

The Predicament of the Automobile Market -- From the Perspective of General Motors

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Abstract: Due to the current climate issue and changes in the international situation, the new energy vehicle market has also become an emerging market for many automobile companies. However, as the research and development (R&D) of electric vehicle technology in the current market is still in the stage of continuous transformation and maturity, how to quickly compete for more shares in the new energy vehicle market has become a challenge for many automobile manufacturers. This paper takes General Motors (GM) Corporation as the research object, analyses the advantages and disadvantages of the company by using the induction method, qualitative analysis, and the Porter's five forces, and puts forward the following three suggestions for the problems that General Motors Corporation has faced and may face. First of all, GM needs to optimize the research and development of electric vehicle technology, especially the cost reduction. Second, GM needs to optimize its sales focus and make corresponding predictions and adjustments for future changes in the market. Finally, GM needs to adjust its management system according to the actual situation in the region.

Keywords: New Energy Vehicle Market, General Motors Corporation, Porter's Five Forces, Sales Focus

1. Introduction

With the change of the current climate and the international situation, more and more countries have made corresponding adjustments to the automobile emission regulations, such as making stricter emission rules, under the impetus of global initiatives including the Paris Agreement. Xu points out that many countries around the world are publishing preferential policies to encourage and stimulate the market of new energy vehicles [1]. To some extent, this represents that the new energy vehicle market will become the main market for many automobile companies. Xu also mentions in the article that the current automobile industry is in an important period of transformation [1]. As Fine predicts in American Automobile Manufacturing, with the continuous integration of electronic products into the automobile and transportation facilities system, the development direction of the automobile industry is also moving towards electronic technology [2]. Today's automobile industry is going through a difficult transition stage. On the one hand, in order not to shake the original market share of fuel vehicles, automobile manufacturers need to constantly invest in the development costs and manufacturing costs of traditional fuel vehicles. On the other hand, as new energy vehicles are one of the emerging industries conforming to the global development trend, the requirements of the government and customers on the automobile industry have gradually changed to deal with the

increasingly serious environmental crisis and continuously improve the sustainability of the automobile industry in terms of manufacturing and use. In fact, in recent years, the automobile industry has also continuously introduced new energy electric vehicles that limit carbon emissions and zero emissions. Under such a development trend, automobile manufacturers have more dependence on the R&D and development of electric vehicles. However, many companies are still in the process of technological transformation and maturity, which is also a dilemma faced by most automobile manufacturers.

This paper mainly analyses the advantages and disadvantages of General Motors in its business process, clarifies its core competitiveness, and at the same time, studies in detail the basic competitive state of the industry that the company faces as well as the direction of improvement of General Motors, so as to find out how to play the core competitiveness of the company and correct the existing disadvantages and possible problems in the future. On the one side, this study can help General Motors quickly find a direction in the current process of new energy vehicle market share competition, on the other side, it can also be used as a reference for other automobile manufacturers to carry out market planning.

2. Methodology

In the research activities, deduction and induction are both important research methods. Saunders et al. propose that deduction is a method to create hypotheses based on existing theories or scientific principles, and then test them to draw conclusions [3]. The inductive rule is to use empirical data to analyse and draw conclusions which are in the form of new theories. In view of the fact that this paper is all based on relevant data and research, the induction method will be adopted for subsequent elaboration.

Flick believes that qualitative analysis takes the concepts that need to be studied as the basis of research, uses the relevant data instruments collected as proof materials, and focuses on the theory, views, and practical results of the research object [4]. As this paper uses the relevant data text of General Motors for research, it is more appropriate to choose the qualitative analysis method. Meanwhile, Saunders et al. mention that the induction method can be combined with qualitative research because qualitative research is more flexible and can change with the change of research focus [3]. Michael Porter published a book called competitive strategy in 1980. In the book, he proposed five forces to shape the structure of all industries. Dobbs believes that this model established the competition rules of most industries and the fundamental reasons for profits [5]. These five forces are the bargaining power of suppliers, the bargaining power of buyers, the threat of new entrants, the threat of substitutes, and the level of competition of competitors in the same industry. In view of the characteristics of this model, this paper will use Porter's five forces model to analyse General Motors.

3. Result and Analysis on the Current Situation of General Motors

3.1. Advantages of General Motors

Xu believes that the core competitiveness of General Motors is to use the lowest possible cost to produce high-quality cars, so that consumers can enjoy cost-effective services [1]. The main means for the company to achieve this goal are as follows: first, General Motors is involved in a variety of businesses, including financial business, ensuring that the company has surpassed many competitors in terms of operation and transformation; second, GM's leadership, technology, product development, and operational capabilities can be well combined; third, the distribution network of General Motors is very large, which is conducive to product sales and services, and is particularly important for gaining a share of the automobile sales market.

3.2. Problems Encountered by General Motors

This module will use Porter's five forces model to show the basic competitive status of the industry that General Motors is facing.

3.2.1. Bargaining Power of Supplier

GM's suppliers in the field of fuel vehicles have low bargaining power. This is mainly due to the small scale of most suppliers in the automotive industry. GM needs to purchase a large number of raw materials, processed parts, transportation resources, energy supply and other services from suppliers to manufacture products. However, due to the low technicality and easy availability of the purchase, GM can easily replace the supplier. However, under the influence of COVID-19, GM will inevitably have some problems in the supply chain. At the same time, with the increase of demand for electric vehicles, if only a small number of suppliers can meet the supply of relevant parts of electric vehicles, then the bargaining power of suppliers will undoubtedly rise to a very high level. For example, semiconductor is a material that will have an important impact on a wide range of products and industries. Due to the global blockade caused by COVID-19, manufacturers cannot guarantee the integrity of the supply chain. The shortage of semiconductors directly affects the business in all fields of General Motors. In 2020, the wholesale sales volume of GMNA (GM North America) and GMI (GM International) declined by 35.6% and 33.4% respectively. Welch & Ludlow point out that in terms of semiconductor distribution, General Motors paid more attention to large SUVs and trucks with higher profit margins, reducing the production of small SUVs and cars. For this reason, GM's sales in the third quarter of 2021 fell sharply, and its profit was almost half of that of a year ago [6].

3.2.2. Bargaining Power of Buyers

The power consumers have will affect GM's revenue and profits to some extent. This is mainly because the current automobile industry is very competitive. If GM's products and prices cannot attract consumers in the market competition, consumers can immediately turn to other automobile manufacturers. Therefore, with the increasingly fierce competition in the automobile market, the bargaining power of consumers is constantly improving.

3.2.3. Threats from New Entrants

The new entrants pose a relatively weak threat to the automobile manufacturing industry. As the automobile manufacturing industry needs to build not only corresponding manufacturing equipment but also a large and stable supply chain, the demand for capital to support new entrants is high. At the same time, the automobile manufacturing industry is an industry that needs rapid technological innovation to meet market changes and consumer demands, which also leads to a high threshold for the entire industry to enter.

3.2.4. Threats from Alternatives

General Motors will also face a weak threat from alternatives. Vehicles such as trains, planes, and bicycles are alternatives to transportation modes. The rise in fuel prices has led many consumers to abandon their plans to travel by car and choose the best means of transportation according to different destinations. With the change of the international situation, these alternatives are more suitable for sustainable development and more environmentally friendly. Because of these factors, Reyes points out that the transition to sustainable development and environmental protection will become a factor limiting economic growth [7]. General Motors has realized this fact and needs to actively adjust.

Therefore, as long as GM can develop electric vehicles more in line with the market demand, the threat from alternatives will be further reduced.

3.2.5. Competitiveness of Competitors in the Same Industry

General Motors has many competitors. Due to the large scale and responsibility of the automobile market, GM's competitors are not only Ford, Daimler, Toyota and other old car companies that have operated in the fuel market for many years, but also Tesla, BYD and other car companies that manufacture electric vehicles. Due to the differences in the types and business directions of competitors, GM is facing fierce competition.

4. Suggestions on the Future Development of General Motors

4.1. Stepping up Its Research and Development on Electric Vehicles

At present, the electric vehicle market is in a state of rapid development. If GM can improve relevant technical research as soon as possible and use mature technologies to enter the electric vehicle market, it will be very beneficial for it to seize the market share. Lutsey & Nicholas propose that the main cost changes of battery technology are in materials, processes, indirect costs, depreciation, warranty, etc. Among them, the parts used in automobiles are battery packs, and the cost of batteries usually accounts for 70% of the cost of battery packs [8]. Therefore, how to reduce the cost of the battery and whether to replace the ternary lithium battery with the lithium iron phosphate battery system or other ways is an urgent issue for General Motors. At the same time, Lutsey & Nicholas find that the supporting facilities needed by electric vehicles, such as charging stations and charging piles, also affect consumers through the research on the prices and government subsidies of ordinary cars, cross-border vehicles, and SUVs [8]. How to ensure that these supporting facilities have feasible schemes and technologies is also a problem that General Motors needs to study at present.

4.2. Adjusting Its Sales Focus

At present, the main profitable products of General Motors are large SUVs and trucks. This means that General Motors has a disadvantage in the competition between ordinary cars and small SUVs, which have a large share in the new energy vehicle market. GM needs to consider the factors of consumers and market preferences, conduct market research in advance, invest in market research, and be ready to cater to the mainstream preferences of the market to seize the market share. From this point of view, GM can use its own financial institutions to conduct future consumer preference research, develop a more reasonable manufacturing plan, and give priority to the supply of parts to the models that consumers prefer when the duration of COVID-19 cannot be estimated.

4.3. Amendment of the Management System

At present, GM's business involves the world, and it conducts business in China and other countries in the form of joint ventures. Park et al. believe that when companies cross national borders, they need to integrate global and local governance elements and reconfigure their own governance methods. The innovation of the company's management is restricted by local social relations, cultural values and other factors [9]. Therefore, in different regions, local managers and management systems more in line with local customs will help support the local operation and development of enterprises. For example, as one of the very important sales markets of General Motors, China's market is in a growing state. How to maintain a complete series of sales systems in the Chinese market, from suppliers to manufacturers to consumers, requires more targeted research by General Motors. Aguilera et al. propose that the external aspects of the governance system, such as the law, the market

controlled by the company, stakeholders, government organizations, and the media, and the internal core aspects, such as the protection of the rights of stakeholders and relationship maintenance, all need GM to study how to adjust according to the actual situation [10].

5. Conclusion

This paper analyses the advantages and disadvantages of General Motors by using the induction method, and finds that General Motors mainly has the following disadvantages. First of all, because the electric vehicle technology is not mature enough and the market is in short supply, GM will lack a dominant position in the management and control of suppliers, leading to rising costs. Secondly, due to the increased consumer selectivity, GM needs to pay more costs and services to maintain or even exceed its previous market attractiveness. Third, in the current electric vehicle market, there are auto suppliers such as Tesla that have strong expertise and entered the market early. They put great competitive pressure on General Motors.

In view of the above problems, this paper puts forward three suggestions. One is to optimize the manufacturing technology of electric vehicles. GM needs to consider either replacing the materials of battery packs or studying the technical improvement of auxiliary facilities of electric vehicles. The second is to adjust the sales focus, conform to the mainstream preferences of the market and make corresponding predictions, and plan the manufacturing weights of different models as soon as possible to meet the mainstream consumption trend of the market, which can significantly reduce manufacturing costs. The third is to adjust the company's management strategy according to different business regions to adapt to local conditions to the greatest extent.

This paper mainly makes suggestions for future development based on the situation of General Motors, but does not rise to the development trend and suggestions of the whole new energy vehicle market. Future research can focus on more universal development suggestions.

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