THE STRATEGY OF INCREASING THE COMPETITIVENESS OF ROMANIAN AUTOMOBILE INDUSTRY BY TRANSITION TO ALTERNATIVE ENERGY IN INTERNATIONALIZATION CONDITIONS

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Abstract

The increasing complexity and the increase of the variability grade of the business environment in general, and of the international business environment especially, represented determinant elements of the awareness of strategic issues of international competitiveness of firms and of the intensifying efforts to resolve the many different aspects of it.

This paper is addressed to all those interested in the interesting and important issue of competitiveness in general and of the automotive industry competitiveness in particular.

We stopped to the car industry as the automotive industry in Romania is one of the industries that have a high added value and a significant share of GDP. A role no less important had the fact that in the case of the automotive industry there are clear opportunities to improve competitiveness in the international market by focusing not only on low cost segments but also pointing to other market segments. The economic crisis has made Dacia sales to exports increase considerably, but the data show that with alleviate of the economic crisis the success of Dacia will begin to decrease. So it turns out that Dacia is a crisis car, and as the crisis will end, the manufacturer must rethink its strategy if it wants to maintain or increase sales.

In the present paper we stoped to the transition to alternative energy sources strategy in the functioning of automobiles as a possible way to increase the competitiveness of Romanian automotive industry because all indicates are that alternative sources are the future and we should adapt trends better sooner rather than later.

Key words: *strategy, alternative energy, competitiveness, performance, automobile indusrty, globalization;*

I. INTRODUCTION

Igor Ansoft (Ansoft, 1987) treats the strategy as the whole of the decision criteria that guide the behavior of economic agents, identifying its four components: the product/market the growth vector, the competitive advantage and the synergy. This approach has had a major scientific and pragmatic impact on the management of the company.

R. A. Thiétart (Thiétart, 1990) seen the strategy as "all decisions and actions on choosing means and articulating resources to achieve a goal", while for M. Porter it was "the art of building competitive advantages that can be defended over a long period of time. "

Henry Mintzberg, in his "Strategy Formation" (Mintzberg, 1978), has five definitions of strategy:

- Strategy as perception, designating a predetermined course of action to resolve a situation;
- Strategy as outline or project, consisting of an action in order to ensure passing a competitor;
- Strategy as a model that establishes a structure of consistent actions on behavior plan;
- Strategy as the company positioning, resulting from the methods of determining the place that the company has in its environment;
- Strategy as a perspective, involving beside the establishment of a position with, and a certain perception of reality reflected in its actions regarding the market and the technology.

M. Porter uses the term "generic strategy", this consists of "specifying fundamental approach for obtaining competitive advantage sought by the company, which provides the context of actions taken in each functional area. In practice, however, many strategic plans are lists of the phases of action, without a clear articulation of the competitive advantage that seeks to achieve and how to use it".

O. Nicolescu in his work "Firm management strategies" (Nicolescu, 1998) defines strategy as "all major objectives of the organization in the long term, the main ways of achieving, along with allocated resources, in order to obtain competitive advantage according to the organization's mission".

The profitability of companies depends on the industry structure as well as on the strategic options adopted by competitors.

Regardless of the branch in which firms operate can choose among the following strategies:

- leadership strategy in terms of cost - depends on the unique ability to produce a product similar to one offered by competitors, but at a lower cost. A cost leader uses its cost advantage to sell at lower prices. Thus companies can defend themselves in the fight of prices, may attack competitors to increase their market share, or if they already hold a dominant position in the industry can simply enjoy their profitability;
- differentiation strategy – is adopted by the company that aims to attract customers with a particular assigned products. Adopting a strategy of differentiation by a firm involves offering consumers value through the uniqueness of the atributs of its products, in an attempt to build loyalty of these customers. Often such loyalty translates in the firm's ability to sell their products at higher prices;
- focused strategy - which has two alternatives, namely, cost and differentiation. Companies who use this strategy tries to use its essential skills to meet the needs of small segments of consumers, called niches, unlike companies that address the entire market when adopting the other two strategies above. Such a strategy is advantageous when: niche has good potential for growth, it isn't important for leading competitors, is large enough to obtain profit, no rival is interested to specialize in the same niche, satisfying the need on that niche is costly for competitors, the company has the ability to really satisfy that market segment and can defend of challangers attacks, and so on;
- integrated strategy of low cost and differentiation - is a hybrid strategy which involves the manufacture of differentiated attributes a lower price compared to the competition, which enables both companies to benefit simultaneously from the advantages of differentiation strategy as well as of the leadership strategy in terms of cost, and respectively to gain strategic competitive by giving consumers value through the product attributes and the lower price.

From the perspective of the company, developing the strategy is a continuous exercise because, while mission and long-term objectives may remain unchanged for years, strategies are constantly evolving due to external and internal environment of the company changing. There are two key issues on which the choice of competitive strategy relies on: the attractiveness of the industry in terms of long-term profitability and the factors that determine the competitive determinants of a sector; so a of firm a very attractive sector can, however, do not realize significant profits if has chosen a poor competitive position and vice versa, a firm in an excellent competitive position may be located in an area so poor that can't be very profitable (Ciobanu, 2005).

Table no. 1. Criteria for selection of competitive strategies

	Competitor with a better offer	**Competitor with a lower offer**
Competitor with better marketing	• improving the supply • differentiation • development of a stronger network • implementing strategies • faster introducing of products to the market	• improving the image • intensify efforts to sell • intensification of promotional efforts • cooperation • compete at the same level • development of a stronger network • implementing strategies
Competitor with weaker marketing	• improving the supply • cooperation • implement stronger strategies • compete at the same level • faster introducing of products to the market	• compete at the same level,

**Source: Lars Tvede, Peter Ohnemus - Marketing Strategies For The New Economy - The Wiley&Sons, Ltd., England, 2001, p.142*

A firm chooses certain chain activities, different from competitors or a distinct way of achieving the same chain activities to achieve in order to obtain a unique and sustainable positioning in the sector and to increase the competitiveness of the company. (Hagiu, 2008)

It is necessary for the managers to compromise on parts of chains of activities and on methods of achieving them. In general the managers can make different decisions in a similar context, be it overall image of the company, its strategies and the coordination and control of the company activities. Some of these decisions will be in favor of the company, other less favorable because even some realities within the firm acts against optimal choice of the chain activities or the most relevant methods of accomplishment. Therefore, managers' way of thinking on competition and possible solutions for solving problems affects the competitiveness of firms.

Strategic positioning process involves difficulties in the knowledge of the whole chain as consisting of several activities, which makes it much more demanding than the operational improvements process in terms of knowledge and vision of managers. In general the knowledge limits of managers determines the introduction of new working practices and techniques, which do not lead to the adoption of strategies that lead to strong competitive positioning. Another issue that may affect the competitiveness of firms is that of measuring the results. The value added generated by the firm must take into consideration the cost of capital trained as the reporting only to the commercial rate, can lead to the formation of distorted views about its results. A third problem affecting competitiveness is related to organizational structure and motivation system. Strategic positioning supposes taking decisions and "compromises" which often can be risky because they are nontraditional. Assuming some risk due to the fact that the company must make decisions unusual or non-traditional. Therefore managers are tempted to choose solutions that do not create such incidents, which means to enable best practices and techniques, and thus operational improving.

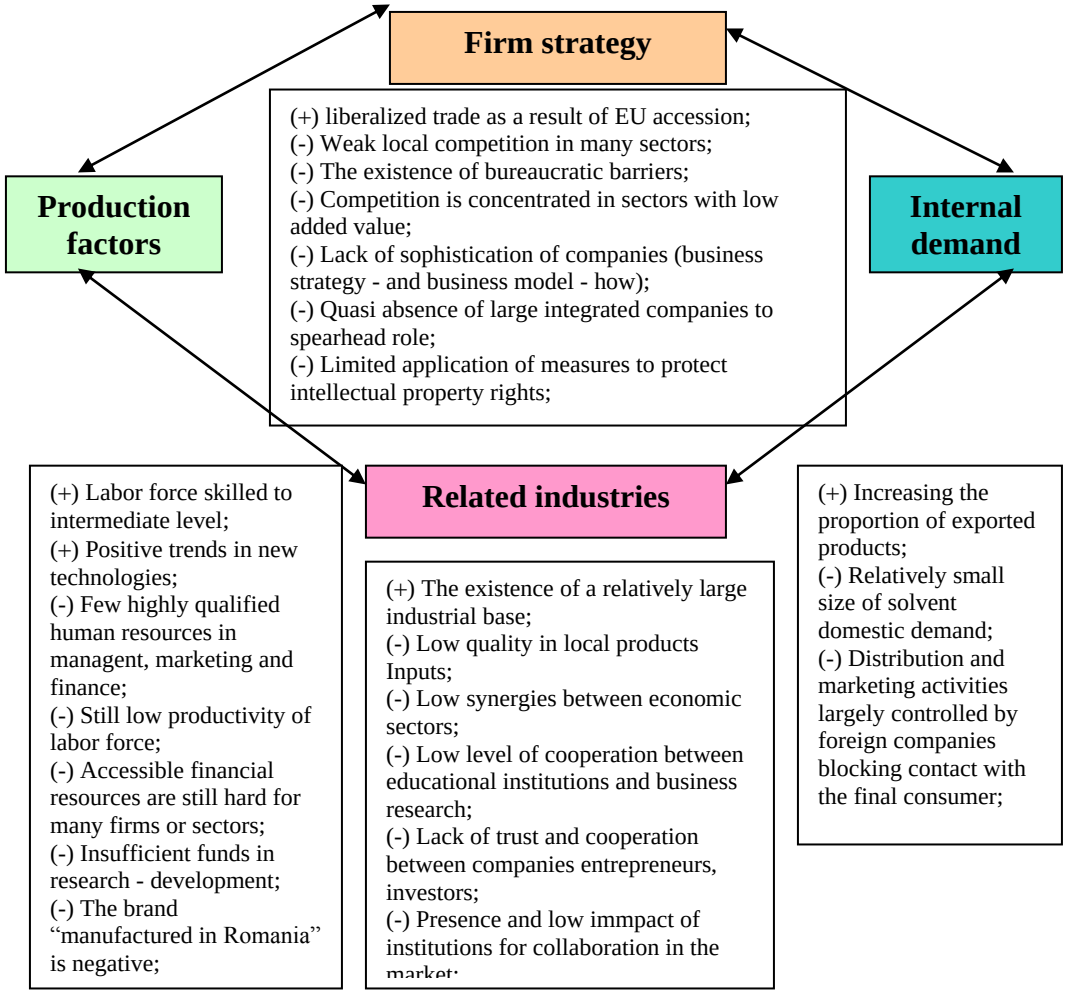

Figure no.1. Competitive factors in the case of Romania

Source: Negriţoiu M. – Competitieness – a macroeconomic perspective, NBR Confercence, 15.04.2010.

II. FEATURES OF THE EUROPEAN CAR MARKET

At the level of the European market, and even of the global market there is a homogenization of needs on cars, meaning the preference for cheap, clean and of acceptable quality cars. This requires new market strategies such as strengthening market position through mergers, takeovers or strategic alliances.

Among the features of the international automobile market we can include:

- Heterogeneity quite high - given the diversity of products and the number of participants to specific transactions;

- Mobility - explained by extending the geographical areas in which the specific business transactions take part;
- High dynamism - is established the increased population endowment with automobile, and increasing international investment in the area;
- Mentality changing - which has resulted in increased consumer demands on product quality, price/quality ratio, safety, environmental protection, etc..

III. STRATEGY OF TRANSITION TO ALTERNATIVE ENERGY SOURCES IN AUTOMOBILE FUNCTIONING

The first electric car was the model Jeantaud, Count Gaston de Chasseloup-Laub establishing the first official speed record on earth - 63.1 km/h in 1898. This model was powered by an electric motor with alkaline.

In 1899, a Belgian, Camille Jenatzy, built his own car powered by an electric motor. With this model, the Belgian has set a new speed record achieved with an electric car, 105.88 km/h.

In 1931, inventor Nikola Tesla, with financial support from the General Electric Company and of the firm Erowa Pierce, build the Pierce Arrow limousine. The car had an electric motor. And was provided with an antenna through which current was captured. But how they capture this energy, only Tesla understood and exploited. After building this model, Tesla just encountered negative reactions, ant that is why he has destroyed his own creation.

After 1900, with the advent of the steam engine and later of those of the internal combustion, the attempts to produce electric cars stopped.

Manufacture of electric cars resumed in 1996, with the building by General Motors, of an electric vehicle as the EV1 (Electric Vehicle). These cars comfortable, quiet and fast had a speed electronically limited to 130 km/h, and circulated on the roads of California under a lease. Power car charge could be made in the owner garage, not needing great efforts. But in 1999, this car was withdrawn from circulation, leases no longer being extended. Despite protests, the manufacturer, General Motors gathered its EV1 cars and quashed them.

In 1997, Nissan has released on the market its first electric car called Hypermini. The model attracted the attention of the edils of Pasadena city, California, which rented it for employees of the institution. But when in 2006, the lease has expired, although the Americans wanted to buy the car, the Japanese manufacturer refused, and as those of General Motors destroyed these cars.

Toyota has had it, her version of the electric car. It's about the Toyota RAV-4EV a great product of high technological sophistication, with zero pollution emissions, costs $ 0.09/kWh, a full charge costing $ 2.70. In the period 1997-2003 were rented 484 such cars, also in California, the citizens of this state seemed very interested in the environment protection as shown in their interest on electric cars. But when the lease expired, Toyota withdrew from circulation the model arguing "lack of interest" and sales figures confirmed this.

But since the model was practical and inexpensive, people took action. The association "Do not Crush" tried to save the car for three months and put pressure on the Japanese manufacturer. Finally, they managed it, and the manufacturer has sold the cars they rent initially. It has tough finished the serial production of this model, and soon also the car battery NiMH EV - 95 (in 2005 through the merger of Chevron-Texaco was bought and patented battery manufacturing needed to model RAV 4 EV, and factory producing batteries were dismantled).

In 2010, the energy supplier Lekker Energie and the battery company DBM Energy have joined forces and created for Audi A2 an electric propeller, powered with battery 40% easyer than the ones usually used, batteries that benefit from a new storage technology called Colibri. Charging of these batteries can be made at a common outlet and lasts for 20 minutes, as opposed to those which have been used already that need at least 3 hours to recharge.

In October 2010, such an Audi A2 road at night a distance of 605 km route from Munich to Berlin and destination trip computer showed 18% charge level of the batteries. This would mean a revolution for the automotive market. Also in 2010, the Norwegians from Think have launched the *Think City*, which can reach 105 km/h, the autonomy being of 160-180 km, and the guarantee of 5 years or 100,000 km.

In June 2010, the French manufacturer Peugeot, offered *Peugeot iON*. The model can reach the speed of 130 km/h, start from 0 to 100km/h in about 15 seconds, autonomy is 150 km, at a cost of £ 1.72. The less good news is that standard charge lasts 6 hours. There is also the variant of using a quick charger, battery efficiency being able to reach 80% in 30 minutes. The car has electric windows, air conditioning, audio system with MP3, Bluetooth, USB and navigation system.

Repeated destruction of a series of electrical automobile has given rise to some voices advancing the idea of a conspiracy theory. On Terra there is no more oil. Major oil companies are not excited by the competition that would lead to a dramatic decline in fuel sales, and also of their prices. However, the electric car will become necessity to reduce carbon emissions and protect the environment, which is increasingly in the spotlight.

It is clear that those who currently hold the oil wells in the West and processing technology of these hydrocarbons are hand in hand with vehicle manufacturers. That is how daily billion automotive which function with petrol and diesel are supplied in gas stations, and the need for people to travel is so great that makes that no matter how much would increase the price of petrol to be bought about the same amount of petrol or diesel. Although car manufacturers boast that produce more environmentally friendly cars, the reality is different, namely that the most polluting nations of the world are China and the U.S., as manufacturers of these states don't respect ecological settlements when producing automobiles for extra-EU markets, including for their own markets. There is the contaminated air, and even there are cities such as Mexico City, Brasilia, Manila or Moscow, where the emissions announces: "Warning, today pollution is high. Elders and children to remain in their homes. Asthmatics use oxygen tanks."

To resolve this situation, which has already become a global calamity even if we don't want to recognize, probably there are known solutions for decades, but their implementation isn't wanted for primarily financial reasons.

The last trove of U.S. Department of Transportation (which is needless to say that is led by former or future managers of companies producing cars) is that electric cars are too quiet after for decades automobile manufacturers have striven to build cars as less noisy, the European Union Member States oblige municipalities to do noise maps and highways of the West are flanked by absorbing panels fiberglass, plastic or wood composite very costly financially. The Japanese were given but not beaten, and found a solution that shows they have a sense of humor: cars that do "catalap-catalap" as horse carriages.

In recent years manufacturers have tried to convince us to combine gasoline with ethanol and diesel with biodiesel to protect the environment, since they do not emit harmful chemicals and fossil fuels into the atmosphere. In some countries there is even such national plans. We must understand that such campaigns misinform and manipulate primarily because these combinations increases fuel reserves (due to dilution), that will exist more and will continue to pollute, and secondly because their price will continue to grow.

More serious are the consequences on agriculture and food, because ethanol is made from rapeseed oil. In Dobrogea for e.g., land were filled with rape culture since 2004, and continues cultivation on the same land is toxic for those lands. Thus, while farmland grain are replaced by energy crops, food crisis will become a growing problem, given that in next years is projected that the temperate zone may become desert.

If Europe continues to grow unconsciously energy crops while it will enter in the shortage of grains, cereals which also underlie Western-style food system.

Five years ago, it was estimated that we will have fossil fuels until the year 2025, but meanwhile were discovered hydrocarbon reserves even if they are limited. It is therefore necessary to find alternative sources, and the most available is electric energy.

Creating an electric car is a way through which Romanian cars could penetrate international markets untapped to date. This requires, however, a change in strategy, at least for such a model. The cost of such a car are quite high and then you can no longer focus on low prices to penetrate foreign markets. In fact the high price of such a car is what makes it destined to be exported from the beginning. In states where they began to use such automobiles, the government provides grants of several thousand euros per person that is acquiring such a model, to overcome the disadvantage of high price. For example Ireland gives 5,000 euros for those who take their electric cars, Japan maximum $ 10,000 U.S. until 8000, etc. As the economic situation of our country shows, yet it's hard to see this happen in our country. In addition there is a need for an adequate infrastructure investment to make the loading station to ensure that the required power is produced, etc. Supply of such cars can be made from a classical outlet in about six to eight hours. Ideally, it would be that such a set of sockets to be implemented next to each residential. Even so there is a risk of encountering all sorts of problems if you leave your car at the load in front of the block. It could be used access cards, but this requires specialized software and therefore serious investment.

Even if the Romanian authorities say they will work on such a plan for Romania, the implementation will certainly take time.

The strategy of the Romanian producers must consider the needs of foreign markets of developed countries, able to absorb such an offer. It could for example consider countries where subsidies are granted for the purchase of such vehicles, because there consumers are encouraged to make such purchases, countries where there is a clear government strategy in this regard.

An example of such a market, it is France, where Dacia is already successful with existing models. Last fall the French Minister of Energy presented the national development plan of electric cars. The objectives were enviable: France hoped to have two million electric cars on the road in 2020 and for them to be created 4.4 million charging points. The state has pledged to invest one billion euros in building charging points, grid adaptation and subsidies for buyers and manufacturers.

Another example is Israel and Denmark that are among the countries that have the most daring plans and talk about the presence of tens of thousands of electric cars on their streets over five years. The most receptive to electrification of industry are, as shown, the countries that don't have an auto industry, especially those small in size, so that the distances between cities are also modest. In addition, in these countries the fees for new cars end up double the price of the car especially if we mention one very big motor, so the prospect of a 100% electric car tax exemption does not sound bad.

Currently research into alternative energies are quite profound. Future offers alternatives worthy of consideration. Those who understand the significance of alternative energies will only benefit. Market must respond to customer requirements and standards required. (Hagiu and Suciu, 2011)

It is true that the automotive sector is in recession. World demand has decreased. The factories produce less or sometimes not at all. But the crisis could be the beginning of a new automobile era.

Recent studies in the field are optimistic about the real possibility of imposing on the market other solutions of propulsion beside the engine that is based on internal combustion. Thus it is expected that in the future electric motors are the ones that will lead. It becomes obvious in the circumstances, that the best chance to emerge from the economic crisis have the manufacturers that risk to implement innovative solutions in times of crisis, this time being the best. Even so it is clear that cars which are based on conventional engines there will exist long time from now. The call to the alternative energy doesn't comes specifically from the desire to protect the environment but especially because during the crisis we have become more aware of money than ever, as reflected in consumer preferences for small cars with low consumption.

Although biofuels are currently on the focus, there will be no dilemma "in the tank or bowl" because agricultural surfaces is limited. Convenient solution is the gas engines (LPG), but it will come the moment when it will also run out. It would be also the ones based on hydrogen, which although are said to be on the SF field, BMW produces the small-scale, since more than 10 years, a hydrogen car.

Japanese from Genepax presented last year, the first motor car based on water vapor. The water they use does not even have to be filtered (but once it is poured into the car's tank, a generator breaks it down and is used to create electricity), and the car can run 80 km/h with a liter of water. Genepax yet built a single prototype for the patent in hope that it will spark interest of the Japanese manufacturer and will start working to introduce the car in series production. How could however Genepax replace the fuel cars when this would translate to bankruptcy for large automobile manufacturers?

While hydrogen cars go by air (free and inexhaustible fuel source), removes water vapor and therefore is totally clean, the car petrol or diesel removes sulfur, lead, carbon dioxide, soot. It is clear to everyone how much would cheapen the oil barrel if it would not be used to power cars.

A U.S. congressional committee estimated that oil prices would reach less than half than it is now, that the quotations of 65 dollars per barrel, while eliminating some of the oil speculation, which would not be in favor of OPEC, Venezuela or Iran.

Thanks to these investments, Romania became a mecca of parts manufacturers, automotive industry directly generates 200,000 jobs and a turnover equivalent to 8% of GDP. Although this industry is one of strategic importance for the Romanian economy, the government did nothing to help. (Hagiu and Suciu, 2011)

If the Government will not now help companies operating in this area, it may be that in the coming years both Ford and Dacia will import most of the components they need. And then exports of the two manufacturers will no longer contribute with nothing to stabilize the trade balance.

IV. ROMANIA'S PLACE ON THE EUROPEAN AUTOMOBILE MARKET

Whenever discussing car or car manufacturing industry in Romania market trends is reached, inevitably, the comparisons with other states. Because most of the time, these comparisons are made based on personal "impressions" while reality can be found most easily in numbers, here are some of the details that put our country in the context of the European automotive industry.

According to data from Eurostat and national associations of producers and traders of cars, Romania ranks last regarding the number of cars registered in relation to the population. According to ACEA, in our country the density in our fleet is 202 cars per 1,000 inhabitants. In penultimate place ranking compiled under this indicator is Latvia (286 cars/1,000 inhabitants). Countries such as Hungary (299/1000), Slovakia (307/1000) and Bulgaria (347/1000) are better positioned than Romania, while the European average is 477 cars/1,000 inhabitants. Surprisingly to some, the leader is Luxembourg (659/1000), followed by Italy (606/1000) and Cyprus (575/1000).

The strongest European vehicle manufacturer, Germany has a density fleet of "only" 517 cars/1,000 inhabitants, being overtaken by countries like Slovenia, Lithuania, Austria, Finland and Montenegro. The most important conclusion of this ranking: in Romania density is not even half the European average. The national car

park which, according DRPCIV, last year reached 5.48 million vehicles, of which 4.31 million are cars, represents 1.8% of the European total. From this point of view we are somewhere in the middle ranking, tied with Sweden and 0.6% more than Hungary or Finland. Behind us are countries like Bulgaria, Denmark, Ireland and Lithuania. The largest car fleet is the German fleet, which represents 17.7% of the total, followed by Italy (15.4%) and France (13.3%).

Regarding new car registrations made in the last year, reported to the number of inhabitants, Romania occupies the penultimate position with 4 cars per 1,000 inhabitants, followed by Bulgaria with only 3 cars for every 1,000 inhabitants. The EU average is 26 cars/1,000 inhabitants, and the leader is Luxembourg (97/1000), followed by Belgium (52 (1000) and Austria (42/1000).

Regarding car manufacturing relative to population, Romania is ranking an honorable place 14 to 16 vehicles/1.000 population exceeding surprisingly, Italy (13 cars/1,000 inhabitants.). European average is 38 cars/1,000 inhabitants., and the leader is Slovakia (118/1000), followed by the Czech Republic (114/1000) and Slovenia (85/1000). Levels of production (relative to population) close to that of Romania can be found in Portugal and Austria (18/1000), Hungary and Sweden (20/1000) and Poland (22/1000).

According to ACEA and Eurostat, Romanian auto industry directly employs about 61,000 people, our country occupying from this point of view, 9th place on EU. Most employees of this industry is located in Germany (775,000), followed by France (220,000) and Italy (169,000). ACEA mentions that one such job generates five indirect activities.

Regarding purchasing habits, most Romanian buyers prefer compact cars (48%), followed by those targeting small class, A+ B (25.8%) and SUVs (16.5%). At European level, the most sought is the small car segment, A + B (34.2%), followed by compact class (22.1%) and SUV (12.5%).

V. CONCLUSIONS

Alternative energy is the future and its use by automotive companies in Romania is a safe way to keep the market place and adapt to consumer demands.

Creating an electric car is a way through which Romanian cars could penetrate international markets untapped to date. This requires, however, a change in strategy, at least for such a model. The cost of such a car are quite high when you can no longer focus on low prices to penetrate foreign markets.

Precisely that high price of such a car is what makes it destined to export from the beginning. In states where the population began to use such automobiles, the government provides grants of several thousand euros per person that is acquiring such a model, to overcome the disadvantage of high price.

Even if the Romanian authorities say they will work on such a plan for Romania, the implementation will certainly take time.

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Currently research into alternative energies are quite profound. The future offers alternatives worthy of consideration. Those who understand the significance of alternative energies will only benefit. Market must respond to customer requirements and to required standards.

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