

The Growth of the Automobile Industry

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Abstract

During the last decade, the advancement in production and management systems has revolutionized the automobile industry. The industry has witnessed the opening up and growth of several emerging markets. The automotive industry is now facing new and pressing challenges. Globalization, digitalization and increasing competition in the market are changing the face of the industry. Size of the organization is no longer a guarantee of success. Only those companies that find new innovative techniques to create value can prosper in the future. The purpose of this paper is to present a short overview of the automotive industry today and highlight challenges that are faced the industry. We are also going to overview Toyota's dominance in the US market, strategies used by them and how they were able to overcome the challenges and competition they faced in a foreign market, and how upcoming automobile companies can use Toyota's strategies to grow in the current market.

Keywords: Automobile industry; Industry analysis; Toyota

Introduction

The automotive industry is facing new and pressing challenges. Globalization, individualizations, digitalization and increasing competition are pressing the face of the industry. In addition, increasing safety requirements and voluntary environmental commitments by the automotive industry have also contributed to the changes ahead. Being a large automobile firm does not guarantee success. Only those companies that are able to innovate and find new ways to create value are able to prosper in this market. The purpose of this paper is to present a short overview of the automotive industry today and highlight challenges that the industry is facing [1-3].

Factors Influencing Automobile industry

The global automotive industry is subjected to a range of factors that are increasing complexity and influencing the economic options available to automobile manufacturers. The majority of these factors interacts with one another and has strong interdependencies. However, some of these factors are market-induced and, consequently, cannot be influenced directly by the automobile manufacturers. These factors include:

Globalization, regionalization and market convergence

Liberalization has made the national markets increasingly globalized. This gives companies a chance to expand into new markets, but also poses the threat of new entrants and increased competition.

Increasingly diversified consumer aggregate patterns of behavior

Consumers are no longer accepting standardized products, but want products that satisfy their individual requirements. Target groups thus have been downsized by companies so that customers will be attracted by the products being offered. However, because of the

increased global competition along with a stronger focus on price and not on brand loyalty, consumers generally are not drawn towards companies for their individualized products. As a result of these factors, automobile manufacturers have new demanding requirements within their field of activity.

Accelerated modification and diversification of the product portfolio

The companies have to shorten the lifecycles of their models in order to react to the expectations of individualize and fast changing consumer demands with innovative products. In the past, an average product lifecycle in the automotive industry was about eight years, whereas today auto mobile industry change or modify their products within two to three years. With development costs for a new model remaining on the same level or even increasing, this concurrently means a shortening of amortization time for the OEM and, potentially, lower profits.

Pervasion of automobiles with digital technology

In 2002, digital technology in cars already averaged 22 per cent of the total value of a car, with a forecasted increase to 35 per cent of the total value in 2010. The integration of hardware and software into automobiles might have increased the functionality of the car but has increased the complexity of the machine. This complexity results in overstrained car development departments, product failures, a cost explosion with respect to guarantee and warranty costs, and impact on customer satisfaction.

Increased pressure for innovation and flexibility in development and manufacturing

Development departments are not just overburdened by the complexity of digital technology, but also by the shortening of product lifecycles. Another aspect is the increasing number of parallel development projects since companies develop more and more niche models for special target groups. This certainly requires the use of new

development techniques such as virtual reality. For example, this technique enabled BMW to shorten the development time of its Z4 model to just 30 months.

The Challenge of Competitive Environment

The question of how a company can remain competitive in the face of the unexpected and fast transformations taking place in the automotive industry is very important. The only way to succeed is by being focused, responsive, variable and resilient, which can be accomplished by converting to an on demand company. Adapting to the everchanging environment has become the core business requirement, having problem-solving tools and methods to be identified, selected and implemented as fast as possible. Focused, responsive, variable and resilient are different behaviors required to become more adaptable behavior's whose features correspond with the exigencies of the business objective. Transforming this analogy to business, a car manufacturer has seven major strategic levers to enable such adaptive behavior.

Brand management

The function of marketing that implements techniques to increase the corporate value of a product line or brand over time. Brand management strategies help the companies to focus and differentiate its products from the competitors.

Customer relationship management

It relates to all aspects of interaction that a company has with its customer, whether it is sales or service-related. CRM helps a company become focused on customer requirements.

Core competency management

It is the combination of pooled knowledge and technical capacity that allows a business to be competitive in the marketplace. Core competency management allows a company to focus on its internal strengths and become more variable and resilience by entering into strategic partnerships with suppliers with competencies in new technologies or niche operations.

Software management

Software management is a key to making a company focused on software standardization and strategic partnerships, which helps the business to become variable and resilient.

Quality management

Helps the business become a cross functional and cross-company concept over the whole value-add chain. This in turn helps ensure that company will grow to their maturity in resilience.

Product development management

Managing product development together with a focus on broadening competencies in new technologies will help enable organization to become more variable by the optimization of collaborative engineering. Increased resilience can be achieved by standardized processes and the extended use of virtual testing. Decentralized and regionalized development activities will help to increase responsiveness to customers' desires.

Expansion management

Management of expansion into new geographies and cultures require that are focused on the requirements in these new markets and responsive to changing market conditions and requirements.

Toyota's Entrance into the United States

This is an exploration of Toyota's entrance into the U.S. market during the 1960s-1970s. Toyota's success was a result of a significant cost advantage over its American competitors. Toyota's cost advantage was the result of its innovative Toyota Production System (TPS). Detroit carmakers were unwilling to adapt new manufacturing techniques and therefore lost tremendous market share. By 1982, 30% of the cars sold in America were Japanese cars.

A Brief History of Toyota

Toyota began work on small car, a niche that was neglected by Detroit. Toyopet was introduced in 1947. They then reinvested profits from small cars into research and development.

In 1957, Toyota performs its first American road test. The modified Toyopet performed poorly, failing the road test due to heat and vibration. Toyota then started from scratch and by 1960 Toyota introduced a new Toyopet that could withstand American conditions.

After further Research and development activities Toyota introduced Corona, in 1965 and was able to sell over six thousand models in the same year. Toyota then introduced the smaller Corolla in 1968, hoping that by introducing a smaller car they will differentiate themselves from Detroit cars, which at the time are big heavy cars loaded with horsepower and options. By entering the American market with small cars, they were able to prevent head-on competition with the leading American car companies. They had a first mover advantage in their small cars and were able to achieve terrific economies of scale in this category.

Toyota's pricing was geared towards lower to middle class customers and not the customers who are buying cars loaded with expensive options.

Barriers to Entry

One barrier to entry into the U.S. market was the reputation of low quality Japanese cars.

In the 1950s, American car companies had huge economies of scale.

To overcome these barriers to entry, Toyota hired manufacturing and quality control Consultants from the United States.

By 1964, the Toyota Production System has resulted in economies of scale. The Japanese car Companies produced cars more cheaply. American car companies were now suffering from a First Mover disadvantage [4-7].

Industry Analysis

Rivalry in Japan

There was rivalry between Nissan and Toyota before even Toyota had entered the American market resulted in a great cost advantage for Toyota over American car companies. The rivalry for market share in Japan was fierce, with both Toyota and Nissan looking for ways to

cut their costs and make better cars at the same time. Toyota and Nissan saw increased market share in Japan as another way of speeding up the learning curve: whoever produced more cars would learn faster how to produce better, cheaper cars.

Rivalry in the United States

Detroit attempted to build small cars but was unable to sell their cars. Ford introduced the Maverick in 1969 and the Pinto in 1970, while the GM introduced the Vega in 1970. Although American small cars were cheap, they were not as reliable as the Japanese cars. American car companies were now seen as getting sloppy about quality.

Rivalry with Volkswagen in the United States

Before Toyota, Volkswagen was the dominant foreign car supplier in the United States. They had 60% of foreign car market in America in 1968. The Volkswagen Beetle was the best-selling foreign car in America until Toyota Corolla took that spot in 1975 and overtook Volkswagen exactly how they overcame American car companies using superior production methods and the great cost advantage it had from its Toyota Production System. Volkswagen also stuck with Beetle for far too long. Whereas, Toyota was coming out with more powerful cars that did not have the vibration problems some people experienced with the Volkswagen Beetle: An important role played by a weak Japanese yen helped Toyota sell more cars than Volkswagen. At the time of Toyota's invasion of the American market in 1965, the Japanese yen was relatively weaker against the dollar than the German mark, making Japanese currency and Japanese goods cheaper in America than German currency and goods. Increasingly, more of the dealers that sold Volkswagen were selling either Toyota or Nissan.

Buyer Bargaining Power

Rental car dealers would have some sway over car prices when they bought large quantities of Toyota cars but not enough to affect overall prices.

Supplier Bargaining Power

Hypothetically, if steel was monopolized, suppliers would extract a lot of the profits from car companies, however there were many suppliers, so supplier bargaining power was negligible.

Substitutes

Local transport or mass transit is a substitute to cars if you live in a big city. Many people still prefer to drive instead of taking buses, subways, or taxis. Cooperation between companies

There were very few instances of cooperation between car companies. No instances of collusion to fix prices. The competition was fierce to lower the car prices and increase quality.

Introduction of energy efficient cars by Toyota and Honda

Oil Crises of the 1970s

Cheap oil became very important to the Post-War expansion. Japan was more oil conscious than United States. They imported every drop of oil it was going to use, unlike the United States, which had large oil reserves of its own.

Around 1970, Japan had predicted some kind of oil crisis due to the instability in Middle East and started gearing economy to conserve and limit their oil consumption. This is when Japan companies like Toyota started designing energy efficient cars.

In 1973, oil prices quadrupled and the American car companies did not adapt to new oil prices, assuming that the crisis would pass and did not build energy efficient cars like the Japanese.

After the second oil crisis of 1978, Detroit was in serious trouble, with Japanese cars capturing 25% of the American car market. American citizens now preferred energy-efficient Japanese cars to the gas-burning American cars.

Toyota's unique dealer network in the United States

Toyota saw dealers as true customers of the company. They believed if dealers were strong, the company would succeed. So they hired people who were hungry for the opportunity and had been around cars all their lives. These were the type of people who could never have afforded a Ford dealership. Toyota gave these dealers 18%-20% of gross profits to induce them to sell Toyota cars whereas the American car companies only gave 12%-13% of gross profits to their dealers [4-7].

Conclusion

Toyota used the cost advantage of the Toyota Production System to invade US market. The TPS system used less of everything- less human effort in the factory, less manufacturing space, less investment tools, and half the engineering hours to develop new products compared to American and European manufacturers.

Automobile industries that have newly entered this market can study and use Toyota's entrance, growth and dominance in the United States as president in planning and implementing their growth and development strategies. They should understand the importance of investing in a strong production system which can cut down labour and other unnecessary costs. They should study the geo demographics of the country before they enter their market, form a strong network in the country they want to start production and distribution, and develop strategies to over shadow their competitors. They should also understand the importance of market forecasting and have an up-to-date research team that can help make accurate and bold decisions. These strategies can help upcoming automobile companies grow rapidly in the early stages of their business cycle and can improvise on their strategies once they have a strong platform.

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