

# ***Research on the Marketing Strategy of Tesla Marketing Based on the 4P Theory and SWOT Analytical Method***

**Jiaming Hu**

*Shanghai Laide Academy, Shenzhen, China  
gniiiiim666@gmail.com*

**Abstract.** The new energy vehicle (NEV) industry is rapidly globalizing, driven by the worldwide push for decarbonization and proactive government policies. This has fostered a fiercely competitive landscape where continuous research and development and strategic agility are critical. Despite Tesla's first-mover advantage and technological prowess, it must navigate mounting pressures in this evolving market. This diagnostic analysis, applying the SWOT framework and 4P marketing theory, identifies a concerning rigidity in Tesla's strategic approach, manifesting as an overly standardized global marketing strategy and imprecise customer segmentation. It draws attention to Tesla's advantages in terms of financial strength, brand power, and technological innovation, but also its disadvantages in terms of high costs, a narrow focus on the market, and reliance on the supply chain. Global environmental regulations, entering the mid-to-low-end market, and utilizing AI technology are examples of opportunities; supply chain instability and escalating rivalry are examples of risks. BYD's 4P analysis, on the other hand, highlights its competitive price, varied product lines, and greater market adaptability. Consequently, this paper develops specific strategic interventions to enhance the marketing agility requisite for Tesla to preserve its market dominance.

**Keywords:** Tesla, 4P theory, SWOT analytical method, Research on the Marketing

## **1. Introduction**

Tesla (Tesla, Inc.), was founded in 2003 and is a disruptive innovator in the global electric vehicle and renewable energy sectors. Led by Elon Musk, this technology company has not only fundamentally transformed people's perception of automobiles but has also driven a wave of transformation across the global transportation industry. With the intensification of environmental pollution, including the government's efforts to promote knowledge of new energy sources, Consumers have become increasingly concerned about environmental protection when making purchase decisions, and the emergence of this strong awareness has accelerated the advancement of global carbon neutrality goals and the electrification trend in the automotive industry. As an industry-leading enterprise, Tesla's development trajectory and strategic choices are closely watched.

In 2019, Tesla maintained its leading position in the industry, 11 years after its listing, as the world's best-selling manufacturer of plug-in and all-electric vehicles, with a market share of 17% in the plug-in segment and 23% in the all-electric vehicle segment. Between 2018 and 2019, Tesla's

global sales experienced a remarkable 50% growth, increasing from 245, 400 vehicles to 367, 849 vehicles, and in 2020, it surpassed the one million mark, setting a new record for mass production of electric vehicles [1].

Tesla initially entered the high-end niche market and gradually expanded into the mass consumer segment, with its product line now covering various segments including luxury sedans, SUVs, pickup trucks, and heavy-duty trucks. As of the end of 2023, Tesla's global cumulative sales have exceeded 2 million units, with a market share of over 20%, establishing it as the undisputed leader in the global electric vehicle market. Tesla's current innovation and development focus primarily on research into business models and the promotion of electric vehicles. Since its inception, the company has been highly regarded for its innovation and influence. The Tesla brand has consistently been associated with environmental protection, high technology, and other attributes, always remaining at the forefront of the world. This characteristic attracted a large number of consumers during the early stages of brand development, achieving marketing results that exceeded expectations. With the support of market opportunities, Tesla, after stabilizing its domestic market, has begun to turn its attention to expanding overseas markets. This article employs the SWOT analysis method to systematically examine Tesla's internal strengths, weaknesses, opportunities, and threats, aiming to comprehensively assess its competitive position and growth potential. It provides a structured analytical framework for understanding Tesla's business logic and industry impact. Additionally, the study applies the 4P theory to analyze the Tesla brand, exploring aspects such as the company's background, future development trends, and potential obstacles [2].

## 2. Analysis of the Tesla brand based on the SWOT model

### 2.1. Strengths analysis

#### 2.1.1. Brand influence

As the first electric vehicle to hit the roads in the United States, Tesla's near-monopoly in the high-end electric vehicle market ensures that each new product launch attracts significant public attention [3]. Although new products often receive mixed reviews, there are always supporters who consistently respond to each new release. Taking the Cybertruck as an example, the product received 200, 000 pre-orders within one month of its launch, whereas the Ford F-150, the world's best-selling pickup, sold just over one million units in that market during its launch year. At the same time, as the CEO of Tesla, Elon Musk wields an influence that other brands do not possess. Tesla does not invest in traditional advertising and marketing; rather, it relies more on media coverage and word-of-mouth promotion (See Table 1).

Table 1. Marketing budget of auto brands in 2021(\$ Mn) & advertising expenditures of some U. S. automobile manufacturers, source: statista

Brands	GM	Ford	Stellantis	Toyota	Honda	Tesla
price	2695	1	1759	1571	1069	0

#### 2.1.2. Technological innovation capability

As one of the earliest new energy vehicle companies, Tesla possesses exceptionally strong technological innovation capabilities, which is a significant factor that sets it apart from other electric vehicle brands. In 2022, Tesla began producing 4680 cylindrical battery cells in California

and Texas, and procured prismatic batteries from Contemporary Amperex Technology Co., Limited (CATL). Compared with the 21700 batteries previously used in the Model 3, Tesla's 4680 batteries offer approximately five times the volume and capacity, achieving not only higher energy density but also significantly reducing production costs [4]. This battery utilizes a frameless design, which not only further reduces manufacturing costs but also allows the battery's performance to be optimized. Compared to Build Your Dreams (BYD), which uses blade-type batteries, Tesla's innovation lies in producing durable battery cells at low cost and with high safety through unique battery design [5]. In other words, the batteries used by Tesla are characterized by high capacity and high performance, allowing for long-distance travel and reducing the likelihood of technical malfunctions [4,5].

Tesla utilizes a lightweight design with an aluminum alloy body, ensuring high safety while maintaining superior performance. The aluminum alloy is both rigid and lightweight. At the same time, in the automotive sector, characteristics such as the corrosion resistance of aluminum alloys ensure that various Tesla models do not require excessive and complicated vehicle maintenance. Aluminum alloy materials can also protect the safety of car owners in the event of a traffic accident, and after some minor accidents, repairs can be completed in a very short time, allowing the vehicle to return to daily use promptly [2].

At the same time, Tesla's technological performance is characterized by its high potential for upgrades at any time. Maintaining close connectivity with the network without changing the hardware enables Tesla to have stronger user retention compared to other electric vehicle brands. Currently, Tesla electric vehicles possess various interactive capabilities such as remote diagnostics and automatic assistance. These functions not only enhance the connection between users and products but also represent the advantages that new energy series vehicles should ideally have. Moreover, they constitute a significant distinction of Tesla vehicles compared to other electric car brands [2].

### **2.1.3. Product productivity**

Tesla's product manufacturing efficiency is extremely high and stable. It operates fully automated production lines, and its supply channels are relatively stable, making it unlikely in the short term to experience issues such as rising raw material prices or supply chain disruptions.

### **2.1.4. Economic and financial capability**

At the beginning of 2021, Tesla's stock reached as high as \$880 per share. One of the main reasons for this was Tesla's use of production based on pre-orders, ensuring that there was no excess inventory while allowing customers to customize according to their preferences, thereby increasing customer satisfaction. This approach also effectively accommodates model upgrades, preventing price reductions before the launch of the next generation.

## **2.2. Weaknesses analysis**

### **2.2.1. Excessively high prices**

Tesla's current models primarily target the high-end segment of the new energy vehicle market, where Tesla holds a regional monopoly. However, prices significantly higher than those of other competitors have resulted in limited sales in the general and mid-to-low-end markets. Competitor BYD, in contrast, surpassed Tesla with over 370,000 units sold in August 2025 alone and more than

2. 86 million units sold from January to August. In the first half of the year, BYD's revenue reached 371.3 billion yuan, even exceeding that of Tesla. Although Tesla spends relatively little on marketing, its technological investments are substantial, and the process of technological research and development inevitably incurs costs in materials and labor [6].

### **2.2.2. Global market selection**

Tesla primarily focuses on the North American and European markets, paying less attention to marketing in other countries and regions. However, in 2024, Tesla's sales in China reached 657,000 units, representing a year-on-year increase of 8.8%, surpassing its sales in the U. S. market in 2023. The U. S. market has gradually become saturated, indicating the absence of a robust global marketing strategy [1,3,6].

### **2.2.3. Global supply chain**

Tesla faces challenges in production capacity and supply chain management. For instance, the new factories Tesla has established in other countries are unable to secure stable and long-term supplier partnerships, resulting in delivery delays and increased costs. Although Tesla has achieved vertical integration from design to production, enabling better control of its supply chain and product quality, it still relies on external suppliers for battery raw materials and other key components, facing risks of supply instability and price fluctuations. Especially in terms of battery supply, Tesla relies on a stable battery supply chain. Any disruption in the supply chain could significantly impact the company's production capacity and sales. Tesla utilizes high-end metals and alloys during its production process, including aluminum, iron, nickel, and other premium metal alloys. These materials are costly and are not always readily available for purchase. Changes in the prices of these materials could have a significant impact on Tesla's production. This dependency is particularly pronounced in the context of an unstable global supply chain.

## **2.3. Opportunities analysis**

### **2.3.1. Government environmental policies**

Governments around the world are increasingly supporting electric vehicles and renewable energy, providing Tesla with more market opportunities. Many countries and regions offer subsidies and tax incentives for the purchase of electric vehicles, which is favorable for Tesla's market promotion. Government subsidy policies have a significant impact on Tesla's market performance, while increasingly stringent environmental regulations prompt automobile manufacturers to accelerate the research and production of new energy vehicles, providing market opportunities for Tesla [6].

### **2.3.2. Market expansion**

Tesla has currently recognized the trend of saturation in the high-end market and is now designing and researching new models aimed at entering the mainstream mid-to-low-end market. By launching lower-priced models such as the Model 3 and Model Y, Tesla has continuously achieved significant sales and has successfully expanded its market coverage. As Tesla gradually reduces costs while expanding its market reach, it will gain more opportunities and increase its user base, thereby broadening the influence of its brand [6].

### 2.3.3. Expansion of the Chinese market

Similar opportunities for market development exist, and Tesla's factory in Shanghai, specifically geared towards mainland China, has already been completed. The first Model 3 targeting the mid-to-low-end and mass market was produced here. The production line has gradually matured, achieving a remarkably high level of efficiency. It can achieve the production scale of the previous 50 months in just 24 to 36 months. In addition to the stability of its production lines, Tesla's establishment in China will not only facilitate market access but also significantly reduce tax-related issues. Moreover, processes such as order reservations and offline test drives will become smoother. In the future, the launch of new models and the Chinese market will become crucial components for Tesla's entry into the mid- to low-end consumer market [3,6].

### 2.3.4. Support from emerging technologies

The compatibility between artificial intelligence and new energy vehicles is exceptionally high, particularly in aspects such as autonomous driving that rely on intelligent connected technologies for support [7]. As the hardware of intelligent connected new energy vehicles increasingly meets user needs, the demand for artificial intelligence and software is gradually emerging, with technologies such as intelligent driving and road analysis requiring further adaptation to new energy vehicles [8]. The easier realization of automation in new energy vehicles is primarily based on three advantages: First, compared to the mechanical control systems used in traditional fuel vehicles, the drive-by-wire systems built into new energy vehicles offer greater compatibility and flexibility; second, the wireless charging technology of new energy vehicles can seamlessly integrate with autonomous driving; finally, the characteristics of electric motors in new energy vehicles are more conducive to computer control. Therefore, the automation of new energy vehicles or, conversely, the realization of autonomous driving, these two trends are very likely to develop concurrently. In the context of the rapid development of intelligent connected vehicles, Tesla, with its superior technological capabilities, should seize this opportunity. As new energy vehicles begin to dominate the market amid the rising environmental awareness of the public, Tesla should also differentiate itself from traditional fuel vehicles through new technologies, thereby offsetting disadvantages in terms of price. Undoubtedly, at present, Tesla possesses the most advanced technological capabilities in the industry, allowing it to quickly acquire cutting-edge and emerging resources. Adapting to new technologies while launching new models is an indispensable opportunity for the future.

## 2.4. Threats analysis

### 2.4.1. Peer competition

Over time, the number of 'latecomers' in the new energy vehicle industry has been increasing, leading to intense competition, and Tesla's monopoly-level advantages no longer exist [9]. The emergence and rapid development of new companies have led to a maturation of both technological and production capabilities. New energy vehicle enterprises, led by BYD, have recognized the importance of mastering power battery technology. Under different price conditions, BYD's blade battery demonstrates a clear advantage over Tesla's 4680 battery. For example, Tesla's 4680 battery achieves sealing through edge bending processes, whereas BYD's Blade Battery requires multiple laser welding procedures. Overall, although square batteries require two additional assembly steps, which slightly reduces production efficiency, their energy density per unit is approximately five

times higher. This indicates that to achieve the same kWh capacity, BYD’s blade batteries require only one-fifth of the assembly workload [4,5]. Therefore, Tesla needs to achieve further breakthroughs in battery technology, or reduce the high costs associated with research in this area, and instead focus on fields where it can more effectively establish a competitive advantage over other new energy vehicle brands.

### 2.4.2. Supply chain issues

Currently, Tesla’s supply chain is performing well in the short term. However, with market expansion and the development of new models, there is a high likelihood of encountering issues such as insufficient parts supply and rising costs. At present, the production of certain components has already been halted due to shortages of raw materials and electronic components. Additionally, entering new markets in Mainland China requires establishing partnerships with long-term and stable suppliers. In China, where new energy vehicle companies are widespread, finding suppliers that are both low-cost and long-term stable remains a significant challenge.

## 3. Analysis of the current marketing status of BYD new energy vehicles based on the 4P theory

The 4P marketing theory emerged in the United States in the 1960s. The original and applied innovations in high technology significantly propelled the development of the American market economy, presenting new opportunities and challenges for the evolution of various management disciplines. American marketing scholar Jerome McCarthy summarized the theory as Product, Price, Place, and Promotion.

### 3.1. Product

Undoubtedly, the quality of a product is a direct factor in determining an enterprise’s success, and it is directly linked to brand reputation and consumer purchasing confidence (See Table 2).

Table 2. Models and series of Tesla

Series	Model S	Model 3	Model X	Model Y	Model Y L	Cybertruck
Models	Luxury electric sedan	Mid-sized electric sedan	Luxury Electric SUV	Mid-sized electric SUV	Six-seat electric SUV	Luxury electric Pickup truck

Currently, Tesla offers a relatively small range of models, primarily focusing on SUVs and sedans, all of which are pure electric vehicles targeting the high-end luxury electric car market.

### 3.2. Price

The price of each electric vehicle brand is closely related to the brand’s influence, product technology, and costs. Tesla possesses a very high brand influence and cutting-edge technological capabilities in the industry, along with considerable costs, which has led to its positioning in the high-end market. However, it also includes relatively lower-priced models, such as the Model 3 and Model Y. Nevertheless, its pricing remains higher than that of competitors such as BYD, and as a result, Tesla does not hold an advantage in sales compared to other brands (See Table 3).

Table 3. Prices of Tesla series

Seri es	Model S	Model 3	Model X	Model Y	Model Y L	Cybertruck
Pric es	684, 900 to 814, 900 yuan	235, 500 to 339, 500 yuan	724, 900 to 824, 900 yuan	263, 500 to 313, 500 yuan	339, 000 yuan	435, 200 to 713, 500 yuan

Tesla has primarily targeted the high-end market both in its early stages and up to the present, and it does not hold an advantage in the low-end market. However, Tesla has gradually released more affordable models compared to its previous offerings, such as the Model 3 and Model Y. Nevertheless, in terms of cost-performance ratio, it remains relatively low compared to other electric vehicle brands, and it is unlikely to be a significant option in the low-end market.

### 3.3. Place

Since the emergence of online marketing, the limitations of offline marketing have become apparent, and the marketing focus of various industries has gradually shifted from offline to online. Offline marketing primarily serves a supplementary role [1]. In the case of Tesla, this is reflected in online customized ordering, while offline efforts are mainly centered on test drives. Tesla has disrupted the automotive industry with an internet-driven approach, combining online and offline operations, selling cars directly through its official website, eliminating intermediary markups, and maintaining uniform pricing [6]. Tesla adheres to a direct sales model, allowing customers to visit, interact with staff, and directly engage with products. This model not only enhances the user experience but also effectively reduces intermediary costs. Even if consumers purchase imported Tesla vehicles, Tesla will sell them at the same price, with only the unavoidable tariffs and other taxes added. This approach allows consumers to directly bundle vehicles with products, rather than increasing costs through complex calculations.

### 3.4. Promotion

Like traditional automobile companies, Tesla does not spend money on advertising, but instead leverages early users' word-of-mouth, the CEO's celebrity influence, media influence, and marketing power across various domains to conduct low-cost online marketing [6].

Table 4. Auto brands paid media mix [10]

Brands	Facebook	YouTube	Instagram	Twitter
Toyota	62%	18%	2%	2%
Audi	32%	54%	13%	1%
BMW	46%	2%	32%	20%
Ford	55%	39%	6%	<1%
Honda	38%	33%	27%	2%
Infiniti	52%	7%	40%	<1%
Cadillac	34%	40%	18%	8%
Porsche	14%	47%	39%	<1%
Tesla	0%	0%	0%	0%

In its early stages, Tesla abandoned the celebrity endorsement-based brand promotion model and instead chose a clientele consisting of politicians, entrepreneurs, and even entertainment celebrities (See Table 4). For example, Lei Jun's Xiaomi Technology was Tesla's first customer. Leveraging its influence and appeal, Tesla is able to achieve an exposure bundling effect and set the topical heat. Elon Musk's personal brand has also achieved great success—he has proposed the idea of transforming Earth and making Mars humanity's second home, and he founded SpaceX. The development of intelligent robots and Neuralink brain-machine interfaces is also progressing. This legendary figure frequently makes astonishing statements, dominating public discourse and establishing a formidable personal influence. These celebrity effects are sufficient to enable Tesla to continuously generate public attention and brand appeal. Tesla's development has not only attracted an increasing number of followers to pay attention to the brand but has also garnered a large number of loyal fans [6].

## 4. Optimization strategy recommendations based on SWOT analysis and the 4P theory

### 4.1. In the field of science and technology

Production lines should continue to expand, and automated production lines should be further improved. Focusing on intelligent connected technologies, the massive data generated by the Internet of Things can be analyzed collaboratively through edge computing and cloud intelligence, enabling not only predictive maintenance of equipment but also the optimization of production scheduling and supply chain management, thereby providing enterprises with more efficient and cost-effective logistics solutions. After proper fiscal management, the main funds will be invested in technological research to identify key breakthroughs, such as exploring the application of artificial intelligence in new energy vehicles. This aims to overcome the current gradual hardware bottlenecks and, by leveraging the momentum of artificial intelligence and Internet of Things technologies, further widen the gap with industry peers [11]. At the same time, while developing autonomous driving and other intelligent vehicle networking technologies, it is essential to ensure the cybersecurity of vehicles, preventing intrusion by hackers or other criminals when the vehicle's artificial intelligence has high-level access. This requires ensuring that the vehicle's code is sufficiently secure. To achieve truly intelligent driving on the road, it is necessary to focus on developing fast-charging infrastructure, improving driving range, enhancing safety technologies, increasing battery durability, and protecting personal and vehicle data [1].

### 4.2. Financial aspect

Taking Fiscal Year 2017 as an example, the company's total profit increased from USD 2.22 billion to USD 6.63 billion, reaching USD 6.63 billion by Fiscal Year 2020. Since 2017, the company's net profit has been steadily increasing: it recorded a loss of \$1.92 billion in 2017, a loss of \$1.06 billion in 2018, and the loss further decreased to \$780 million in 2019. In the 2020 fiscal year, the company's net profit turned to 860 million US dollars. It represents that since 2020, the demand for new energy vehicles has begun to grow significantly. Tesla recorded a net loss of \$1.92 billion in 2017, but by 2020, it had achieved a net profit of \$860 million. Between 2017 and 2020, the company's revenue exhibited a steady growth trend: revenue was \$11.75 billion in 2017 and had risen to \$31.53 billion by the 2020 fiscal year. The stock price performance is equally impressive, rising from just \$61.71 per share in December 2018 to \$161.68 by February 2020. It is expected to

maintain upward momentum in the future, attracting investment and enhancing public confidence in the brand [10].

### 4.3. Regarding future products

Tesla vehicles are priced at a premium. Although autonomous vehicles are highly functional due to the use of cutting-edge technology, this development will ultimately become extremely expensive, especially in the future with the integration of advanced technologies such as artificial intelligence. Therefore, product positioning must be clearly defined, distinguishing between target groups, while also considering how to make car prices more reasonable, and focusing on attractive markets rather than engaging in large-scale high-tech production [10].

### 4.4. Peer competition methods

In the field of electric vehicles, NIO, a Chinese automaker focused on research and design, is headquartered in Shanghai and was established in 2014. Its stock performance has been particularly impressive: by the end of the fourth quarter of the 2020 fiscal year, NIO had sold 5,000 electric vehicles, representing a nearly 35% surge in sales, establishing itself as a strong competitor to Tesla. Furthermore, BYD Group, the world's second-largest electric vehicle manufacturer, is headquartered in the economically strong region of Shenzhen and is developing at an astonishing pace. At present, other brands have already captured the mid- to low-end mass market; Tesla should seize the opportunity and enter the low-end market as soon as possible [6]. Directly competing with other brands, leveraging unique brand influence, researching user experience, and enhancing reputation, the large customer base will become an important factor in generating revenue [9].

## 5. Conclusion

In the context of the contemporary world, as environmental pollution intensifies and fossil fuels become increasingly scarce, countries are placing greater emphasis on environmental protection, the development of new energy technologies, and energy security. Internal combustion engines powered by fossil fuels, represented by petroleum, are gradually being replaced by other energy-driven systems in the field of road transportation, which also presents development opportunities for the new energy vehicle industry centered on electrification technology. In terms of market competition and core technology, Tesla is more competitive than its rivals due to its market-leading position and advantage in technological innovation. Government policies and regulations have promoted the development of the electric vehicle market, expanding its global influence in the international market. Traditional fuel vehicles rely on gasoline internal combustion engines, which produce greenhouse gases that cause environmental pollution; Electric vehicles, on the other hand, are powered by electricity to drive electric motors, significantly reducing overall pollution. This represents Tesla, as a leading high-tech new energy vehicle, actively responding to policies and receiving government support in the future. However, Tesla's market share in the future may decline, primarily due to intensified market competition and a decrease in demand for electric vehicles—particularly a weakened demand among younger consumers. This study's recommendation for Tesla is to increase investment in research and development, continuing to focus on electric vehicle innovation, as this represents the ideal vehicles for the future. Additionally, it is advised that Tesla strengthen its marketing efforts to enhance market penetration and become the most favored electric vehicle brand among young consumers.

## References

- [1] Ajitha, P. V., & Nagra, A. (2021). An overview of artificial intelligence in automobile industry: A case study on Tesla cars. *Solid State Technology*, 64(2), 503–512.
- [2] Yang, Y. (2024). Research on the marketing strategies of BYD new energy vehicles based on the 4P theory. *E-Commerce Letters*, 13, 5521.
- [3] Li, J. (2023). A study on strategic cost management of Tesla, Inc. based on the value chain (Master's thesis, Shandong Agricultural University). <https://doi.org/10.27277/d.cnki.gsdnu.2023.000126>
- [4] Gorsch, J., Schneiders, J., Frieges, M., Kisseler, N., Klohs, D., Heimes, H., ... & Siebecke, E. (2025). Contrasting a BYD Blade prismatic cell and Tesla 4680 cylindrical cell with a teardown analysis of design and performance. *Cell Reports Physical Science*, 6(3).
- [5] Ank, M., Sommer, A., Gamra, K. A., Schöberl, J., Leeb, M., Schachtl, J., ... & Lienkamp, M. (2023). Lithium-ion cells in automotive applications: Tesla 4680 cylindrical cell teardown and characterization. *Journal of the Electrochemical Society*, 170(12), 120536.
- [6] Zhou, Z. (2023). Tesla marketing analysis. *Academic Journal of Business & Management*, 5(2), 171–177.
- [7] Liao, Y., Zhang, Y., & Wang, H. (2023). Overview of artificial intelligence technology application in intelligent and connected new energy vehicles. *Journal of Chongqing University of Technology (Natural Sciences)*, 37(7), 1–15.
- [8] Li, X., Zhang, C., & Li, D. (2024). The influence of the digital economy on technological innovation in the new energy vehicle industry. *Journal of Xinyang Normal University (Philosophy and Social Sciences Edition)*, 44(1), 44–50.
- [9] Liu, S. (2021, March). Competition and valuation: A case study of Tesla Motors. In *IOP Conference Series: Earth and Environmental Science* (Vol. 692, No. 2, p. 022103). IOP Publishing.
- [10] Shao, X., Wang, Q., & Yang, H. (2021). Business analysis and future development of an electric vehicle company: Tesla.
- [11] Weng, Q. (2025). Intelligent logistics equipment drives the transformation of automotive intelligent manufacturing: Research on key technologies and application innovations. *Commercial Vehicle*, (2), 31–34.