

## THE RISE OF KOREAN AUTOMOBILE INDUSTRY: ANALYSIS AND SUGGESTIONS

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### ABSTRACT

The Korean automobile industry is one of the largest in the world and is quickly becoming the fastest growing one in the global markets especially after the recent global financial crisis in 2008. It has grown from a small government-controlled industry to large multinational enterprises for the last three decades. This paper will talk about how the Korean automobile industry has risen so quickly in such a short time period. It will discuss how the Korean automobile industry has made huge impact on the global market by analyzing key areas of its operations, such as product diversification, new car development, manufacturing process, marketing strategies, economic and social significance, in addition to SWOT analysis for the comprehensive strategic assessment of the overall conditions around the industry. The competitive analysis of the Korean auto parts industry will be added by using the Porter's Five Forces model. Finally, some suggestions will be made for its continuous growth in the global markets.

**KEYWORDS:** Competitive Analysis, Comprehensive Strategic Assessment, Korean Automobile Industry, Porter's Five Forces, SWOT Analysis.

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### INTRODUCTION

The Korean automobile industry is the fifth largest in the world in terms of the production volume and the sixth largest in the export volume in 2010. In the last three decades beginning in the 1970s, South Korea's automotive industry has risen from a small government-controlled parochial industry to a significant player in the global markets. Three major companies—Hyundai Motor Company, Kia Motors Corporation, and Daewoo Motor Corporation—accounted for about 90 percent of the South Korean market, while the remainder was split among two minor producers and imports. Kia, South Korea's second largest automaker in Korea after Hyundai, was acquired by Hyundai in 1998. The merged Hyundai-Kia ranks the fifth in terms of the production volume after Toyota, GM, Volkswagen, and Ford in the world. Korea is now labeled as one of the most advanced and sophisticated automobile producing countries in the world along with the other super powers like United States, Japan and Germany.

The automobile industry is generally considered as an important measure to gauge the industrial level of a country, as it generates huge added value to the economy in a country. The industry is a prime example for generating economies of scale in the business sense. One vehicle typically consists of over 20,000 parts, each one of which plays a vital role in developing an economy and creating jobs in a country. Accordingly, the automobile industry usually has huge impacts on the economy in any country. Since the automobile industry is a

technology-intensive industry, lots of different technologies developed in other industries can be widely employed in this industry. So, it is a backbone in many countries' economy.

Korea is also emerging as one of the most popular and attractive spots for global auto parts industry since it is strategically positioned between high tech, high priced Japan and developing, low cost China. Hence the biggest advantage Korea has is the ideal balance between costs and quality compared to its competitors. Although the Korean automobile manufacturers' global sales climbed to about 11 percent on average for the last five years, its operating margins have been reduced significantly and consequently profits has decreased by nearly three times faster than the operating margins. These are due to the strong value of the Korean currency against other major currencies, including the US dollar and Japanese yen. The Korean won is about twice as strong as it was after the 1997 Asian financial crisis. The pressure on margins is keeping things tight as the US automobile manufacturers are offering large discounts and the Japanese yen is weakening too. In order to cut costs, most of the Korean automobile companies are renegotiating contracts with the suppliers; and not long ago, in 2009, over eight thousand managers in a Korea automobile company, actually it was Hyundai Motor Company, accepted a freeze in their wages to sustain business in the current competitive markets all over the world.

## **ANALYSIS OF THE KOREAN AUTOMOBILE INDUSTRY**

### **PRODUCT DIVERSIFICATION**

The Korean automobile industry has produced many different types of motor vehicles with high quality at reasonable costs. Most companies have competitive resources, technical, and managerial skills in this manufacturing industry. They have consistently produced them and tried to diversify their products with strong support and collaboration from their suppliers. The existence of all those reliable, dedicated suppliers is one of main reasons why Korean automobile companies could produced various types of automobiles efficiently and effectively in short lead times. But the Korean automobile industry has the best operations in manufacturing automobiles at reasonable costs. There have been many predominant automobile companies in the world which diversified their products, but could not succeed all the way in the global markets. For example, Ford Motors once manufactured tractors and General Motors (GM) manufactured appliances for home and diesel powered locomotives. By the end of the 20th century, however, Ford and GM had divested themselves of most of their nonautomotive operations and had spun off most of their automotive components - making divisions into separate stock companies - Delphi Automotive Systems in the case of General Motors and Visteon Automotive in the case of Ford.

During 1990s, when Korea was growing at a slower pace, it forced most Korean automobile companies to begin divesting themselves from other products they produced and components in which they had long held interests. As a result, by the late 1990s they could enter into international markets and started expanding their business globally with its competitiveness created from such changes. Then, with successful operations in the major global markets, especially in the US markets, after several years, they could introduce various types of products to the global markets.

## **NEW CAR DEVELOPMENT**

New car development was first introduced by Western industries such as Ford and some other European companies. It was largely standardized to most of their markets in the world. When a research for developing a new car is done, it usually takes about five to six years for the car to be produced and marketed. So there is a high level of risk naturally in this venture. So basically all of the functional areas needed in the development stage, such as R &D, design, procurement, engineering, manufacturing, and even accounting and marketing, have to agree on the product. Then they could decide to make a new model to see if it would be a success in the market.

There has been rapidly increased competition around the world in terms of new car development. Korean automobile companies would take a different approach of bringing in auto parts manufacturers, assembling and organizing them from the very beginning stage of the development process. First, they usually try to develop unique relationships with their parts suppliers, which look like a win-win partnership based on long-term contracts, then take those suppliers to every step of the development process by sharing all important information for development, even including target costs and expected margins, etc. In this way, Korean automobile companies could get sincere support and honest collaboration from those suppliers based on mutual trust, so that they could reduce the time of re-designing and re-engineering, and eventually the costs. Those parts manufacturers could also manufacture their products easily and ultimately save lots of money not only in development, but also in production. Finally, Korean automobile companies could lead themselves to reduce the total time needed from scratch to market for a new car to about three years, which is very impressive compared to other competitors. In reality, they would save several millions of dollars and reduce risk significantly in the process.

## **MANUFACTURING PROCESSES**

Manufacturing processes in the automobile industry was pioneered by Henry Ford when the assembly line production concept was introduced for his plants more than hundred years ago. Basically, the same type of production has been used continuously even today with more elaboration and sophistication. Then, from the Japanese manufacturers such as Toyota, the world learned about “Just-in time” and “Lean” operations system. No companies today would like to build a high level of inventory stacked up for the future. This concept enables manufacturers to have an accurate flow of materials through their operations in the plant. In this case, the flow of materials should be smooth. When there is any problem, the Japanese concepts normally allow the managers to stop its operations, which would incur huge losses to the company.

This type of new system leads Korean automobile companies to perfect their control over the subcontractors and the vendors. They usually encourage their subcontractors or suppliers to build up their facility nearby their plants, and some automobile companies would take their sub-contractors and suppliers along with them no matter where they build their plants, domestically or abroad. “In-house manufacturing” of parts takes place practically in the same location by outside contractors. This practice is generally accepted by most automobile companies in Korea, and now very popular among other companies in the world. It helps the company to reduce the cost of the parts, and require less investment of the company. Also, it improves the quality of the parts and shortens the delivery time dramatically. In addition, it enhances communications among all stakeholders.

## **MARKETING STRATEGIES**

While the mass production is still a common practice by the automobile industry in the world, the demand of motor vehicles also increased steadily all over the world. This makes automobile manufacturers concentrate more on the services needed for their products. This is a major factor in instilling confidence to the customers, and it is very much required in order to survive in today's tense competition from all over the world. Since distribution and sales networks are generally very complex and complicated, there is a need of well organized and better equipped after-sales service department. The automobile companies should provide the highest level of services to their customers to win competition against other competitors no matter where they do their business and no matter what products they carry to the markets.

The typical Korean automobile company has a unique system of franchise dealership whereas the manufacturer decides on models and makes that can be sold and serviced by the dealers. Even the quota of cars for sales is also decided by the manufacturer. This helps them in control of services and guarantees proper after-sales service to the customers. In return, the dealers are given a particular region where no other dealers can sell the cars produced by the same company. This approach helps them to enhance their sales without any additional costs of sales. Also manufacturers are responsible for all kinds of promotion and advertisement and help dealers concentrate just on their service facilities. It is a very standardized system practiced in Korea. This unique system helps all the dealers to be united and concentrated on services more than anything else. Also the prices, services, and facilities are all uniform all over the country. This is a healthy competition against rival companies which also follow a similar practice.

## **ECONOMIC AND SOCIAL SIGNIFICANCE OF AUTOMOBILE INDUSTRY IN KOREA**

Korea is predominantly strong in manufacturing automobiles. The automobile industry is one of the most important industries in Korea, and has huge impacts on the Korean economy. It has been a significant part of their exports, like other industrialized countries such as Germany, Japan, United States, Sweden, and Canada. Korea has been a major global force in terms of production volume as well as export volume. Its automobile industry helps Korea in balancing exports and imports.

The Korean automobile industry has further significance to other related industries in Korea. The technological development and advancement in the automobile industry has been enormous, and it helps other industries in many ways. For instance, one third of Korea's rubber production is consumed in its automobile industry. Highly specialized labor trained and technologies developed in the automobile industry are used in other similar manufacturing industries. Shipbuilding has been another industry of excellence in Korea based on those labor and technologies originally developed from the automobile industry. Both automobile and shipbuilding industry help the Korean economy to flourish together. These two largest industries in Korea are closely related to manufacturing and they are technologically advanced equally by complementing each other in many ways. Also other industries, such as transportation, and raw materials manufacturing, have been steadily growing along with the automobile industry. Huge employment in the automobile industry helps Korea increase their per capita income and makes economically strong.

## SWOT ANALYSIS

SWOT analysis is a tool of strategic planning which is used to evaluate the strength, weakness, opportunities, and threats involved in a business or project venture. SWOT analysis involves specifying the goals and objective of the business venture and also identifying the external and internal factors which are either unfavorable or favorable for the company to achieve its objectives. So, the SWOT analysis aims to identify both the external and internal factors which are the essential and critical to the company's operations and practices in achieving its objectives. Therefore, the two main categories in a SWOT analysis are; internal and external factors. The first category, which is the internal factors, comprises of weakness and strength found in an organization. The second one is the external factors, which are threats and opportunities found from the external environment.

Conducting a SWOT analysis for the Korean automobile industry will identify those four dimensions – strength, weakness, opportunities and threats – faced by the Korean automobile industry. It will help in strategic planning and decision-making process based on the weakness and strength of the industry. It can be used to do a comprehensive strategic assessment for the industry. The evaluation and responsiveness will also be assessed by examining the external environment around the industry. So, the opportunities an organization has will be identified and capitalized upon. The potential threats will also be identified which pose future challenges to the industry. Through the analysis, identification and highlighting of the major areas of strengths, weakness, opportunities and threats will make be useful for making adjustments, realignments, and changes in its business strategies.

The analysis will be of vital importance for those interested in learning about the Korean automobile industry and especially for the top management of those Korean companies in making decisions. Other parties who will get benefits from the SWAT analysis include those parts suppliers, potential and current investors, vendors, the individual company's analyst group, and those associated with the Korean automobile industry.

## STRENGTH

The Korean automobile industry's major strengths are its efficient R&D process, strong global networks, and the wide range of products covering the major niches in the global markets. Most of Korean automobile companies are now producing various types of reliable and reasonable automobiles in the low price range and is trying to compete against the world's best companies even in the high-end luxury markets based on its fast development of luxury cars from strong R&D as a fast follower. We could see them as a major player in the global markets especially after the merger of Hyundai and Kia in 1998, and we can recognize them as a global force now and even a global leader in the future. It is one of the biggest strengths they possess. They are producing high quality cars at a very reasonable price which makes exceptionally competitive in the global markets. They used to be known just for their price competitiveness based on cheap labor, raw materials, and low cost parts. However, now their competitive edges include not only reasonable costs, but also much improved quality as well as advanced technologies producing fuel-efficient automobiles. Korean companies basically try to carry their vendors, subcontractors wherever they go. This enables them to show how they value their importance in every small thing they do. Now Korea is planning to sign a FTA (free trade agreement) with the US government which would allow them sell their products more in the US markets. The Korean automobile industry expects their sales to increase to about \$1 billion in three years once the



FTA is signed. The FTA with the US should provide a great opportunity for Korean automobile companies to move to the next level of their business operations. It will open up the US markets more freely to them. These are some strengths the Korean automobile industry possesses.

## **WEAKNESS**

The Korean automobile industry's most serious weakness is strong movements by hard labor unions in Korea. The labor union movements are generally very strong and hostile especially in the Korean automobile industry, which hurt not only those companies' business, but also the Korean economy seriously. There has been no single year in the last eleven years without labor unions' strikes in the Korean automobile industry. It looks like an annual event, shutting down many plants among all those large automobile companies in Korea for a long time every year. The next one is that there are highly unexpected fluctuations of the value of the Korean currency, which would affect their exports and imports. The uncertainty regarding the value of the Korean won makes Korean companies vulnerable in their international markets. Since most Korean companies rely heavily on foreign sales, their operations and production are affected significantly by the value of their currency. Another weakness is the lack of brand awareness worldwide. For example, customers in major international markets, especially in the US markets, see Hyundai, the largest Korean automobile manufacturer, still as a cheap automobile producer. They still have a perception that Korean made automobiles are cheap ones. In other words, Korean automobile companies are generally known as cheap producers. Even though they are transforming their companies to quality manufacturers, the brand awareness is not yet strong in the market. So, high brand awareness will be a key for the future, and it is one of the most serious problems Korean automobile companies must try to solve sooner for their long run benefits.

## **OPPORTUNITIES**

The opportunities available for the Korean automobile companies are the rising demands of Korean automobiles in many new markets which will help Korean companies improve their global market shares. More exactly, a promising opportunity for Korean companies exists in the Association of Southeast Asian Nations (ASEAN) markets as well as in India, Brazil and Russia with the increasing demand of especially small cars with excellent fuel efficiency. This will lead them to build products with high fuel efficiency. Even in the US market with high fuel costs now, the demands of those fuel-efficient small cars are significantly being increased. The Korean automobile companies are very strong especially in this market segment with all technical, economical advantages for producing such small cars. This is one of the reasons why Korean automobile companies' sales are significantly increased while many rival companies' sales are dropped recently in the global markets overall. Developing new technologies for fuel efficiency and "green" cars and competing against the current global market leaders now shows the Korean companies' resilience to be on top of its game through implementing a successful business strategy and to be capable of building a string of high class products which makes those companies compete against their rivals successfully in the global markets.

## **THREATS**

The Japanese automobile industry, one of the biggest rivals to the Korean industry, still remains as one of Korea's prime threats. The technology gap in some core items

especially for luxury cars between Korean and Japanese (as well as European) companies would be a main threat in the future. Korean auto manufacturers are still finding it hard to bring luxury cars to competition against those global leaders. Hyundai brought Genesis which offers more luxury for the price, but could not sell as many as they expected in those high-end markets so far. The Japanese trio of luxury, Lexus, Infiniti, and Acura, are very strong in those global luxury car markets. The European trio, Mercedes, BMW, and Audi, are heavily demanded globally. This gives a big threat to Korean manufacturers in expanding their business to luxury product lines. Also as gas prices rise continuously with the exhaustion of fuel resources in the world, global leaders are spending more resources in their research for developing vehicles with other kind of fuels. So, Korean companies should do more research for bio-fuels or any alternatives with renewable sources of energy. Since the other global manufacturers have already introduced new vehicles for the next generation successfully, such as hybrid vehicles and electric cars, the Korean automobile industry should conduct more research for developing those types of new technologies and vehicles. This will be another threat to the Korean automobile industry.

The following chart shows the SWOT analysis of the Korean automobile industry discussed above.

<p style="text-align: center;"><b>STRENGTHS</b></p> <ul style="list-style-type: none"> <li>• Price competitiveness in terms of highly skilled workers, low cost parts and materials</li> <li>• Diversified export markets</li> </ul>	<p style="text-align: center;"><b>WEAKNESSES</b></p> <ul style="list-style-type: none"> <li>• Brand Awareness</li> <li>• Labor Union Issues</li> <li>• Immature parts and raw materials industry</li> </ul>
<p style="text-align: center;"><b>OPPORTUNITIES</b></p> <ul style="list-style-type: none"> <li>• Successful launches on site production</li> <li>• Geographical proximity to Chinese markets</li> <li>• Potential market for ASEAN</li> </ul>	<p style="text-align: center;"><b>THREATS</b></p> <ul style="list-style-type: none"> <li>• Saturated domestic market</li> <li>• High dependency on exports i.e., overseas market</li> <li>• Rise of other Asian manufacturers</li> <li>• Technology gap to advanced countries</li> </ul>

The auto parts industry is another important industry, which is critical in manufacturing quality automobiles. The growth of the automobile industry in a country depends largely on the quality of auto parts produced in the country. It is critical for a nation which would like to develop a strong automobile manufacturing industry to have a reliable auto parts industry. So, analyzing business climate of the auto parts industry is a key for understanding how to develop a world-class auto industry with sustainable growth in a country. As mentioned earlier in this paper, Korean automobile manufacturers usually take most of their major suppliers wherever they go in the world. It is very important for

automobile manufacturers to have reliable suppliers near by their plants for many competitive reasons. In the last two decades, Korean governments and large automobile companies, such as Hyundai and Kia, have invested a lots in developing reliable, high-quality auto parts and sub-assemblies with technical supports from many research institutions and academic organizations. Many of Korean auto suppliers are now producing high-quality parts not only for their domestic auto makers, but also other world-class makers in the world. Actually, according to the recent data, the Korean auto parts industry now outgrows the Korean automobile manufacturing industry. Especially after the global financial crisis in 2008, many auto parts producers in other countries, such as Japan and the USA, went bankrupt due to low demands of their products. However, Korean auto parts producers are enjoying great businesses as the Korean automobile companies are breaking their sales records every year. Furthermore, also those global leading auto makers, including Volkswagen, BMW, Mercedes, GM and Ford, have decided to buy more parts from Korea instead of China since they couldn't trust the quality of Chinese made parts with some serious quality problems they had with those parts from China used in their products.

### **PORTER'S FIVE FORCES**

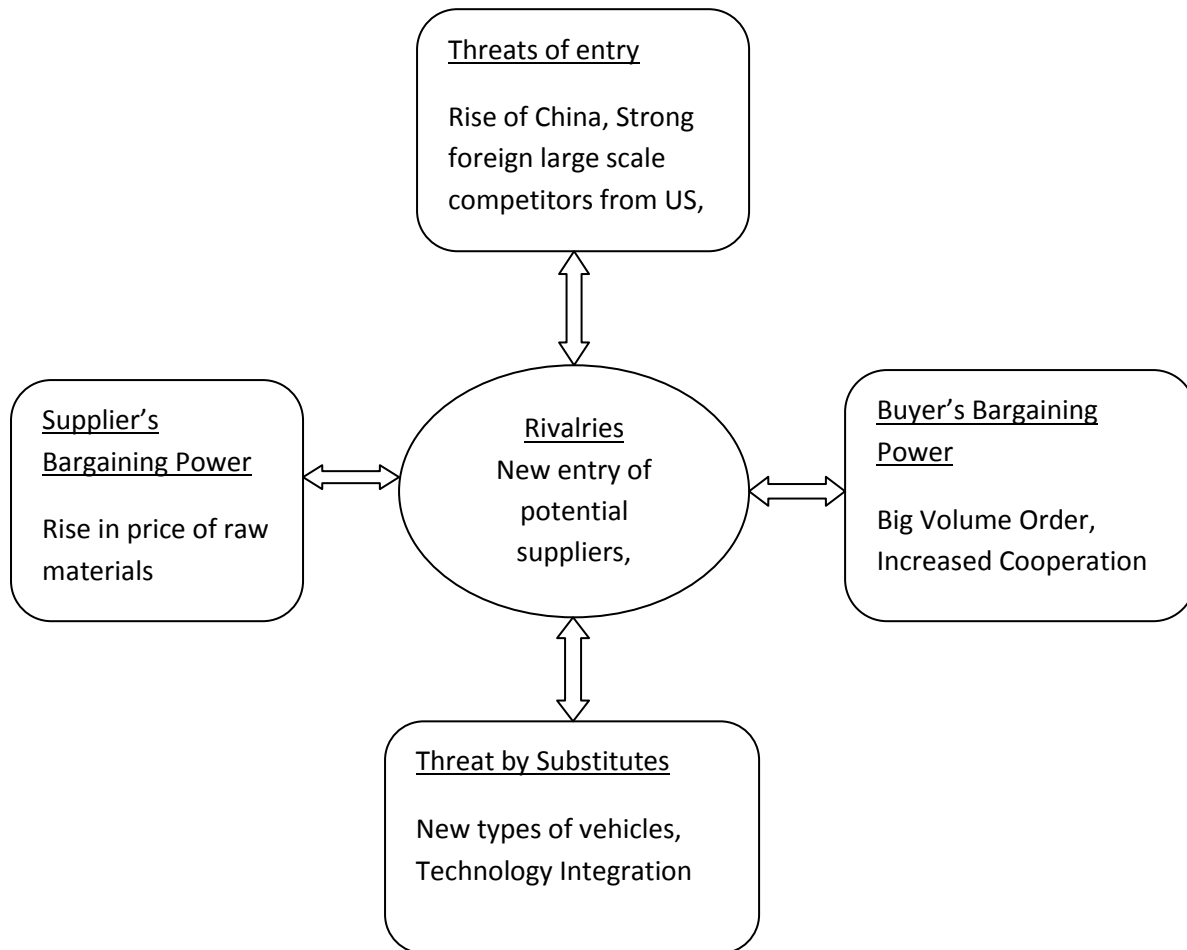
The Porter's competitive analysis model with "Five Forces" is a framework which describes about the environment surrounding an industry. The "Five Forces" are: the threats of entry, the bargaining power of suppliers, the bargaining power of the buyer, threats by substitutes, and the intense rivalries from the competitors.

In the auto parts industry, Korean manufacturers are in a difficult position in the global markets because of Chinese competitors. China has been dominant in this industry for the last few years, and it is very hard for other countries to enter in this industry and compete against the Chinese producers. They used to be a big barrier for Korean manufacturers to enter in this business. Also the rise in prices of raw materials plays an important role in determining the bargaining power of suppliers. It is true in marking to say "the bigger the orders the better the price is". The same thing goes with the buyer too. The bargaining power of buyer is determined by a big volume order and increased cooperation. For this reason, Chinese manufacturers can enjoy their competitive advantages over other competitors.

Also there is a threat in terms of the substitutes. When there is a new product which can substitute existing products, it would have a big impact on the market. For example, hybrid and fuel cell vehicles are becoming popular globally and are growing as the time goes by with the steady rise of gasoline price. As everyone knows about the exhaustion of oil resources and the skyrocketing price of oil now in the world, there is an imminent chance of a substitute rolling out soon. This should also be considered in the Porter's competitive analysis here for the Korean auto parts industry.

Below is the diagram which shows Porter's five forces for the Korean auto parts industry.





According to the diagram above, the Korean auto parts industry still has an excellent chance of becoming a global leader in this industry since there are more advantages than disadvantages or barriers. Obviously, the positive side of its business climate outweighs the negative side. Actually, many experts and scholars say that the Korean auto parts industry has more and better opportunities than the Korean automobile manufacturers for being a global leader based on all their analyses. Also, many business predictions support those experts and scholars' claim, saying that high potential of sales increase will exist in the auto parts industry compared to the automobile manufacturing industry all over the world. Less competition will be expected in the auto parts industry while there will be more competition in the global automobile manufacturing industry in a near future.

## CONCLUSIONS

The Korean auto industry is one of the most flourishing industry in the world right now. It has been doing very well with the steep competition against the global leaders from Germany, Japan, and USA. It has also reacted well to challenges from other new competitors from Asian countries, mainly from China. In spite of severe competition and tough challenges in the global markets, which gives serious threats to the Korean automobile companies, overall the Korean automobile companies have done outstanding jobs so far, and are taking a right direction to the future with ambitious but attainable goals based on well-calculated aggressive strategies.

The Chinese economy has grown dramatically for the last twenty years, and without any doubt it will be continued for a while. This should be not only a great opportunity, but also a big threat to the Korean automobile industry. The booming economy in China will provide bigger Chinese markets to Korean companies. Hyundai and Kia are doing very well in China now, and there will be no reasons why they cannot continue such success in China in the future. However, at the same time, the strong Chinese economy will help China develop its own automobile industry with many other related industries developed well. Furthermore, with its strong economic power, the Chinese automobile industry will threaten the Korean automobile industry more seriously in the future based on its national industrial policies and huge domestic markets more favorable for its own domestic companies. However, most of Korean automobile companies are still and will be for a while competitive especially against those Chinese companies since Korean companies are still in a much better position with several competitive edges in key areas, such as design, engine, and electronics, and it is very hard for Chinese companies to catch up in those areas in a short time period.

Most of Korean automobile companies will firmly remain competitive in China as well as other major markets in the world, while they still have room to be advanced further with its invaluable supports from other industries Korea has strongly in the global markets, such as steel, electronics, information technology and chemical industry. Overall Korea is now very dynamic and competitive globally especially after the global financial crisis in 2008 because it has well-diversified, strong and competitive industries in many areas. Korea is now well known economically with its world-class industries, such as shipbuilding, electronics, petrochemical, information technology, and steel industry. For example, producing the next generation fuel-efficient automobiles generally depends more on such high-tech industries, including information technology and electronics, than the traditional heavy industries. Absolutely, Korea has competitive edges over China and many other countries in those high-tech areas now. It will not be changed in a short time period since it takes a while to upgrade the structure of national economy based more on high-tech industries. Also, the China automobile industry needs more time to improve quality of auto parts, enhance supply chain management as well as marketing and so on. More importantly, China needs more technologies and experience of developing its own models of vehicles with advanced design capacity. Especially the design capacity with own models is the most difficult area to develop and advance in manufacturing automobiles. The Korean automobile industry will do much better performances than the Chinese in this critical area for a while. The Chinese automobile industry could develop its design capacity with its financial supports from its government. But still it will take a while to introduce its own models of reliable quality automobiles to the global markets.

Overall it is fair to say that the Korean automotive industry has achieved lots of positive recognition in the global markets, and overcome barriers that at one point may not have seen reasonable to attain. At the same time, it is also true to say that it is not easy to become the global leader in the global automobile industry, but by taking the appropriate steps based on the SWOT analysis as well as competitive analysis, it should be attainable to become a global leader in the markets all over the world. Economically, it was not easy at all for the Korean automobile industry to position itself as one of the fastest growing competitors in the global markets and become the world's fifth largest producer today. It is remarkable to think back of how it used to be and see how it has been transformed into a leader in the global markets in a short time period. The Korean automobile industry may not be the absolute top leader now, but if it continues to make strides in the future as it has done in the past, it should not come as

a surprise when it knocks out other competitors from the top spot sooner or later. The Korean automobile industry is providing each and every year they have what it takes to be a leader. It has the capabilities to become the dominant power in the global markets. It just needs to make sure that it has a strategic plan, which was developed by reflecting all competitive advantages and edges from the SWOT analysis as well as the competitive analysis, to allow the Korean industry to keep succeeding continuously.

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