

A Case Study of Marketing at Tesla Based on the 4V Theory

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ABSTRACT

With the improvement of people's living standards and the emphasis on environmental protection, more and more consumers are choosing to buy new energy electric vehicles as a means of transportation. Tesla, as a typical representative company of the new era of electric vehicles, has attracted much attention in the field of electric vehicles for its every move. As a leader in the electric vehicle industry, it is worthwhile to explore how Tesla can achieve successful marketing and make other small and medium-sized enterprises compete to imitate it. Based on the 4V marketing theory of Tesla case study, this paper analyzes the effectiveness of Tesla's existing marketing strategy from the consumers' point of view by studying consumers' evaluation of Tesla's use and willingness to buy through questionnaire surveys, and at the same time, the success of Tesla's marketing strategy is thoroughly discussed and studied from four perspectives of the 4V theory of differentiation, functionality, added value and social resonance. Tesla is ahead of other domestic EV companies in terms of product diversification, functionality and added value, and although it can resonate with society in terms of environmental protection, there is still room for improvement in terms of after-sales service and pricing strategy. Finally, this paper puts forward its optimization measures in terms of maintaining the brand image and stabilizing the price, which has important practical significance for the development of the new energy vehicle industry.

Keywords: *Tesla; Marketing theory; 4V Theory*

1. INTRODUCTION

1.1. Research Background and Motivation

With the continuous development of science and technology and the times, more and more people are paying attention to the environmental pollution problems caused by the development of science and technology. Among them, the exhaust emissions of diesel and gasoline vehicles have largely contributed to air pollution and the greenhouse effect, and therefore, in the past decade or so, the technological research of pure electric and hybrid vehicles has attracted the attention of environmentalists. The battery technology associated with them has also been iteratively updated. Today, the world's automotive industry is experiencing a revolution from fuel vehicles to the design and manufacture of electric vehicles, and pure electric vehicles are increasingly favored by different countries, governments and consumers. The key to grasping this change, achieving technological innovation and winning a wide

range of markets lies in the development of marketing strategies. Tesla, an American electric vehicle and energy company, manufactures and markets electric vehicles, solar panels, and energy storage devices. Founded in 2003 by Martin Eberhard and Marc Tarpenning, the founders named the company "Tesla Motors" in honor of physicist Nikola Tesla. Elon Musk joined the company in 2004 and led the Series A financing. Elon Musk, CEO of Tesla, said that Tesla strives to provide every average consumer with a purely electric vehicle within their reach; Tesla's vision is to 'accelerate the global shift to sustainable energy'. In February 2004, Elon Musk, who had been concerned about lithium battery technology for a long time and saw the potential of Tesla's future development, entered Tesla, led the Series A financing and invested \$6.3 million to become Tesla's largest shareholder and chairman. Musk's investment was an important turning point for Tesla's success. In 2008, under the impact of the recession and the U.S. subprime mortgage crisis, Tesla faced bankruptcy, under the crisis Tesla conducted a fourth round of financing, a total of more than 60 million dollars into the convertible bonds

were also issued, raising about 55 million U.S. dollars, there is no danger to survive the economic crisis. In May 2009 Daimler AG, Daimler AG, acquired a 10% stake in Tesla, providing Tesla with \$50 million. In June of the same year, Tesla received a \$465 million low-interest loan approved by the U.S. government. In June 2010, Tesla went public on the NASDAQ exchange, completing an initial public offering with \$226 million in financing, becoming the first independent manufacturer of pure electric vehicles to go public in the United States. Tesla officially entered the Chinese market in December 2013 when the Model S model produced by Tesla went on sale in China. In November 2016, Tesla acquired a 22% stake in Solar City, a U.S. solar power systems provider, transforming it into the world's only vertically integrated energy company.

Nowadays, according to the increasing attention to environmental issues, it has become a great hope for all countries to reduce air pollution, lower carbon emissions and promote the development of pure electric vehicles. Therefore, based on this background, the main purpose of this paper is to analyze the more successful electric car company (Tesla) from the marketing perspective to provide good marketing suggestions to other electric car companies that are just starting out, and to analyze the shortcomings of the case company and suggest improvements in order to achieve successful marketing in the pure electric car industry and improve the current problem of excessive global carbon emissions.

1.2. Literature Review

At present, there are many research results on the business strategy of enterprises in the new energy automobile industry. Wu Jinming (2013) first put forward the 4V marketing theory in a comprehensive manner. The so-called "4V" refers to the marketing theory combination of Variation, Versatility, Value and Vibration. With the development of the times and the continuous progress of science and technology, domestic scholars according to the existing marketing theory, refined and summarized the 4V marketing theory, emphasizing that enterprises to implement differentiation marketing, requiring greater flexibility of products or services, consumers can be based on their own preferences, habits and affordability, the combination of product-specific needs. Meanwhile, the 4V marketing theory also requires products to improve the added value of technology. High-tech content is fully reflected in the "value offer", paying more attention to the intangible elements of the product or service, and satisfying consumers' emotional needs through the brand, culture, etc.[1]. According to Rainbow Zhang (2013) and others, another important factor for Tesla's success, in addition to having advanced battery technology, is the adoption of an appropriate marketing strategy. It entered the market by using luxury pricing and quickly adjusted its pricing

strategy to lower prices after obtaining investment. At the same time Tesla adopted a hunger marketing model after entering China, which further enhanced brand awareness and brand value. Tesla also adopted the sales approach of building its own marketing channels, i.e., a combination of manufacturers and 4S stores, to provide customers with more diverse choices [2]. According to Ruan, Wen-Lin (2010), the new 4V theory can be effectively applied to integrated marketing in the automotive industry to well improve and build the core competitiveness and comprehensive level of the enterprise and reach the marketing objectives of the enterprise [3]. Tesla was able to break the existing traditional automobile marketing and marketing laws, relying mainly on value marketing, and the value marketing strategy is divided into consumer-driven customer value and enterprise-driven corporate value, and the marketing strategies of two different subjects complement each other, with the customer, as the end user of the product, being the main driver of the company's growth and ultimate success; and corporate value, which mainly describes the ability of the company itself to achieve and provide a product or service with value meaning at the lowest cost [4]. The 4V theory is a marketing concept that takes into account the interests of society, consumers, investors, companies, and employees simultaneously, oriented to the core competitiveness of the company. At the same time, it is also a marketing tool that takes the maximization of consumers' interests as the goal, achieves the increase of added value of products through value innovation, resonates with consumers, and caters to the consumer characteristics of the new era [5].

1.3. Research Contents and Framework

The research contribution of this paper is to discover the current marketing strategy of Tesla by taking Tesla as the research object, analyze the pros and cons of Tesla's marketing strategy by using the 4V marketing strategy, and finally propose optimization suggestions based on the analysis findings. The main highlight of this paper is to obtain real data through a questionnaire survey, and to conduct a statistical analysis and cross-analysis of Tesla's current situation based on the survey results and combined with the 4V theory. The main difficulty lies in the design of the questionnaire and how to collect questionnaires from respondents of different age groups. The questionnaire design was compiled after referring to a large amount of literature and existing information about Tesla marketing. The research framework of this paper is as follows; the first part is the introduction, which mainly includes the research background and literature review, the second part is the methodology, the third part is the results of the questionnaire analysis, and last part is the conclusion.

2. METHODOLOGY

2.1. Marketing Strategy of Tesla

Tesla first adopted a marketing strategy of luxury positioning into the market, the first Tesla Roadster, developed and manufactured by Tesla, was positioned as a high-end coupe. Most of the customers in the customer list of the first model can be on the list of global rich people, from Brad Pitt to Schwarzenegger, big names and famous entrepreneurs have helped Tesla, which also made sufficient preparation for Tesla to return to the capital, and laid the foundation for future R&D and new models. In the early stage of entering the Chinese market, Tesla adopted a sales strategy of hunger marketing. Unlike traditional car companies, Tesla did not adopt a large-scale marketing strategy, but established offline 4S car experience stores to sell the products at the same time. If customers wanted to buy a car after the experience, they would be told that they needed to make a reservation a year in advance. This practice has greatly improved Tesla's brand awareness and brand value, further establishing a high-value brand image in consumers' minds. At the same time, Tesla is actively pursuing its localization strategy in China, gradually promoting the localization of its cars, adopting lithium batteries produced and sold by Chinese companies such as Contemporary Amperex Technology Co., Limited, reducing the cost of its cars, adapting to the needs of the middle class, and also gaining support from China's national new energy policy to continuously improve the competitiveness of its products. Tesla's strategy of self-operated 4S stores, in these experience stores, in addition to setting up a platform to display products, also provide customers with their own interactive screens to customize their exclusive cars. In addition, Elon Musk has hired George Blankenship, the former sales executive of Apple, as vice president to designate retail strategy and retail channels for Tesla, laying a firm market foundation and technical foundation for Tesla's success.

2.2. 4V Marketing Theory

4V marketing theory refers to the marketing mix theory of four aspects: differentiation, functionalization, added value, and empathy. The purpose of differentiation is a strategy to distinguish oneself from competitors through technology or services, etc. It is mainly divided

into three aspects: market differentiation, product differentiation and image differentiation. Functionalization, also known as flexibilization, refers to providing of a series of products with different functions according to different needs of consumers. Added value mainly includes high technology added value of products and corporate culture added value. Resonance refers to linking the innovation and creativity of the company with the interests of consumers, maximizing their satisfaction by providing value innovation to them and achieving "utility maximization" [1]. At present, the 4V theory is mainly applied in business enterprises, manufacturing industries, service industries, etc., It has a wide range of applications.

2.3. Survey Design

The purpose of this questionnaire survey is to study the product marketing strategy of Tesla, based on the 4V theory, to investigate whether the marketing strategy of the company is effective and feasible from the perspective of consumers. In the research process, this paper reviewed a large amount of information on the future of the electric vehicle industry and existing literature on marketing strategies, in addition to collecting the necessary data. Combining the previous experience to better design the questionnaire, the current problems on Tesla's marketing strategy were found and analyzed from four perspectives: differentiation, added value, flexibility, and empathy in all aspects.

3. RESULTS AND DISCUSSION

3.1. Analysis of Survey Results

3.1.1. Statistical Results

3.1.1.1. Analysis of basic information survey results

The purpose of this questionnaire is to study customer satisfaction and feedback on the use of Tesla's automotive products. The main distribution method was online, and the survey was collected through the distribution link. 315 valid questionnaires were distributed and collected in total. The data collected in this questionnaire is only for statistical analysis, so as to make preliminary prediction on the development prospect of new energy vehicles.

Table 1. Number of participants and basic information of the questionnaire

Category	Options	Numbers	Percentage
Gender	Male	165	52.38%
	Female	150	47.62%
Age	18-30 years old	48	15.24%
	31-50 years old	183	58.1%
	Over 50 years old	84	26.67%

Qualifications	Junior high school and below	36	11.43%
	Technical secondary school or high school	132	41.9%
	College or undergraduate	130	41.27%
	Master degree and above	17	5.4%
Career	Farmer	85	26.98%
	Corporate employees	186	59.05%
	Government employees	17	5.4%
	Others	27	8.57%
Revenue	3000-5000 yuan	106	33.65%
	5001-8000 yuan	75	23.81%
	8001-10000 yuan	84	26.67%
	Over 10000 yuan	50	15.87%

According to the survey results in Table 1, the total number of participants in the questionnaire was 315, with 315 valid questionnaires. Among them, the number of male participants accounted for 52%, the number of female participants is about 48%, the age is mainly concentrated between 31-50 years old, young adults around 30 years old are more interested in the survey about Tesla cars, the number of participants reached 58% of the total. Occupationally, nearly half of those surveyed were employees of enterprises, earning between 3,000-5,000 yuan, and more than half of them had education at the level of junior college or high school, college and bachelor's degree.

3.1.1.2. Analysis of the results of actual purchase survey

As shown in Table 2, about 80% of the surveyed consumers were willing to buy Tesla cars, while only 20% were unwilling to buy. In addition, from the cross-

tabulation analysis of the respondents' age level and purchase intention, most of the people who are willingness and able to buy Tesla products are young people aged 31-50 with certain savings. From Figure 1, we can see that the younger group of 18-30 years old is actually more willing to buy Tesla.

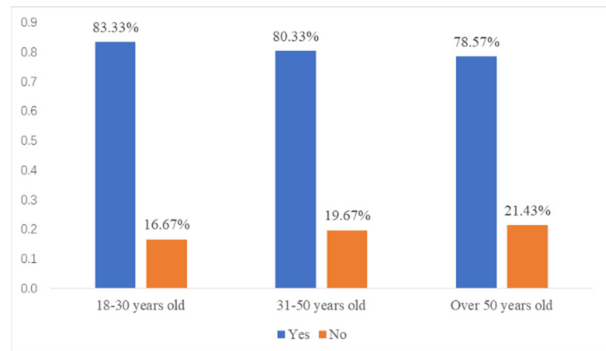


Figure 1 People of different age groups willing to buy Tesla cars

Table 2. People of different age groups willing to buy Tesla cars

X\Y	Yes	No	Total
18-30 years old	40(83.33%)	8(16.67%)	48
31-50 years old	147(80.33%)	36(19.67%)	183
Over 50 years old	66(78.57%)	18(21.43%)	84

From Table 3, of the 315 questionnaires collected, 80% have purchased a Tesla car and 20% have not. It can be

seen that the current audience of Tesla in China is wider and the market is more optimistic.

Table 3. Whether to purchase

Yes or No	Quantity	Percentage
Yes	251	79.68%
No	64	20.32%
Total	315	100%

From Figure 2, it can be seen that the distribution of the way consumers buy Tesla is relatively even, among which the new shopping way of booking on the official

website and other online ways to buy is more favored by the public, and people are more willing to make car purchases through this convenient way of the Internet.

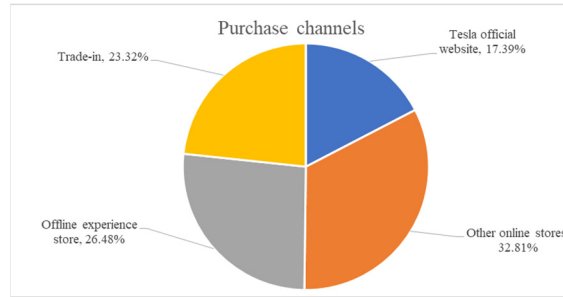


Figure 2 Purchase channels

According to the question "Are you satisfied with Tesla or its products", more than 60% of consumers are

satisfied with the products, while 36% of consumers are satisfied with the products or even dissatisfied.

Table 4. Satisfaction

Satisfaction	Quantity	Percentage
Very satisfied	91	28.89%
Satisfied	109	34.6%
Ordinary	59	18.73%
Dissatisfied	34	10.79%
Very dissatisfied	22	6.89%

According to Figure 3, over sixty percent of consumers believe that the current Tesla vehicles are very

good or good value for money, and about 37 percent of customers believe that the value for money is fair or poor.

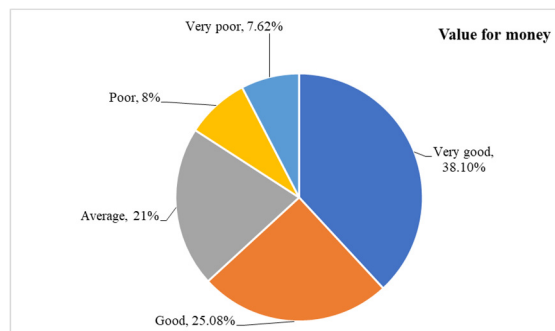


Figure 3 Product cost performance

Table 5. Brand emotion

Satisfaction	Quantity	Percentage
Very good	97	30.79%
Good	104	33.02%
Ordinary	51	16.19%
Poor	24	7.62%
Very poor	39	12.38%
Total	315	100%

Judging from consumers' emotional feedback on Tesla's brand, consumers who like Tesla account for the majority, but about 19% still dislike Tesla.

Table 6. Emotions of different ages towards the Tesla brand

X\Y	18-30 years old	31-50 years old	Over 50 years old
Very good	12(25%)	59(32.24%)	26(30.95%)
Good	16(33.33%)	64(34.97%)	24(28.57%)
Ordinary	10(20.83%)	29(15.85%)	12(14.29%)
Poor	3(6.25%)	15(8.2%)	6(7.14%)
Very poor	7(14.58%)	16(8.74%)	16(19.05%)
Total	48	183	84

The analysis of Figure 4 shows that young people prefer Tesla and have higher brand sentiment towards Tesla. Nearly 66% of the 18-30 years old expressed brand identification with Tesla. Unexpectedly, the middle-aged group over 30 years old is also very favorable to Tesla, and is on par with young people.

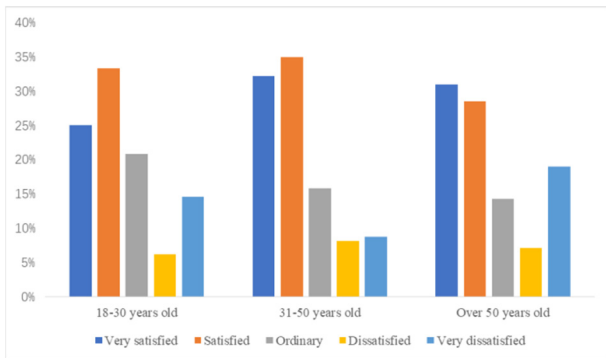


Figure 4 Different age groups have sentiment towards the Tesla brand

3.1.2. Situation Analysis

3.1.2.1. Analysis of the current state of differentiation of Tesla marketing

In the automotive field, differentiated marketing strategy refers to the production of products with significantly better performance and quality than the existing products in the market based on its existing advantages in various aspects such as technology and management in the field of automobile manufacturing and sales, or in the field of sales, through differentiated marketing methods and means, comprehensive and

considerate after-sales service and other strategies to make the products and services of the enterprise give consumers a sense of difference from what other enterprises can give to a sense of difference, to deepen the good image of the enterprise. Differentiated marketing is the pursuit of "difference" is the essence of the product "incomplete substitutability", under normal circumstances, enterprises will be in the enterprise's product features, quality, service, marketing and other aspects of the differentiation strategy, in order to achieve product differentiation, market differentiation and image differentiation [6]. The data below shows that consumers are still satisfied with the differentiation of Tesla's current car products. About 68% of those surveyed believe that Tesla's car products are richly differentiated and that customers can find the right car for them according to their needs, budget and preferences. This advantage is attributed to Tesla's comprehensive after-sales service and having models at different price points. The Model S is positioned for the rich, and in addition to the clichéd advantage of being energy-efficient and purely electric, the car's interior, configuration, driving range and various other high-performance advantages can greatly attract the attention of high-end users. After entering the Chinese market, Tesla has dedicated itself to creating cost-effective models suitable for business people, realizing the demand for product differentiation from consumers at different levels and winning a broader market. However, due to the high-end positioning into the market, the current Tesla desperate to adapt to the mass market's eagerness to make quick profits has led to a very unstable price, and even once a continuous price reduction, such a phenomenon will greatly affect the trust of old customers for the value of the brand and brand emotions, will have a negative impact on the brand image.

Table 7. Product differentiation

Satisfaction	Quantity	Percentage
Very satisfied	66	20.95%
Satisfied	153	48.57%

Ordinary	46	14.6%
Dissatisfied	19	6.03%
Very dissatisfied	31	9.84%
Total	315	100%

Table 8. Tesla models at different prices

Product number	Current price
Model 3	25.174-33.99 million yuan
Model Y	29.184-38.79 million yuan
Model S	89-105.9 million yuan
Model X	93-99 million yuan
Model 3(import)	36.39-50.99 million yuan
Model Y(overseas)	44.4-53.5 million yuan
Roadster(Coming soon)	None

3.1.2.2. Analysis of the current state of functionalization of Tesla marketing

Enterprise product functionalization is mainly positioned at three levels, one is the core function, the core function of the car products manufactured by the pure electric vehicle industry is zero emissions and zero fuel consumption, Tesla is currently in the leading position at this point. The second is the extended function, which can refer to the soft power of the car such as car interior, intelligent configuration, LCD large screen, Bluetooth navigation and so on. Third is the additional function, such as aesthetic function and so on. From the statistics, we can see that most of the users who have bought Tesla think that Tesla cars are doing well in terms of functionalization. From the technical aspect, Tesla has advanced battery technology, diversified charging methods (super charging pile, motor secondary charging,

etc.), and driverless technology, and the black technology of automatic parking and automatic lane changing is still sought after and imitated by major automobile companies today. Rather than categorizing customers into medium-high and low-end based on the price of the model, Tesla offers customers as many options as possible, such as customization of the interior, sunroof, wheel bones, paint, etc. This is in line with the philosophy or target market they appeal to, which is to attract customers who are environmentally conscious and at the same time want all the features and performance of a traditional car, as well as those who are interested in the technology and economics of electric cars, advocating that customers can choose a Tesla car that better suits their needs. But the problem with customization is that the cost of building the car will be higher for the company, which is undoubtedly a disadvantage when compared to the mass production of traditional cars to achieve economies of scale [7].

Table 9. Functional evaluation

Satisfaction	Total	Percentage
Very satisfied	73	23.17%
Satisfied	141	44.76%
Ordinary	53	16.83%
Dissatisfied	19	6.03%
Very dissatisfied	29	9.21%
Total	315	100%

3.1.2.3. Analysis of the current situation of added value of Tesla products

Added value refers to the process of selling products, the technology attached to the goods, marketing services

and corporate culture and brand attached to the three components of the enterprise. The enhancement of the added value of products is the key factor for the success of marketing strategy. In terms of consumers, approximately 66% of consumers are satisfied with the

added value of Tesla's products. Tesla's technology added is mainly reflected in its innovative battery technology, Tesla mainly uses lithium iron phosphate is a lithium-ion battery with lithium iron phosphate as the cathode material, although its performance, capacity, weight and other aspects have great advantages, but its preparation in the sintering process, extremely easy to restore oxidation, but Tesla has successfully filled the gap in the battery industry, breaking through many limitations, to show consumers The technology and future of the electric vehicle industry has greatly

improved consumer confidence in the electric vehicle industry, and it is the in-depth exploration of advanced technology that has made Tesla the leader in the field of pure electric vehicles in just a few years[8]. Although Tesla technology is ahead of most people, so far, the reason why the promotion of charging electric cars is small and difficult to promote mainly because of the current laying of fewer charging facilities, the number and location of charging piles is small, resulting in still some consumers have difficulty in accepting.

Table 10. Added value evaluation

Satisfaction	Total	Percentage
Very satisfied	104	33.02%
Satisfied	104	33.02%
Ordinary	52	16.51%
Dissatisfied	25	7.94%
Very dissatisfied	30	9.52%
Total	315	100%

3.1.2.4. Tesla's social resonance

Tesla has an advanced service philosophy that resonates strongly with its customers. Tesla's after-sales service warranty and charging service is one of the core competitive tools that make it invincible. After purchasing a Tesla car, customers will be provided with an 8-year unlimited mileage or 200,000km mileage warranty, basically eliminating the need to consider the cost of future car maintenance or replacement. At the same time, there is clean solar energy charging at any time, for each trip to do a good job, which is currently other traditional fuel cars cannot do a strong competitive advantage. All the above services can make consumers feel "value maximization", Tesla's value offering, more profoundly improve the competitiveness of enterprises.

3.2. Reduce Production Costs and Ensure Service Quality

From the consumer mentality, most customers really need value for money does not only exist in the moment of buying a car, but more is the vehicle maintenance costs are too expensive. "Buy a car is easy to maintain a car is difficult" is the real idea of most car owners. In addition to government subsidies to introduce policies, the key is to reduce production costs, to provide high-quality low-cost after-sales service and maintenance in order to seize the consumer psychology, to achieve consumer expectations "maximize the utility"[9].

3.3. Create an Environmentally Friendly Brand

The low range is a major pain point for all pure electric cars, and Tesla is now encouraging the construction of home charging piles, which is a very practical way to solve the problem of difficult charging for pure electric car owners. At the same time, Tesla's "zero emissions, zero fuel consumption" environmental image can greatly combat the environmental attitude of low fuel consumption fuel cars and create momentum for its own brand image.

4. CONCLUSION

This paper analyzes Tesla's marketing strategy from the perspective of 4V theory. Customer surveys were conducted by means of online questionnaires to obtain data, and then both data analysis and cross-tabulation analysis were used to study the public's knowledge of Tesla's sales strategy and brand sentiment. From the various statistical results, it can be seen that the public is satisfied with Tesla's after-sales service and sales strategy, and believes that Tesla's product quality is excellent and innovative, and has established a certain brand emotion. At the same time, they think Tesla's pricing strategy is slightly inadequate, and the price fluctuates a lot over a period of time, so there is room for improvement. In addition to the brand concept of zero emissions and no pollution, Tesla should always put consumers first and strive to achieve "maximum utility" for them [10]. The main purpose and significance of this paper is that, based on the analysis of Tesla's marketing case, we hope to provide some good marketing strategy suggestions to

other pure electric car companies in the industry, so as to realize the healthy and friendly competition in the pure electric car industry and improve the situation of Tesla's dominance. At the same time, the analysis of Tesla can make Tesla clear about its own strengths and weaknesses, so that it can further develop its strengths and improve its weaknesses.

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