# Automobile industry of japan essay sample

Business, Industries



Firstly, I would like to explain the Porter's Diamond model. Porter's Diamond model is to explain why a nation achieves international success in a particular industry. Porter theorizes indentified four broad attributes as constituting the diamond which are Factor endowments, Demand conditions, Relating and supporting industries, Firm strategy, Structure, and rivalry. These attributes can promote or impede the creation of competitive advantage. Hill, Charles W. L.(2011); Porter M. E. (1990)

Factor endowments refers to a nation's position in factors of production necessary to compete in a given industry. It can lead to competitive advantage. Factor endowments distinguishing between basic factors (natural resources, climate, location, and demographics) and advanced factors (communication infrastructure, sophisticated and skilled labour, research facilities, and technological know-how)

Demand conditions refers to nature of home demand for the industry's product or service. The nature of home demand for the industry's product or service influences the development of capabilities. Porter emphasizes the role home demand plays in upgrading competitive advantage. If the domestic consumers are sophisticated and demanding, it creates pressure to local firms to meet high standard of product quality and to produce innovation products.

Related and supporting Industries also a national advantage in an industry. The presence supplier industries or related industries that are internationally competitive can spill over and contribute to other industries. Successful

industries tend to be groped in clusters of related industries. This was one of the most pervasive findings of Porter's study.

Firm Strategy, Structure, and Rivalry explains the conditions governing how companies are created, organized, and managed, and the nature of domestic rivalry. Porter makes two important points, First is different nations are characterized by different management ideologies, which either help them or do not help them to build national competitive advantage. Second is that there is a strong association between vigorous domestic rivalry and the creation and persistence of competitive advantage in an industry. Vigorous domestic rivalry induces firms to look for ways to improve efficiency, which makes them better international competitors because domestic rivalry creates pressures to innovate, to improve quality, to reduce costs, and to invest in upgrading advanced factors. All this helps to create world class competitors.

In additional, Government policy and Chance are two additional variables can influence the national diamond in important ways, since government can affect demand through product standards, influence rivalry through regulation and antitrust laws, impact the availability of highly educated workers and advanced transportation infrastructure.

# Description of the industry

Nowadays, automobile industry is one of the Japanese economy's core industrial sectors. Automobile manufacturing integrates many supporting industries. Automobile use is the focus of a wide range of related industries.

About 9% of Japan's working population directly or indirectly works involved in auto industry related work. Auto production accounts for 16% of the total value of Japan's manufacturing shipments and for 37% of the value of the machinery industries' combined shipments. (The Japan Automobile Manufacturers Association, Inc)

In the past of late 19th century, Japan was opened to foreigners for trading and their industry began to grow quickly until 1930s it became a major industrial nation. However, during the Second World War in 1945 American army threw two atomic bombs in Hiroshima and Nagasaki, these two bombs taken away possibly 600, 000 Japan civilian lives and most of Japan's industry was destroyed. Thereafter, Emperor Hirohito authorized a surrender whereby he was allowed to retain his throne as a symbol of national unity, but it was occupied by America and with no actual power.

After the collapse of the Empire of Japan, Americans arrived and transformed Japan into a peaceful democracy state with a revised democratic Constitution of Japan. During the postwar period, Japan became an economic power state and was placed under international control of the Allied powers. American General Douglas MacArthur became Supreme Commander of the Allied Powers. He aimed to rebuild Japan. In 1949s exchange rate between America and Japan is fixed at 1 USD: 360 JPY. This devalue exchange rate is an absolute advantage for Japan rapid rebuilding their economy and nation because it makes Japan products more competitive in world markets and provides more employment for Japan export industries. Besides, Japan had to pay reparation to the America in manufactured goods instead of money

which stimulated the development of Japan industry especially in automobile industry.

Since then, automobiles changed the culture and lifestyles of the Japan's people tremendously, serving both as a transportation medium and as a means of communication. At the same time, by creating a wide variety of related industries for the manufacture and servicing of motor vehicles, automobile production grew to become one of Japan's leading industries.

In the following, I would like to apply Porter's Diamond model to explain why Japan achieves an international success in automobile industry and how the aforesaid attributes promote or impede the creation of competitive advantage in automobile industry.

### Factor endowments

Japan is an island nation in East Asia located in the Pacific Ocean, it lies to the east of the Sea of Japan, China, North Korea, South Korea and Russia, stretching from the Sea of Okhotsk in the north to the East China Sea and Taiwan in the south. It consists of four major islands, Honshu, Hokkaido, Kyushu and Shikoku and surrounded by more than 4, 000 smaller islands with total 377, 873 square kilometers land area and has the world's tenth-largest population, with over 126 million people. Japan National Tourism Organization (2012)

Automobile industry production highly depended on raw material and power supply as vehicle was made by steel. Basic factor of endowment for iron and steel industry was definitely an initial advantage for developing Automobile

industry in Japan. This initial advantage that is subsequently reinforced and extended by investment in advanced factors.

Despite, Japan has limited natural resources, but in the past there are some iron and coal ores located Muroran of Hokkaido, Kamaishi of Honshu and Kitakyushu of Kyushu. Before the Second World War, Japan's iron and steel industry was located in these regions since early iron and steel industry was both raw material-oriented and power-oriented, as 2 tons of coal and 1. 5 tons of iron ore were needed to make one ton of steel. Therefore, iron and steel industry minimized its transport cost by locating near the sources of power supply or raw material supply. Being a weight-losing industry in steel and car production, at that time, a coastal location of Japan also is an advantage for minimizing transportation cost by locating near the sources of power supply or raw material supply. Bunnett R. B.(1997)

Nowadays, as the local supply of coal and iron ore have been depleted, Japan has to rely on imports from other countries. They imports most of its coal from Australia and most of its iron ore from Brazil and Australia. Besides, the usages of scrap iron as a raw material also a method to solve lack of mineral resources problem. Therefore, a deep and sheltered harbours with good port facilities become important infrastructure which is an advantage in advanced factor of endowment that allows big bulk ocean carriers transportation at low cost.

Because of disadvantage in basic factor in Japan that lacks of arable land and mineral deposits and yet through investment has built a substantial endowment of advanced factors. Porter M. E. (1990) notes that Japan's large

pool of engineers (reflecting a much higher number of engineering graduates per capita than almost any other nation) has been vital to Japan's success in many manufacturing industries.

Engineers can develop and improve in technology to increase the efficiency of production and transportation, like they improves the methods of smelting that reduces the amount of coal and iron needed, keeps develop and improve technology in many manufacturing industries like automobile and shipbuilding industries which led to a success.

Skilled labour also an advantage in advanced factor of endowment as Japanese with strong preference to work, loyalty and vertical society based national culture and most of Japanese company manage and treat their worker as most valuable asset. They hire individuals straight from school or college and employ them as far as possible until retiring age with "lifetime" employment. Such that worker feel that the company has a commitment to keep them employed, this gives them the confidence to release the 'tacit' knowledge, or basic know-how and share any untapped knowledge which often cannot be easily articulated. Stuart Wall & Bronwen Rees (2004)

Therefore, the initial natural resources of Iron and coal mineral deposits, coastal location and largest population provided competitive advantage in basic factors and engineers and skilled labour provided competitive advantage in advance factor of endowments for automobile industry.

Demand conditions of automobile industry is high, Japan has the world's tenth-largest population, with over 126 million people. The home demand for

automobile industry's product or service is supported by size of the market which influences the development of capabilities. According to Fitch Ratings report (2011) In Japan, the Number of Cars per 1000 Inhabitants was nearly 600 units in 2010 that is the second highest vehicle ownership rate and there are extra demand was boosted from customers looking to buy before the expiry of subsidies. Fitch Ratings (2011)

Besides, Japanese demanding for high quality product that means domestic consumers are sophisticated and picky. For example, Porter notes that Japan's sophisticated and knowledgeable buyers of cameras helped stimulate the Japanese camera industry to improve product quality and to introduce innovative models. This sophisticated demand preference also can be found in automobile industry. It creates pressure to local firms to meet high standard of product quality and to produce innovation products. This role of home demand plays in upgrading competitive advantage. Hill, Charles W. L.(2011)

# Related and supporting Industries

The presence of iron and steel industry and parts industry are closely related and supported automobile industry. Firms can obtain a stable supply of raw material e. g. steel from upstream industry supplier and finished parts for assemblers that are an internationally competitive can spill over and contribute to the industries.

Japanese auto assemblers maintained cooperative relationships with each supplier, while at the same time they can enjoy benefits from supplier competition. Knowledge of how to improve product quality acquired from

one firm was effectively redeployed to improve product quality for other firm. Since there are numerous engineering tests after integrating parts supplied into a system product or vehicle product that can benefits to the industries.

Nobeoka, Kentaro; Dyer, Jeffrey H (2002); Sambharya, Rakesh B (2006)

Firm Strategy, Structure, and Rivalry

There are seven groups of automobile assemblers in Japan: the Toyota group, the Nissan group, Honda, Mitsubishi, Mazda, Suzuki, and Isuzu. They are domestic rivalry against each other. Government of Japan let them free competition against each other within domestic market, such that vigorous domestic rivalry should induces firms to look for ways to improve efficiency, to innovate, to improve quality, to reduce costs, and to invest in upgrading advanced factors to gain profit and market share in intensive domestic competition. This policy stimulates and makes them better in facing international competitors in worldwide market because the best firms can be created from domestic rivalry pressures and standout to be a world class competitor. This is a method call "constructive destruction". Weak firms will fade out in the industry and market by themselves and only the strongest firms can survival.

Toyota Motor Corporation is a successful example, in 2008 Toyota with "AAA" rating, Fitch Rating expectation that the company will retain its leading global position based on its ability to continuously release a wide range of attractive vehicles for the major markets; its advanced technologies; efficient production lines; and solid financial flexibility. Fitch Ratings (2008)

Besides, there is a strong association between vigorous domestic rivalries, they set up Japan Automobile Manufacturers Association, Inc. (JAMA) since 1967 which comprises Japan's fourteen manufacturers of passenger cars, trucks, buses and motorcycles. JAMA works to support the sound development of Japan's automobile industry and to contribute to social and economic welfare. It creates the persistence of competitive advantage among the automobile industry. Japan Automobile Manufacturers Association, Inc. (2012)

Government policy and Chance are important attributes, Japanese and its government never accepted the laissez faire capitalism of western nations, they adopted their own government guided industry which has been extremely successful. Japanese automobile industry developed a comprehensive structure of protection from foreign imports and capital investment at an early stage also helped the industry through financial assistance, subsidy and trade protection e.g. guota, tariff and tax. Meanwhile, Japanese government imposed a high tariff rate on import automobile and then subsidy development of their industry in other country e. g. U. S. A. Such that, Japan automobile industry enormous growth in domestic market and can standout in the world Market.

However, chance work is not good to Japan automobile industry, their auto supply chain was affected by earthquake in March 2011, sales during quarter 2 & 3 of 2011 showed significant declines with year to October domestic sales down 20% this earthquake severely disrupted the Japan's economy. Besides, the brake systemic failure matter also disrupted consumer

confidence in Japan automobile. Indeed, the production could be further affected in short term due to impact of the Thai flood. Japan automobile industry is facing a bad time in this several years. Fitch Ratings (2011) The aforesaid four attributes with government policy, and chance work can reinforce the system, they complement each other and in combination creating the conditions appropriate for competitive advantage.

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