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Future Development Analysis Based on the Price Reduction Trend of Tesla

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Abstract: The electric vehicle (EV) market is developing rapidly, while the complexity of the market is growing along with the growing prosperity of the market, continuous technology innovation, and frequent policy adjustments. As a leading pioneer in the electric vehicle market, Tesla's development trends have had a significant impact on the market and other companies in the market. Tesla's price cut may especially affect the brand positioning of other companies in the industry, and they follow its price cut strategy, leading to a price war in the whole market. It urges them to adjust their strategies to maintain their market position and profitability. Therefore, the paper elaborates and focuses on Tesla's financial data from 2021 to 2023 and price reduction strategies, and uses key financial indicators, such as revenue growth, cash flow, and return on investment, to predict the future development trajectory of Tesla. This paper, through Tesla's financial analysis and future trends, provides reference and guidance for investors, markets, or companies seeking to follow suit.

Keywords: Tesla, Pricing strategy, Financial analysis, New energy vehicle

1. Introduction

As global warming and air pollution become increasingly harmful to humanity, and concerns about exhausted petrochemical fuels increase, global attention increasingly is on green-environmental protection and sustainable development, making the new energy market prospects a bright situation. As a leading enterprise in the new energy vehicle industry, Tesla's market performance and future development trends are closely related to the booming development of the whole industry. However, Tesla, which shoulders the responsibility of promoting the development of the new energy vehicle industry, has been constantly lowering product prices in order to cope with market competition and expand market share. Tesla has a profound impact on the market by influencing consumers' purchasing decisions and the competitive awareness of other automakers.

Zhou analyzed the influencing factors behind the pricing strategy of Tesla in 2022, from the theory and empirical aspects, according to the recent financial data of Tesla, market share, and sales of popular models. It can be seen that the price policy of the new energy vehicle industry has a significant impact due to policy factors, cost factors, and market competition factors [1].

Huang et al. analyzed the future of Tesla and believed that Tesla has huge potential, leading to sales growth. The author analyzed the sensitivity of Tesla through four elements and found that it had a trend of rising and then declining. The authors believed that this trend just affects people to buy stocks in the downward trend, thus bringing rise and growth to the future of Tesla's market [2]. Shao

et al. analyzed Tesla's present approach and prospects. The authors argue that increased competition and falling demand for electric vehicles could lead to lower market share. Following an analysis of revenue, profit, and stock price, to diversify its revenue streams going forward, Tesla will need to enter new markets and increase its expenditures in the development of automated public transit [3]. Yan through the analysis of financial ratios, the author proves that Tesla's price reduction strategy is successful. However, if Tesla wants to maintain its market share in China's gradually saturated electric vehicle market, it should maintain its brand independence and step up its research and development efforts. Tesla's pricing strategy reflects that the country's overall electric vehicle industry is about to reach market saturation[4].

Ding and He analyzed financial and corporate strategy to examine Tesla's ongoing challenges and potential future trajectory. Through a rigorous assessment of fundamental research and economic conditions, the authors evaluated the current risks and strategic changes at the company, highlighting the effectiveness of its pricing strategy. However, with the dominant electric vehicle market in China gonna saturated, Tesla's prospects for expanding its market footprint necessitate the preservation of independence and relentless innovation in technology[5]. Wang analyzed Tesla's accounting analysis and performance evaluation segment, employing financial ratios to critically assess Tesla's financial well-being and operational effectiveness in comparison to a select group of competitors. The author disclosed that Tesla exhibits robust financial performance and a dominant market position, driven by substantial investments in capacity expansion to accommodate escalating demand and a relentless focus on innovation to preserve its competitive lead [6]. Zheng analyzed Tesla's financial performance, focusing on profitability, operational effectiveness, solvency, and developmental prowess. Comparative assessments were carried out using the financial statements of industry peers like BYD and SAIC. The author revealed that Tesla's debt repayment strength has consistently escalated, marked by robust profitability, stable net income, increasing gross margin, and a promising market trajectory for electric vehicles, which retains substantial growth potential [7].

Huang conducted a thorough analysis of indicators including revenue, sales volume, earnings, capital composition, and pivotal ratios Tesla's innovative products are adequate to meet the company's capital demands with a rising trend in owner equity, it is poised for a favorable growth trajectory. The author underscores Tesla's robust research and development prowess and its substantial potential to attain its strategic objectives[8]. Lin et al. study employs financial and corporate strategic analysis to examine Tesla's ongoing challenges and potential future trajectory. Through a rigorous assessment of fundamental research and economic conditions, the authors evaluated the current risks and strategic changes at the company, highlighting the effectiveness of its pricing strategy. However, as the dominant electric vehicle market in China nears saturation, Tesla's prospects for expanding its market footprint necessitate the preservation of independence and relentless innovation in technology[9]. Fang analyzed a comprehensive financial analysis of Tesla's reports, focusing on the evaluation of the company's financial stability and operational model by examining its assets, liabilities, and shareholder equity. Through this assessment of Tesla, the author projected its potential future financial outcomes. The author's analysis indicates a positive outlook, forecasting sustained growth in Tesla's car sales and revenue projections for the upcoming years[10].

Therefore, this paper aims to explore the future development trend of Tesla through an analysis of its price reduction trend and financial data. So as to promote the development of a new energy industry and promote the process of global green environmental protection.

2. Tesla's Price Reduction Strategy and Reasons

2.1. Review of The Price Cut

From 2022 to January 2024, Tesla has made several price adjustments, especially with four official price cuts for its popular products, the Model Y and Model 3. Among them, the price of Model Y dropped from 417,900 yuan to 396,900 yuan to 363,900 yuan to 258,900 yuan, while the price of Model 3 dropped from 367,900 yuan to 279,900 yuan to 245,900 yuan to 285,900 yuan. Then, Tesla's capacity has increased rapidly thanks to its Gigafactory in Shanghai, China. However, Tesla's sales are not keeping up with production capacity, and the market is oversupplied, so it has to rely on price cuts to boost sales. On the one hand, Tesla's price reduction strategy is a direct response to the rising Chinese new energy vehicle enterprises, and on the other hand, it shows its competitive awareness and strategy adjustment in the electric vehicle market. In addition, policy incentives have also contributed to Tesla's price reduction strategy, enabling Tesla to adjust its pricing strategy. Furthermore, changes to Tesla's in-car batteries and the integration of the supply chain have reduced its costs, giving it room to cut prices. Tesla has already embarked on its journey to cut prices that aim to boost sales, market share, and factory utilization, and face pressure from slowing global consumer demand.

2.2. Reasons

2.2.1. Competitor

Table 1 illustrates that Tesla dominates the market, especially the sales of Model Y and Model 3 entering the top three global new energy model sales. However, BYD caught up, taking six positions in the top 10, and even Song entered the top three, becoming the only model to surpass Tesla and rank in second place in sales. The presence of several BYD models, including the Song, Qin, Yuan, Dolphin, Seagull, and Han, in the top 10 ranking underscores the competitive dynamics in the new energy vehicle market. Tesla, known for its limited model portfolio driving high-demand products, is confronted with the strategic advantage of BYD's extensive product diversification. In addition, Tesla also faces threats from other Chinese electric-car makers, because the top 10 brands are all Chinese brands except for Tesla. What's more, BYD has attracted some customers who originally preferred Tesla, and has continuously grabbed Tesla's market share. As a result, Tesla can only maintain or boost its market share by cutting prices to boost sales. However, from the global new energy model sales list in 2023, Tesla's price reduction strategy is effective, stabilizing its leading position in sales.

Table 1: Top10 Global Sales of New Energy Model Numbers (2023)

Ranking	Model	Sales (,000)
1	Tesla. Model Y	1,211,6
2	BYD. Song(BEV+PHEV)	636,5
3	Tesla. Model 3	529,3
4	BYD. Qin Plus(BEV+PHEV)	456,3
5	BYD. Yuan Plus EV/Atto 3	419
6	BYD. Dolphin EV	354,6
7	BYD. Seagull EV	254,2
8	SAIC-Wuling. Mini EV	237,9
9	GAC. Aion S	235,9
10	BYD. Han (BEV+PHEV)	228

2.2.2. Policy Incentives

The Inflation Reduction Act of 2022 ("IRA") was enacted on August 16, 2022, allowing eligible Tesla customers to receive tax credits of up to \$7,500 if they buy a qualified electric vehicle in the United States by 2032. That means consumers can get higher subsidies for Tesla's trams, boosting Tesla sales. In addition, before the IRA, American high-net-worth companies, like Tesla, had to pay tax under the Corporate Tax Act (Internal Revenue Code) at a 21% rate. There may even be some additional tax rules and restrictions such as marginal tax rates, even as high as 30% for some interest income. However, the IRA imposes a 15% new corporate replacement minimum tax on companies earning more than \$1 billion. That means Tesla needs to pay much less taxes, giving it more room to adjust the price of its products and attract more consumers at more attractive prices. Moreover, Tesla has signed leases with the State University of New York Foundation and agreements with the Shanghai Municipal Government and Nevada and Storey County, Nevada; receiving grants for manufacturing facilities and most of the construction funds, a \$76 million grant, and specific tax breaks from Nevada, basic tariff energy rate discounts and negotiable tax credits of up to \$195 million respectively. Government tax breaks and donations can directly reduce the tax revenue and production costs that Tesla needs to pay during its operations, so Tesla has more money to offset the impact of price cuts.

2.2.3. Technology and Supply Chain

In terms of supply chain, Tesla has ensured the stability of its raw material supply by signing long-term contracts and vertical integration with battery suppliers such as Ningde and Panasonic. Powerful supply chain management capabilities allow Tesla to reduce procurement costs and thus have more space to cut prices in pricing. At the same time, Tesla has six Gigafactories that can enable economies of scale through mass production. As its electric vehicle production increases, fixed costs (such as plant construction and equipment investment) can be shared and unit costs fall. In terms of manufacturing technology, Tesla began to introduce integrated casting technology in 2020, and dozens of parts produced by stamping and other processes can be integrated into one casting part, which greatly reduces the number of parts and improves the production efficiency of final assembly. Moreover, with the expansion of the scale, the original body cost is also constantly reduced. In addition, Tesla has replaced the interior batteries of some models from ternary lithium to lithium iron phosphate, and it has a certain scale of production capacity, greatly reducing battery costs, so it can maintain profit margins even when prices are reduced.

3. Financial Analysis

3.1. Profitability

Table 2 illustrates that Tesla registered a substantial increase in revenue in 2022, followed by a mild growth trajectory in 2023. What's more, the company's net profit exhibited a significant rise in 2022. Despite implementing a price reduction on its electric vehicles, and even registered a slight increment post the price cut in 2023. This analysis reveals that Tesla's ability to expand sales was accompanied by effective cost management, resulting in a rising profitability trend. Furthermore, Tesla's gross profit margin reached a peak in 2022 but experienced a significant decline in 2023. This drop was attributed to the company's strategic investment in new technology during that year. As competition in the electric vehicle market intensified, Tesla adopted a pricing strategy to safeguard or enhance its market position, which led to lower gross margins. This could potentially pose challenges for Tesla's future financing. Notably, the return on capital employed (ROCE) increased significantly from 2021 to 2023. A high return on capital employed (ROCE) indicates that the company is efficiently

generating substantial profits relative to the capital it utilizes. This indicates a substantial enhancement in the company's capital efficiency, translating to heightened profitability.

Table 2: About the Profitability datum of Tesla.

	2021	2022	2023
Revenue (,000)	\$ 53,823	\$ 81,462	\$ 96,773
Net profit margin	10.49%	15.45%	15.47%
Gross profit margin	25.28%	25.60%	18.25%
ROCE	11.91%	24.13%	25.67%

3.2. Efficiency

Table 3 illustrates that Tesla's asset turnover ratio, which gauges a company's ability to efficiently utilize its assets. In 2021, Tesla's asset turnover rate indicating a recent peak in asset utilization efficiency. This surge, for instance, can be attributed to the December 2022 release of the Tesla Semi, which facilitated effective resource allocation. However, the asset turnover ratio fell slightly in 2023, suggesting a bottleneck in optimizing asset utilization. Reflecting Tesla's strategic investments in production capacity expansion, such as factory construction, which, while not immediately translating to short-term revenue growth, are integral to the company's long-term growth strategy. Moreover, Inventories rose from 2021 to 2023 as competition intensified in the market and Tesla continued to expand its Gigafactory. This may disrupt Tesla's production rhythm, resulting in the production plan being unable to proceed smoothly, and thus affecting Tesla's efficiency.

Table 3: About the Efficiency datum of Tesla.

	2021	2022	2023
Asset Turnover Ratio	0.87	0.99	0.91
Inventory (,000)	\$ 5,757	\$ 12,839	\$ 13,626

3.3. Solvency

Table 4 illustrates that Tesla's current ratio rose sharply from 2021 to 2023, indicating improved solvency. At the same time, although the asset ratio declined from 2021 to 2022, it rose rapidly again from 2022 to 2023, indicating that Tesla's cash liquidity has improved very well, which indirectly proves the improvement of Tesla's solvency.

Table 4: About the Solvency ratios of Tesla.

	2021	2022	2023
Current Ratio	1.38	1.53	1.73
Quick Assets Ratio	1.25	0.91	1.14

3.4. Investment

Table 5 illustrates Tesla's investment ratio, the price-to-earnings (P/E) ratio, which is a widely recognized valuation metric that provides insights into stock price reasonableness. The P/E ratio experienced a significant decline from its peak in 2021, followed by a gradual recovery, as depicted in the chart. Critics often argue that Tesla's stock is overvalued, but people overlook a crucial aspect: market dominance. In 2023, global new energy vehicle sales reached 10,522,000 units, with Tesla's sales accounting for 1,808,000 units or 17.18% of the market, solidifying its position as the industry leader. Moreover, Tesla's manufacturing facilities are capable of meeting the high demand, and

capacity constraints are no longer an issue. Furthermore, Tesla transcends the traditional automotive label, functioning as a technology-driven enterprise that has revolutionized the industry through innovation. Its technological prowess justifies a premium valuation compared to conventional carmakers. Consequently, it can be concluded that Tesla's stock price is not unjustifiably high.

Table 5: About the Investment ratio of Tesla.

Years	2021	2022	2023
P/E ratio	188.37	30.64	52.53

4. Expectation

In the fierce competition in the electric vehicle market, Tesla's price reduction from 2022 to 2024 is not only a direct strategic response to the rise of new energy vehicles in China but also demonstrates its keen insight and strategic flexibility in the industry competition. In the face of BYD's strong rise, Tesla has maintained its market share and attracted more consumers through price adjustments.

Tesla's acceptance of government construction funds and tax incentives, as well as tax credits from the IRA, has reduced production costs and made it able to adjust its pricing strategy. This not only reflects Tesla's keen grasp of policy orientation but also indicates that in the future, Tesla may continue to optimize the cost structure to achieve greater profit space. Secondly, facing the intensified competition in the electric vehicle market in the Chinese market, Tesla needs to further optimize its product line and enhance its brand differentiation. In the Chinese market, Tesla should make full use of its policy advantages to improve its local production and service capabilities to cope with the growing competition.

With the improvement of environmental awareness and policy support, more and more consumers choose to buy electric vehicles in order to travel environmentally friendly, so the electric vehicle market will continue to expand, and Chinese car companies will continue to emerge with innovative technologies to attract consumers to seize the market share. Therefore, China's new energy vehicle market competition will be more intense. Tesla should make full use of its policy advantages to improve its local production and service capabilities to cope with the growing competition.

In the future, Tesla needs to focus on technological innovation and product quality while reducing costs to maintain price competitiveness, so as to improve consumer loyalty. Continued strengthening of relationships with the government and partners will help Tesla stay ahead of the competition. However, as the electric vehicle market matures, Tesla needs to adjust its strategy from a competitive price advantage to a competitive value advantage and lead the electric vehicle companies to cut prices and develop more environmentally friendly electric vehicles, to achieve environmental protection and long-term sustainable development.

5. Conclusion

This paper analyzes the financial data and future development trend of Tesla through its price reduction trend, analyzes the reasons for the price reduction from the aspects of competitors, policy incentives, its own technology and supply chain, and evaluates its profitability, operating efficiency, solvency, and investment value based on its financial reports. At the same time, the competitive situation of Tesla in the tram market is analyzed. Moreover, this study concluded that competition in the electric vehicle market will intensify. According to the financial data of Tesla, its revenue and net profit rate rise with strong profitability; asset utilization efficiency meets bottleneck, inventory management has certain pressure; solvency increases; the growth of market value has certain investment value.

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