Based on the Strategic Research and Analysis of Tesla

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Abstract. In the context of the accelerated development of the world economy, carbon emission control and sustainable development have become the common goals of all countries in the world. There is plenty of room for growth and promising futures for the rapidly expanding new energy automotive sector. Being a pioneer in the world of new energy cars, Tesla's strategic policy and successful experience can help other new energy companies in China develop better. This paper uses Porter's Five Forces Model and Swot analysis to specifically analyze Tesla's strategic positioning and marketing strategy. Reasonable suggestions are put forward for the future strategic choices of Chinese new energy vehicle enterprises, which is also enlightening in certain ways regarding the growth of China's new energy car sector. Also, with the strategic decisions of enterprises, as well as the experience that Chinese automobile enterprises can learn from, corporations can gain competitive advantages in the future Chinese new energy vehicle market.

Keywords: New energy vehicles, Tesla, Corporate Strategy, Porter's five forces analysis, Swot Analysis.

1. Introduction

In the past few years, under the background of carbon neutrality, the demand for green energy has been increasing, and new energy vehicles, as a clean, environmentally friendly and safe means of transportation, can effectively reduce carbon emissions in transportation, energy and other fields. The new energy vehicle market in China has developed rapidly. In the long run, the overall trend of vehicle electrification will continue to deepen. Although the entire market is still constantly evolving the electric vehicle market is almost at the maturity of its life cycle. This period is crucial for electric vehicle companies, and their ability to gain a foothold in the market now and in the future depends on whether the company is adopting the right strategy at this stage and can stand out from the competition.

The development of new energy vehicles has increased the competition between new energy vehicle companies. In the current context of economic globalization and market integration, value competition based on core technology and resource integration is replacing traditional product competition at the scale and price level in the new energy vehicle industry. Competition in value is ultimately competition in business models which means enterprises should plan the business model cautiously. Therefore, this paper on the strategic choices and marketing strategies of Tesla has certain academic value and practical significance.

Tesla, the industry pioneer for electric vehicles, has now successfully entered the markets of numerous developed nations worldwide. Its innovative idea and stunning electric vehicle appearance have drawn a lot of admirers, and its distinctive marketing strategies and development concepts have progressively gained acceptance among consumers worldwide. This paper uses Tesla as its research subject, methodically examines its distinct strategic positioning, and compares it to the business's plan using a SWOT analysis. It concludes and makes recommendations for the growth of China's new energy automotive sector based on this, which has certain reference and reference values.
2. Current Situation of China's New Energy Automobile Industry

2.1. Development History

2.1.1. Initial development stage

The new energy vehicle industry had its early growth in 2000-2008. In order to further develop China's automobile industry, China established a new development layout of three horizontal and three verticals in 2001 [1]. The electric vehicles involved include three categories, mixed warehouse power, pure electric and fuel cell vehicles which are called three verticals. Multi-energy power-train control, drive motor, and power battery for three horizontals. Immediately, the Decision on Vigorously Promoting Energy Conservation was promulgated by the State Council, which calls for quickening the creation and marketing of innovative and energy-efficient automobiles, and new energy vehicles officially entering the Chinese automobile market.

2.1.2. Demonstrated promotion stage

In 2009, the government adopted a financial subsidy policy for the new energy vehicle industry with the aim of stimulating its development. However, in this stage, although the government was based on cruising range to pay for the financial subsidies, without uniform industry standards, most of the new energy vehicle manufacturers were accompanied by unstable product quality [2]. Some manufacturers even defrauded the state of financial subsidies for almost 1.26 billion dollars. An occurrence like this is counterproductive to the growth of the new energy vehicle sector. In general, the overall trend of this stage is positive, the production of new energy vehicles increased dramatically. The data indicates that 14,300 new energy vehicles were sold in China in 2010. For 2018, the sales volume has reached 1.256 million. The growth of more than 100 times is enough to witness the rapid growth of China's new energy vehicles. To a large extent, it has fueled the growth of the new energy vehicle market in China.

2.1.3. Precise support stage

In 2016, in order to support the well-being of the new energy vehicle business and lessen the frequency of fraudulent incidents. By altering industry requirements and technical specification conditions, the government has chosen to drastically alter the new energy vehicle subsidies program, putting it together to assess the eligibility for subsidies precisely. On the one hand, the government adjusted the subsidy policy to plug the loopholes of fraudulent subsidies and strictly investigate the enterprises that cheat on subsidies. On the other hand, the government established and improved standards, and regulations, and established access mechanisms and punishment mechanisms in order to promote the improvement of technical levels and products of maturity.

2.1.4. Accelerated development stage

The market for new energy vehicles expanded quickly between 2019 and the present. It came to the subsidy retreat stage. Although the subsidy decreased, China has claimed that the restrictions on foreign investment in China’s new energy vehicles are canceled. After the official announcement was released, many foreign new energy vehicle brands entered the Chinese market. For instance, Tesla's establishment of a gigafactory in Shanghai, which has now become one of Tesla's most efficient manufacturing plants in the world, has produced 2 million vehicles so far. In 2018, NIO became the first new energy vehicle enterprise in China to be listed on the New York Stock Exchange. In terms of power batteries, China has well-known enterprises such as CATL and BYD, and the world's top 10 power battery factories account for 7 in China. The New Energy Vehicle Industry Development Plan (2021–2035) was released by the State Council in 2021 in an effort to further encourage the electrification, intelligence, and connection of automobiles [3].
2.2. Market Environment

2.2.1. Market size

This section is organized based on relevant statistical data and produced in Fig. 1 [4-6]. The output of new energy vehicles has risen straight up since 2018, especially in 2022 when the output reached 7.3 million units. Meanwhile, the production growth rate in 2021 reached 145.52%, compared with the production growth rate of 18.85% in 2020, which is a big change. It is obvious that China's new energy market is developing rapidly and the market scale is grand through the production of new energy vehicles in China and its growth, maintaining the world's first place for 8 consecutive years.

![Figure 1. The New Energy Vehicle production and production growth rate from 2018-2022 in China (Photo credit: Original)](image)

2.2.2. Export situation

China's new energy vehicles are currently entering foreign markets at a faster pace. According to China's customs statistics, in 2021, the top countries in terms of China's exports include Belgium, the United Kingdom, India, Thailand, Germany, France, etc. The total number of China's new energy vehicles exported to these countries amounted to 424,000 units, accounting for 77.8% of the new energy vehicle ownership in that year. In short, the overall performance of China's new energy vehicle exports is strong, and the number of new energy vehicles exported to Europe is growing rapidly. Germany's largest insurance company Allianz Group previously released a report titled "The Chinese challenge to the European automotive industry", the text describes China's new energy vehicle market volume as an increasingly large status quo [7]. The data in 2022 shows that Europe's imports of China's electric vehicles have significantly exceeded exports, and the number of Chinese new energy imports into Europe has been on the rise.

At present, compared with other countries, China's new energy vehicles have some competitive advantages in the international market. Like quality control, power batteries and other industrial layouts of new energy vehicles. The overall scale of China's automobile exports will continue to grow at a faster rate, and China's new energy vehicles will face larger overseas markets and usher in more in-depth development opportunities.

2.3. The Five Forces Analysis of the New Energy Automobile Industry

2.3.1. Threats of New Entrants

Economies of scale: The economies of scale are large in the new energy automobile industry. With the demand for electric vehicles is rising, sales are rising. The size of the global electric vehicle market is also growing as a result of ongoing technological advancements, better-charging infrastructure, and improved buying intentions. According to a survey by research firm SNE Research, the global market for electric vehicles will grow to $121 billion in 2023 and $616 billion in 2035, five times what it is
now [8]. The cost of automobile products is large, coupled with the expansion of the industry scale, many big brands have occupied an absolute market share, and the competition is at a disadvantage and the cost of competition is high. As a result, it decreases the threats of new entrants.

Customer switching cost: The switching cost is extremely high in the new energy vehicles industry. Since a family can often only afford one automobile over the course of a lifetime. The consumer will select a particular brand of car with greater care and caution from the outset.

Capital requirement: The entering of the new energy automobile industry needs a great number of capitals. Batteries account for a large proportion of the cost, and the cost of new energy vehicles also involves motors, power electronic equipment, controllers, manufacturing processes and other aspects. In the meantime, the cost of research and development is also a factor that cannot be ignored. The cost is high and it is difficult to disrupt the existing price order. The capital requirement reduces the threat of new entrants to some extent.

2.3.2. Bargaining power of suppliers

Supplier concentration: Typically, a new energy vehicle manufacturer corporation will have dozens even hundreds of auto parts suppliers. The concentration of suppliers in the new energy automobile industry is relatively low, and the number of suppliers is large, so supply chain management is difficult. Therefore, in the case of low supplier concentration, the voice of suppliers will be reduced.

Customer switching cost: For traditional parts suppliers, under the new industry of new energy vehicles, there is no scale, and limited output, and the focus is on traditional industries. Suppliers in traditional industries have developed very maturely, but the competition is fierce, so customer switching costs are low and bargaining power is limited.

Suppliers offer a differentiated product: There is a large range of parts suppliers in the world. CATL, is one of the centre battery suppliers of new energy vehicles. According to the latest data published by SNE Search, it claimed that CATL rose to 36.3% in 2022 in the global electric vehicle battery industry [9]. Roughly speaking, this means for every 3 electric vehicles sold in the global market, at least 1 is loaded with CATL batteries. The reasons for the high market share are that it provides high-quality and breakthrough battery technology and cost-effective advantages that most battery manufacturers cannot reach.

2.3.3. Bargaining power of customers

Customer concentration: Compared to traditional diesel cars, the new energy cars still have a small consumer base. Most people choose to buy a car mostly because it is a social duty that has an emphasis on both public welfare and environmental considerations. The government's energy plan further directs consumer demand toward new energy, which is not cost-focused, leaving purchasers with little leverage in negotiations.

Market demand: Although a number of nations will provide subsidies to consumers, manufacturing new energy vehicles has very high technical requirements, a high expense, and a high price. Even if the consumers are aware of the energy issue and the environment, consumers are sensitive and will not make impulsive purchases. Consequently, the bargaining power is strong.

2.3.4. Threat of substitutes

Price and performance of substitute: The traditional diesel vehicle is the substitute for a new energy vehicle. The traditional diesel vehicle industry is more mature and large-scale. Speaking of fuel prices, the prices are affected easily by market factors, economics, war, and policy factors, and fluctuate greatly. The price of gasoline is high, and it costs more fuel. In addition, maintenance costs are high, regular oil changes are required, and engines and other equipment need to be maintained.

For the performance part, the exhaust gas pollutes the environment and it is not environmentally friendly. However, diesel cars can run long distances for a long time, and there are many refueling stations so that drivers do not have to worry about the problem of insufficient fuel for the car. It is also easy to do maintenance work, and most of the breakdowns are mechanical failures.
2.3.5. Industry rivalry

Competition on price is most threatening to profit. On the one hand, price reduction can attract more consumers and expand market share. On the other hand, price reduction may reduce profit margins and even lead to corporate losses. As more and more automakers invest in new energy vehicle technology, market competition has intensified. This brings more innovation and further cost reduction, making it easier for consumers to obtain new energy vehicles.

3. Tesla Strategic Choice

3.1. Basic introduction of Tesla

Tesla, the visionary new energy vehicle manufacturer founded by Elon Musk, has revolutionized the automotive industry. With its cutting-edge technology, sustainable mission, and bold innovation, Tesla is not just a car company, it is a driving force behind the future of transportation. By pioneering electric vehicles, renewable energy solutions, and pushing the boundaries of autonomous driving, Tesla envisions a future where clean, efficient, and self-driving transportation is accessible to all while reducing the carbon footprint for a greener planet.

Tesla’s value model consists of three parts, the first is long-range and charging flexibility, and the second is high performance that does not affect the design or function. Third, energy efficiency and cost of ownership. Tesla intends to lead the automotive industry as the top manufacturer, and having world-class robotics expertise on staff is essential to achieving that aim.

3.2. Strategic Options

3.2.1. Differentiation strategy

For the differentiation strategy, the first is about the cutting-edge technology of the firm. Tesla positions itself as a pioneer and innovator in the electric vehicle market. The company is renowned for its cutting-edge technology, particularly in battery efficiency, range, and charging capabilities.

In addition, Tesla uses various marketing strategies, such as free test drives, and retail hall displays to enhance consumers' awareness and intimacy with the brand. Tesla abandons the traditional dealer model, by carrying out direct marketing mode. Tesla has reduced channel costs and dealer commissions in sales and reduced intermediate links, strengthening the direct contact and transmission of the brand. Tesla has developed a powerful brand image associated with sustainability, innovation, and luxury, attracting a dedicated and loyal customer base.

For product development and innovation, for the full self-drive (FSD), Tesla has committed to achieving FSD capabilities and enhancing the safety and driving experience of its vehicles through features like Autopilot, and this innovation sets it apart from other automotive manufacturers. Further, Tesla's extensive network of Superchargers allows its customers to access fast-charging stations, it is convenient for consumers to find the charging devices. It also helps drivers reduce range anxiety when having long-distance driving needs, and it definitely gives Tesla a competitive advantage in the electric vehicle industry.

3.2.2. Focus Strategy

Tesla focuses on exploring broader markets. Initially, the company targeted the high-end luxury segment, launching high-end technological products to rapidly open up high-end markets, such as model x and models. After that, to occupy the mid-market and also focus on the costs of car production. Tesla built its own factories, achieving economies of scale. The factories launched lower-positioned products to occupy the mid-market, such as model 3 and model y. It is a place to produce key components in-house, which reduces dependency on suppliers and declines production costs. The factories also adopted highly automated production lines to improve production efficiency and product quality. Undoubtedly, Tesla has formed a mature supply chain.

Because of the fierce competition in the new energy vehicle market, and also for the goal of Tesla, which is making the cars affordable for as many people as possible. Tesla has adopted a cost
leadership strategy in recent sales, declining the car price and maximizing profits to consumers on the basis of cost control. Cost leadership strategy is a strategy for enterprises to build competitive advantages by reducing costs, research and development, production, sales, service and other fields. As a result, the total cost of the business is lower than that of the competition and even the lowest in the entire sector. It forms a cycle like "expansion of production firstly then decline price, after that, it is the sales increase and finally to the further price reduction". In the face of the threat of peers, Tesla took price reduction measures to increase its sales, which is conducive to increasing its profitability [10].

Tesla's strategy of differentiation and focus is a reflection of its strategy and cost structure. These strategies allow Tesla to gain differentiation and market leadership in the highly competitive market of electric vehicles.

3.3. Swot Analysis

3.3.1. Strengths

R&D department with strong innovation: Tesla has always been committed to product and technology innovation, and its annual R&D expenditure accounts for a large proportion. For the innovation technology, Tesla's core technologies include Autopilot, Full Self-driving (FSD), vehicle software, etc. FSD function can recognize and react to traffic lights and stop signs as well as automatically assist driving on city streets. Tesla will achieve FSD by the end of this year. At present, FSD is priced at $15 thousand dollars in the United States, and its price may increase several times after achieving fully autonomous driving.

Strong brand identity: In order to educate consumers about the brand and the potential of electric vehicles, Tesla has adopted a distribution strategy that avoids car dealerships and established its brick-and-mortar stores, imitating Apple's stores that are strategically located to allow potential customers to place orders. Its brick-and-mortar stores are places people love to visit, and Tesla's proposed electric car has become an iconic brand identity.

3.3.2. Weaknesses

Limited vehicle range: Most Tesla vehicles have a range of around 600km-700km, which can satisfy the basic needs of people on general trips, but long-distance trips may require car drivers to look for a charging station well in advance of the trip. Tesla, while it is setting up a brand-specific charging network for its owners, may have to wait in line when charging.

Supply chain weaknesses: Tesla relies on hundreds of new energy vehicle manufacturers for EV batteries and other parts and components of the car. However, the more Tesla relies on its supply chain, the greater the impact on Tesla when there is a supplier default or economic problem in a particular country. Tesla might face challenges when not receiving essential components.

Unique customer base: Although Tesla has released certain products with low positioning, such as the Model 3 and Model Y, to enter the mid-market, the selling price has been gradually reduced. When compared to other new energy vehicle manufacturers, Tesla continues to have higher prices that are targeted at middle-class and above consumers [11].

3.3.3. Opportunities

Government policy support: Tesla has received government support from the countries where it sells its products. In addition to the government's financial subsidies or tax exemptions and other preferential systems, in 2009 Tesla obtained the U.S. Department of Energy 465 million U.S. dollars in loans to support R&D and manufacturing, which has helped Tesla through the financial difficulties [12].

The growth of the electric vehicle market: No matter for the more and more people who want to drive environmentally friendly cars or the country's goal of being ecologically sound and carbon-neutral in the future, all of which together contribute to the booming market for new energy vehicles.

Advancements in battery technology: For new energy vehicles, the power battery system is a crucial component. To ensure the security of its battery system, Tesla works with Panasonic, LG,
CATL, and BYD, the leading lithium-ion power battery producers in the global automotive industry's supply chain. Meanwhile, Tesla is also practicing all-round self-research of three core technologies, power battery cell, battery management system, motor, and electronic control.

3.3.4. Threats

Highly competitive in the electric vehicle market: There are more and more manufacturers of new energy vehicles appearing in the market. The customer has various choices in selecting cars from different aspects like the price or the space of the car, some of the market share was taken by other manufacturers.

Safety issues of new energy cars: Looking back, according to news reports of some spontaneous combustion in Tesla vehicles raising concerns about drivers’ safety, FSD is one of Tesla’s biggest selling points and a factor that will be key to increasing its revenue in the future. However, the high incidence of accidents due to FSD, where the vehicle continues to move when it does not successfully recognize an obstacle ahead or the distance is miscalculated, so safety issue is something that Tesla needs to be aware of.


According to the analysis above, China’s new energy vehicle enterprises are in a market with prosperous prospects in the future. There are great opportunities for Chinese enterprises for further development. However, the enterprises should focus on the differentiation strategy and how Tesla successfully does to the brand, especially for the brand positioning, building and business strategy implementation. Enterprises should also avoid one of Tesla’s threats which is the safety issue, increasing investment in innovative technology research and making breakthroughs in the core technology of new energy in order to decrease the hazard index and satisfy consumers’ needs.

4.1. Differentiation Strategy

New energy vehicle enterprises should identify their own precise brand positioning and implement differentiation strategies in the operation. The domestic new energy vehicle market is currently successfully moving away from being driven by subsidy policy toward being driven by pricing and product performance. It is a chance for Chinese enterprises to make their products better and enhance sales. For instance, NIO has broadened the breadth of its product portfolio and provided intangible products such as various services and events related to automobiles, increasing the touch points between businesses and users, and making consumers feel different from other brands [13]. Additionally, it may aid in strengthening the company's brand image, stimulating more consumers to spend in the future.

In the face of fierce competition in the new energy vehicle industry, every new energy vehicle company should tap the core competitive advantage of its own brand, grasp the pain points of users, enhance competitiveness, and achieve differentiated development.

4.2. Technology Innovation

A significant benefit of Tesla's dominant position in the new energy vehicle sector is Tesla’s core technology. As mentioned in this paper, Tesla owns full self-driving, autopilot and its own hardware and software integrated system. Additionally, China's new energy companies should accelerate research and development, and increase the range of electric vehicles, power batteries and other vital components. Enterprises could foster network connectivity with integrated intelligent technologies, making it coordinate development. Most new energy vehicle companies in the market have not successfully set up their own car operating system nowadays, so this can be one of the technology innovation goals for the enterprises. Moreover, lightweight integrated die-casting technology can improve the driving range of new energy vehicles and alleviate the mileage anxiety of customers.
BYD has been focusing on developing electric vehicle batteries for a long time to further improve the range of new energy vehicles and lower procurement costs [14]. In short, most car companies still stay in the vehicle design, research and development stage. Chinese automakers may strengthen technology innovation by taking a cue from Tesla's cautious approach to sustaining in-depth research and accurate scientific development in every industry chain and field [15].

5. Conclusion

In the beginning, this paper analyzes four historical stages of China's new energy development, including the initial stage, the demonstration and promotion stage, the precise support stage and the accelerated development stage. According to the analysis of the above stages and the export situation parts, it can be concluded that the development trend of the past 23 years has been rapid, so China's new energy development has been greatly changed. According to relevant data, China has led the globe in both new energy vehicle production and sales for eight years running. Secondly, Porter's Five Forces model is used to deeply analyze the future industry characteristics and industry development trends of new energy vehicles, which lays the groundwork for further analysis of Tesla's strategic choice. After analyzing the differentiation strategy and focus strategy of Tesla, it is concluded that Tesla is ahead of most new energy companies in product technology innovation and has developed and researched high-end technologies such as FSD and Autopilot. Tesla also builds gigafactories in manufacturing technology to improve efficiency and save costs and special direct marketing model in brand building and low-expenditure advertising. Market positioning from precision to launch diversified products to occupy a wider market. In the marketing strategy, the use of a price reduction strategy to attract the attention of consumers further stimulates the purchase of consumers. Finally, according to the above analysis and research, the author gives enlightenment to China's new energy vehicle enterprises in terms of corporate strategic choice, differentiation strategy and technology innovation.

At present, China's new energy vehicle enterprises are in a stage of rapid development, and the quantity and quality are developing rapidly. New energy vehicles are the inevitable alteration choice of the automobile industry, but also a key opportunity for China's automobile industry to lead the world. China's new energy automobile enterprises should seize the strategic opportunities of the times. China should identify brand positioning, and strengthening the development of key core technologies. Last, the industry keeps accelerating the layout of the whole industrial chain and new energy automobile enterprises gain advantages in the fierce market competition, promoting sustainable and healthy development.

In the absence of thorough first-hand specific information, the information in this article regarding Tesla can only be examined using publicly available data on websites and research reports published by significant consulting firms. Data sources are somewhat scarce. Second, Tesla excels in resource integration, but the author is unable to fully comprehend and manage many corporate resources Tesla owns. On the basis of the materials and information currently accessible, the author is only able to examine the company's corporate strategy and differentiation strategy. In the future, as Tesla grows further, the company's strategy may be adjusted so that the author can update the latest news and analyse its strategy on a larger scale. Moreover, PEST analysis can be added to the analysis of the new energy vehicle industry in order to have a more comprehensive understanding of the overall situation of the industry.

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