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Research on the Adaptability of Tesla's Operational Organization and Management in China

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Abstract: The purpose of this article is to use Tesla as a case study to analyze and propose available solutions for the current issues that the company is experiencing in the electric vehicle market. The Porter's Five Forces model is employed to provide a summary of Tesla's current situation in the Chinese electric vehicle industry. Also, the SWOT analysis method is applied to illustrate advantages and disadvantages, and future potentials of Tesla that operates in the Chinese market. The main weaknesses of Tesla at present have been identified based on relevant information, which are poor quality control, inadequate access deployment, and a crisis in public relations. Specific suggestions are provided in this article on how to address existing problems and future investment opportunities, including investing in cryptocurrencies to bring greater gains for Tesla, enhancing products' quality, diversifying, and improving after-sales services, and optimizing the layout and process of Tesla's production in China.

Keywords: Tesla, In China, SWOT analysis, Porter's Five Forces model, Organizational Behaviour Theory

1. Introduction

With the increasing awareness of environmental protection and the intensification of the energy crisis, electric vehicles, as one of the solutions, have made significant progress in China in recent years and gradually gained a foothold in the market. Meanwhile, optimizing electric vehicles has become a trend in the industry. However, Tesla, which leads global sales, has recently encountered a series of issues in China due to improper organizational management or poor product quality, leading the Chinese people to gradually lean towards independently developed electric vehicle brands such as NIO and BYD. As a domestic brand in China, electric vehicles are not only cheaper in terms of product, price, but also more convenient in after-sales service, which poses a threat to Tesla's development in the Chinese market. Previous documentation has seldom systematically reviewed and analyzed Tesla's organization. This paper uses SWOT and Porter's Five Forces models to analyze

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Tesla's current operation in the Chinese market and use Organizational Behaviour Theory to prospect Tesla's future development in China. The structure of this paper is mainly divided into three parts: the introduction of Tesla, an objective statement of Tesla's business model in China, development status, existing peer competition, and its own advantages and disadvantages; then an analysis of obstacles Tesla encountered after entering the Chinese market and deep analysis of its root causes, and finally give reasonable suggestions based on Organizational Behaviour Theory.

2. Tesla's Current Situation in the Context of Electric Vehicles in China

2.1. Current Situation of China's Electric Vehicle Industry

In the 21st century, there has been a rise in the number of new electric vehicles. With the Chinese government's formulation of a series of policies and the strong support of the state, the sales volume of electric vehicles in China has consistently ranked first in the world. However, in 2019, the new energy vehicle industry encountered difficulties. For the first time, the sales volume of new energy vehicles experienced negative growth, which had a serious impact on the development of the Secondary market. For example, Bitcoin, stocks, etc. But within a year, brilliant sales of new energy vehicles started again. Due to the Chinese government's partial cancellation of subsidies for new energy vehicles starting on January 1, 2023, the sales of new energy vehicles have decreased [1].

2.2. Tesla's Profile, Corporate Culture Leadership Style, and Business Model in China

Tesla, Inc. is a leading automotive and energy company headquartered in America. This can be attributed to the successful leadership of CEO Elon Musk, who has a long-term vision and is brave enough to question conventional leadership. He insists on transformational leadership and percolates his ideas to employees and makes them ready to be changing agents for the innovative EV industry [2]. As an innovative problem-solving company, their corporate culture mainly consists of fast-paced development, "Do the impossible", constant innovation, following the "first principle" by the CEO, customer centricity and "Do the best" [3]. It expanded its international program in China in 2014. In the Chinese market, Tesla's business model mainly focuses on manufacturing and selling electric vehicles through various application of strategies. For instance, the fourth Gigafactory was opened in Shanghai and plays a very crucial role in Tesla's operation in the Chinese market. Then Tesla also added the differentiation strategy of developing various products to achieve core competitiveness, not easily duplicated by other competitors. Moreover, Tesla also supplemented celebrity and hungering marketing strategy to enhance its reputation and occupy certain shares quickly [4].

2.3. SWOT Analysis for Tesla

The SWOT model is often used to analyze the strengths, weaknesses, opportunities, and threats of entrepreneurship through internal and external analysis. Through the analysis, we can figure out that firstly Tesla should continue its advantages, like keeping on its R&D like advanced battery technology, and unique and intelligent self-developed vehicle system. Meanwhile, Tesla is more competitive in the production line, particularly the establishment of the Gigafactory in Shanghai. This setup firstly helps itself avoid importing tariffs. Then localized manufacture helps be more responsive to local needs and preferences and lowers production costs by sourcing local materials and integrating with a unique Chinese supply chain. Next, one of the biggest weaknesses that exists in Tesla is its low-quality products. Other weaknesses can be Tesla's potential customers are limited to certain consumer groups and the incompatibility between EVs and charging protocols is still widespread. When Tesla entered the Chinese market, it successfully caught the opportunities of huge demands in this market. Then Tesla's decision to build a Gigafactory in Shanghai increased production and layout,

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creating new opportunities for itself. In the Chinese market, Tesla will meet threats from competitors, a fierce environment, and the government's forced policies [5]. Overall, the result of the SWOT analysis is summarized in Table 1.

Table 1: SWOT analysis of Tesla's operation in China

Strengths	Weaknesses	Opportunities	Threats
1. Advanced R&D (battery, vehicle system) 2. Production line (Gigafactory: avoid tariffs, low costs, high local satisfaction)	1. Poor product quality 2. Limited consumer groups 3. Widespread incompatibility between vehicles and charging protocols)	1. High demands in China 2. Large EV output from the super factory built in Shanghai	1. Existing competitors 2. Fierce competition 3. Forced policies from the government

2.4. Tesla's Current Operation and Further Expectations in China

Tesla has promoted the development of China's new EV industry. Since entering the Chinese market in 2014, Tesla's sales have been growing steadily. In 2020, Tesla sold 147,000 vehicles in China. Moreover, in 2022, Tesla's sales increased to 439,800 vehicles. Among them, Model Y sales were 747,000 units and Model 3 sales were 124,400 units. Then Model Y had a larger share of sales in China and was Tesla's best-selling model in 2022. Although Tesla's 2022 sales in China look good, Tesla's sales are down 3.73% from 2021. In 2022, Tesla sold 439,800 units in China, accounting for 33.5 per cent of global sales. In 2020, Tesla traded about 147,000 units, with China accounting for 29.6% of global sales. And in 2021, Tesla traded 321,000 units in China. These figures imply that Tesla's market sales in China are volatile. However, Due to the expanding market for new energy vehicles, Tesla has recently made a corresponding price reduction plan for the increased competition in the Chinese industry, while sales have also increased [6].

Porter's five forces model is usually used to help managers analyze competitive market forces within an industry and prospect the future development of the enterprise. In terms of competitiveness of competitors, Tesla faces highly competitive competition from a mix of domestic EV manufacturers, international automakers, and startups. Compared with its main competitors BYD and NIO, Tesla's comprehensive performance is also very high and highly competitive. Meanwhile, this also represents that customers have more choices with the increasing number of electric vehicles from other brands and the huge improvement in cost performance. So, the bargaining power of buyers is getting higher and higher. Then from the perspective of supplier bargaining power, the traditional automobile industry has developed for a long time, each supply chain link tends to mature, the market mechanism is relatively perfect, each manufacturer competes fairly, and there is no technical monopoly. Then about the core technology, for example, the battery management system is made by Tesla himself. Compared with other companies, Tesla has its own supply advantages such as Gigafactory and does not have the supplier's bargaining power pressure. Traditional internal combustion engine vehicles still dominate the overall automotive market, but the Chinese government's push for electric vehicle adoption and the increasing availability of EV options have made electric vehicles a viable substitute for consumers. However, Tesla's focus on high-performance, long-range electric vehicles, and its unique brand positioning help differentiate its offerings from many substitutes. Thus, the force from the threat of substitutes still exists and maintains at a moderate level. In terms of the threat of potential entrants, the electric vehicle industry in China has witnessed significant growth, and several domestic and international companies have entered the market. However, the threat of new entrants specifically

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targeting Tesla's market share in China is relatively low. Tesla's established brand reputation, advanced technology, and its Gigafactory in Shanghai create significant barriers to entry for potential competitors [3]. Overall, although Tesla is under great pressure from peer competition and customers' bargaining power, with the Chinese government issuing a series of policies to promote electric vehicles and Tesla's own Gigafactory can reduce much supplier bargaining pressure. Therefore, Tesla occupies leadership in the Chinese market and has a positive prospect of future development in China.

3. The Dilemma Encountered in the Process of Entering the Chinese Market by Tesla

3.1. Poor Quality Control

The poor quality control of Tesla's vehicles makes it notorious in the Chinese market. According to incomplete statistics, there are a lot of "decontrol" cases of Tesla vehicles in China. From June to December 2020 alone, there were nearly ten accidents due to the sudden "out of control" Tesla vehicles. In January this year, four more Tesla vehicle "decontrolled" accidents occurred, involving models including Model 3; Model X and Model S [7]. Causes of the runaway include the failure of the sensor, power steering unit and braking system [8]. Furthermore, vehicle fires are also frequent. It is reported that a Tesla Model S spontaneously ignited in an underground garage in Shanghai. Then a tragedy was staged on the viaduct of Chengdu East Second Ring Road on August 8. A Tesla electric car suddenly got out of control and crashed into a road pile. The vehicle instantly got out of control and caught fire. Tesla was surrounded by fire, flames spewed out from the bottom of the car, and the whole vehicle kept burning. These accidents led to the loss of trust from consumers in the Chinese market.

Public figures usually have a celebrity effect. In this case, a famous Chinese celebrity called Zhiying Lin, drove the Tesla Model X, crashed into a pole and the vehicle caught fire in Taoyuan City, Taiwan on July 22, 2022. Since he is a famous racing driver, it is not the first time that Tesla has had a similar incident. The accident was quickly exposed by the media and the public raised questions about Tesla's braking system, collision warning and other safety equipment. Then Tesla responded vaguely: “The cause of the fire is not clear, but the body does not have a material that is particularly easy to catch fire.” Until now, the cause of the accident is unclear. The local law enforcement department said that Zhiying Lin did not pay attention to the situation in front of the car, but some people also said that the accident was caused by safety hazards in the vehicle. So far, Zhiying Lin and Tesla have not officially announced the detailed reasons [9]. Due to many accidents caused by substandard quality vehicles, as well as the court of public opinion brought about by celebrity accidents. Tesla decided to recall 1.1 million Tesla electric vehicles in the Chinese market. So, this not only negatively affected Tesla's reputation, but also dealt a certain blow to its economy as its lower sales and more fees on retrieving recalled vehicles [10].

3.2. Immature Accessory Deployment

Compared with traditional vehicles, electric vehicles no longer need gasoline as their operational supply, but new energy. Therefore, it is necessary to establish charging piles to charge electric vehicles. For Tesla vehicles, unique Tesla charging stations are required to be built. Overall, Tesla's electric vehicles and its charging stations are complementary goods. The popularity of Tesla charging stations is high and broad in China. Until October 2022, Tesla's charging network has been composed of over 1300 supercharging stations, 9500 superchargers, 700 destination charging stations and 1900 destination charging piles [11]. However, these charging devices are mainly distributed within cities. So, for short-driving range vehicles like electric vehicles, this means that they can only be driven around the city. Therefore, the non-widespread deployment of charging piles limits the remote travel of Tesla owners. Moreover, before further technological breakthroughs are made in energy storage

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and high-power charging, the establishment of substantial charging stations is an effective way of promoting EV adoption and sales. Otherwise, Tesla would lose customers who often drive far away, resulting in declining sales [12].

In addition, although the number of charging piles in the city is huge, due to the rapid growth rate of electric vehicles. Even within cities, the ratio of electric vehicles to charging piles is severely disproportioned. For example, from the Shanghai New Energy Automobile Promotion Office report, the ratio of electric vehicles to charging piles was 1:0.31 which means that each charging pile needs to be shared by three electric vehicles. So, the "many cars but few piles" dilemma needs to be solved. Besides, charging stations in many urban parking lots are occupied by non-electric vehicles, making it difficult for vehicles to pass. So, it is inconvenient for Tesla owners [13].

3.3. Crisis Public Relations

As Tesla becomes increasingly popular in China, the issue of Tesla's lack of public relations capabilities is gradually being exposed. Marked by incidents of brake failure and rights protection, there are constant crisis incidents caused by driving Tesla products. Until July 22, 2022, Chinese star Zhiying Lin had a serious accident driving a Tesla Model X, causing the vehicle to burn. According to the road surveillance footage at the time, as a professional racing driver, Zhiying Lin suddenly collided with the isolation strip of the road while turning and was not disturbed by other vehicles at that time. Subsequently, the vehicle caught fire. However, Tesla still adheres to the principle of throwing blame and shifting focus. No matter what kind of accident it faces, Tesla can always explain: China's road conditions are not good, there is too much water on rainy days, and even throwing blame on China's State Grid, engaging in crisis public relations. Tesla's focus on its own interests, lack of humanitarian public relations operations, and blindly evading responsibility, concealing and evading public relations attitude have affected its brand image and reputation, blindly consuming the enthusiasm and trust of Tesla car owners, and leading the brand to its own demise [14]. These events have had a significant impact on Tesla, directly affecting its brand effect, reducing customer stickiness, and affecting the sales of the Tesla brand. Many consumers who hold a positive attitude towards Tesla have doubts about its operating system and safety performance due to the lack of a positive explanation from the company.

4. Targeted Suggestions for Tesla Based on the Organizational Behaviour Theory

4.1. Explanation of Organizational Behaviour Theory

According to the book written by Paul E. Smith, Wendy Yellowley, and Christopher J. McLachlan, the definition of organizational behaviour includes individual and group behaviour within an organisational context. Therefore, organizational behavioural recommendations for Tesla can be divided into individual, group, and organizational levels, each of which interacts with the others. In addition to the analysis from the three levels of the internal organization, organizations operate within the external environment, national, and global levels. PESTLE analysis is an effective way to categorize the wider environment, that is, to outline and consider the influence of political, economic, social, technological, legal, and environmental factors and trends. These determinants will affect the functioning of organizations and behaviour of individuals and groups within them [15]. This article mainly analyzes Tesla's operations in the Chinese market, thus the analysis of the Chinese society for Tesla is more appropriate to be based on a global level.

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4.2. Investing in Cryptocurrencies Brings Greater Gains for Tesla

As a network virtual currency and a new type of digital asset, cryptocurrencies represented by Bitcoin are receiving more and more support from well-known enterprises and market recognition. Tesla has adopted a more flexible investment strategy with the support of corporate leadership, allowing excess cash to be invested in reserve assets such as Bitcoin and gold. Due to Bitcoin's subversion of traditional currency and payment models, is highly consistent with Tesla's innovative philosophy in the automotive industry, driving Tesla's profits to soar. Tesla can try to purchase other types of cryptocurrencies on this basis to earn profits. However, Tesla's CEO, Musk, due to his personal inclination to purchase Bitcoin to increase the company's stock price and personal returns, posted a "sell down announcement" on social media, leading Tesla investors to sue him for manipulating the stock price, causing Tesla's stock price to decline.

From this, individual behaviour, especially celebrity or senior staff can have a direct impact on the company's profits and reputation. Therefore, organizations should rely on institutional operations rather than on subjective influenced managers. Secondly, there should be appropriate authorization and restraint among senior managers in enterprises, while improving their personal qualities to prioritize the impact of the enterprise before taking any measures. Finally, through team negotiation, decisions that are in line with the development of the enterprise are made based on the actual situation at the time and predictions of future development outcomes.

4.3. Enhancing Product Quality

Due to many car accidents caused by Tesla’s poor quality, Tesla can avoid traffic accidents by improving product quality. Follow More and more enterprises are entering, and the market competition is becoming more and more fierce. So, relevant enterprises like Tesla can only reduce production costs and improve the performance of the whole vehicle. Only then we can get a place in the big environment. The electric drive system is one of the key components of the development of energy vehicles, because its production cost accounts for a high proportion of the production cost of the whole vehicle, and it directly affects the performance of the whole vehicle and becomes the focus of research in the industry [16]. Using the big data system and self-developed analysis tools, the production data is comprehensively counted and analyzed, to control the quality of components from the source and ensure the stability of product quality. The quality monitoring and traceability management of the product is carried out through instrument scanning and an MOS system to ensure that the quality of the whole life cycle of the product is controllable. Adopt advanced production technology and technology to ensure the advancement and standardization of Tesla's production process, implement quality control throughout the life cycle, and ensure that the quality of each vehicle meets the requirements. In addition, Tesla can improve the reliability and stability of output power by strengthening the use of silicon carbide power devices. The core of the motor controller is the upgrade and performance improvement of power electronic devices, which has the advantages of high-pressure resistance, high-temperature resistance, and high-frequency resistance. Continue to invest in research and development to further improve the energy density and life of the battery. Continuously improve the technical level and promote the good development of the industry.

4.4. Diversifying and Improving After-sales Services

Providing good after-sales service can not only help Tesla attract more new, potential customers but also effectively retain existing customers and a good reputation. Tesla's after-sales service mainly includes vehicle warranty, store centres and mobile personnel services, as well as the construction of charging piles mentioned above. Firstly, although Tesla has already offered the Basic Vehicle Limited Warranty that covers for 4 years or 50,000 miles, if the vehicle warranty can be extended

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appropriately, it can attract more potential low-carbon travellers [17]. Secondly, Tesla should establish more mobile service and service centre stores in various cities and adapt the existing appointment system to avoid full booking to provide emergency services to customers. At the same time, these stores should be more diversified in after-sales services, such as hiring professionals for parts supply and repair [18]. Finally, according to the problem of insufficient supply of charging piles mentioned above, Tesla needs to build and deploy more in cities.

4.5. Optimizing Tesla's Production Layout and Process in China

Currently, Tesla has only opened its Gigafactory Shanghai in China. One of the reasons for Tesla to set up a factory in Shanghai, China is because the new energy vehicle industry in Shanghai is better developed and more convenient for Tesla's supply chain management. However, with the escalating competition in the domestic new energy vehicle market and the increasing demand for new energy vehicles in China, it is not enough for Tesla to set up a factory in Shanghai alone. If Tesla does not expand its factory, there may be an oversupply. It will also have an impact on Tesla's brand image and sales. Therefore, Tesla can set up a factory in Guangzhou, and since Guangzhou is also one of the fastest growing cities in China for the new energy tram industry, Tesla can establish its industrial chain in Guangzhou faster. In addition, Tesla can also achieve fully automated production in the production process, reducing the number of links that require manual labour [19]. This will not only reduce the cost of production in the long run, but also improve production efficiency. It can make itself more influential and competitive in China's new energy tram market.

5. Conclusion

To sum up, first of all, Tesla's position in China's electric vehicle market has declined. Since completing the Tesla Super Factory in Shanghai in 2019, its sales have continued to increase. However, with the gradual saturation of China's electric vehicle market, the competition in the new energy tram market has intensified, coupled with Tesla's lax control of product quality, Tesla's position has gradually declined. In addition, according to the case mentioned in this article, the lack of attention of Tesla's PR department is illustrated. The future business value of Tesla may be affected if the relevant departments of Tesla do not adjust and take further measures. This paper has some limitations. The sample of this paper is limited to Tesla, and the findings may not be applicable to other companies. Furthermore, this paper utilized qualitative analysis methods, but did not have empirical evidence to analyze and validate the experimental results and recommendations.

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