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A Study of Tesla's Impact on China's New Energy Vehicle Market

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Abstract: Nowadays, the issue of carbon emission is getting more and more attention, and China also attaches great importance to the development of the new energy industry. China is steadily developing its new energy automobile industry, and at the same time, new energy automobiles have provided a new "track" for the transformation and upgrading as well as the high-quality development of China's automobile industry. In this context, this paper provides an in-depth study of Tesla's market strategy and its impact on China's new energy vehicle market, outlining the complex interplay between market dynamics, government policies, and corporate strategies, and covering a number of important aspects, including government support, market expansion, consumer demand, competition and pricing strategies, product differentiation, infrastructure development, technological advances, and raw material foreign trade relations. Overall, these results and data show that Tesla's impact on China's new energy vehicle market is very important, intensifying the competition in China's new energy vehicle market, prompting similar new energy vehicle companies in China to innovate, improving the industrial level of China's new energy vehicle companies, and helping to improve China's policies in this area.

Keywords: China's New Energy Vehicle Market, Tesla, Market Expansion, Competitive Strategy, Pricing Strategy

1. Introduction

Tesla's popularity and reputation on the Chinese Internet are getting better and better. Many people choose to buy Tesla first especially after the domestic subsidy policy for Model 3 appears. Now, China's new energy vehicle market is becoming more and more prosperous. However, back in 2014, it was hard to see new energy vehicles on the roads of Shanghai, China, and most of the cars were fuel vehicles. After 2018, China's new energy vehicle market developed extremely rapidly, with the proportion of new energy vehicles in every city rising sharply, and new energy vehicle sales exceeding 1 million for the first time. Until 2022, China accounted for three of the top 10 companies in the global sales of new energy vehicles, and six of the top 10 companies in the installed capacity of power batteries. In 2022, China exported 679,000 new energy vehicles [1]. Therefore, this paper studies how Tesla, a well-known clean energy company, helps China's new energy vehicle market to rapidly improve and grow. First, this paper reviewed the development of China's new energy vehicle market and the development of Tesla China in recent years. Then the author studied Tesla's impact on the supply and demand relationship and exploitation of China's

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new energy vehicle market. Finally, Tesla's competitive strategy and pricing strategy in the Chinese market were analyzed. This article provides a comprehensive analysis of the evolution of China's new energy vehicle market, with a particular focus on Tesla's entry and operations in this market. Besides, it also conducts an in-depth study of all aspects of market dynamics, government policies, and corporate strategies. This paper shows the current situation and future growth potential of China's booming new energy vehicle market. It is critical for policymakers, industry stakeholders, and investors who aim to participate in China's new energy vehicle market. Additionally, discussions about the challenges faced by Tesla and other players in the market provide a balanced view, which can help stakeholders anticipate potential obstacles and develop strategies to deal with them.

2. Background Information

2.1. Development of the New Energy Vehicle Market in China

From the establishment of Tesla China in 2014 to the present, the development of China's new energy vehicle market has been marked by significant growth, government support, and increased competition.

In terms of government support, the Chinese government supports new energy vehicles through incentives, subsidies, and regulations to combat pollution and reduce dependence on imported oil. Policies such as the "Double Points" system have also played a significant role in driving the development of the new energy vehicle market [1].

In terms of market expansion, the Chinese market has made great progress in sales, production, and consumer acceptance. Prominent players such as Tesla, BYD, and NIO have made significant inroads into the market. Tesla's entry into the Chinese market in 2014, followed by the construction of the Gigafactory in Shanghai in 2018, is a testament to the booming Chinese new energy vehicle market [2].

In terms of consumer demand, there is an increasing need for new energy vehicles year on year as more models become available, and China's charging infrastructure continues to expand. The market is expected to witness further growth driven by continuous government support, technological advancements, and shifting consumer preferences towards green cars. Meanwhile, continued innovation in various technologies, especially battery technology and autonomous driving technology, will be an important driving force for market development. While the government is phasing out direct subsidies, it is expected to continue to support the new energy vehicle market through other policy measures, such as stricter emission standards.

In conclusion, China's new energy vehicle market has made great strides since 2014 and has developed into a highly competitive and promising market. Despite the challenges and the need for strategic action by both industry players and the government, the market outlook remains positive.

2.2. Development of Tesla in China

Tesla officially entered the Chinese market in 2014. In 2018, Tesla inaugurated its Gigafactory in Shanghai, which is an important move for Tesla to reduce production costs and cater to the Chinese market more effectively. Tesla's differentiation in product uniqueness, performance, and design is its core competitive advantage, which makes its products different and attracts a portion of consumers seeking innovative electric vehicles. Meanwhile, through comparative studies with competitors such as BYD, Tesla has gained an in-depth understanding of the competitive landscape, which has helped Tesla identify its strengths and areas for improvement.

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3. The Impact of Tesla on China's New Energy Vehicle Market

3.1. Boosting the Supply of New Energy Vehicles in China

Tesla's establishment of a manufacturing facility in Shanghai has significantly boosted the supply of new energy vehicles in China. Through the Gigafactory, Tesla is able to increase production and provide a steady supply of energy vehicles to meet the growing demand in the Chinese market [3]. Tesla's significant investment in this also demonstrates the confidence of foreign companies in China's new energy vehicle market, potentially attracting further investment from other foreign companies. At the same time, Tesla brings advanced vehicle technology to China's new energy vehicle industry, thereby setting a competitive benchmark and promoting local innovation.

3.2. Triggering Price Competition and Setting a High Benchmark in the Market

Tesla's pricing strategy has triggered some kind of price competition in the market. By adjusting the price of its cars, especially the Model 3, Tesla indirectly influences other players in the market [4] to reconsider their pricing strategy in order to remain competitive. Similarly, this price competition affects the demand side as lower prices attract more buyers [5]. Tesla's emphasis on product differentiation through superior performance, innovative technology, and unique design has set a high benchmark in the market. This, in turn, has pushed other manufacturers to improve the quality of their products, thereby expanding the variety and quality of new energy vehicles available, and thus influencing consumer choice and demand [6].

3.3. Encouraging the Improvement of Charging Infrastructure in China

Tesla has advocated for improved charging infrastructure and invested in charging stations across China, initiatives that not only cater to Tesla's customers but also benefit the wider new energy vehicle market as infrastructure improvements stimulate demand in terms of addressing concerns about the range in China [3]. Tesla's investment in a network of supercharging stations in China, which not only supports its cars but also contributes to the broader charging infrastructure for new energy vehicles, is critical to the new energy vehicle ecosystem as the development of this infrastructure has the potential to drive advances in fast charging technology in China.

3.4. Increasing Employment Opportunities and Consumer Awareness of New Energy Vehicles

In addition, Tesla's operations in China have contributed to employment and skills development in the region. The Gigafactory and Tesla's other operations provide employment opportunities, and the technical nature of these jobs has helped to develop a skilled workforce for the new energy automotive industry. Moreover, through a variety of marketing and branding strategies, Tesla has increased consumer awareness of electric vehicles [7] and shifted consumer perceptions of new energy vehicles, which in turn drives adoption rates.

3.5. Pushing the Advancement of Battery Technology and Energy Storage Solutions in China

As previously stated, Tesla's advanced new energy vehicle technology has set a high benchmark for China's new energy vehicle market, pushing local companies to continuously innovate and upgrade their technology to remain competitive [3], especially Tesla's cutting-edge battery technology. Its involvement in the Chinese market could push the advancement of battery technology and energy storage solutions in China, either through competition or potential cooperation.

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3.6. Promoting Cross-Border Technology Exchanges in the New Energy Vehicle Industry

On its website, Tesla advertises that it can provide over-the-air software updates to improve the performance of its cars and fix problems, which is a relatively new approach in the automotive industry. This approach may influence local companies to adopt a similar software-driven approach, thereby driving hardware and software integration in China's new energy vehicles. Moreover, Tesla collects a lot of data from its vehicles to improve and enhance its technology. Tesla's operations in China allow it to better understand and analyze driving conditions and user behavior in China, which is valuable to the entire new energy vehicle industry in terms of vehicle and road safety technologies. Finally, Tesla's global influence and partnerships can help create opportunities for Chinese companies to participate in international cooperation and promote cross-border technology exchanges in the new energy vehicle industry.

3.7. Opening China's Foreign Trade in Raw Materials

The operations of various new energy vehicle companies are closely linked to China's trade in raw materials, especially in the battery supply chain. They rely on Chinese suppliers for a large number of battery materials such as lithium and graphite [8]. China, a major global supplier of these materials, also plays a critical role in Tesla's supply chain. China's recent imposition of export controls on graphite is evidence of the important interdependence between Tesla and China's trade in raw materials [9]. Additionally, Tesla is not only expanding its production capacity by establishing the Gigafactory in Shanghai but also promoting foreign direct investment in China. The move also signaled Tesla's long-term commitment to the Chinese market, fostering a mutually beneficial relationship in terms of trade in raw materials and technology transfer. In conclusion, Tesla's multifaceted strategy and continued investment in China's new energy market have contributed significantly to the market's development, reflecting a symbiotic relationship that benefits both Tesla and China's broader economic and technological ambitions.

Overall, Tesla's strategic initiatives on these fronts have greatly impacted the supply and demand dynamics of China's new energy vehicle market. Tesla's success in China has attracted global attention to the potential and viability of China's new energy vehicle market, which may promote international cooperation, investment, and advancement in the industry.

4. Analysis of Tesla’s Competitive Strategy and Pricing Strategy

Tesla entered the Chinese market in 2014 with the Model S, a luxury model, and most of the consumer groups were the richest people in China at that time, which left a stereotype to ordinary people that Tesla is only affordable for rich people to drive. After the market stabilized in China, Tesla worked hard to enrich its products to meet the price demands of different consumer segments in China. For example, it introduced a less expensive variant of Model 3 to appeal to a wider customer base. Because of the initial strategy, most people chose Tesla out of vanity when they found that they could afford a car they thought only the rich could afford. Model 3 was priced at 249,900 yuan after subsidies, which was seen as a pricing strategy to compete with local new energy vehicle automakers [10]. Later, an updated version of Model 3 was launched, priced at 259,900 yuan, which was 12% higher than the previous version but still competitive in the market.

Tesla has adopted a development-oriented strategy to upgrade from the supply side according to the characteristics of the Chinese market. This includes expanding production capacity in China through the establishment of the Gigafactory in Shanghai, thereby significantly reducing production costs and realizing a competitive pricing strategy.

Additionally, Tesla utilizes a differentiation strategy to offer unique performance and design attributes that set it apart from its competitors. The brand's global reputation for innovation and

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high-quality electric vehicles also plays into this strategy, creating a unique market position that is difficult for competitors to imitate.

Like many other companies, Tesla utilized celebrity and hunger marketing to increase its brand appeal and market share in China. By creating buzz around its products and utilizing influential people, Tesla quickly captured a significant market share.

On the other hand, Tesla has adjusted its pricing strategy in response to the price wars initiated by other electric car makers. This is evident in the pricing of the Tesla Model 3, where the company aims to remain competitive in a market full of aggressive pricing strategies from local and international competitors [11]

Having stabilized the Chinese market, Tesla has also invested in building strong brand awareness and engaging with consumers through various marketing and sales campaigns. This includes an online sales platform and a focus on customer experience, which enhances its competitive positioning in China.

Tesla's diversified strategy reflects a keen understanding of the competitive dynamics and consumer preferences in China's new energy vehicle market. Through product diversification, competitive pricing, and strong brand positioning, Tesla has successfully established a significant market position in China in a highly competitive environment. These strategies are in line with the broader trend in China's new energy vehicle market, where pricing, brand awareness, and technological innovation are the keys to success. Tesla's approach demonstrates a nuanced understanding of these factors, which has contributed to its growth and competitive positioning in China.

5. Conclusion

This paper examines Tesla's impact on China's new energy vehicles and the strategies implemented by Tesla through an in-depth discussion about Tesla's market strategy and its impact on China's new energy vehicle market. To summarize, Tesla has had a profound impact on China's new energy vehicle industry because it has intensified competition in China's new energy vehicle market, prompted similar Chinese new energy vehicle firms to innovate, upgraded the industrial level of China's new energy vehicle firms, and helped to improve China's policies in this area. If Tesla intends to develop further in the Chinese market, difficulties such as consumer acceptance, insufficient charging infrastructure, and subsidy policies need to be overcome. What Tesla needs to do now is to maintain its past development progress and strategies and adapt to the latest market environment at any time. Due to the difficulty in accessing the professional knowledge of new energy vehicles and Tesla's latest data, this research may miss more aspects of Tesla's impact on China's new energy vehicle industry. Future studies require more real-time, accessible data and expert insights to enable more accurate analysis of market dynamics.

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