. This fact is further declared by Steinerowska-Streb and Steiner (2014). Lack of finance is considered to be one of the main obstacles to the growth of SMEs. Evidence from Belarus, a country with an almost undeveloped financial market with extremely high interest rates of bank loans and therefore an almost unexisting sector of SMEs, confirms the importance of the availability and the price of capital (Ključnikov and Junger, 2013). Current signals confirm that the banks in the Czech Republic and Slovakia tighten the requirements for loans (Belás et al., 2014, 2015b).

Financial risk is primarily related to the availability of financial resources, changing interest rates; respectively, the use of different forms of capital, especially of low credit standing. The assumption that an access to finance is necessary for growth and further development of SMEs was also proven by such authors as Mercieca, Schaeck and Wolfe (2009). Ardic, Mylenko and Saltane (2012), researchers at the World Bank, reported on SMEs access to finance in the form of a cross-country analysis and they agreed that access to finance of SMEs is strongly correlated to their growth. Mueller and Zimmermann (2009) state that the lack of the access to finance is a great constraint especially for smaller companies. Particularly small companies face regulatory and tax constraints, administrative burdens and these factors limit their growth. Koráb and Poměnková (2014), Rusnáková and Šoltés, (2012) discuss the topic of the financial crisis and financing constraints of SMEs in Visegrad Countries which are quite similar to Slovakia. Lee, Sameen and Cowling (2015) examined the relation between the access to finance and the level of innovativeness of SMEs since the financial crisis. According to their results achieved using standard credit scores, there are only a few substantive differences in risk profiles between innovative and non-innovative firms. Therefore, the access to finance is a problem for both types of companies.

Despite the importance of SMEs, they are still characterized by a weak capital power. This is one of the most significant problems which make obtaining the capital from the most used traditional financial source – bank loans, so difficult. Cheng & Tang, 2012 and Shi (2012) claim the weak capital power and credit degree to be one of the biggest problems of SME financing. According to Sufi (2009), the lack of access to traditional external sources of finance in the form of bank loans or credit is a statistically powerful measure classified as a financial obstacle. Belás et al. (2015a) in the results of their research report that entrepreneurs criticized the approach of banks to fund their needs. Dong and Men (2014) confirm in their findings concerning the financing of SMEs that *“relatively small, young firms in nonmanufacturing sectors consistently face more severe financing obstacles/constraints and rely heavily on internal financing. The availability of credit information and the bank concentration ratio have a significant impact on SME financing.”*

An interesting fact about the problems with the access to finance of SMEs proving that the problems of SMEs with obtaining capital are long-term was presented in the studies by Cressy, Olofsson (1997) or Berger, Udell (1995) almost twenty years ago. Cressy and Olofsson (1997) wrote that small or medium-sized companies have different structure of assets and also different ratios of fixed to short-term assets. The ratio of their fixed assets to total assets is usually smaller than in larger companies, while their ratio of current liabilities to assets is higher, meaning they are more financially vulnerable. Berger and Udell (1995) state that an essential problem of SME financing is that small companies often have small capital power and do not have enough property to provide as collateral. Furthermore, they usually have (especially young entrepreneurs) a very short bank history. A shorter track of record means they have to pay higher interests and banks demand higher collateral.

Italian researchers Gambini and Zazzaro (2013) examined whether the borrowing from the banks can have a beneficial effect on the growth of the company. The basic finding is that borrowing money from banks provides smaller businesses the opportunity to grow, while on the other hand, loans can alleviate problems of medium-sized companies.

A limited awareness of enterprises is another problem in the SME sector. The situation in Slovakia is confirmed by Sobeková (2011) as well as Dierkes, Erner, Langer and Norden (2013), who argue that companies in the SME segment are small businesses that are less informed, riskier and more dependent on trade and bank loans.

An interesting fact appears when we compare Slovak, France and German companies: we can say that German small entrepreneurs do not have problems with obtaining financial resources, because they use the profits as internal financial resources. French entrepreneurs are somewhere in between Slovak and German companies, according to the publication at the Euractiv website in July 2011. The problem is that during the last economic crisis the situation worsened and support was reduced. Business conditions in Slovakia – increasing VAT, decreasing flat expenses, etc. had a bad impact on SME's financial situation.

The sources described in the literature review confirm that it is obvious that SMEs have problems with financing globally but is the situation the same in Slovakia? Many experts (e.g. Sobeková- Majková, 2011, Sobeková- Majková et al., 2014, 2015, Kozubíková et al. 2015a, 2015b, Petr, 2010) say that Slovak companies and especially SMEs do have problems with the access to finance. The problem with access to finance belongs to the field of financial risks. Further in this article we provide the evidence and discussion of this problem. Belás et al. (2015b) inform that worsening market conditions for SMEs have also encouraged tighter lending policies by commercial banks in Slovakia.

And what is the situation in the EU? The survey of the European Commission called Access to Finance 2014 says: *“From the items in the questionnaire, SMEs on average rated access to finance as the fifth most pressing problem they faced; still 14% of the SMEs mention access to finance as the most pressing problem. SMEs experience this problem the most pressing in Cyprus, Greece and Slovenia; and the least pressing in Sweden, the Czech Republic and Denmark. Comparing across different types of enterprises, SMEs in construction considered the problem of access to finance the most pressing. Micro enterprises consider the problem of access to finance the most pressing, whereas large enterprises find it least pressing. More innovative enterprises experience more access to finance problems than less innovative enterprises.”*

2. SCIENTIFIC RESEARCH METHODS

While the importance of the SME segment for the economy is undeniable, it seems that one of the biggest problems which this group of entrepreneurs is struggling with is a lack of funding and financial risks. The aim of this article is to bring evidence or answers to the question whether Slovak SMEs experience problems with obtaining financial resources in reality. The aim is fulfilled by combining the results of two surveys conducted among entrepreneurs and bringing a more comprehensive view on this issue in Slovakia. Due to the limited size of contribution it is focused on a relatively narrow topic – problems with obtaining financing and financial risks. We believe that the analysis of one of the biggest problems of SMEs in Slovakia – funding - will bring significant scientific contribution. Moreover, it is followed by the analysis based on the results of two surveys conducted in Slovakia.

Microsoft Excel (Office 2007) and its possibilities in data processing using pivot tables were used for the analysis of the percentage share in the research. The tools of descriptive statistics (averages and percentages) played an important role in the analysis. The methods of comparison and deduction, and the statisti-

cal method of Pearson's chi-square and P-value were used to identify statistical differences. The statistical method of Pearson's chi-square at the significance level of 5 % was applied by using the statistical software R for the verification of the existence of the statistically significant dependences and differences between the selected factors. If the calculated p-value was lower than 5%, the null hypothesis was rejected, and the alternative hypothesis was adopted. Due to the length limitations the article presents the results of some selected problems.

Chi-squared analysis is a valuable statistical method also referred as an χ^2 test is the statistical hypothesis test where the sampling distribution of the test statistic is a chi-squared distribution, identifying whether the null hypothesis is true or not, with the selected level of probability.

Value of the test-statistic is:

$$\chi^2 = \sum_{i=1}^n \frac{(O_i - E_i)^2}{E_i} \quad (1)$$

where:

χ^2 – Pearson's cumulative test statistic

O_i – the number of observation

E_i – expected (theoretical) frequency of type i , asserted by the null hypothesis that the fraction of type

n – the number of cells in the table

Chi-squared distribution has a specific parameter k , which is a positive integer that specifies the number of degrees of freedom. This method is used to determine the probability with which the difference between the expected and observed values was randomly found. We calculate the chi-square statistic by the following steps:

1. Subtract the corresponding *expected* number ($O - E$) for each *observed* number in the table.
2. Square the difference [$(O_i - E_i)$].
3. Divide the squares obtained for each cell in the table by the *expected* number for that cell [$(O - E)^2 / E$].
4. Sum all the values for $\frac{(O_i - E_i)^2}{E_i}$. This is the chi square statistic.

The first survey dealt with the barriers for entrepreneurship of youth, reviewed the current situation and brought inspiring ideas how to promote business in this group of entrepreneurs. The survey was conducted in collaboration with the Association of Young Entrepreneurs in Slovakia and Iuventa within an internal grant of the Pan-European University in 2011-2012. The second survey dealt with the business risks in Slovakia in 2013. The survey was a part of the international research project undertaken in cooperation with the Czech Republic and examined the differences between undertakings in Bratislava, Trenčín and Žilina.

The survey made in cooperation with the Association of Young Entrepreneurs researched obstacles in doing and starting business in Slovakia. The survey was realized through an online questionnaire, so the choice of respondent type was quite stochastic. Our researched group was divided into two parts, where the first group included the respondents who were young and potentially intended to become entrepreneurs and the second group that contained young entrepreneurs up to 34 years of age. The inclusion in the first group was made according to our assumption that the young people who filled in the online questionnaire and which were not yet entrepreneurs were likely to become entrepreneurs in the future. The questionnaires were filled out in the period from July to November 2011, and the results were analyzed in 2012. The whole group had 1.232 respondents: 324 of them were young entrepreneurs chosen by a random selection and 908 were young people just thinking about starting their own business (Jakubec, Sobeková, Solík, 2012).

Table 1

Entrepreneurs in Slovakia according to the legal form and age in 2012 (basic file)

Legal Form	Total	Share of total companies	Share of young entrepreneurs to 34 years old	
Entrepreneurs – individuals in total	402,325	72.3%	112,967	28.1%
- tradesman	375,722	67.6%	108,489	28.9%
- free enterprise	19,069	3.4%	3,920	20.6%
- independent farmer	7,534	1.4%	558	7.4%

Source: Own processing according to the data of the Slovak Business Agency.

We consider this survey to be representative in proving the existence of barriers for doing business of young entrepreneurs in Slovakia. Young entrepreneurs in Slovakia have the share of 28% on total number of entrepreneurs in Slovakia (Table 1), so our sample was representative. We decided to address 50% of the respondents via random selection done through internet using the online questionnaire (50%), and to address another 50% of them by personal interview (50%). The online questionnaire was published on the website of the Association of Young Entrepreneurs, so all of the young entrepreneurs had the chance to fill it.

The size of the representative sample was calculated. Our research team assumed that the presented data have the reliability of 95%, so a sampling error of +/- 5% was considered. The minimum size of the sample according to the formula:

$$n = (1.96)^2 \times \sqrt{p \times (1 - p) / 0.05^2} \quad (2)$$

where p is the level of significance. The calculated minimum sample size was 310 and the real size of our sample was 324. Our sample was close to the basic file in division by region and gender. According to the data of Slovak Business Agency the basic file includes 76.7% male and 23.3% female members. Our selected sample had a relatively similar selection, with 64.2% male and 35.8% female presented respondents. We have also compared the regional structure of the basic file and the selected sample. There are eight regions in Slovakia, and the difference in each category between the basic file and the and selected sample was less than 7%.

The second survey of business risks in the selected regions of Slovakia was conducted two years later in 2013. This time our sample included 371 enterprises: 102 enterprises in Bratislava region, 164 companies in Zilina region and 105 companies in Trencin region. The scope of the sample ranged from 0.2% to 0.09%. Similarly, as in the first case the random choice of the respondents was applied and questionnaires were distributed directly by personal meetings or throughout the Internet. The representative sample was evaluated the similar way as in the previous research. The Bratislava region has the strongest economic development in Slovakia. The survey shows that the number of small and medium-sized enterprises in Bratislava region is almost twice as big as in the other regions. While the unemployment rate in Bratislava region is about 6%, it reaches the level of 11% in Trencin region, and even 13% in Zilina region.

Besides the evidence from our two surveys, we would like to compare the situation in terms of access to finance of SMEs in Slovakia with other EU countries. For the realization of this comparison we decided to work with the results of the survey of the European Central Bank and the European Commission – the Survey on the Access to Finance of Enterprises. We used the results from 2014.

2.1 Analysis of the Results and Determination of Alternative Hypotheses

The research team determined the working hypothesis which had to be verified. The paper presents only selected problems due to page limitations. The hypotheses were prepared using our experience and estimation, and are founded on the assumption of the differences of the points of view between the young entrepreneurs and potential young entrepreneurs, and on differences between men and women.

While a large number of hypotheses were determined during our research process, this article (due to page limitations) includes just 5 alternative working hypotheses (H1 – H5) related to the financing of SMEs. We will try to verify them using the statistical methods. Null hypotheses assuming there are no statistically verified differences between observed groups were supplementing alternative hypotheses:

$$\text{Null hypothesis: } \pi_1 = \pi_2 \text{ so } \pi_1 - \pi_2 = 0 \quad (3)$$

$$\text{Alternative hypothesis: } \pi_1 - \pi_2 \neq 0 \quad (4)$$

Our team determined five alternative working hypotheses using the method of expert estimation:

Hypothesis 1

Financial risk is one of the biggest business risks in the examined regions of Slovakia. Companies in Bratislava region perceive the influence of the financial risk the least, due to the fact that Bratislava region is the most developed one. We suppose that there is a statistically significant difference between the regions.

Hypothesis 2

Companies in the Bratislava region are able to manage financial risk better than companies in other researched regions. We suppose that there is a statistically significant difference between the regions.

Hypothesis 3

Potential entrepreneurs assume the lack of capital to be the biggest barrier for doing business in Slovakia.

Hypothesis 4

Young entrepreneurs perceive lack of information concerning the obtaining of financial resources. This limitation is the biggest in comparison with all other types of information needed. The perception of the potential entrepreneurs is almost the same, and they think that the deficiency of information concerning the access to finance is the most significant. We suppose that there is a statistically significant difference between the views of entrepreneurs and potential entrepreneurs.

Hypothesis 5

A majority of young entrepreneurs started to do business without money or only with a small amount of capital; men had more capital than women. We assume that young people usually don't have enough money to start a business, and this was the reason why we expected that a majority of young entrepreneurs start doing business with just a small amount of capital. We think that men have more starting capital than women because of women's greater dependency on them. Taking into consideration that women spend a lot of time on maternity, they may be silently discriminated at work. There is a statistical dependency between the level of education of the owner and the size of starting capital. We suppose that people with higher level of education are able to obtain more capital than people without education. Educated people are more informed and are more acquainted with the possibilities of financing.

3. RESEARCH RESULTS

This part of the paper delivers answers to these research questions:

- (v) Do SMEs in Slovakia really have problems with obtaining financial resources or is it just an over-used assumption?
- (vi) Do Slovak SMEs face this type of financial risk?
- (vii) Does according to our research data the situation in Slovakia differ from the situation in the EU? And how does the situation in Slovakia look in comparison with other EU countries?

Our aim is to present the evidence of our scientific research studies. We also verify our alternative hypotheses about the access to finance as one of financial risks of SMEs in Slovakia.

3.1 Financial Risk of SMEs in Slovakia

In addition to other important information our research contains the examination of how companies in Slovakia perceive business risks. In the first part of the data analysis we have focused on the differences between the selected regions. At the beginning we assumed that the companies in Bratislava region suffer from the business risks the least in comparison to other regions, because this region is the most developed one. In addition to examining the percentage of firms that considered the risks to be significant, we investigated the statistical dependency between the regions. The p-values for all kinds of risks in addition to legal risks is greater than 0.05 so it does not reject the null hypothesis. Unfortunately, there is statistically relevant evidence that H1 is true since the Pearson χ^2 is 12.3648 at 10 degrees of freedom and the overall p-value is $0.2614 > 0.05$. Table 2 presents the results in the perception of business risks.

Table 2

Identification of business risks in Slovakia in 2013

The nature of your work assumes that you may experience many types of risk. Which of them do you currently consider to be crucial? (Please indicate max. three answers.)	2013 Bratislava region (BA)	2013 Žilina region (ZA)	2013 Trenčín region (TN)	P-value
1. Market risk (lack of contracts) in % * average value of risk **	80.39 56.00	80.49 51.30	82.86 53.27	0.8672***
2. Financial risk (access to finance) in % average value of risk **	53.92 31.94	58.54 32.95	50.48 30.01	0.4179
3. Operational risk (failure to manage processes) in % average value of risk **	20.59 24.17	22.56 30.09	14.29 20.71	0.2408
4. Personal risk (poor staff) in % average value of risk **	41.18 31.04	38.41 30.89	47.62 30.77	0.3245
5. Legal risk in % average value of risk **	16.67 37.5	37.20 28.76	32.38 32.01	0.001574
6. Safety risk (accidents, incidents etc.) in % average value of risk **	29.41 20.28	32.93 24.73	27.62 28.76	0.63

* Data are calculated as the number of respondents who replied with the answer given to the total number of firms;

** Arithmetic mean of the values reported by entrepreneurs in the different regions.

*** Using a proportional test, we determined whether the individual types of risk occur with a difference between three regions. The p-value was determined for each risk separately.

Source: Autho's calculations.

As it was mentioned above, except for the legal risk, which is significantly lower in Bratislava region (16.67%) than in Zilina (37.20%) and Trenčín (32.38%), we present the p-value of $0.001574 < 0.05$, which means that the differences between the regions are not that big. After a more detailed analysis, we found that comparing just Bratislava and Zilina we reach the p-value of $0.005872 < 0.05$, the value of Pearson χ^2 is 11.8162 at 1 degree of freedom. Similarly, we found the statistically significant difference between Bratislava and Trenčín regions, where the p-value reaches $0.0132 < 0.05$. The difference cannot be identified between Zilina and Trenčín, where the p-value reaches $0.499 \geq 0.05$. The results show that while alternative H1 cannot be statistically verified, we managed to reject the null hypothesis in the case of legal risks. Statistically significant differences were found in Bratislava region. Moreover, it is statistically significant that SMEs operating in Bratislava region are less threatened by these risks in comparison to small entrepreneurs in Žilina and Trenčín regions. It is linked with the fact the Bratislava region is the most developed part of the Slovakia. It was declared by the team of economic experts in the study of the company Mastercard in 2013. The Bratislava region has been identified as the most developed part of the Slovakia in following areas – economic, social, and public services and with the most developed infrastructure. This indicates the SMEs operating in Bratislava region have better environment to do business than SMEs in the others part of the Slovakia.

In accordance with our estimations the average market risk in Bratislava region was at least 40% and in the other regions it was even higher. Entrepreneurs in each region were threatened by the market risk, the most intense in Bratislava region; its average in Bratislava was 56, while 51.30 in Žilina and 53.27 in Trenčín region. Our research confirmed the results by Belás et al. (2015c).

Data presented in Tab. 2 (50.48 – 58.54 %) indicate the financial risk is the second most intensive risk the SMEs in chosen region face. This fact agrees with findings of the authors Belás (2015 a,b,c), Dong (2014), Sufi (2009), Shi (2012), Cheng and Tang (2012), etc. that confirm the SMEs have difficulties in financing because of their characteristics - weak capital power, small firm size and problematic access to traditional bank loans. Cressy, Olofsson (1997) and Berger, Udell (1995) confirmed this fact almost twenty years ago

According to the H2 hypothesis, enterprises in Bratislava region can manage financial risk better and obtain the necessary financial resources easier. In our research we were also interested in how businesses are able to manage financial risks they are exposed to. While examining the differences between the regions, we found the differences between Bratislava and Zilina regions, which indicates that enterprises in Bratislava region can manage financial risk better than those in Žilina (Tab. 3)., The statistically significant differences between Bratislava and Trenčín, and Trenčín and Žilina regions were not confirmed.

Table 3

Ability to manage financial risk in 2013

Do you think that you know how to manage financial risks?	2013 Bratislava region	2013 Žilina region	2013 Trenčín region	P-value BA:ZA	P-value ZA:TN	P-value BA:TN
Yes in %	40	23	32	0.00486	0.1599	0.2623
To some extent %	52	68	58	0.0149	0.1265	0.4924
No, I cannot judge %	8	9	10	0.886	0.862	0.662

Source: Authors calculations.

Furthermore, an analysis of the results using the Pearson chi-square and a review of the p-values was used to analyse the business segment using the method of decision trees. The question number 20 which presented the assumption of whether their business will exist in the next 5 years was selected as an explained variable. Numbers in the program were assessed always by zero, and zero is stated as a negative response digit, and its growth is escalated until a clear yes.

3.2 Access to Finance for Young Entrepreneurs in Slovakia

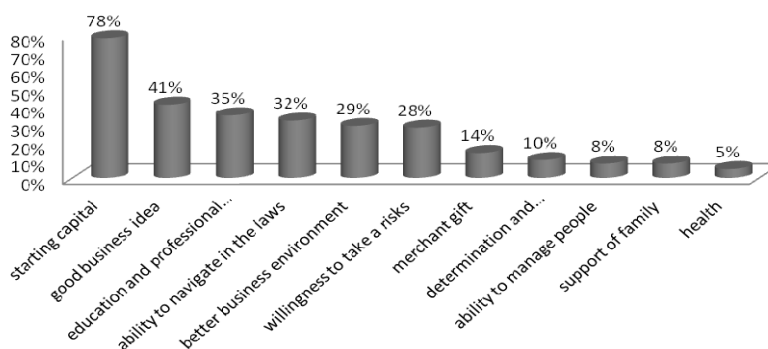
One of the aims of our research was to identify the main barriers to start a business and also the problems of young entrepreneurs. Hypothesis 3 says that potential entrepreneurs perceive the lack of capital as the biggest barrier for doing business in Slovakia. As it is presented in Fig.1, the biggest barriers for young potential entrepreneurs are:

- lack of financial resources: 77.64 %
- lack of experience, knowledge and professional contacts: 71.70 %

These two barriers are the most important. They identify that mentoring is even more important than financial resources. In this part they indicate the financial resources as the most important barriers. The lack of state grants (42.18%) and corruption (41.96%) are right after it. We think that it is a threatening number. The fifth biggest barrier was the financial crisis (39.9%), high tax and insurance costs (36.56%) and often law changes (36.01%).

Men and women perceive the lack of starting capital as the biggest barrier. Women perceive law enforcement more positively than men, but are worried about the impact of the financial crisis and they think that young people are often limited by the lack of business experience. According to the level of education the only difference is in the perception of the lack of contacts, which was presented by 10% of graduated, and only 15% of respondents with primary education. For the majority of young people, the lack of capital is the biggest barrier in starting their own business, but 41% of them miss a good business idea. They don't have the education and professional experiences and they don't know to navigate through the legal system.

We see the differences between the entrepreneurs and young people. Entrepreneurs do have some experiences with the start of their businesses, and therefore have a more realistic view and already know that the missing capital is not the only problem.



**Fig. 1: Barriers of young potential entrepreneurs - Answer to the question:
What is your key obstacle in starting your own business?**

Source: Own processing on the basis of the results of own scientific research.

We expected that young entrepreneurs and also potential young entrepreneurs thought that people don't have enough information, especially concerning the obtaining of financial resources, tax and insurance legislation. Our results show that at the period of time when young entrepreneurs were starting their businesses, the strongest lack of information they perceived was on obtaining financial resources (54.01%). Potential young entrepreneurs perceived in most cases the lack of information about how to manage employees, how to establish the legal entity and information about administrative duties, which can be caused by insufficient education in the field of business. The views of these two monitored groups are quite different.

Table 4

Lack of information concerning business in the monitored groups of entrepreneurs and potential entrepreneurs

Answer – the lack of information	Entrepreneurs	Potential entrepreneurs	P-value
About obtaining financial resources	54.01%	36.34 %	0.3935
About health and social insurance, accounting and laws	50.00%	29.85 %	0.0347
About administrative duties of the entrepreneurs in relation to the authorities	48.15%	31.94 %	0.3449
About legal forms and establishment of the legal entity	27.78%	31.39%	<u>p-value < 0.01</u>
About doing business abroad	26.23%	22.25%	0.2248
How to manage the company and employees	24.38%	32.85 %	<u>p-value < 0.01</u>
About business plan	23.77%	25.44 %	<u>0.001877</u>

Source: Authors calculations.

We tried to count chi-square to identify the dependency of the lack of information between entrepreneurs and potential entrepreneurs in starting a business. After taking the chi-square ($\chi^2 = 51.94 > 18.50 = \chi^2_{0.005 \text{ with } 6 \text{ ddf.}}$) we had identified the differences between the two groups presented in Tab. 4, and therefore we verified the alternative hypothesis H4 – there is a dependency which is statistically significant at 0.5 % level of significance.

In case of information about the legal forms, establishing the business, about how to manage the company and employees and about the business plan, there are significant differences between young and potential entrepreneurs (p-value < 0.05).

Our alternative working hypothesis H5 in this part of research was: A majority of young entrepreneurs started to do business without money or only with a small amount of capital and men had more capital than women. Also we assumed that graduated people started their business with a larger capital base than people with a lack of business education. We assume that young people usually don't have enough money to start business. This was the reason why we also expected that a majority of young entrepreneurs would start a business only with a small amount of capital. We assumed that men have more starting capital than women because of women's greater dependency on them. Taking into consideration that women spend a lot of time on maternity, they may be silently discriminated at work. We supposed that educated people have a better knowledge and therefore are much more capable in obtaining needed finance than people with a lack of education. So we expect that there is coherence between the level of education and the amount of starting capital.

Two thirds of young entrepreneurs started the business with their own capital and around 20% of them had a loan from their family. Only 8.64% used a bank loan and one fifth started the business almost without money.

Table 5

The amount of capital when starting a business (answers of young entrepreneurs)

The amount of capital when starting a business	Men %	Women %	p-value
To 5,000 euro	72.60 %	75.86 %	0.6108
5,001 – 15,000 euro	21.15 %	19.83 %	0.889
15,001+ euro	6.25 %	4.31 %	0.6328

Source: Author's calculations.

73.77% of the monitored entrepreneurs reported that they started their business with the capital of 5,000 euros or less, one fifth reported that they started with capital from 5,001 to 15,000 euros. This implies that about 95 % of the young entrepreneurs start a business with the capital less than 15,000 euro. Young people with the successful business experience had the bigger amount of capital at the beginning – 38.60% of them reported the starting capital of more than 5,000 euros. Problems with starting capital of SMEs was declaring also in research of Majková (2008), Sobeková et al. (2014, 2015) and other Slovak institutions as Slovak trade and industry chamber (SOPK, 2009).

We analyzed the correlation between the gender of the entrepreneur and the size of the starting capital in Table 5. The alternative hypothesis H5 was rejected ($\chi^2 = 0.67 < 6.0 = \chi^2_{0.05 \text{ with } 2 \text{ ddf}}^1$). The dependency between the amount of the capital at the moment of the start of business and the level of education was verified ($\chi^2 = 32.11 > 10.6 = \chi^2_{0.005 \text{ with } 2 \text{ ddf}}$). The dependency is significant at 0.5% level of significance, so the alternative hypothesis H2 was verified. Entrepreneurs with a higher education are able to obtain a bigger amount of starting capital than entrepreneurs with a lack of education. Educated people are more informed and and better acquainted with the possibilities of financing. Although while most of the young entrepreneurs needed less than 5,000 euros to start their business, they usually identified the lack of financial resources as the barrier for starting a business. Our findings show that when a young man with an entrepreneurial spirit decides to start a business, the lack of funds is not such a big problem. Only 3 of 10 young entrepreneurs had as much seed capital as they needed.

3.3 Comparison of the Access to Finance as Represented by the Data from Slovakia and the EU and the Comparison of the Situation in Slovakia with Other EU Countries

Our previous results brought the statistical evidence that the situation concerning the access of Slovak SMEs to finance is not so good. They consider obtaining finance to be one of the barriers for doing business in Slovakia. In this part of the paper we compare the data from the research studies in Slovakia with the official statistical data of the European Union to fulfill the last aim of paper - compare the situation in relation to the access to finance of SMEs in Slovakia with other EU countries. In this case we work with the official statistical data from the Survey on the Access to Finance of Enterprises from 2014.

¹ Degrees of freedom

- We decided to make a comparison using three chosen indicators concerning access to finance:
- the most pressing problems of businesses in the EU,
 - the rejection rate of SME applications for bank loans,
 - confidence to talk about financing with private equity and venture capital investors.

We would like to compare two factors in relation to the selected indicators:

- First – access to finance in Slovakia by using the Slovak research data and the data from the EU,
- Second – access to finance in Slovakia in comparison with the access to finance in other EU countries.

The data from the EU present evidence that the biggest problems of SMEs were finding the customers (20%) and skilled staff (17%), regulation and competition (15%), while the access to finance was ranked at the fifth position (13%). Precisely: „SMEs on average rated the access to finance as the fifth most pressing problem they faced; it is mentioned by 14% of the SMEs as the most pressing problem. SMEs experience with the problem of the access to finance was the most pressing in Cyprus, Greece and Slovenia; and the least pressing in the Czech Republic, Austria and Slovakia. Comparing across different types of enterprises, SMEs in construction considered the problem of access to finance to be the most pressing. Micro enterprises consider the problem of access to finance to be the most pressing, whereas large enterprises find it least pressing. More innovative enterprises experience more access to finance problems than less innovative enterprises.“

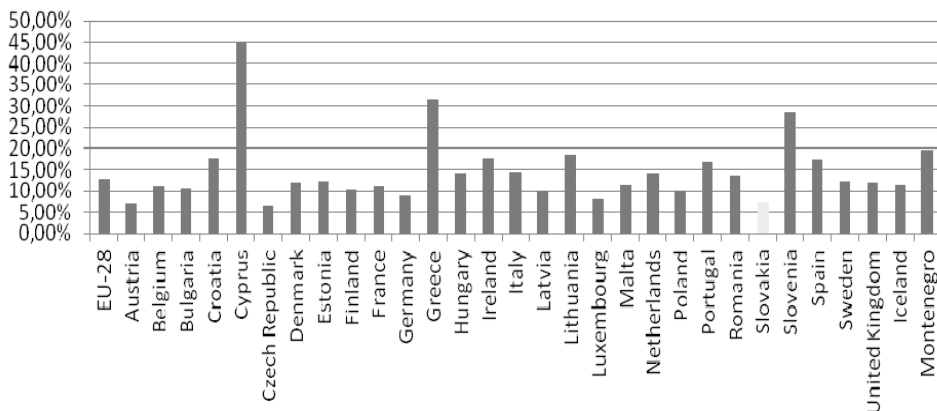


Fig. 2: Problems with the access to finance in % in 2014

Source: Own processing on the basis of the results of the Eurostat’s data.

But what is the situation in Slovakia? According to this survey, Slovak SMEs indicate the absence of the skilled staff (20%) as the biggest problem, placing the problem with finding customers on the second position (19%), and access to finance was indicated as the smallest problem. These results totally differ from the results of our research. According to our results, the problem with obtaining financial resources was one of the biggest barriers in doing business in Slovakia. But EU statistics say that the situation in Slovakia is better than in Belgium, Denmark, Finland, France, Germany, Italy, etc. as it is obvious from Figure 2. Our research team thinks that the description of the situation in the statistical data of the EU is not correct, because we identify a different reason behind these results. Why the results of the EU are different in comparison to other surveys? We believe that the differences could be caused by the fact that during the crises Slovak SMEs had really great problems with customers. During the crisis the companies devote all their attention to the

key problem of the survival, they live from day to day and focus all their attention to the need to find enough customers. Not to forget: 74% started their business with < 5.000 EUR and less than 9% started their business with a bank loan/credit.

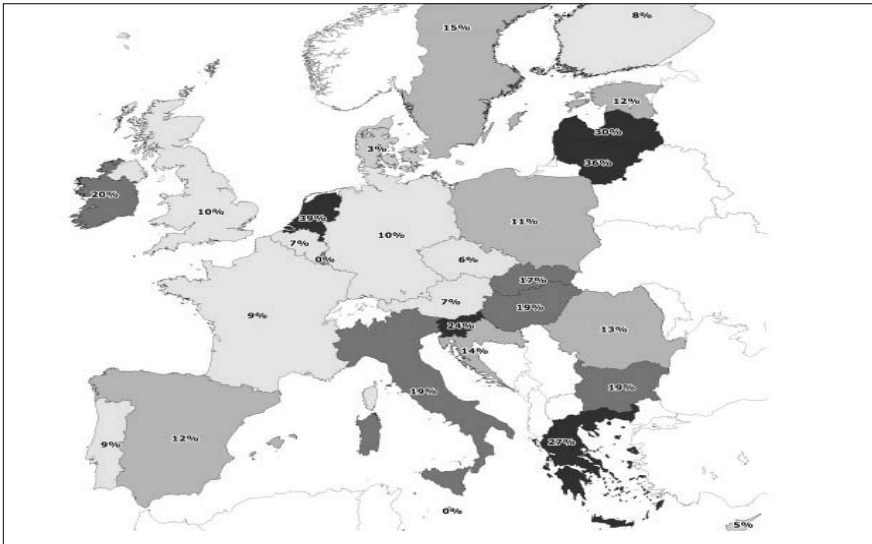


Fig. 3: Rejection rate for bank loans of SMEs in EU in 2014

Source: EU data.

The confidence in approaching private equity and venture capital investors was selected as the last monitored indicator. SMEs in developed countries usually don't have problems in dealing with investors. Venture or private equity capital is a commonly used form of financing for companies in developed countries. But the survey data say that Slovak SMEs are not confident in communication with private equity and venture capital investors. While the average level in the EU was 20.19%, Slovakia achieved only 9.98%, and this is the lowest result of all EU countries. The data presented in Figure 4 state that all the EU countries achieved better results according to this criterion than Slovakia (including Romania, Greece or Bulgaria).

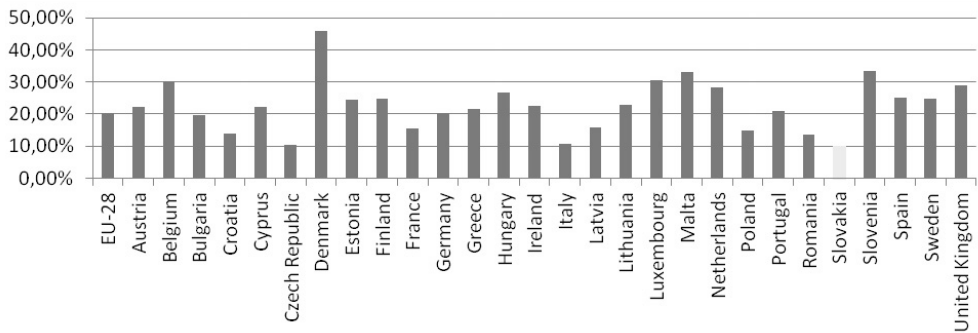


Fig. 4 Confidence in approaching private equity and venture capital investors in % in 2014

Source: Own processing on the basis of the results of Eurostat's data.

CONCLUSION

Small and medium-sized enterprises play an important role in the economic system of any developed country. The issue of entrepreneurship in the small and medium-sized enterprises belongs to the significant areas of the scientific research (Kozubíková, Belás, Bilan, and Bartoš, 2015).

The first part of this paper examines the problems of SMEs in Slovakia with access to finance. The results of the presented research confirm that Slovak SMEs do really experience the problem with the obtaining of financing. Although the first hypothesis stating that financial risks are the biggest business risks for SMEs in Slovakia was not confirmed, the other ones were confirmed by the results of the research and we can say that SMEs perceive difficulties in access to financing. The interesting fact is that there are statistically significant differences in the perception of financial risks among the three regions of Slovakia. SMEs in the Bratislava region seem to believe that they are able to manage financial risks better than companies in other regions of the country. The results of the second part of the research allowed us to verify the hypothesis, stating that the lack of capital and the lack of information concerning the obtaining of financial resources are the biggest barriers in doing business for young entrepreneurs in Slovakia.

The analysis of the situation with access to financing in Slovakia in comparison with other EU countries is described in the next part of the paper. To analyze the situation with access to financing in the EU the research team used the EU statistical data and took three indicators into consideration: (i) the most pressing problems of the entrepreneurs in the EU, (ii) the rejection rate of SMEs applications for bank loans and (iii) the confidence in approaching private equity and venture capital investors. Slovak SMEs do not consider the obtaining of financing to be the most stressful problem in their business according to the indicators of the rejection rate of bank loans and the confidence in approaching private equity and venture capital investors. We can state overall that Slovak SMEs really have worse access to finance than SMEs in developed EU countries.

The results of our research present an answer to the question whether Slovak SMEs have difficulties in access to financing. But there is another question: what should we do about that? Slovak government currently attempts to resolve the support of venture financing and financing of innovative SMEs. But it's only one of many problems. An effective capital market is still missing, barriers like repeated legislative and tax changes, corruption and many others need to be solved over time. If these problems remain unsolved Slovak SMEs will work under critical and limited business conditions in comparison with the developed EU countries. The strength of the research was in the size and the homogeneity of the selection sample. However, the research has

some weaknesses. The most important is the fact that the respondents fulfilled the questionnaire online, and we were unable to organize a more detailed face to face interview. The future direction of the presented research will be focused on a comparative analysis of the entrepreneurial perception of the financial and credit risk in a wider geographical area of the V4 countries – the Czech Republic, Slovakia, Hungary and Poland.

ACKNOWLEDGMENTS

This paper was supported by the Project No. FaME/2013/MSPRISK: *Current trends in the area of business risks of small and medium-sized enterprises in selected regions of Czech Republic and Slovakia*. This paper was created at the Pan-European University in Bratislava, Faculty of Economics and Business as a part of an internal grant named *Financing of innovative SMEs in Slovakia with focusing on investor's money and comparison of financial tools used for innovation financing in EU* and as a part of the external grant in the frame of granting program of the Grant Agency of the Academic Alliance named "*Financing of young entrepreneurs and innovative companies with focusing on venture and private equity capital in Slovakia and EU*" under the Grant agreement number 3/2016.

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