

MUTATIONS OF AUTOMOBILE INDUSTRY IN THE EUROPEAN UNION IN THE WORLD CRISIS CONDITIONS

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Abstract:

Global technical harmonization is considered a driver of international competitiveness of the European automotive industry, with improving global competitiveness of European industry and creating automotive jobs in terms of environmental protection and road safety. The global economic crisis, the European Union had to take some measures to protect the automotive sector, using the investment in innovative technologies to facilitate consumer credit, and financial incentives for people who choose to sell old car and buy a new one. Referring to the importance of the issues examined in Europe today, automotive industry become very substantial, competition is fierce and the pace of change is emphasized. Thus, we have presented in this paper the general characteristics of the motor car industry in Europe and how it was influenced by the global crisis, and then to review the evolution of this sector in Romania and how they are feeling the crisis.

Keywords: globalization, automakers, crisis.

Introduction

Globally, the European Union is the largest producer of motor vehicles, producing over 18million vehicles per year and almost a third of the car.

Germany is the largest European producer, followed by France, Spain, Britain and Italy. These five countries, old European Union states, the top five in Europe confirms the importance of this sector in the economies of these states.

In addition, the auto industry is closely linked to other economic sectors in Europe. Sectors such as electronics, mechanics, IT, metallurgy, chemistry, and metals, plastics and rubber are essential elements of this industry. 20% of European production of steel and aluminum 35% of the auto industry goes.

Lately, Central and Eastern Europe has become one of the favorite destinations of major car producers and manufacturers of auto parts

manufacturers be it European or Asian Americans.

The global economic crisis has left its mark on European Union car industry, so in recent years, industrial production fell and signs provide a continuation of this decline. Following the severe global economic problems, the auto sector crisis spread rapidly in Europe.

European car industry

European automotive industry plays an important role regarding European Union competitiveness in its effort to achieve the major objective of the Lisbon Strategy: the European Union to become the most competitive global economy. The mere fact that the European Union more than 12 million people work in the auto industry once again demonstrates the important role played in the European economy.

Sector is characterized by a very big role for research and innovation,

investing annually more than 20 billion euros, making it the largest private investor in this sector. European automotive industry has a turnover of 780 billion euro and value added of 140 billion, contributing substantially to the GDP of the European Union. Also, the exports over imports, resulting in a difference metered trade balance of \$ 60 billion (European Commission 2011).

Regarding the auto industry as a whole they present a number of features and characteristics (T.J. Sturgeon, O. Memedovic, 2004) wherever is reported in statistical terms:

- ✓ is an industry characterized by globalization - the global nature is evidenced not only at the OEM. Suppliers of parts and subassemblies manufacturers followed and became "global suppliers";

- ✓ is characterized by a structure firm focused in the idea that a relatively small number of firms dominate the global market. Generally when we talk about the auto industry is talking about two types of companies: manufacturers of automobile and parts manufacturers. These two groups of companies have imposed a set of standards difficult to achieve by other companies. Alliances and/or mergers between firms take place in most cases within the industry;

- ✓ related industry is characterized by a close relationship created between different companies form a chain. Often company producing automotive components manufacturer follows the location on which it opens;

- ✓ is a changing industry, included the best materials, the improvement of trying to bring in terms of design, safety, fuel efficiency, environmental protection and recycling of end of life vehicles.

In the automotive sector we find several categories of companies:

- ✓ original parts manufacturers (OEM): General Motors Corp., Ford Motor Co., DaimlerChrysler AG, Toyota Motor Corp., Volkswagen AG, Honda Motor Co., Renault-Nissan, PSA etc.

These companies have significant market presence in Europe, America and Japan, and made 80% of world production of vehicles;

- ✓ modular manufacturers (Tier 1). Companies located in this category sell the product directly made automobile manufacturer based on firm contracts. In this category will get those companies that made systems such as complete system or board seats or electronic system. Of the companies included in this category may mention here: Continental AG, Robert Bosch GmbH, Delphi Corporation, Johnson Controls, Michelin Group, Lisa Draxlmaier, Valeo, BOS Automotive, Valvetek, Johnson Controls, Sumitomo Electric Industries Ltd, TRW Automotive, Leoni etc.;

- ✓ individual component manufacturers (Tier 2) (Coficab and Contitech companies);

- ✓ suppliers of components and small assemblies (Tier 3). Companies in this category are small, usually with local capital and are not focused exclusively on the production of goods for a particular sector, but achieve an annual turnover of cars. These companies often made of components that go into the final product, different items textile, metal, plastic or electrical enter. Of the companies included in this category may mention here: SPUMOTIM, Nefer Prod, Interpart etc.

A major role in the assembly and design of vehicles from the smallest of the modular components, they have systems and modules manufacturers, and manufacturers of parts and components seeking to relocate near the assembly lines, to improve supply chain and reduce inventories, thus providing cost savings, increased efficiency and even lower labor costs.

This model of economic development may promote the emergence of clusters in the industry, as it can lead to development of strong partnerships. The main factors (J.

Goldsmith, 2008) behind the mobility of these companies are:

- ✓ a need for proximity in relation to the automotive manufacturer (OEM). In most cases the implantation of a car manufacturer in a particular location attracts numerous location in the area of automotive components manufacturing companies, they create even more jobs than manufacturing company it self;

- ✓ a competition to increase productivity draws a series of efforts by companies to face competition, which takes the form of the variety of innovative processes even using an automatic system of production;

- ✓ a cost and training human resources are major factors underlying the decision to locate, especially in cases where you have chosen the best option for the company;

- ✓ a superior technical preparation began weighed increasingly more location decision and to be growing demand by companies producing components for the automotive sector. In this respect often are sought partnerships with local community and education (technical colleges and/or universities) that can provide various specialized programs: Six Sigma certification programs and the master and/or training point (for example, using CNC machines). In addition are becoming increasingly popular research centers and research projects conducted at local and regional level;

- ✓ existence of an adequate transport infrastructure to ensure a high degree of mobility is an important requirement for companies manufacturing components;

- ✓ locating a site for development and potential facilities can convince companies of the component manufacturers are under pressure mattered in terms of competitiveness, invest in a production unit.

It is important to note that manufacturers of systems and modules, components and looking to move near

the assembly lines, to improve supply chain and reduce inventory. This provides cost savings, increased efficiency and even lower labor costs.

Relocation of production facilities for motor vehicles or motor assemblies to other areas is not an easy decision and does not guarantee rapid gains for companies in the automotive industry. The question that arises most often is that the process be moved? First, the relocation decisions into account the activities that are based on labor. So the activities transferred to the new production unit activity related to production of assemblies and sub-assemblies, and the industrial engineering. Also, for some companies the transfer of activities related to back-office would bring substantial savings.

These components transfer activities aimed at targeting sectors such as IT, accounting and administration. Activities that are based on high competence, such as research and product development are the last transferred to the new location. With the company sells products in the new location is important for her to set its sales and after sales operations (service or maintenance).

Sector migration to Central and Eastern Europe

Last period, especially after joining the European Union, Central and Eastern Europe has become one of the favorite destinations of major car producers and manufacturers of auto parts manufacturers be it European or Asian Americans.

Before 1989, Hungary had its territory or a factory to produce cars. Poland was second in Warsaw and Bielsko-Biala, Czechoslovakia produced Skoda in Mlada-Boleslav plant in, and in Yugoslavia there were three production units, Novo Mesto, Slovenia territory today, Sarajevo, Bosnia-Herzegovina, and factory Zastava, near Belgrade.

If we look today we see these countries as Czech Republic, Hungary, Poland, Slovakia and Slovenia have managed to attract major automotive manufacturer's name. In countries like Slovakia and Hungary factories were built from scratch, and in Poland and the Czech Republic, existing was privatized. In Hungary came prestigious brands Audi, Opel and Suzuki. Poland has privatized the existing factories with Fiat and Daewoo, but also benefited from massive investment.

Volkswagen has two production facilities in this country, and Isuzu, Opel and Toyota - one. In Slovakia there were built new manufacturing facilities of PSA, near Trnava, and Volkswagen in Bratislava. In Slovenia it produces the new generation Renault Clio. Belongs to the Volkswagen plant in Sarajevo, and for that of Serbia, Zastava, to find a solution for assembling Fiat Punto car.

Czech Republic is the main producer in Central and Eastern Europe area, followed by Poland and Slovakia. Even if there is a whole debate on Turkey Memberships in this space must not be lost sight of the capabilities of this country. Thus, Turkey production facilities are located in the following manufacturers: Renault, Toyota, PSA, Hyundai, Honda, Ford, Fiat, Iveco, Mercedes.

If we make a synthesis of automotive manufacturers located in countries of Central and Eastern Europe we can say that here we find factories that produce these brands of cars: Skoda, Peugeot, Citroen (Czech Republic), Audi, Fiat and Opel (Hungary), Fiat, Opel, Volkswagen, Volvo (Poland), Peugeot and Volkswagen (Slovakia), Renault (Slovenia), Renault, Ford (Romania), Fiat and Volkswagen (SEBI). About 12% of European car production is generated in this region. So far, Slovakia has been the main country that has attracted investment in the automotive industry, but at present the market is saturated. 30% of Slovakia's

economy depends on this sector (Ernst & Young, 2011).

Along with European companies in Central and Eastern Europe have established a number of Asian carmakers. Strategy of many Asian manufacturers was to consider Eastern Europe as a bridgehead for the conquest of the continent. Basically, if we take into account and Daewoo units in Romania and Poland, Asians have representatives in all regions: Toyota (Czech Republic), Suzuki (Hungary), Chevrolet (Poland), Kia (Slovakia) and Daewoo (taken between time Ford)(Romania).

Lately area of Central and Eastern Europe became interested in the idea of locating and American car manufacturers. Thus, General Motors develop the Chevrolet brand in Poland, and Ford acquired the plant in Craiova.

Crisis on the automotive sector in Europe

The global economic crisis has left its mark on the car industry in the European Union. In recent years, industrial production fell and signs provide a continuation of this decline. The recession has directly affected the auto industry decline of 20% which is the most important of all industrial sectors.

Following the severe global economic problems, the auto sector crisis spread rapidly in Europe. In response to the negative effects of the crisis, Renault, France's second carmaker after PSA Peugeot Citroen announced in early December that it would lay off 6,000 people in Europe, of which 4,900 in France. Also in December the group several plants were closed for several weeks.

Daimler announced in November that will reduce the number of employees in factories in Germany, due to financial crisis. Daimler has a total of 167,000 employees in Germany and 2,500 temporary workers.

As for the Fiat group, he closed all the factories in Italy between December 15 and January 11, while the 48,000 technical employees to become unemployed or take their vacations. Volkswagen has suspended production in German factories during Christmas, as they announced the other competing companies.

BMW has announced that as of February about 28,000 technical workers will become unemployed as a result of drastic cuts in production at four factories in Germany.

Niche British manufacturer Jaguar, sent 3,500 employees home to plant in Castle Bromwich, for a period of two weeks.

In turn, Europe Central, felt increasingly more economic crisis, auto makers in the region are increasingly affected, in spite of cheap skilled labor and at the same time. Thus, car manufacturers in the region, regardless of country of origin, are forced to cut production and adapt to declining demand. These measures are taken given the circumstances of the moment.

Czech manufacturer Skoda Auto, part of Volkswagen, has practiced, during January-June 2009, a four-day work week due to lower demand, primarily in the major markets of Western Europe.

In Hungary, Audi has stopped production for a month in the factory in Gyor, having already dismissed 160 employees. Here, Suzuki fired 1,200 of the 5,500 employees, after he decided to substantially reduce its production target for 2011.

In Poland the situation is also difficult to General Motors reducing working hour's only two shifts to three, the factory in Gliwice. Meanwhile, GM has moved production from Antwerp (Belgium) to Gliwice where labor costs are three times less.

Characteristics of the automotive industry and the impact of in Romania on crisis on it

In the context of an economy in full trend, Romania auto industry is characterized by an effervescence generated on one side of the infusion of foreign capital attracted by cheap labor, well qualified, modest cost, experience in dealing with foreign partners, desire and willingness for collaboration and development of Romanians, on the other hand the Romanian auto parts manufacturers. The latter was in full restructuring activity, the process of certification according to requirements imposed by European legislation, and prospectus market continued to establish new contacts, new commitments to conclude with foreign partners.

In Romania, production of automotive components segment is the most important growth industry, this growth is stimulated by means of road transport industry dynamics. The main business of these companies is manufacturing components of metal, plastic and rubber, and electrical and electronic components.

Companies have transferred the completed actions taken by industry components of the degree of innovation and competitiveness of products to ensure sustainable development context.

Romania has a long tradition in automobile production. Our country produced in 1989 a number of vehicles, from martin up to heavy trucks, especially for the domestic market but for export. Pitesti car factory existed, Craiova, Campulung-Muscel, Timisoara and Brasov. Of these, only two more are viable today - Craiova and Pitesti. Both were bought by large international producers and therefore survived. After 1989, several automakers, including Mercedes, Audi, Hyundai, Volvo, Toyota and Peugeot

wanted to produce cars in Romania or to buy one of the domestic companies.

The first company to produce cars in Romania interested in being heard. Dacia takeover negotiations were initiated by Audi in 1993 and even reached far enough there are technical discussions between the two parties and a series of agreements that have nearly perfected. However, the German carmaker Audi came not as Romania considered too risky for business. Finally, Audi chose Hungary because there have been greater facilities and a more stable business environment. Currently, in the neighboring country, in town Győr occurs TT Roadster V6 and V8 engines for the entire Volkswagen group. Currently, Audi plans to expand Hungarian plant considering that is one of the most profitable of the Volkswagen group.

Another attempt to take over Dacia in the early '90s was the Korean company Hyundai. Koreans have made a proposal to take over the entire industry in Romania: Dacia, Olcit and ARO, and Roman and tractor. The main intention Accent target assembly model in the Dacia plant. Talks have stalled due to denial by the government of that period on charges for facilities and monopoly position which he held a Koreans. Hyundai went to Russia, building a factory in Tangarog.

In trying to find a strong partner among world producers of cars, Dacia has initiated talks with Peugeot. The first sounding dates from 1993-1994. As with other negotiations, talks between the Romanian and the French have reached an advanced stage, but they made some mistakes, and the deal was not concluded. Since then, Peugeot has never considered Romania as a potential place for investment and or oriented Czech Republic and Slovakia.

Last attempt by Mercedes to come to Romania was in 2008, the Western region of all embodied Unfortunately, the preferred place Kecskemet

(Hungary) to produce class A and B cars.

Open economy in Romania has not coincided with when the major manufacturers of automotive components have been established in our country, they prefer originally surrounding countries. However today, the auto industry is one of the favorite targets of foreign investors in Romania.

Whether the wheels, engines, gearboxes, electronic circuits, tires or wheels, airbags, seat covers, lamps, and even automotive software, however we find the famous brand labeled "Made in Romania".

Auto industry in Romania is an industry of "cluster", and this attracted an auto manufacturer Renault and a lot of suppliers who must produce according to its specifications. This Renault Pitesti drew and traditional providers of, who were implanted around the new plant, investing in facilities that produce not only for Dacia-Renault, but also for clients outside Romania: Auto Chassis International (car deck), Valeo (PCB), Johnson Controls (seats), Cortubi (exhaust system), Euro APS (and thermoformed plastic parts), Valeo Climate (air-conditioning).

However it should be noted that car parts factories in Romania do not work exclusively for Dacia. These businesses have contracts and are subcontractors for manufacturers of systems and modules of the great car companies or international networks of spare parts. Therefore, we here investments in Romania of foreign corporations with global ramifications: Continental, SNR, Dura Automotive, Delphi, Lisa Draexlmaier, INA Schaeffler, Timken, Koyo, Sumitomo, Yazaki, Leoni, Lear, Takata Petri, Faurecia and others, clients of major automobile manufacturers Ford, BMW, Daimler Chrysler, Peugeot, Citroen, Fiat, Mercedes Benz, Volvo, General Motors, Toyota, Subaru.

Automotive manufacturers are also touched by the financial crisis, depending on production cuts beneficiaries of their products. Several parts suppliers have stopped production in Romania or partial layoffs have turned to staff following the steep decline in orders, a consequence of the collapse of local and international car market. The decision affected both suppliers Tier 1 as well as levels 2 and 3 (which do not produce directly for the builder, but for other manufacturers of automotive components) which makes parts for both domestic manufacturer Automobile Dacia, as well as for export.

Until now announced a series of measures manufacturers of automotive components and systems areas and tire manufacturers.

Manufacturer of automotive safety components and systems Takata-Petri (L.Cotu, 2010), the third producer of auto components market in Romania last year reduced the working hours of employees in three factories, due to financial crisis that has already made its mark the global automotive industry.

Sumitomo Electric Wiring System (SEWS – C.Gubandru, 2011) Romania which has about 4,500 employees at three plants in Deva, Alba-Iulia Orastie and produce electrical wiring for various automobile manufacturers. Reduced orders from manufacturers to translate the temporary reduction of production activity and sending employees in technical unemployment pay 75% of salary. Auto parts maker Delphi (A. Anghel, Delphi 2011), which owned two factories in Romania, the Great and Ineu Sănnicolau, has restricted its activities, leaving only one plant in Ineu the following registration of a reduction in orders.

Manufacturer of automotive cables, Leoni Wiring Systems has closed one of the two factories it owns in Arges county laid off or relocated 228 employees who worked in that unit. Also, the company was reduced activity in Arad.

Another French company Valeo (M. Serban, 2009) supplier for Dacia announced it will cut about 5,000 jobs at plants around the world.

Lisa Draexmaier, manufacturer of electrical systems and interior car, reduced activity at the plant in Hunedoara.

For two factories in the town of Deta, Timis County, Romania Automotive (M. Serban, 2009) Eybl group, a specialized producer of upholstery and leather steering wheel and the other in leather gear changing, notifications were submitted to CEA on Timis dismissal of employees.

One tire manufacturers in Romania, Continental (M. Serban, 2009), in an attempt to avoid layoffs resorted to reducing production costs by reducing overtime or temporary closure of local factories. Availability was affected by staff leasing division. Recently the group has decided to increase the capacity Continental Timisoara to reduce costs at the whole group (transfer of production).

Conclusions

Quality workforce in the former communist countries and low wages are the main factors required for workers who moved to Central and Eastern Europe automotive industry. If we consider Central and Eastern Europe as one market, the states that compose it can be analyzed differently, depending on the role they play in this ensemble. The following types:

✓ centers of the major manufacturers: In this category fall the countries that invested most and the production are mainly export oriented (over 75%). In this category can be assigned to the Czech Republic and Slovakia, countries that may become the European hub for export, ensuring the needs of European market, as well as the local market;

✓ centers of large local producers: this category includes countries such as Poland or Romania, producing massive

domestic market, with a degree of absorption of over 100 000 new cars per year. These states have the chance to become major exporters to the extent that they can produce a good offer comparable existing in Europe, but with competitive advantages;

✓ centers for automotive manufacturers: they usually coincide with the locations chosen by the vehicle manufacturers. However, the decision to locate car parts manufacturers can stay and other factors: low labor cost, highly qualified human resources, the existence of universities with well-developed research departments, etc. In this category, we find countries such as Czech Republic, Poland, Hungary or Romania.

Regarding the next period is anticipated by 2012 will exceed Eastern Europe Western Europe regarding the number of cars produced. Much of the production will go to export. Information provided by the study by Price Waterhouse Coopers company talking about an increase of production capacity for at least four five of the Central and Eastern Europe (Czech Republic, Poland, Romania, Hungary

and Slovakia). They would in 2012 to produce 3.46 million cars, which will be 4% of global production of cars.

It also provides for further expansion over the South East Europe and the Ukraine. Already in Central Europe salaries soared and the advantage of cheap labor disappears gradually. On the other hand, local capabilities are already significant, and additional investments in these conditions no longer justify too. At the same time in South East land is still fertile.

Auto industry in Romania is characterized by an effervescence generated on one side of the infusion of foreign capital attracted by cheap labor, well qualified, modest cost, experience in dealing with foreign partners, desire for collaboration, and on the other hand the Romanian auto parts manufacturers. The latter was in full restructuring activity, the process of certification according to requirements imposed by European legislation, studying market continuously, to establish new contacts for conclusion of new commitments with foreign partners.

REFERENCES

- Anghel A. (2011), *Delphi adjust working hours*, Ziarul Financiar, 18.11.
- Cotu L. (2010), *The effects of the crisis: employees Takata-Petri, forced to take unpaid leave one day a week*, Ziarul Financiar, 22.10.
- Goldsmith J. (2008), *Sitting Trends for Tier 1 and Tier 2 Automotive Suppliers*", publish in *The Trade & Industry Development*, 22.01.
- Gubandru C. (2011), *Automotive downturn affects SEWS Romania, which used to layoffs*, www.wall-street.ro, January 21.
- Serban M. (2010), *Redundancies and closures Retrospective automotive factories in late 2010*, standard.ro.
- Sturgeon T.J., Memedovic O., Van Biesebroeck J. (2004), *Globalization of the automotive industry: main features and trends*, Int. J. Technological Learning, Innovation and Development, VolX, No. Y, XXXX, July.
- Automotive Parts Manufacturing in Romania issued by the Central Europe Trust Company*, (2011)
- European Commission (2011), *Background on the Situation in the European car industry*, Brussels, 25th February 2011.
- Ernst & Young (2011), *The Central and Eastern European Automotive Market. Industry Overview*, November.