

Tesla's Pioneering Role in the New Energy Vehicle Industry: Strategies for Success

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Abstract. Tesla, as a leader in the electric vehicle industry, has achieved significant success in technology and market and has actively contributed to environmental protection and sustainable transportation. Tesla's outstanding global electric vehicle market achievements as a new energy vehicle industry leader are explored in this article. Through its unique differentiation and innovation strategy, Tesla has successfully shaped its brand image and become a leader in the new energy vehicle industry. Tesla's product positioning, marketing model, innovative technology, and competitive advantages are examined in the article. Additionally, Tesla's global strategic layout and ecosystem construction have been extensively discussed. Tesla's successful experience provides significant inspiration for the development of the new energy vehicle industry, which includes technological innovation, brand value, international market expansion, and ecosystem construction. Tesla will keep expanding its global market share, introduce more models and services, and contribute more to the development of the electric vehicle market.

Keywords: Tesla, New Energy Vehicles, Differentiation Strategy, Innovation Strategy.

1. Introduction

In the late 1990s and early 2000s, the concept of new energy vehicles was introduced by electric vehicles. With the increasing awareness of environmental protection and restrictions on traditional fuel vehicles, many countries have formulated policies to encourage the development of new energy vehicles, such as subsidies for vehicle purchases, which have given a strong impetus to the progress of the new energy vehicle industry [1-3]. The technology maturity of the new energy automobile industry has improved in recent years, and the market scale is still expanding. The development trend of further technological breakthroughs, increasing market share, and improving the industrial chain is becoming increasingly significant as policy support continues to strengthen [4-6]. To become bigger and stronger, Tesla's new energy automobile enterprises must grasp the industry's development opportunities based on the market environment.

Tesla has a history of twenty years and was founded by Martin Eberhard and Mark Tarpenning in 2003. After four stages of development: start-up period, transition period, rapid development period, and expansion of the global market, Tesla is gradually growing into a dazzling new star in the new energy vehicle industry, and its pioneering product design, technological innovation, and even marketing model and service approach are setting off a revolution in the electric vehicle field, continuously promoting the industry to advanced technology and product development to realize sustainable lifestyles and businesses. The aspect of the role of Tesla in which Tesla's differentiation strategy and innovation strategy cannot be faulted. Tesla's new business model is useful for breaking through the drawbacks of the typical manufacturing business model and realizing the progress of China's traditional automobile manufacturing enterprises [7-10].

Tesla, known as 'Apple' in the automobile industry, has made remarkable achievements in the global electric vehicle market as the leader of the new energy vehicle industry. Taking the financial report of the company in the past two years as an example, in 2021, the global registered sales of new energy vehicles amounted to 6,514,000 units, of which Tesla took a leading position with an overwhelming advantage of 935,700 units and won the title of the world's best-selling new energy vehicle enterprise for four consecutive years. From the point of view of profit, Tesla's ability to make

profits is also evident to all, realizing revenue of \$53.823 billion and net profit of \$5.519 billion in 2021; in 2022, in terms of profit, Tesla's full-year operating margin was 16.8%, GAAP operating profit was \$13.7 billion, GAAP net profit was \$12.6 billion, and non-GAAP net profit was \$14.1 billion. As for Tesla, Tesla's full-year 2022 operating cash flow was \$14.7 billion, and free cash flow was \$7.6 billion, with cash and investments growing by \$1.1 billion to \$22.2 billion in the fourth quarter. Tesla's performance in the Chinese market has been quite good since its full entry in 2017, and it's worth mentioning. In 2022, Tesla's sales in China reached 439,770 units, compared with 2014, an increase of nearly 410,000 units, far exceeding the vast majority of national brands, and the average profit of a single vehicle is more than ten thousand dollars. The strong production capacity of Tesla's Shanghai Super Factory is a testament to this. Data from the Shanghai Municipal Commission of Economy and Information Technology shows that in 2022, the total output value of Tesla in Shanghai will be 183.9-billion-yuan, accounting for 23% of the output value of Shanghai's automobile manufacturing industry. Tesla's Shanghai Super Factory has rapidly reached a parts localization rate of over 95%, resulting in 360 upstream suppliers, 100,000 jobs, and 700 billion yuan in cumulative orders.

2. Tesla's Differentiation Strategy

Tesla has implemented a differentiation strategy to highlight product characteristics and build brand advantages. Regarding product positioning, Tesla has been adjusting and optimizing its product line after comprehensively enhancing its brand influence, gradually extending its luxury models to the lower levels, and completing the hierarchical positioning of luxury, high-end and intermediate models. Interestingly, Tesla did not take the low-end model as its first product like traditional automobile enterprises, but using the 'blue ocean strategy' as a unique approach, they skillfully occupied the strategic high point in the luxury electric car market. This brings fierce competition and reduces Tesla's market competition pressure, winning opportunities for Tesla's strategic development.

Instead of going the usual route of all-encompassing advertising, such as TV and print ads or event sponsorships, Tesla has mimicked Apple's marketing strategy for its product introductions. This strategy is consistent with the premium positioning of its products, offering cutting-edge technology products to a small number of high-end elites, and at the same time relying on the promotion effect of these elites to successfully build up its brand image and awareness of its technological luxury electric cars without spending a large amount of money on advertisements. With the gradual expansion of its product line, Tesla has gradually established a complete marketing system, including speeches by the founder, publication of books, "direct sales + online booking" sales model, and free charging after-sales service, which on the one hand ensures the balance between supply and demand, and on the other hand directly reduces the cost, which not only enhances the popularity of its products but also achieves a good reputation in the market. This has increased Tesla's products' popularity and achieved market success.

3. Tesla's Innovation Strategy

In addition to the differentiation strategy, the product and business model innovation is also a key link for Tesla to maintain its vitality and dominance. For the product itself, Tesla's achievements and patents in product design, supply-demand interface, battery management system, "cloud service", product concept, etc., have formed the core competitiveness of the enterprise. For the business model, Tesla has comprehensively utilized the direct sales model, O2O model, all-vehicle sales+self-charging network, and focused on the user experience to continuously build and strengthen customers' brand recognition and adhesion. Tesla utilizes the direct sales model, O2O model, all-vehicle sales + self-charging network, focuses on user experience, and continuously builds and strengthens customers' brand identity and adhesion.

First, product design innovation. Traditional automakers produce electric vehicles with average performance and need more innovative designs. However, Tesla takes Internet thinking as a starting point and boldly reforms its industrial design, striving for better performance, more creative appearance and greater appeal. In using materials, Tesla chose lighter and safer carbon fiber for the body. Regarding structural design, Tesla cars discard the engine and traditional drivetrain, so the space inside the car has been greatly increased. In addition, Tesla also broke the traditional car control panel design and added the touch screen function that can connect with the Internet and Tesla's network, which provides consumers with functions such as navigation, music and other functions and brings an extremely pleasant user experience.

Second, customers demand innovation. Tesla has been actively understanding and meeting customer needs, continuously improving and innovating, even down to the details, and focusing on solving users' problems. For example, many car owners accidentally touch nearby objects when they open the door after parking in a narrow space. Tesla saw this problem and introduced an innovative eagle-wing door design for its family model, Model X, which greatly facilitates access for car occupants in many ways. In addition, dust storms and hazy weather are very common in the northern region, resulting in very high levels of air pollution. In response, Tesla's ModelS and ModelX are equipped with a large air filtration system and a biodefense mode to combat air pollution effectively.

Third, battery management system innovation. Tesla's battery management system is its key competitiveness, especially several patented technologies highlighting the battery system. Tesla uses Panasonic's 18650-type lithium-ion cobalt-acid batteries, which provide an excellent guarantee of the EV's driving ability due to the large capacity of its single cell. Although the technology of lithium-ion batteries is more mature than that of batteries used in other electric vehicles, they are less stable and prone to safety problems. To overcome this problem, Tesla has successfully developed a new battery management system, thus establishing its technological superiority in the EV industry.

Fourth, cloud service innovation. Through the unique "cloud service" model, Tesla provides consumers with high-quality after-sales service. Once a Tesla electric car has a problem, the call center staff can directly access the faulty vehicle through the network, diagnose all kinds of error codes and logs, find and solve the problem, and guide consumers to carry out basic troubleshooting to solve the vehicle fault quickly. In addition, Tesla breaks the traditional automobile recall mode and can recall defective electric cars by updating software only, effectively improving service efficiency.

Fifth, product concept innovation. Tesla's product concept is also different. Tesla's operating platform can be continuously updated and upgraded, which prevents its products from becoming obsolete over time like traditional models and makes consumers feel that their electric cars are always fresh. This continuous system update helps to attract and maintain consumers' long-term interest and adhesion to Tesla products. This is a concrete practice of Tesla's "user experience first" product philosophy.

Sixth, the direct sales model encourages customers to join the ecosystem in the sixth position. Tesla adopts the innovative marketing methods of online direct and experience store sales as its driving force, provides a full-process service model, and builds an ecosystem encompassing various aspects such as purchase, use, warranty and value-added. Choosing Tesla means that customers accept it and become a part of the ecosystem it builds.

Seventh, Tesla has implemented an O2O strategy that combines brick-and-mortar experiences with online sales. Tesla's sales strategy is to provide consumers with sufficient opportunities to test drive and freely select their favorite models through online sales and experience stores so that consumers do not have to pay intermediary fees in the purchase process. Brick-and-mortar stores are usually located in busy luxury shopping centers and districts to enhance their noble and stylish brand image. During the purchase process, consumers are required to pay a portion of the deposit before production, which not only meets the consumers' personalized needs and comfortable experience of the vehicle but also speeds up Tesla's capital turnover.

New profit channels have been created by selling all cars and self-charging networks. Tesla's innovative business model of "selling cars and providing its charging network" has built an EV energy

supply system centered on charging infrastructure, bringing new sources of profit for the widespread promotion of new energy vehicles. The cost and risk of using new energy vehicles for consumers can be reduced by its car leasing service, leading to increased consumer acceptance of new energy vehicles. In addition, the “selling cars but not batteries + battery leasing” model can reduce the economic pressure on consumers to buy cars and reduce the time and energy they need to invest in battery maintenance and charging, making more consumers more inclined to choose Tesla’s products.

4. Conclusion

Tesla’s success is also highly instructive for developing the new energy automobile industry. First, technological innovation is the key. The new energy automobile industry must continuously invest in technological innovation and R&D to improve product performance and user experience to meet consumer demand and maintain competitive advantages. Secondly, clarifying the differentiated positioning and enhancing the brand value is necessary. By differentiating product positioning and shaping the core values associated with the brand, it can attract specific consumer groups and increase market share and premium capacity. Again, focus on building a globalized strategic layout. The global market has great potential, and new energy vehicle companies should actively explore the international market, establish sales networks and charging infrastructure, and expand market share. In addition, builds a unique ecosystem. In the field of new energy vehicles, building a complete ecosystem can provide more comprehensive solutions, including charging facilities, energy storage and renewable energy, increasing the added value and competitiveness of products.

Tesla Motors is becoming a global leader in electric vehicles, and its sales and service network is expanding globally. Tesla Motors will continue to expand its global market and introduce more models and services to make greater contributions to the development of the electric vehicle market in the future.

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