The Influence of Macroeconomic Factors of the Business Environment on the Development of the Number of SMEs

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Abstract: The precondition for the development of any economy is the existence of a sufficient number of promising and developing SMEs. The basic element of successful SME development is the socio-economic business environment, which motivates to develop business. The paper analyses the socio-economic factors of the business environment in the regions of the Slovak Republic in the context of the development of SME business activities. The authors used survey methods to identify and better understand the socio-economic factors that stimulate business development, as well as barriers to the development of SME business activities in the regions of the Slovak Republic. To assess the relationship between the socio-economic level of the regions and the development of business in the regions, the authors constructed a composite indicator, which made it possible to compare and monitor the development of selected indicators. The authors used more complex multidimensional statistical methods for the calculation.

1. INTRODUCTION

Small and medium-sized enterprises in the Slovak Republic represent a key segment of the business sector and are a basic building block of the economy. In a market economy, micro, small and medium-sized enterprises play a key role in creating jobs, developing the economy and growing the country’s competitiveness. Micro, small and medium-sized enterprises make up 99.9% of the total number of registered business entities in the Slovak Republic. They provide employment in the corporate economy to almost three-quarters (74%) of the active workforce and contribute more than half (55%) to the creation of added value in the economy. Within developed economies, the SME sector is considered to be the most flexible, most efficient, most progressive, most innovative and thus also the most important element of the national economy. An important factor in the development of SMEs is the creation of a suitable business environment. Juríčková (2006) calls the business environment everything that surrounds a company. According to her, this is a very complex and dynamic economic category. Strážovská (2007) also agrees with this opinion. She characterizes the business environment as everything that surrounds a company and influences its activities in either a positive or a negative way. According to Mikulič (2015), the business environment consists of a set of conditions that, as a whole, have the ability to improve the use of the growth potential of individual business entities. According to Kubátová et al. (2012), a quality business environment is considered one of the factors that affect the long-term competitiveness of the economy. However, a good business environment is not only important from the point of view of the national economy, but according

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to Buček (2007), it also has a regional dimension, because it also has certain very specific components that relate to individual regions and their competitiveness. The business environment includes the economic, social, political, legal, institutional, technological, ethical and cultural conditions in which entrepreneurial activity takes place. We divide the business environment into external and internal environments. The external environment is, in a broader sense, a set of economic entities, social and natural conditions, national and interstate institutional structures and other external conditions. Depending on the nature of the impact on the business entity, we can divide the external environment into microenvironment and macroenvironment. It is characteristic of the macro-environment that it is the same environment for all companies operating in a given economy, but the impact on their business activities is different. This is because there are many more factors in a relatively complex macroenvironment than in a microenvironment. And these factors are characterized by a high degree of variability, uncertainty and unpredictability of possible consequences. Our goal was to find out whether the socio-economic factors of the business environment have a significant, positive and stimulating impact on the development of small and medium-sized enterprises in individual regions of the Slovak Republic. Whether there is a certain dependence between the development of the number of micro, small and medium-sized enterprises in the regions of the Slovak Republic and changes in the business environment. We directed our research to the regions of the Slovak Republic, because the development of business activities is the basis of the development and growth of each region. Factors in the development of business activities in the regions are subject to variability over time and thus significantly affect the establishment or demise of business entities in the region. In defining the factors whose impact on the development of the number of SMEs we will be analyzed in our research, we based on the findings of Butorac, Šindlery, Morovská (2009) that the conditions that support business development in the environment of regions in Slovakia can be summarized in four key areas:

• The presence of quality human capital,
• Proximity of relevant institutions,
• Presence of demand,
• And competition.

We divide these conditions into active and passive. An active condition for business development is human capital, which actively participates in the transformation of other sources of development, or is a necessary part of their functioning. Human capital is the basic driving force of development; its quality is an important factor for dynamically developing business entities. (Kuzmišinová, 2010) Factors of development of a passive nature are characterized by the fact that they do not in themselves participate in change through their activities, but by their presence and development, they have an impact on the target state, e.g. proximity of relevant institutions. The current business environment in the Slovak Republic is characterized by a high administrative burden and thus the proximity of institutions with which business entities must communicate relieves them to some extent of this burden of administrative complexity of business and thus supports its development. The presence of market demand is one of the basic factors in business development. The demand for the given products and services is created by consumers and thus they decide what and to what extent it will be produced. (Jurečka, 2010). If consumers are interested in products and services, businesses will produce them. The existence of consumers is therefore a condition for the development of business. Another and important condition for the effective development of business activities in the regions is competition. A good competitive environment forces and motivates business entities to use all elements of the regional business environment in order to strengthen their competitiveness. Of course, the
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The precondition for this is that the region has an adequately built basic infrastructure to ensure the growth and development of innovative activities of SMEs. Moreover, the quality infrastructure equipment of the regions of the Slovak Republic contributes to the accessibility of these regions and thus to the development of business activities in the regions. Based on the above facts, we chose a set of the following macroeconomic indicators for the analysis:

- Regional gross domestic product per capita,
- Population density,
- The level of economic activity of the population of the region,
- Registered unemployment rate in the region,
- Average gross nominal monthly wage of employees in the region,
- Fixed capital formation,
- Net cash income of households in the region,
- Net monetary expenditure of households in the region,
- Number of high school graduates in the region,
- Violent and property crimes,
- The amount of municipal waste produced in the region,
- Length of roads in the region.

Why did we choose the given socio-economic indicators of the region for the analysis? We aimed to find out to what extent the socio-economic environment influences the development of business activities in individual regions of the Slovak Republic and whether there is a demonstrable dependence between the socio-economic conditions of the region and the number of SMEs in the regions. For this reason, we have chosen these 12 indicators, which characterize the socio-economic conditions that support the development of business in the environment of regions in Slovakia. The regional gross domestic product expresses the size of the value of the final production of goods and services created for the current marketing year in a given region. It expresses the use of resources and economic potential of the region. It is an indicator, which despite some reservations, shows the most accurate performance of the region's economy. Other indicators such as the rate of economic activity of the population, the unemployment rate tell us about the use, respectively failure to use one of the sources of economic growth in the region. In essence, the higher the economic activity of the population and the lower the unemployment rate, the higher the regional gross domestic product per capita and the higher the earnings and household income. The opposite is also true. Indicators of economic activity of the population, population density, or the number of graduates in the region characterize an active factor in the development of business activity in the region - human resources, which are a basic prerequisite for the development of business in the region. The average monthly wage in the region and the net cash income of the household are important indicators for assessing the socio-economic situation of the region's population. The average monthly wage in the region is influenced by several factors, e.g. the structure of the sectoral economic activity (industry and its individual branches, agriculture, tourism, the monetary sector, state administration, informatics,...), or the achieved labor productivity. Household income consists of net employment income t adjusted for income tax and compulsory contributions to insurance companies, social income and other income. The amount of household income in the region affects the total demand of the inhabitants of the region for goods and services of business entities. As he writes (Jurečka, 2010): “The existence of market demand is one of the basic factors in business development.” Finally, we included in our analysis indicators that at least partially characterize the level of infrastructure in the region in terms of security (crime rate) in terms of ecology (waste production) and in terms of accessibility of the region (length of 1st and 2nd class roads in the region).
2. MATERIALS AND METHODS

Multidimensional statistical methods were used to evaluate the influence of business environment factors on the development of the number of SMEs in the regions of Slovakia. Due to the nature of the business environment, 12 indicators were selected from the official database of the Statistical Office of the Slovak Republic (DataCube, 2021). To compare the regions in terms of the impact of the business environment on the development of the number of SMEs, it is necessary to quantify this phenomenon. At present, the methodology of construction of the aggregated indicator, called the composite indicator (CI), is preferred. The OECD has published a detailed methodology for its construction. The OECD Handbook on the Construction of Compound Indicators (Nardo et al., 2005) describes various methodologies that can be used to combine different information into this index and the problems associated with each part of the process. A composite indicator is an indicator that is composed of several indicators and evaluates the region from different perspectives. The composite indicator should enable a more comprehensive, coherent and synthesizing view of the level of the region (Minařík, 2013). The evaluation of the conditions for the development of business activities in the region is diverse concerning the intended purpose, the choice of method and its correct application. The selection of indicators for their evaluation is also important. Their integration into one indicator and subsequent correct interpretation of the results play a key role. The indicator must be significant, relevant, comprehensible, transparent, analytical, complete, internally comparable and externally comparable. These requirements must be respected when selecting. The construction of CI can be described by the following steps: the creation of a theoretical framework, selection and combination of input indicators, evaluation of their material significance, statistical characteristics, weight, normalization, aggregation, relation to input indicators, visualization of results. Aggregate indicators have both advantages and disadvantages. They are discussed in detail by Saisana and Tarantola (2002). The composite indicator was calculated for each region using a linear aggregation method based on the following formula:

$$CI_t^r = \frac{\sum_{i=1}^{n} I_{i,r}^T W_i}{\frac{1}{R} \sum_{i=1}^{n} \sum_{t=1}^{R} I_{i,r}^T W_i}$$  \hspace{1cm} (1)$$

The composite indicator constructed in this way acquires values from 0 to 1. The higher the value of the composite indicator, the more demonstrable the dependence of the development of the number of micro, small and medium-sized enterprises in the region on selected economic and social factors of the business environment of the given region.

3. RESULTS

Small and medium-sized enterprises are defined in this chapter according to the criteria determined by the recommendation of the European Commission no. 2003/361 / EC on small and medium-sized enterprises. According to it, micro, small and medium-sized enterprises include business entities that employ less than 250 people, their annual turnover does not exceed EUR 50 million and their total annual balance sheet does not exceed EUR 43 million. From the point of view of the territorial-administrative organization, the Slovak Republic currently consists of eight regions, respectively higher territorial units, which perform not only self-governing but also a statistical function. At the same time, the administrative boundaries of the regions represent territorial statistical units of the NUTS 3 level in the official nomenclature of the Statistical Office and Eurostat.
The overall development of the number of SMEs in the years 2010 to 2019 in the Slovak Republic had a growing trend, except for 2015, when a more significant year-on-year decrease of 5.77% was recorded. After 2015, we no longer record such a significant decline in the development of the number of SMEs. The selection of suitable indicators for further analysis was based on the ILO database (2016). For our purposes, the relevant indicators were selected (Statistical Office of the Slovak Republic), which were officially published at the regional level of Slovakia, NUTS III. As we write above in the article. The comparison period was 2010 and 2019. The input indicators are: Economic activity rate (total, higher education, secondary education), Average nominal monthly wage (total, industry, higher education, secondary education, technicians, operators and fitters), Unemployment rate, Available Number of jobseekers, Regional gross domestic product per capita and other indicators. All indicators are calculated per capita in the region Input data were originally subjected to statistical analysis Data consistency and multicollinearity were excluded Normalization of indicators performed by the Min-Max method.

Table 1. Calculated values of the composite indicator in individual regions of the Slovak Republic for the years 2010 to 2019

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<tr>
<td>BA</td>
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<td>0.85</td>
<td>0.86</td>
<td>0.85</td>
<td>0.87</td>
<td>0.89</td>
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<tr>
<td>TT</td>
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<td>0.37</td>
<td>0.36</td>
<td>0.36</td>
<td>0.40</td>
<td>0.44</td>
<td>0.42</td>
<td>0.41</td>
<td>0.37</td>
<td>0.38</td>
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<tr>
<td>TN</td>
<td>0.33</td>
<td>0.32</td>
<td>0.30</td>
<td>0.29</td>
<td>0.31</td>
<td>0.36</td>
<td>0.38</td>
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<td>NR</td>
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<td>0.23</td>
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<tr>
<td>ZA</td>
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<tr>
<td>BB</td>
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<td>0.21</td>
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<tr>
<td>PO</td>
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<tr>
<td>KE</td>
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Source: own processing

Based on the methodology described in the previous part of the paper and data from the Statistical Office database, we calculated the values of the composite indicator for individual regions in the Slovak Republic for 2010 to 2019, which are recorded in Table 1. The values of the composite indicator are relatively low and approach 0. the fact that there is no demonstrable dependence between the development of the number of micro, small and medium-sized enterprises in the region and the development of selected economic and social factors of the region's business environment. This means that the socio-economic indicators we have chosen do not have a sig-
significant impact on the creation or demise of micro, small and medium-sized enterprises in the regions, with the exception of the Bratislava region, where the values of the composite indicator are significantly lower. For the entire analyzed period, the values are close to 1. In the Bratislava region, i.e., socio-economic indicators significantly affect the development of the number of micro, small, and medium-sized enterprises in comparison with other regions of the Slovak Republic. The lowest values of the composite indicator in the observed period are reported by the Prešov Region. The development of the value of the composite indicator in the individual regions of the Slovak Republic is better seen in Figure 1, where we can clearly see that only the Bratislava region is approaching the value of 1.

4. CONCLUSION

In our analysis, we based on the assumptions we described above in the article that a quality economic and social background in the region would encourage the emergence and development of business activities. Our assumptions have not been confirmed, except for the Bratislava region. What does it mean? Let us assume that in the conditions of the Slovak Republic, other factors than the macroeconomic indicators selected by us have a more significant influence on the development of the number of SMEs in the regions. Although the economic situation in the regions of the Slovak Republic is developing favorably, it is not increasing the number of business entities in the given region. Thus, certain barriers hinder the emergence of businesses. According to analyzes and results carried out by international institutions (World Bank - Doing Business Report, CPI index, BCI index, GCI index, etc.), we can consider the quality of the legislative environment or the administrative burden on business entities as barriers to the establishment and development of business entities. As a result of these facts, despite the appropriate economic and social conditions, there are not enough SMEs in the regions than we might expect. Thus, these barriers prevent the use of the economic potential available to individual regions of the Slovak Republic. Of course, this is just one look at the problem of the creation and disappearance of SMEs in the regions. Many other factors affect the emergence of business entities in the regions of the Slovak Republic. These are, for example, local traditions, customs, culture, the influence of religious education, ethnic problems, natural conditions, etc. These factors will be the subject of further analysis. And subjective factors also significantly influence people's involvement in entrepreneurial activity, because the whole business is based on people, their abilities, qualities, and skills. Another interesting finding in our analysis is that in the Prešov region, which showed the lowest values of the composite indicator, the growth of SMEs in the observed period was relatively high, more than 6.9%. It is more than in economically more developed regions such as Košice or Trenčín. Why is that so? One of the reasons may be the regional policy of the state, which in recent years has focused on supporting and developing the competitiveness of regions and reducing regional disparities in the Slovak Republic. There are 9 of the 20 least developed areas of Slovakia in the Prešov Region, and therefore increased subsidies from the state are directed to solve this problem. This fact could also be reflected in the growth of business activities that were subsidized by the state. The impact of the state subsidy policy on the establishment of business entities in the regions of the Slovak Republic will also be the subject of further analysis. State interventions in the economy through the provision of subsidies, tax benefits, etc. represent non-systemic interventions in the market economy. This fact distorts the real impact of the economic environment on the development of the number of SMEs in the regions. We can consider this inefficient because it is artificially maintained business entities that would not be maintained for a long time under the influence of the competitive environment on the market. But on the other hand, there are also opinions
that in order to support the development of business activities in lagging regions and in an effort to eliminate regional disparities and start economic growth in the regions, it is necessary to release part of the funds the form of subsidies. So there is another interesting stimulus for the analysis of the effectiveness of public funds spent on the development of business activities in the regions of the Slovak Republic. In conclusion, we can state that the research revealed many other questions that would be appropriate to subject to a thorough analysis and clarify the facts that affect the conditions of the establishment and demise of business entities in the regions of the Slovak Republic.

REFERENCES


