CURRENT TRENDS AND DEVELOPMENT OF THE AUTOMOTIVE INDUSTRY IN THE SLOVAK REPUBLIC

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Summary: Automakers often use the services of logistics operators who provide comprehensive solutions for the implementation of transport for the company. These services can be provided only with existence of transport and logistics infrastructure and human capital. The quality of infrastructure and human capital proportionally depends on the quality of services provided. Logistics operator in process of choosing transport mode for export-import transactions take into account transaction costs and total delivery time of delivery.

Key words: automotive industry, SWOT analysis, development, capacity

INTRODUCTION

Slovakia has become one of the leading car manufacturers in Central Europe, mainly due to the presence and operation of three world automotive companies: Volkswagen Slovakia, PSA Peugeot Citroen and Kia Motors. Early in the 90-ies, when the German company Volkswagen decided to invest in Slovakia and built a factory to produce cars in Bratislava, Slovakia started to build one of the world most important intersections in the automotive industry. Since then, Volkswagen has become the largest industrial concern with the leading export position.

Source: www.sario.sk

Fig. 1 - Automotive industry in Slovakia

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Another incentive for the growth and development of the Slovak automotive industry, especially the supply sector, was the arrival of PSA Peugeot Citroen from France and Kia Motors from South Korea. Both automobile companies plan their full production of 300 thousand cars per year. The industry restructuring and the infrastructure development are the factors that should support the growth of the automotive industry in Slovakia. The construction of the highway network is considered to be a priority of the current government, wanting to attract foreign investors, who would bring the needed capital important to develop the infrastructure, especially the transport network, in the country.

1. AUTOMOTIVE INDUSTRY IN THE SLOVAK REPUBLIC

Slovakia is currently the third largest car manufacturer in Central Europe. The automotive industry has had a huge impact on the development of the Slovak economy. The industry has a considerable potential, given by its high production standards and access to both markets - Western European and Eastern European.

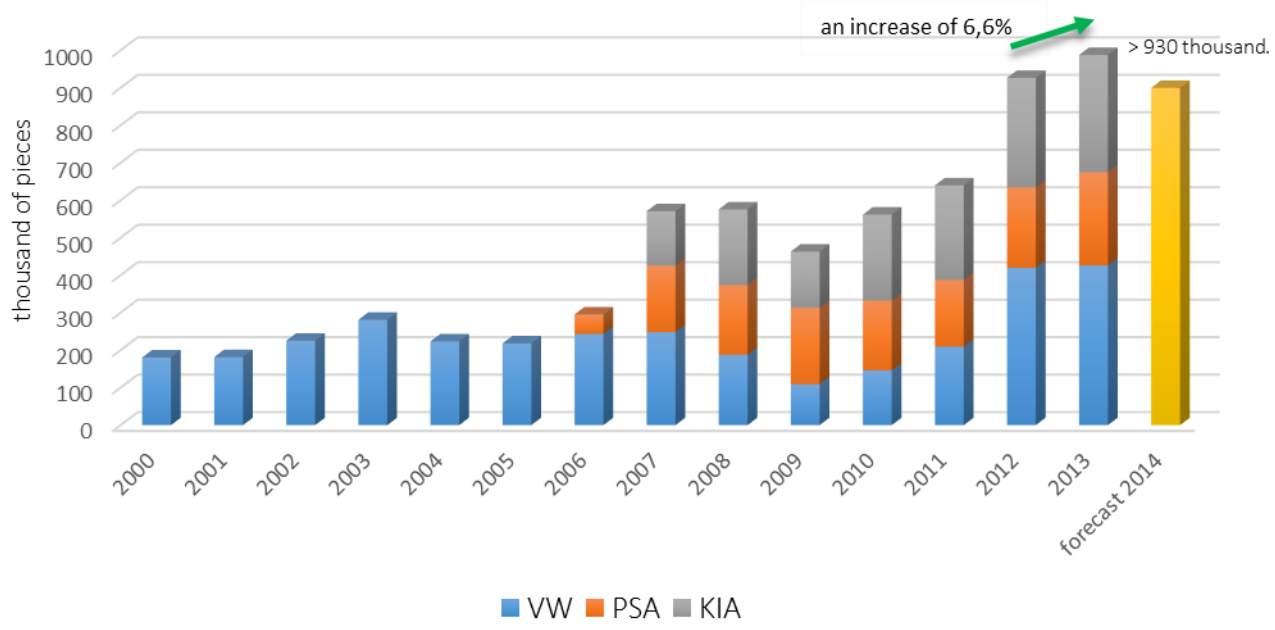
The following Table. 1 listed statistics of car production in Slovakia by individual automakers in 2000 - 2013.

Table 1 – Statistics car production in Slovakia

Year	VW (units of cars)	PSA (units of cars)	KIA (units of cars)	Overall production of Slovakia (units of cars)
2000	180 803			180 803
	181 618			181 618
2002	225 442			225 442
	281 160			281 160
2004	223 542			223 542
	218 349			218 349
2006	243 661	51 719		295 380
	248 388	177 586	145 097	571 071
2008	187 872	186 397	201 507	575 776
	109 388	203 732	150 020	463 140
2010	146 288	186 140	229 505	561 933
	209 735	177 776	252 252	639 763
2012	419 886	214 619	292 050	926 555
	426 313	248 405	313 000	987 718

Source: Statistical Yearbooks

Last year was a record one for the SR. We produced exactly 987,718 cars, which represents an annual increase of 6.6 per cent (the expected increase was 5.5 per cent).

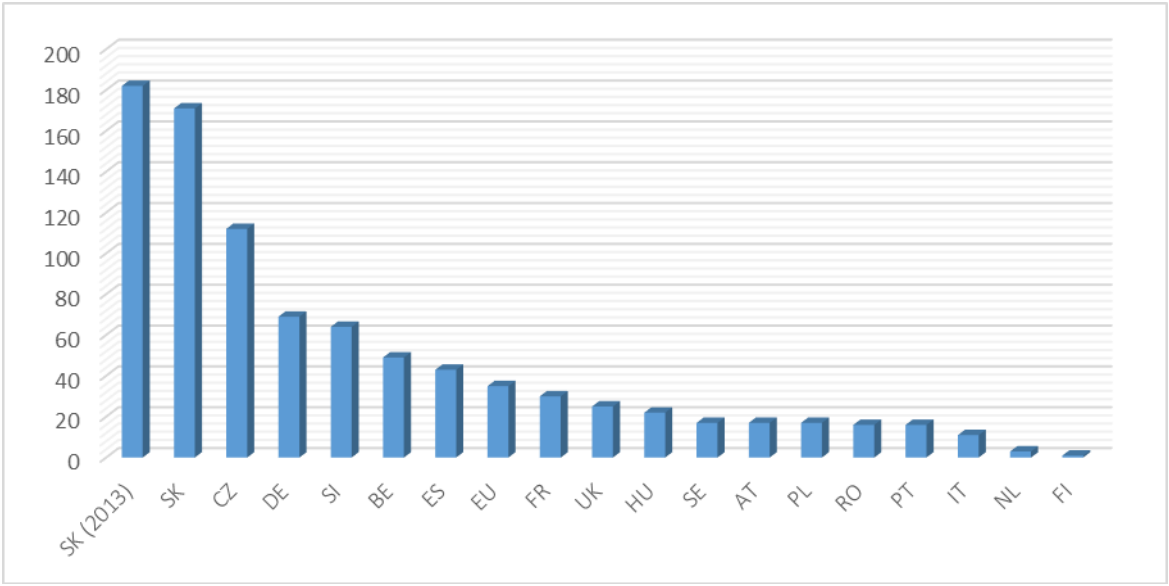


Source: own processing, www.zapsr.sk

Fig. 2 - Development of the automotive industry in Slovakia

2. PRODUCTION OF THE AUTOMOTIVE INDUSTRY IN THE SLOVAK REPUBLIC

Slovakia is currently producing more than 920,000 vehicles per year (more than 930,000 cars are expected to be produced this year) and we are the first in the world in the number of vehicles per capita (171 cars per 1,000 inhabitants). We are really close to the full usage of our local production capacities.



Source: own processing, ACEA 2012

Fig. 3 The number of vehicles produced per thousand inhabitants in the EU (in 2012)

Automotive industry achieves the third highest value added per employee (after the petrochemical and energy industries). Considering the income of employees and self-employed people the consumption in Slovakia is over € 3.5 mld. euros, which represents 10% of the total consumption in Slovakia.

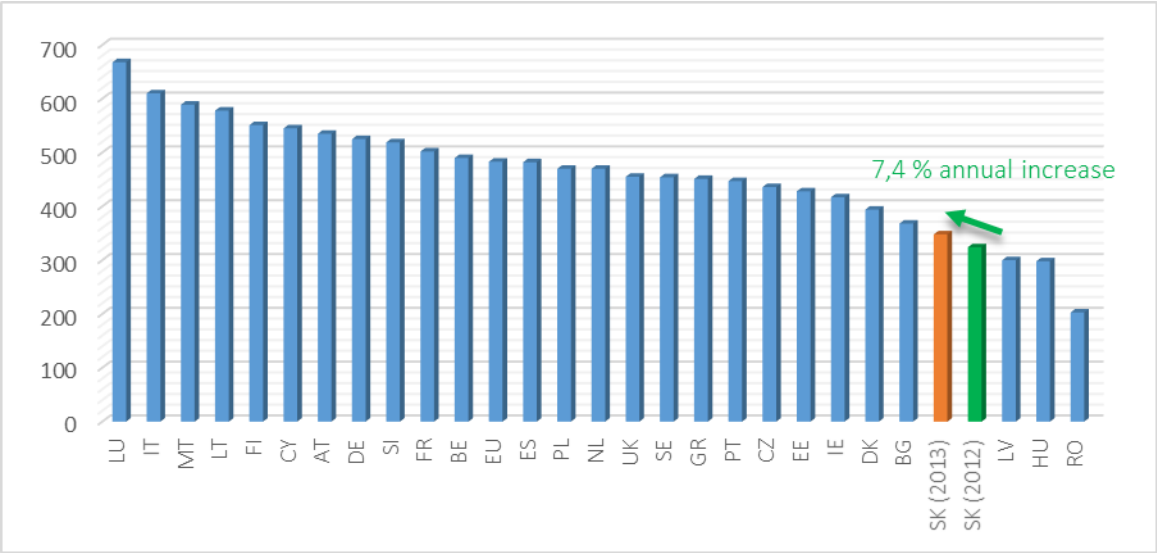
The problem is that, despite the operation of three automobile factories, we are still unable to get its potential maximum. Many subcontractors are located outside the Slovak borders and their products have to be imported. The disadvantage also is that much partial development work is done outside the country, too. An adequate number of skilled workers and engineers is necessary to do this. So there is a need to reform the education system to be more connected to the needs of Slovak employers. However, there are two more possibilities how to strengthen the position of the automotive industry in our country, which would increase our competitiveness in order to have orders from all over the Europe. Those opportunities are: the development of the subcontracting industry and the partial transfer of the research to Slovakia. The multiplier of job creation in the automotive industry reaches the value of 3.82 (to the one job position in the automotive industry correspondents 3.8 job positions in external companies and subcontractors). In our country the multiplier is only 1.5. This is the opportunity how to use the full capacity of this industry.

A major barrier of the further development is the uncompleted road network towards the east. According to the regional distribution we can see that three quarters of suppliers to the automotive factories are situated near Žilina and Banská Bystrica. The number of companies in the segment increased from 274 to 316 over the past year. As many as 242 companies operate in the western part of Slovakia. Some statistics of the previous year were issued also by our automobile companies. PSA in Trnava produced 248,000 cars, which is the highest number of the last eight years (+ 15.8% compared to 2012), however, the limits of the company have not been met, yet. It employs 3,500 staff.

Kia Motors in Žilina also produced 7% more than in 2012. Out of 313,000 finished vehicles almost 50% was the model Sportage, 40% belonged to all body versions of the model cee'd and the rest to Venga. 22% of the vehicles are exported to Russia. Taking these three Slovak automobile factories into account, only Kia Motors has its own engine shop. In 2012 was produced 491,000 engines, some of them were directed to the Czech Republic (Hyundai).

Volkswagen in Bratislava is in the limit of its production. In 2013 it produced 426,313 vehicles, the highest number of the last 20 years. The electrical model e-Up! is currently produced in Slovakia. Up to 42% of the automobile components is produced in Slovakia every year and an investment in the form of a press shop, worth 90 mil. Euros, is in the plan.

The sale of cars in the Slovak Republic is in the current year really successful, in the first months of the year the number of the sold vehicles was higher than in the previous year, however, the number of cars per 1,000 inhabitants increased to 348 pieces in 2013. It's nearly 7.4% more than in 2012 (324).



Source: own processing, ACEA 2012

Fig. 4 - Sales of cars in the EU per thousand inhabitants (in 2012)

In 2012, the positive trade balance of the Slovak Republic was achieved first time from 1995. It was the effect of the automotive industry, which generates 26% of the total export and also one fifth of the total imports. Trade balance was thus improved by 4.5 mld. Euros.

Automotive industry generates 12% of the gross production in Slovakia. The import of the automotive industry in the volume of 11.8 mld. euros shows a clear path, how the Slovak Republic may increase the positive contribution of the automotive industry on its trade balance and relatively easy way to double this contribution. That way is to support local suppliers on their way to the Tier 1 type suppliers and to create the conditions to support research and development of Slovak automotive suppliers. European automotive industry invests annually more than 32.3 mld. euros into research and development. SR has not received almost anything of these funds. Nowadays, thanks to multinational corporations doing business in Slovakia, is our country appropriately integrated in the European production network. Our products are competitive in global markets. However, the cooperation between the Slovak research base and the European Research Area and European research networks is insufficient. Our science and research are artificially isolated from the industry and cannot fully respond to their needs.

Slovakia needs examples of excellence in research, pilot projects, which can bring fast results in industry that may be the motivation for the further growth of our science, for the expansion of cooperation between industry and domestic research base to increase the innovation performance of our economy. These tasks should be fulfilled by the Centre for Strategic Research and Innovation for the automotive industry, which will act as a catalyst in the creation of the National Pact for Innovation and combine individual subjects of research into the strategic, network structure with same innovation priorities. The Centre for Strategic Research and Innovation for the automotive industry will be a key representative of the national research network in negotiations with the Government of the Slovak Republic dealing the growth of funding in material, technological and process research for the needs of

the automotive industry. It will also create conditions for the development of the industry applied research and innovation with a focus on the automotive industry of the Slovak Republic and support quicker application of research and development outputs in practice.

Table 2 – SWOT analysis of the automotive industry

Strengths	**Weaknesses**
• strategic location of Slovakia, • availability of international airports (Bratislava, Kosice, Poprad, Žilina, Vienna) • stable macroeconomic environment, • strong history in engineering industry, • favourable labour costs and high productivity, • Association of Automotive Industry Association (ZAP SR) - automobile association supporting the automotive industry in Slovakia.	• lack of funding for the educational system, • lack of financial involvement of the private sector, • weaker cooperation and use of research & development potential of local universities, • the need for reconstruction of measuring devices and equipment for research and development in universities.
Opportunities	**Threats**
• relocation of traffic flows on environmental transport modes (inland, maritime waterways) • relocation of global automotive and electronics industries towards Central Europe - new supply opportunities • strengthening cooperation between automotive manufacturers, suppliers, science and research, • opportunities for the creation of new researchers and research organizations • the benefits of research activities in the EU framework programs.	• unbalanced external dependence of the automotive industry, • concentration of the automotive industry in the western part of Slovakia (Bratislava, Trnava) - the problem of shortage of skilled labour, • congestion of road infrastructure.

Source: own processing

CONCLUSION

Over the past decade, the Slovak carriers almost doubled its performance and the observed trend of the previous development of the stagnation transport distances can be expected in the future, because of the position and importance of the Slovak Republic as a transit country. To present the methodology of the survey are not included transport performances of foreign carriers that pass through our territory or provide export vehicles from our automotive manufacturing factories.

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