

Economic Structure of Slovak Regions as a Significant Tool of Their Potential Development

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Abstract

In order to achieve smart, sustainable and inclusive growth, the European Union has set a spectrum of targets via the growth strategy titled 'Europe 2020'. These targets are elaborated in detail and coordinated in specific national programs and national policies of European Union member states. A detailed analysis of economic structure that influences the situation in a particular region in an outstanding way can be considered a significant activity for the purpose of examination of the current situation and potential development of particular European regions. Research on stronger and weaker economic areas provides the state with important information for decisions on further strategic development of a particular region. The main aim of this paper is to analyse the economic structure of the Slovak Republic and its regions with the help of secondary data. On the basis of this analysis we will determine the possible areas of potential development for specific economic areas in Slovak regions.

Introduction

The European Union has been over the last few decades faced with a number of serious situations that has not helped it to obtain a leading place and strong position among the other regions of the world. A strategic tool—the strategy entitled *Europe 2020*—should help the EU member states to elaborate on their own strategic visions in order to achieve a set of objectives that are mentioned in *Europe 2020*. These challenges and their fulfilment can mean for the European Union a vital influence on its future and development (Šuplata 2011). In order to achieve the goals mentioned in *Europe 2020* it is necessary to evaluate and review the strategies of EU member states on the national level. For this reason the analysis of economic structure is also necessary—in order to identify the strengths and weaknesses of the particular regions and subsequently to determine the tools and goals for their future development.

1 Aim, material and methodology

The main aim of this paper is to analyse the economic structure of the Slovak Republic and its regions with the help of secondary data. We consider information about the current and future economic structure of particular Slovak regions for the basic and the most important source of information for the potential development of these regions. The information presented in this study is in the form of secondary data available in the databases of the Statistical Office of the Slovak Republic, the paper contains the most recent data that are available—from the year 2011. Moreover, we have also utilized the data that are available at the websites of the National Agency for Development of Small and Medium Enterprises (NARMSP) and also the Slovak Investment and Trade Development Agency (SARIO).

2 Results and discussion

2.1 Economic structure of the Slovak Republic

The economic structure in the Slovak Republic and its particular regions will be characterized in the following text. The Slovak Republic has got a convenient location in the middle of Europe when considering its potential economic development. The majority of the population is employed in the fields of industry, construction, trade and services. The proportion of small and medium-sized enterprises was in 2011 almost 88% (of all businesses in Slovakia but this category could also be extended by the companies with an unknown number of employees) —for this reason it is necessary to pay attention to not only big companies but also to this category of business.

The primary sector of the Slovak economy consists mostly of crop and animal production, the proportion of crop production is a little bit higher. In 2011 only 3,05%¹ of Slovak citizens were employed in agriculture. Crop production in 2011 had a value of 1 202,66 million EUR (57,83%) and animal production a value of EUR 876,90 million (42,17%). The most dominant part of the secondary sector of the Slovak economy in 2011 was industry. From the total number of the 70 271 companies operating in this sector, 36,40% companies were operating in metal constructions, 18,96% in wood industry, 8,44% in business activities involved in the repair and installation of machines and 6,50% in clothing manufacture. Considering the structure of industry in the Slovak Republic, the most important fields with a many-year tradition are mainly the machine, chemical, electrical engineering, wood processing and food industries. In last few years an increase in the automotive industry was also registered (influenced mostly by the arrival of foreign investors).

A very important part of the tertiary sector of the Slovak economy is tourism and services. Considering the strategic development of the Slovak regions, the field of tourism represents a very important part of the economy. Attention must be paid to this field and also a focus made on its further development. The Slovak Republic has within its potential a number of cultural and natural monuments, spas and other areas in tourism that can be supported and developed. In 2011 the number of overnight stays by visitors in accommodation establishments was 16 771 835 —it has declined by 16,33% compared to the previous year. It is also important to monitor the average overnight stays in locations—in 2011 the value of this indicator was 4,1 (compared to year 2010 there is a significant downturn of 21,15%). Therefore, in the Slovak Republic a gradual drop of the number of overnight stays and also in the length of the average overnight stay is evident. By examining the length of the stays in the Slovak Republic two different tendencies are noted – the number of long-term stays dropped significantly by 22,08% comparing the years 2005 and 2011; on the other hand, the number of short-term stays increased dramatically by 51,35%.

In achieving the strategic development of the Slovak economy it also an important task to pay attention to the fourth sector of the economy represented mostly by the field of research and development. In 2011 the value of expenditures in this field was EUR 468,439 million (compared to the previous year there was a slight improvement by 12,51%). From the year 2005 the highest growth was observed in the year 2010 (a significant rise by 37,42% compared with the year 2009). The share of the expenditures on research and development expressed as a proportion of the gross domestic product (GDP) of the Slovak Republic in 2011 was only 0,68% (there was only an increase of 0,05% compared to the year 2010).

2.2 Economic structure of Slovak regions

2.2.1 Bratislava Self-Governing Region

The primary sector of Bratislava region consists of crop and also animal production, while the crop production takes the larger proportion (in 2011 it was a share 62,25%). Bratislava region produced in this branch of the economy in 2011 the value of EUR 138,185 million and compared to the year

1. In the journal (in both Polish and English texts) European practice of number notation is followed—for example, 36 333,33 (European style) = 36 333.33 (Canadian style) = 36,333.33 (US and British style). Furthermore in the International System of Units (SI units), fixed spaces rather than commas are used to mark off groups of three digits, both to the left and to the right of the decimal point.—Ed.]

2010 the value of the production increased both in crop and animal production moderately (overall by 26,76%). Bratislava region created 7,56% of the total sales of the agricultural production in 2011 in the Slovak Republic; there was a considerable growth in the sales of the agricultural production compared with the year 2010 (30,52%).

The main areas of the secondary economic sector in Bratislava region are chemical, automotive, engineering and food industries. These branches are exploiting the advantages of Bratislava region (higher level of education, developed infrastructure, and higher demand for products and services). In Bratislava region there were 286 industrial plants (with 20 or more employees); in 2011, this number increased by 9,58% compared to 2010. Moreover, in this region there are also four industrial parks providing the companies with the green and brown infrastructure within an area of about 244 ha (Industrial Park Devínska Nová Ves, Eurovalley, Lozorno and IPEC Senec). In these parks are established companies that are operating mostly in the automotive industry and logistics.

The most important part of the tertiary economic sector in Bratislava region is tourism. This region is situated in a key location, bordering two European countries—Austria and Hungary. Moreover, a lot of important state and regional tourism institutions can be found in Bratislava region. In 2011 there were 203 accommodation facilities located in this region (a 6,74% share of the total number of these facilities in the Slovak Republic), this number shows a slight increase of 3,05% compared to the previous year). The number of visitors in this region in 2011 can be also noted with a growth of 14,57% compared to the year 2010.

The fourth sector of Bratislava region has a dominant position in comparison with other regions of the Slovak Republic. The share of the expenditures for research and development in 2011 was 51,82% of the total amount of expenditures in the Slovak Republic. The largest proportion of the current expenditures in this region was designated for the field of basic research (55,55%) and development (25,21%). The dominant position of Bratislava region can be also seen in the field of personnel—the proportion of the employees from the total number of employees working in this field in the Slovak Republic in 2011 was almost 51%. The highest number of employees were working in technological sciences (29,89%). There were 307 institutions of research and development in Bratislava region (43% of the total number of these institutions in the Slovak Republic); among the most important institutions located in this region can be included the Slovak Academy of Sciences and many other institutes and universities. The cooperation between companies and institutions in research and development is not yet at a satisfactory level, however, thus Bratislava region does not utilize its potential in maximally possible way.

2.2.2 Trnava Self-Governing Region

The primary sector of the economy in Trnava region is composed mostly of crop production that is supplemented by animal production. Compared to the year 2010 in 2011 an increase in both sectors of agriculture was registered; the total value of production was EUR 464,800 million (a growth of 23,84%). Moreover, the sales of agricultural production in Trnava region were at the proportion of 23,72% of the total sales in agriculture of the Slovak Republic, which is the second highest position in all self-governing regions of Slovakia. The field of agriculture has a significant position in Trnava region—this fact is influenced mostly by the location and climate conditions (Trnava region belongs among the Slovakian regions with the hottest climate). Nowadays, Trnava region can be ranked as the most productive agricultural region in Slovakia; this feature influences also the high employment of Trnava region's inhabitants in agriculture.

The situation in the secondary economic sector in Trnava region varies—the dominant industry sectors have a long history in this region. The location of the industry sectors is different in this region, the northern and middle part of the region is oriented mostly towards industry and the southern part of the Trnava region is focused on agriculture. Monitoring the situation in agriculture, there is a strong representation of the food industry; other strong industrial areas are the electronics, mechanical, chemical and pharmaceutical industries. Currently, higher value-added production is noted mostly in the fields of the electrical and machine industries. A very important role in the development of industry in Trnava region is played by three business clusters—in the automotive, electrical and energy sectors.

The fourth sector is dominant mostly in the field of tourism which is one of the most dynamic sectors of the economy. The importance of tourism in Trnava region lies mostly in its location—it borders the Czech Republic, Austria and Hungary. The existing culture and historical potential of this region together with the natural environment are creating suitable conditions for the development of tourism. This fact can also be influenced by the existence of geothermal and medicinal springs that are utilized for medicinal and recreational purposes. Among the centres known worldwide belongs the city of Piešťany; the springs are also located in other cities such as Galanta and Dunajská Streda. In 2011 there were 195 accommodation facilities (6,47% of the total amount of these facilities in the Slovak Republic, the number of the accommodation facilities dropped by 6,25% compared to the year 2010). The number of visitors in 2011 in Trnava region increased slightly by 4,27% compared to the year 2010).

In the fourth sector of the economy almost EUR 34 million for the field of research and development was utilized, in relative expression this share of the total amount of expenditures for research and development in the Slovak Republic was only 7,17%. The current expenditures were dedicated mostly for development (46,94%) and applied research (33,92%). These areas can be considered the fields with the higher level of value-added in research and development; therefore, the higher proportion of the expenditures for these fields in Trnava region is a positive sign for future development of this region. In 2011 there were 1 707 employees working in research and development, the most significant proportion was working in technological sciences (32,86%)—this situation is also positive for the future development of a particular field of industry in Trnava region.

2.2.3 Trenčín Self-Governing Region

The primary sector of the economy in Trenčín region is composed mostly of animal production in agriculture; it is also supplemented by crop production (the land designated for agriculture covers two fifths of the area of Trenčín region.) The total amount of the agriculture production in 2011 was EUR 182,689 million; compared to the year 2010 a significant upturn of 22,71% was recorded. Sales of agricultural production in this region in 2011 were also improved considerably—there was a rise of 21,85% compared with the previous year, Trenčín region had 8,43% of the sales of agriculture production in the Slovak Republic. Thanks to the geographic location and characteristics of this region a very important part of the primary sector was also forestry. Beech, oak and pinewood forests are situated across almost 49% of the total area of Trenčín region.

The main areas of the secondary sector of the economy in Trenčín region are various. Industry is mostly represented by the machine, electronic, mining, textile, glass, leather and food branches. The tertiary sector in this region is important in the field of tourism and services. The dominant factor of this region for the possible development of its potential is its geographic location in the Slovak Republic—it is situated between the strongly developed areas (Bratislava–Trnava–Trenčín and Žilina) and also is a strategic location for the infrastructure (the connection of the east and west, north and south). Very important is also the fact that Trenčín region is connected with the Czech Republic—this provides a lot of future possibilities in order to develop the cooperation between cities and regions. In Trenčín region there were in the year 2011 249 accommodation facilities—this number fell slightly by 1,58% compared to the previous year—these facilities hosted almost 250 thousand visitors.

The fourth sector in Trenčín region represented by the field of research and development characterizes it as region with one of the most negative indicators. The proportion of the expenditures designated for this field in 2011 was only 5,71% of the total amount of expenditures in the Slovak Republic. Quite positive is the fact that a large proportion of the current expenditures in this region were designated for development (79,28%) and applied research (17,56%). Almost 85% of the total number of employees working in the field of research and development (1037 employees) were employed in technical sciences.

2.2.4 Nitra Self-Governing Region

The primary sector of the economy in Nitra region is composed mostly of crop production in agriculture. This region is also well-known for its wine production. The total amount of the agriculture

production in 2011 was EUR 630,763 million—a dramatic increase was recorded by comparing the situation with the previous year (an increase of 30,91%). Crop production had a proportion of almost 72%; in 2010 this proportion was only 66,24%. Growth was also observed in total sales of agricultural production—there was considerable growth of 21,85% comparing the situation with the previous year. Nitra region has the largest proportion in the total amount of the sales of agricultural production among all self-governing regions in the Slovak Republic—31,90%. This region has also the most appropriate conditions for agricultural production in the Slovak Republic. Its mild and dry climate and the highest quality soil create outstanding conditions for agriculture. Nitra region also maintains the largest area of the agricultural land among all regions in Slovakia.

The main areas of the secondary sector of the economy are mostly three industry fields—paper, chemicals and machines. Industry is mostly situated in towns and cities (e.g., the city Šala is a centre of chemical production, the city of Komárno is a centre for shipbuilding and the city of Tlmače is represented by the machine industry). In the city of Nitra there are situated different sorts of industry. The support for the cooperation and the development of the competitiveness of the region in the plastic industry is also provided from the side of a Slovak plastic cluster established in 2009.

Tourism is a very important part of the tertiary sector of the Nitra region's economy and is connected mostly with the locations of the thermal springs where the tourist destinations and resorts are located (e.g., Komárno, Patince, Štúrovo). There were 262 accommodation facilities operating in 2011 in Nitra region; the share from the total number of these facilities in Slovakia was 8,70% and their number has slightly dropped by 2,96%. Nitra region had in 2011 more than 220 thousand visitors; this number declined slightly by 6,17%.

Expenditures for research and development in the fourth sector of its economy were only 4,55% of the total amount of expenditures in Slovakia. This proportion was the second lowest after Prešov region. On the base of this fact we can say that these financial resources are dramatically low and the position of Nitra region compared with other regions in the Slovak Republic is very weak. The largest proportion of the current expenditures in 2011 were designated for basic research (59,09%). Almost 1900 employees were working in the field of research and development in 2011 in Nitra region, the vast majority were doing research in agricultural sciences.

2.2.5 Žilina Self-Governing Region

The primary sector of the economy in Žilina region is mostly represented by animal production. Agricultural land in this region represents a lower proportion of the total area of this region (36,10%) compared with forest land (56,90%). The value of the agricultural production in 2011 was EUR 119,019 million; compared with the year 2010 there was a moderate increase of 13,83%). The proportion of sales from agricultural production in 2011 was the lowest by comparison with the other self-governing regions of Slovakia; the value of sales in 2011 was EUR 74,312 million. Žilina region is mostly oriented towards trade and industry, agriculture is not the dominant area of the economy in this region.

The most important fields of the industrial structure in this region are automotive, machine, electrical engineering and wood processing together with construction (this field had almost 11% of the total number of the companies in Žilina region in 2011). In this region very important centres for the development of particular fields of industry are also represented by the industrial parks—in Žilina region these cover almost 650 hectares. Industrial parks are providing an infrastructure; a vast majority of these companies are working in automotive and machine industry.

A very important part of the economy of this region is tourism, mostly within the spas located in the centres in the areas of Liptov, Orava, Turčianske and Rajecké Teplice. The development of tourism is also supported by the innovation centres represented by the Turiec, Orava and Liptov business clusters. These clusters were established in order to support and develop the tourism of Žilina region. The clusters are also interested in the development of cooperation between the business environment, research and state institutions and education centres. The number of the accommodation facilities declined slightly to 781 (a decline of 5,45% compared with the year 2010). On the other hand, the number of the visitors improved slightly and the proportion of the total number of visitors in Slovakia in Žilina region was 20,08%.

The fourth sector of the economy of Žilina region is an important part of its functioning. Expenditures for research and development in 2011 were EUR 42 190 618 (9,01% of the total amount of expenditures for Slovakia; this share is the third best result compared with other self-governing regions of Slovakia). In this field in 2011 2506 people were employed and the largest proportion of these were working in technological sciences (almost 68%).

2.2.6 Banská Bystrica Self-Governing Region

In 2011 mining and extraction in Banská Bystrica region were quite highly developed; this fact is also a result of the historical economic orientation of the region. Agriculture is mostly developed in the southern part of the region, agricultural enterprises have produced in 2011 the value of production of EUR 220,342 million (there was a dramatic improvement compared with the previous year of 30,48%). The proportion of the crop and animal production was in 2011 balanced; forests are located on 49% of the total area of Banská Bystrica region and are perceived as an important resource together with geothermal energy.

Industry is mostly located on the northern part of the region; the dominant field is represented by the metallurgy industry. The field of construction has for many years had the lowest value compared with other self-governing regions of Slovakia. As a result, production with lower value-added and also lower investment into research and technology in this region persists. Considering the field of tourism, Banská Bystrica region belongs to the most important regions of Slovakia. The development and cooperation between various entities operating in tourism is also supported by the Balnea Cluster functioning in the health spa area. The number of visitors in accommodation facilities of this region in 2011 was 366 982 — a slight rise of 1,24% was recorded (compared with the year 2010). On the other hand, the number of accommodation facilities registered a slight decline of 2,75%; the total number of these facilities in 2011 was 424. Banská Bystrica region can be represented as a region with strong natural resources (there are four national parks on its territory, the existence of the low-settled areas provides the possibility of development of agro tourism, there are high-quality ski resorts for visitors and there is also a potential for development of the spa area).

The fourth sector of Banská Bystrica region is involved in creating a space for investments as in this region there is a relatively high number of people with university degrees. However, Banská Bystrica region belongs to the regions with very low expenditures for research and development. In 2011 the value of these expenditures was only EUR 26 320 296 (only 5,62% of the total amount of expenditures for Slovakia). In this year there were 2 076 employees working in research and development and more than 36% of these in the field of social sciences.

2.2.7 Košice Self-Governing Region

Agriculture as a significant part of the primary sector of the economy is in Košice region mostly situated in its southern part. In 2011 the value of the agricultural production was EUR 193,254 million, the proportion of crop production was much higher than animal production. Košice region recorded a significant increase of agriculture production of 26,31% compared with the previous year 2010. A negative factor that influences development in agriculture is a lower level of usage of technical equipment and lower competitiveness (mostly in prices) with production from abroad.

An important part of the economy of this region is also the secondary sector composed mostly of various types of industry. In Košice region there are highly developed fields of metallurgy, chemicals and electrical engineering. The dominant part of the industry is metallurgy which is producing 60% of the industrial production of this region. Košice region has a strong proexport orientation that helps to empower its competitiveness. On the other hand, possible threats can be hidden in a production that demands high energy resources and raw materials. In recent years the importance of the industry is slightly decreasing and the importance of services and trade is increasing.

The most important part of the tertiary sector of the economy is tourism. This field is slightly improving in recent years in Košice region; the dominant part of these activities are short-term stays with lower overnight stays. In 2011 the total amount of visitors was 289 435 — this number represents a rise of 2,93%. The number of accommodation facilities has declined slightly by 1,42%. Košice region provides for the visitors almost 650 km of trails in four protected areas. A strong

position in the economy of this region is noted in the field of research and development—in amount of expenditures Košice region has the second best position among all self-governing regions in the Slovak Republic (proportion of 13,29%). The highest proportion of the current expenditures in 2011 was designated for basic research. In this year almost 3 900 employees were working in research and development, the largest proportion in technical sciences. The connection of this region with technical sciences is also supported by the Košice IT Valley cluster that aims to create a centre of information and communication technologies in this region.

2.2.8 Prešov Self-Governing Region

The primary sector of Prešov region is mostly represented by agriculture, forestry and fishery. The proportion of those working in agriculture was in 2011 almost 5%—this value is comparable with the value of other regions in the Slovak Republic. Agricultural production in 2011 was EUR 141,847 million which means a significant increase of 24,02%. Animal production was creating almost 54% of all production in this sector.

Industry in Prešov region is not developed to a satisfying degree, mostly due to the lower investment potential of this region. A quite important position in the past was that of the electrical engineering industry, its development was interrupted by foreign investors who were interested in other regions of the Slovak Republic. Prešov region is nowadays attractive mostly for investment with lower value-added and assembly production. In the field of industry are employed approximately 34% of the citizens of Prešov region. Prešov region provides for investors a possibility to develop the field of wood processing as a great proportion of the area is forest.

The tertiary sector of Prešov region is mostly represented by services and tourism. The development of tourism is supported by the existence of the High Tatras that provide for the visitors great conditions throughout the year. Another potential that can help to develop the field of tourism in Prešov region are the springs located in the surrounding health spa resorts. The number of visitors in Prešov region in 2011 was 618 470—compared with the year 2010 it increased slightly by 1,11%. On the other hand, the number of accommodation facilities registered a drop of 5,81%; the total number of these facilities was 551.

In examining the economic structure of Prešov region it is also necessary to study the field of research and development. In 2011 the value of expenditures in this field was only EUR 13 344 954 (2,85% of the total expenditures in the Slovak Republic). A positive perspective is based on the fact that from the amount of the current expenditures the highest proportion was designated for development (56,99%). In this year there were almost 1 050 employees working in research and development, mostly oriented towards the humanities (45,60%). The support for the development of research is also provided from the AT+R cluster; it aims to develop a centre of automation and robotic technologies in this region.

Conclusion

The article aimed to analyse the situation in particular fields of the economy in self-governing regions of the Slovak republic. It focused on the four sectors of the economy—primary, secondary, tertiary and quaternary—and also on the dominant business activities in Slovak regions. The analysis of the economic structure of regions is necessary for the further development of the Slovak economy. For achieving the ambitious goals of the strategy Europe 2020 the SWOT analysis of Slovak regions is only the first step that is necessary, after inevitably attention will be paid to the results and strategic activities for particular regions. The analysis of economic structure has shown that some of the Slovak regions have potential to become important players among other regions in Europe and others will need further activities and attention in order to develop and utilize their potential.

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