Thammasat University

Introductory to Thai Economy

Automotive Industry Thailand

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Automotive Industry Introduction

At first it is important to understand what in particular the automotive industry is and which range of companies and organizations are involved in it. Briefly, there are certain areas that appear in almost every industry that is related to machines, such as the design, development, manufacturing, marketing and the Sales. Whereas in the past usually one automaker was involved in all of those processes, the advancing globalization and strive for efficiency and competiveness has changed the whole industry. Trends are going towards bigger car manufacturers which are acquiring smaller companies that are not competitive enough. The following diagram gives a broad overview of the world's three major car companies. (1)

Table 1: The three major car manufacturing groups. (2)

Toyota Motor	General Motors	Volkswagen Group
• Toyota	• Buick	• VW
• Daihatsu	• Cadillac	• Audi
• Lexus	• Chevrolet	• Bentley
• Scion	• GMC	• Bugatti
• Hino Motors	• Opel	• Lamborghini
	• Vauxhall	• Porsche
		• SEAT
		• Skoda
		• MAN and Scania

Those three big companies have acquired many smaller brands over the years and own shares in other car related companies as well.

Since the main point in the car industry is about innovation and efficiency to construct inexpensive and versatile vehicles, it is necessary to combine knowledge and outsource certain areas to those who are specialized in it. A brief look into the process of creating new cars shows that there were humongous changes over the past years. Before the change, each car manufacturer took their developments as secrets and released just a handful of models. Nowadays the increasing demand and strive for individualism of customers gives car manufacturers more pressure. The need of more models and features is confronting shorter product life cycles. To solve those problems major research and development tasks were not done by the car manufacturers themselves but by the supply industry. Those are working in order for the big companies and are heavily involved in the R&D as well as the production of various parts. It is common that those companies serve competitors at the same time. They specialize in a certain part of the car, so that they can lower costs and increase innovation. Many experts say that the importance of supplier has increased drastically.

But not only the R&D, Finance, Marketing and even more are taken care of by other companies. Due to high labor costs in the developed countries it becomes harder to stay competitive, outsourcing of the production is widely common among all manufacturing industries. It starts with car manufacturers outsourcing their labor intensive processes that do not require high tech machines and knowledge. After producing those parts, the car would be assembled in the origin country. The low labor cost countries develop quite fast, so it becomes possible to produce more sophisticated parts abroad.

When a stage in terms of GDP per capita and some certain macro-economic conditions is reached, car manufacturers try to enter those countries markets. However, many of those countries see the “threat” of importing foreign assembled cars and levy high tariffs. To avoid those high tariffs it is a common practice to commit joint ventures with a local partner and set the assembly in the prospective market, so that both countries can benefit from each other.

Production

This work will concentrate on Thailand and Germany. Thailand is a great example of a country which started as a low labor cost manufacturer in the automotive industry. Thailand quickly developed into the biggest car hub in South East Asia. Furthermore it has a huge potential car market and is located in the heart of South East Asia which makes it convenient to export within this area. The labor costs are still low and Thailand has proven great stability over many years. It is no longer a secret that most car manufacturers are highly interested in Thailand as a place to produce and sell their products.

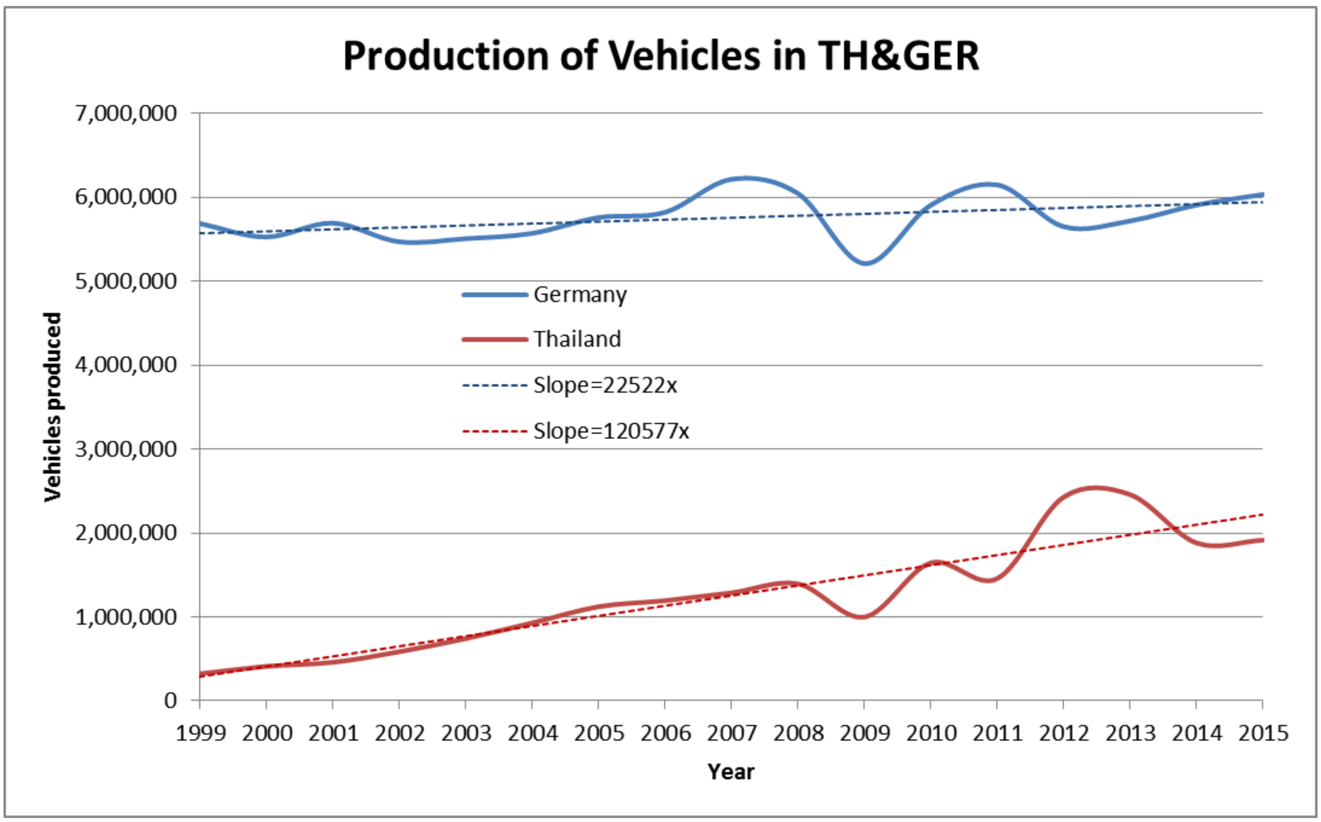

Figure 1: The production of Vehicles in Thailand and Germany, including trend line. (3)

Even though both countries have completely different roles in the car industry it can be seen that their vehicle production is increasing overall. It is to mention that Germany started from a higher level back in 1999 when it comes to production. However, Thailand was able to increase their car production by 6 times. Therefore its slope is around 5 times higher than Germany's. Both countries are highly affected by the world market when it comes to their production, many factors such as worldwide demand of cars, economic situations etc. have to be considered. That is why both countries have a slump in the year 2009 where the global financial crisis occurred. The negative effect on Germany's vehicle production was more severe due to a different export market.

Thailand's 2011 slump is a result of the flooding that took place; especially the production areas in Ayutthaya and Pathum Thani were affected.

Growing Car Market

Vehicle manufacturing can roughly be divided into the passenger cars (PC) and commercial vehicles (CV).

Germany, as one of the leading car manufacturing nations, provides a large number of cars produced. The term produced is referring to cars that are assembled in Germany/Thailand, no matter where the parts are produced in.

The strong upward trend of Thailand is showing its potential in this industry. The induced volatility of world events is similar in both countries, which is proving Thailand's stability as a manufacturer.

Another aspect that will be more focused on is the Thai car market. Thailand's demand is growing and car ownership is becoming more desired than ever. This trend is being reflected in the motorization rate, which is calculated as number of vehicles per 1000 citizen.

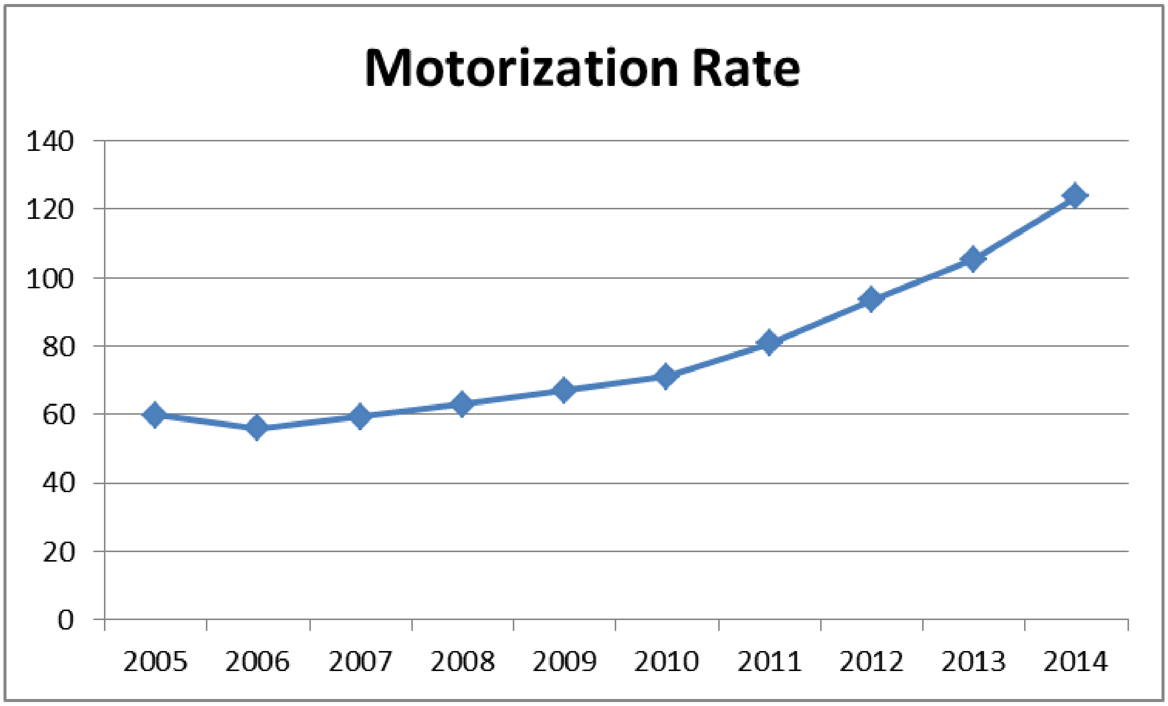

Figure 2: Motorization Rate, number of vehicles per 1000 citizen. (3)

The increase of car ownership is exponential. In 2014 a motorization rate of 123.75 is reached, at the same time Germany's rate is 548.3 and has not significantly changed over the last 10 years.

So far Thailand's high car demand has been satisfied with those who could adapt quickly and provide the products that were needed. Honda and Toyota could introduce market specific low cost cars. Their reputation for being as good as needed while providing a great endurance made those two manufacturers so successful in Thailand. Different market demands in terms of the use of cars can also be seen in a comparison of passenger cars (PC) and commercial vehicles (CV).

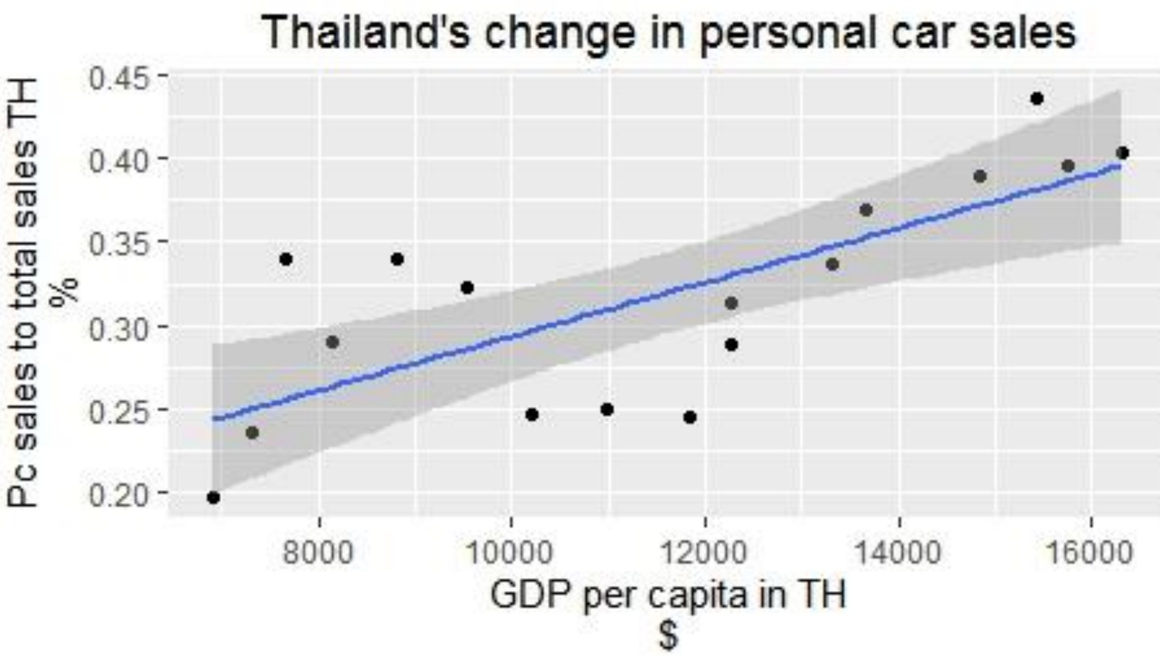

Figure 3: Change in the number of personal cars sales, in relation to total car sales, in Thailand to the GDP per capita in Thailand. Including a trend line and 95% confidence interval. (3) (4)

Commercial vehicles are clearly dominating Thailand's production which is also relatable to its own car demand. Especially light commercial vehicles such as pickup trucks are dominating Thailand's car market. They are cheap, enduring and highly versatile in use. Thailand has partially rough road conditions and a high amount of small business owner. Cars are still a major investment for a majority of the working population; therefore it is often seen as a multi-functional investment. Transportation of all kind of goods and persons is rather easy due to the cargo area.

In Germany, where 90% of the productions are personal cars, small business ownership has significantly decreased over the years due to huge corporations out pricing smaller companies and globalization putting its pressure on.

With the further growth and increasing wealth of Thailand the amount of personal cars in relation to commercial vehicles is increasing.

The following part shows the position of different car manufacturers in Thailand's and Germany's car market. To simplify and achieve better results car manufacturers have been divided into 4 groups. Japanese car maker include Honda, Toyota, Nissan, Mitsubishi, Suzuki, Mazda, Lexus, Subaru. U.S. car manufacturers are including Ford, Chevrolet, Opel and Fiat. German car manufacturers that include Mercedes-Benz, BMW, Skoda, VW, Audi, SEAT and other car manufacturers that consist of the remaining brands.

The diagram clearly shows who is dominating Thailand's as well as Germany's car market. Thailand does not have their own brand yet, therefore cars that suit the country's demands most are winning the battle of market domination. As mentioned before, Japanese car manufacturer, especially Honda and Toyota have customized products for Thailand's demand. U.S. car manufacturer mostly rely on sale of their pick-up trucks, which is decreasing over Thailand's economic development as the figure above is showing.

This work focuses German car manufacturers. So far Germany has only two major brands selling in Thailand; BMW and Mercedes. Both of those brands offer upper class and premium class personal cars. Low costs transportation cars or pick-up cars are not in their product series and yet their increase in market share is outperforming other brands. This says a lot about Thailand's change of demand, as Figure 3 is already inducing. Further development, more environmental consciousness and more people moving from rural areas in metropolitan areas like Bangkok are the cause of it. Taking Bangkok as an example where cars are gaining more importance for private transportation, social status, individualism and the idea of independent mobility, is the center of a changing demand. In the year 2014 Germany has taken over U.S. car manufacturer's position in the market. There is a high probability that Germany's share of the car market is further increasing, in line with growing wealth and changing minds in Thailand. There is an additional factor that might have drastic influence on Germany's position in Thailand.

"Volkswagen won approval from Thai authorities to build a manufacturing plant for fuel efficient cars near Bangkok after months of delays" (5)

If Volkswagen can enter the market it would provide cars that are no longer just upper class and premium class vehicles. Volkswagen is known for its huge variation within middle class cars. This can be a game changer within Thailand's car market.

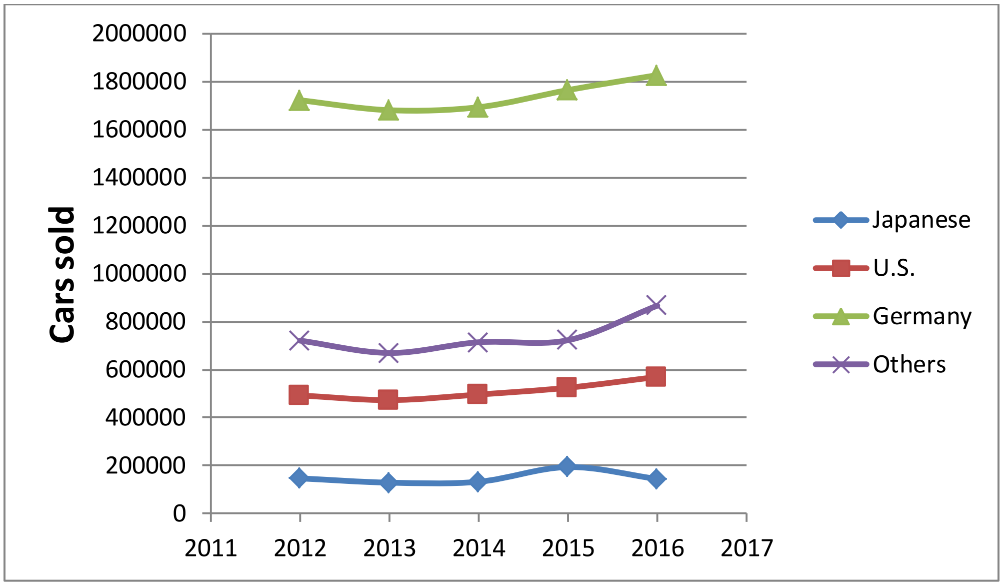

Figure 4: Cars sold in Germany, divided into their brands origin. (3)

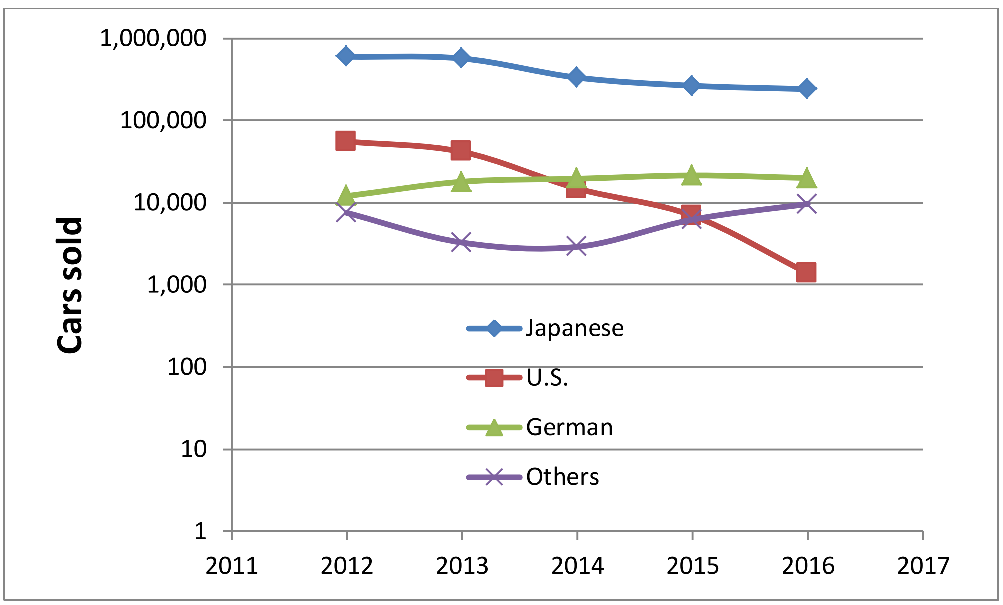

Figure 5: Cars sold in Thailand, divided into their brands origin. (3)

Conclusion

Thailand is South East Asia’s car hub; it is providing stability and a good labor environment. Their location in the heart of South East Asia brings competitive advantage over other countries in terms of transportation costs. As a location for production with a non-saturated car market it provides a great investment opportunity for foreign brands. The transition towards high efficiency and even eco-friendly vehicles is probably coming within the next years. It is hard to give a forecast in terms of years because the car industry is changing at an increasing speed. A few very important factors that play a significant role in Thailand’s car industry development cannot be directly influenced by car manufacturers. Those factors are for example the road infrastructure, traffic and emission regulations and last but not least the economic development of Thailand.

The amount of government spending that is invested in transportation infrastructure should be increased and with the time it will become necessary to regulate rules that concern car use within city areas. Many countries, e.g. Sweden, Germany, etc. are trying to advertise efficient cars with increasing tax burden for high emission cars and requiring modification such as carbon-particulate-filter. Furthermore, to prevent severe traffic congestions, there are limitations of vehicle use within city areas, such as limitations based on CO_2 emission or the raw, and more or less random, limitation of vehicle use. (Shanghai, Shenzhen, Beijing).

Thailand is in a great and prosperous position to approach its transportation issues. Many regulations and sustainable alternatives have been implemented and documented in other countries already. This way they can prevent major mistakes and bad decision making.

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