

Research on the Mechanism in the Transformation of BYD's Strategic Advantages into Financial Performance: Based on the Harvard Analysis Framework

Yuyue Zhang*

College of Economics and Management, Northeast Forestry University, Harbin, Heilongjiang 150040, China

**Corresponding author: Yuyue Zhang.*

Abstract

As competition in the new energy vehicle (NEV) industry continues to intensify, how an enterprise's strategic advantages are transformed into financial performance has become an important issue for the enterprise's sustainable development. Based on the Harvard Analysis Framework (HAF), this study takes BYD Company Limited (BYD) as the research object, carries out research from four aspects, namely strategic analysis, accounting analysis, financial analysis, and prospect analysis, and further discusses the transmission path through which corporate strategic factors affect financial performance. The study finds that corporate strategic advantages need to be transmitted through resource allocation, operating activities, and accounting matters, and are ultimately reflected in changes in financial indicators. On this basis, this study proposes suggestions such as improving the operating efficiency of the industrial chain, optimizing the transformation of research and development (R&D) achievements, and reasonably controlling the risks of international expansion.

Keywords

Harvard Analysis Framework, BYD, new energy vehicles, financial performance, strategic factors, transmission mechanism

1. Introduction

In recent years, the NEV industry has developed rapidly, the scale of China's NEV market has continued to expand, the industrial chain system has been continuously improved, and industry competition has gradually shifted from competition in market scale to comprehensive competition in technology, cost, and globalization capability. Against this background, whether an enterprise can effectively transform the strategic advantages it has formed into sustained and stable financial performance has become an important factor affecting the long-term development of NEV enterprises.

As an important enterprise in China's NEV industry, BYD has formed relatively strong competitive advantages in the NEV market by relying on its accumulation of power battery technology, industrial-chain integration capability, and continuous R&D investment [1]. In recent years, the company has strengthened supply-chain control through vertical integration, improved product competitiveness through technological innovation, and actively promoted its overseas market layout, achieving rapid improvement in corporate scale

and market influence. However, as competition in the NEV industry intensifies, factors such as price competition, pressure from capacity expansion, and increased investment in overseas markets have gradually emerged. Whether the enterprise's strategic advantages can continue to be transformed into financial advantages is still worthy of further study.

Traditional corporate financial analysis usually takes financial indicators such as profitability, solvency, operating capability, and growth capability as the basis for evaluation. It can reflect the results of business operations, but it is relatively difficult to explain the strategic reasons behind the formation of financial results. The HAF breaks through the limitation of evaluating enterprise value by relying only on financial indicators, and combines strategic analysis, accounting analysis, financial analysis, and prospect analysis, providing a systematic method for understanding the relationship between business activities and financial performance. Therefore, further analysis based on the HAF of how corporate strategic factors affect financial indicators through operating activities and accounting matters can more comprehensively evaluate the development quality of NEV enterprises.

On this basis, this study takes BYD as the research object and, based on the HAF, conducts research from four aspects: strategic analysis, accounting analysis, financial analysis, and prospect analysis. It focuses on the influence paths of the industrial-chain integration strategy, technological innovation strategy, and international expansion strategy on financial performance. This study aims to analyze how corporate strategic advantages are transmitted to indicators such as profitability, growth capability, and financial structure through operating activities and accounting matters, and further proposes relevant suggestions for promoting sustainable development, so as to provide certain references for the financial analysis and strategic management of NEV enterprises.

2. Literature Review

The HAF breaks through the limitation of traditional financial analysis that focuses only on changes in financial indicators. It combines corporate strategy, accounting information, financial performance, and future development, providing a systematic analytical method for comprehensive corporate evaluation. In recent years, with the rapid development of the NEV industry, the HAF has gradually been applied to studies on the financial analysis of NEV enterprises. Li Yonghao and Hao Erhu analyzed BYD's financial performance by combining the HAF, providing a research foundation for the financial evaluation of NEV enterprises.

In terms of the formation of corporate competitive advantages, existing studies mainly focus on strategic choices and competitive capabilities of NEV enterprises. Chen Aizhen et al. pointed out that the development of the NEV industry depends not only on complete-vehicle manufacturing capability, but is also affected by industrial-chain coordination capability and the efficiency of upstream and downstream resource allocation. Qian Yisheng et al., based on a case study of BYD, found that vertical integration can improve the efficiency of internal resource allocation and strengthen the enterprise's control over key production links, providing support for the formation of long-term competitive advantages.

In terms of the relationship between technological innovation and corporate performance, existing studies focus on the impact of R&D investment on enterprise value and financial performance. Yang Zhonghuan found that R&D investment can affect an enterprise's value-creation capability, but its economic effect needs to be reflected through the transformation of innovation achievements. This indicates that the technological innovation strategy does not directly generate financial returns, but needs to go through the process of achievement transformation.

In addition, as NEV enterprises continue to promote global development, the influence of internationalization strategies on corporate financial performance has also received attention. Wang Chongfeng and Wang Xianguo analyzed the relationship between the internationalization strategy and financial performance of NEV enterprises from a dynamic perspective, and pointed out that internationalized layout can expand the market space of an enterprise, while overseas investment, production-base construction, and market development also increase capital investment and affect the enterprise's asset structure and financial risk.

In summary, existing studies provide a relatively sound theoretical basis for the strategic analysis and financial evaluation of NEV enterprises, but there are still certain deficiencies. Existing studies mainly

concentrate on the analysis of corporate strategic advantages or the evaluation of financial indicators, and pay insufficient attention to the specific process by which strategic advantages further affect financial performance through resource allocation, operating activities, and accounting matters. Therefore, based on the HAF and taking BYD as the research object, this study further analyzes the transmission mechanisms through which the industrial-chain integration strategy, technological innovation strategy, and international expansion strategy affect financial indicators, so as to supplement the insufficiency of existing research on the linkage path between strategic factors and financial performance.

3. Strategic Analysis

3.1 Macro-environment Analysis of the NEV Industry: Political, Economic, Social, and Technological (PEST) Analysis

3.1.1 Political Environment

With the proposal of the dual-carbon goals, the NEV industry has gradually become a national strategic emerging industry and has helped realize the development of China's green economy. In recent years, China has continuously promoted the development of the NEV industry through a number of relevant policies supporting the industry. Since 2009, China has started subsidy actions for NEVs and issued the Adjustment and Revitalization Plan for the Automobile Industry. In 2013, the state issued the Notice on Continuing to Carry Out the Promotion and Application of New Energy Vehicles, and China's NEV industry began to develop vigorously. Among the six key tasks proposed in the Implementation Plan for Improving the System and Mechanism for Promoting Consumption (2018-2020), developing and strengthening green consumption and promoting the innovative development of intelligent vehicles were included. The vehicle purchase-tax exemption for NEVs and the NEV dual-credit policy also express the state's strong support for the new energy industry. However, with the gradual development of the industry, national subsidy policies have continuously raised standards and put forward higher requirements for product quality. The development of BYD's NEV business cannot be separated from the support of national policies. The company actively responds to national policies, strictly complies with corresponding laws, regulations, and policy norms, and formulates scientific and reasonable strategic decisions.

3.1.2 Economic Environment

China's economy maintains medium-high-speed growth, and its economic growth rate ranks first among the world's five largest economies. In 2025, gross domestic product (GDP) was significantly larger than in 2024, increasing by about RMB 5.38 trillion, and the annual real growth rate remained at 5%. Rapid economic development has made people pursue a higher-quality life. At the same time, China has actively promoted strategic adjustment of its economic structure, deeply advanced supply-side structural reform, and made green development deeply rooted in public awareness. In addition, the turbulent international situation and the outbreak of wars have caused gasoline and other energy prices to rise sharply, further increasing demand for NEVs. Moreover, the number of automobiles per thousand people in China has increased year by year, reaching 260 in 2025. However, compared with developed countries abroad, China's automobile ownership is still at a relatively low level, only one third of that in developed European and American countries. This shows that China's automobile industry still has large market space, and the future of NEVs is worth expecting. As a leading enterprise among China's NEV companies, BYD enjoys high-quality resources and a favorable economic environment.

3.1.3 Social Environment

With the continuous development of industry, protecting the natural environment has gradually become an important issue, and the concept of green travel has been deeply rooted in people's minds. Strong support for NEVs from government institutions and other bodies has greatly increased consumer acceptance of NEVs. According to data from the China Association of Automobile Manufacturers, in December 2025, China's NEV production and sales continued to grow year on year, and sales of new NEVs accounted for more than 50% of total new-vehicle sales. In addition, China's fuel demand mainly depends on imports. In recent years, wars have frequently broken out in some Middle Eastern countries, causing fuel prices to continue rising. It is

necessary to further develop new energy, achieve self-sufficiency, reduce dependence on imported fuel, and improve national competitiveness. This provides BYD with a favorable social and cultural environment.

3.1.4 Technological Environment

China's scientific and technological level has developed rapidly in recent years. New technologies and new products have emerged one after another, and technological barriers have been continuously broken through, bringing many opportunities to the NEV market. The core of NEV R&D lies in motors and batteries. As a traditional battery manufacturer, BYD has a great advantage over its peers in battery R&D. The Blade Battery fully developed by BYD has successfully solved the range problem of NEVs. Strategies such as "524" formulated by the company have helped BYD achieve major technological innovation and improve its position in the industry [2]. In addition to battery technology, BYD has also continuously innovated in charging-pile technology and other areas, improving product competitiveness.

3.2 Market Analysis

The NEV industry has shown explosive growth in recent years. China, Europe, and the United States, as the main NEV markets, have always maintained the top three positions in global NEV market share. NEV sales reflect the development of the industry. In the past five years, global NEV sales have continued to rise. From the domestic perspective, China's NEV industry has grown rapidly, from 3.52 million vehicles in 2021 to 16.49 million vehicles in 2025. BYD and Tesla are close in sales and have also attracted much attention in recent years. The following part compares and analyzes the two companies. BYD was established earlier than Tesla, and its position gradually rose after its transformation toward NEV development. BYD designs diverse models and covers a relatively broad consumer group. It mainly targets middle- and low-end consumer groups and has gradually expanded toward high-consumption groups in recent years. Tesla faces high-income groups and benchmarks against high-end car companies in the international market. The gap between the two mainly lies in brand value, which is also where BYD is disadvantaged. Low brand value may cause BYD to be regarded as a middle- and low-end brand and not trusted when entering international markets such as Europe and the United States, and consumers may also have concerns about quality and prices in the used-car market. Therefore, BYD needs to improve product performance, provide good after-sales service, and optimize its path in the international market [3].

3.3 Industry Analysis: Porter's Five Forces Model

In terms of existing competitors, under the general environmental trend, automobile companies on the market and even some technology companies have gradually entered the NEV industry. Market competition is mainly reflected in price advantages and product differentiation. At present, BYD's competitors mainly include Tesla, Great Wall, NIO, and Geely. As a leading enterprise, BYD has always been the target pursued by other automobile companies. In 2023, the market concentration ratio (CR) of China's NEV industry was 39.51% for CR2, 52.63% for CR4, and 67.71% for CR8. Overall, the industry market concentration is relatively high, and the leading effect is obvious. In terms of potential entrants, as high-tech products, NEVs have relatively high requirements for technological R&D capability and expenses. Relevant national policies also create high entry barriers for this industry. In addition, for products such as automobiles that are related to daily personal safety, consumers are more inclined to trust well-known brands. BYD has operated for a long time and has already established a reliable image among consumers. It also has strong capital and strong technological R&D capability. Therefore, the threat of potential entrants is not significant. In terms of substitutes, the substitutes for NEVs are fuel vehicles. By comparison, fuel vehicles have a longer history and a more mature production system, and their production costs are relatively lower. However, with the development of the times, rising oil prices and increasing requirements for green environmental protection make reducing the use of fuel vehicles an inevitable trend. Although in some cold regions the endurance capability of NEVs is not as good as that of fuel vehicles, this must not be a barrier that technology cannot break through. BYD announced in March 2022 that it would completely stop producing fuel vehicles and focus on the NEV business. This decision is based on BYD's strong capability and profound understanding of the market. In terms of the bargaining power of buyers, BYD's main demand is divided into government demand and market demand. Government procurement aims to demonstrate and guide consumers to buy NEVs, and is not purely market behavior. Therefore, it is not sensitive to price and has weak bargaining power [4]. A large number of competitors and low-cost fuel vehicles have increased the bargaining power of ordinary buyers, but

because of government subsidies and increasing public recognition of BYD, buyers' bargaining power will gradually decline. In terms of the bargaining power of suppliers, NEV components include the components required by traditional vehicles and batteries, motors, and other components. Components required by traditional vehicles, such as tires and glass, come from a mature industry with many suppliers, so suppliers' bargaining power is not strong. Battery and motor components are the core components of NEVs. For other enterprises, suppliers have strong bargaining power, but BYD started as a battery enterprise, owns multiple battery patents and mature battery technology, and is its own supplier.

3.4 Corporate Strategy Analysis

BYD is currently the only company in China with the technology for large-scale manufacturing of lithium iron phosphate vehicle batteries. Strong capital and self-sufficient raw materials are BYD's unique cost advantages. BYD's adoption of a cost-priority strategy can both form entry barriers for potential competitors and reduce buyers' bargaining power [5]. BYD adheres to a self-sufficiency route, insists on innovation, implements a diversified business strategy, avoids product homogenization with peers, and is determined to achieve full coverage in the automobile field.

3.5 Summary of Strategic Analysis and Its Financial Impact

The comprehensive analysis in this chapter shows that BYD's rapid development in recent years has benefited not only from the growth trend of the NEV industry, but is also closely related to the competitive strategy formed by the enterprise itself. Compared with traditional automobile enterprises, BYD has gradually formed relatively strong competitive advantages through the accumulation of power battery technology, industrial-chain layout, and continuous R&D investment.

According to resource-based theory, corporate competitive advantages come from the core resources and capabilities owned by the enterprise itself, but resource advantages need to realize value creation through business activities and organizational capabilities and ultimately appear as differences in corporate performance [6]. At the same time, the HAF emphasizes the relationship among the strategic environment, accounting information, and financial performance, providing a theoretical basis for analyzing an enterprise's financial status from a strategic perspective. Therefore, this study holds that BYD's industrial-chain advantages, technological advantages, and internationalized layout need to further reflect their financial impact through business activities and accounting matters.

On the one hand, the industrial-chain integration strategy [7] enhances the enterprise's control over core components and supply-chain links, helping reduce production costs and improve supply stability, thereby affecting profitability. However, as the enterprise expands in scale, industrial-chain construction also requires continuous investment in fixed assets and production resources, which may increase depreciation pressure and risks in asset utilization efficiency. Therefore, the subsequent accounting analysis needs to focus on changes in the scale of fixed assets, adjustment of asset structure, and the impact of related accounting estimates on financial performance.

On the other hand, technological innovation is an important basis for NEV enterprises to maintain competitive advantages. BYD has long invested in power batteries, intelligent technology, and core NEV technology, and the scale of R&D investment has continued to expand. R&D activities can enhance an enterprise's long-term competitive capability, but they also affect the enterprise's current profit level and involve accounting treatment issues such as capitalization and expensing of R&D expenditure. Therefore, the subsequent analysis needs to further focus on changes in R&D investment, the R&D capitalization ratio, and their impact on the enterprise's profitability and growth capability.

In addition, as competition in the NEV industry gradually shifts from a high-speed growth stage to a deepening competition stage, BYD has begun to actively promote overseas market layout and global development. International expansion can broaden the enterprise's future growth space, but the construction of overseas production bases, market development, and channel investment also increase the enterprise's demand for funds and may affect asset scale, debt structure, and solvency. Therefore, it is necessary to further analyze capital pressure and risk changes under the background of rapid expansion in combination with the enterprise's financial data.

Overall, BYD's current financial performance is the result of the joint effects of the enterprise's strategic choices, changes in the industry environment, and business management. Therefore, in the following accounting analysis and financial analysis sections, this study further examines the economic effects and potential risks brought by BYD's strategic layout from the perspective of the linkage path between strategic factors and financial performance.

4. Accounting Analysis

4.1 Asset Analysis

Table 1: Asset Analysis Table

Year	2021	2022	2023	2024	2025
Total assets (RMB 100 million)	2958	4939	6795	7834	8837
Fixed assets (RMB 100 million)	1297	2531	3774	4128	5123

As shown in Table 1, from 2021 to 2025, BYD's asset scale continued to expand. From 2021 to 2023, the domestic NEV market was in an explosive stage. BYD built large numbers of complete-vehicle and power-battery production lines, planned to cancel complete-vehicle production of fuel vehicles, and fully produced NEVs. Total assets and fixed assets increased significantly. In 2024, they increased slightly, and in 2025, fixed assets increased again for overseas base expansion. The continuous growth of fixed assets over five years not only reflects BYD's strategic choice to expand capacity and promote industrial-chain layout, but also means that in the future the enterprise needs to absorb new asset investment through higher capacity utilization and market growth; otherwise, it may create pressure on asset turnover efficiency and profitability.

4.2 Liability Analysis

Table 2: Balance Sheet

Year	2021	2022	2023	2024	2025
Total liabilities (RMB 100 million)	1915	3725	5291	5847	6252
Short-term borrowings (RMB 100 million)	102	51.53	183.2	121	384.8
Long-term borrowings (RMB 100 million)	87.44	75.94	119.8	82.58	607.1
Total current liabilities (RMB 100 million)	1713	3333	4537	4960	4685

As shown in Table 2, BYD's total liabilities increased year by year. The growth of liabilities did not simply originate from operating pressure, but was related to strategic investments such as NEV capacity expansion, overseas layout, and industrial-chain construction. Therefore, analysis of liability changes needs to judge their rationality in combination with the enterprise's expansion stage. From 2022 to 2023, BYD's total liabilities nearly doubled, corresponding to large-scale construction of plants and other facilities during the explosive stage of the NEV market, and BYD supported expansion through debt financing. From 2023 to 2025, the rate of liability growth slowed and the pace tended to be stable. From 2021 to 2024, long-term borrowings remained low, and the company gave priority to short-term borrowings. In 2025, long-term borrowings increased significantly, short-term borrowings rose at the same time, and the enterprise started long-term capital expenditures such as overseas expansion.

4.3 Analysis of Key Accounting Policies and Accounting Estimates

BYD's main businesses involve NEVs, power batteries, automobile components, mobile-phone components, and other fields. They are characterized by a large scale of R&D investment, a relatively high proportion of fixed assets, and rapid product updating. Therefore, accounting policies such as R&D expenditure capitalization, fixed-asset depreciation, inventory impairment provision, and receivables impairment have a relatively large impact on understanding BYD's operating results and financial position [8].

First, from the perspective of R&D expenditure, the NEV industry has obvious technology-intensive characteristics, and enterprises need to continuously invest funds in the R&D of battery technology, complete-vehicle platforms, intelligent driving, and related core components. BYD adopts a technological innovation strategy and enhances its own advantages by continuously increasing R&D investment, while the accounting treatment of R&D expenditure directly affects the enterprise's current profit and asset scale [9].

According to BYD's accounting policies, internal research and development projects are divided into the research stage and the development stage. Expenditure incurred in the research stage is directly included in current profit or loss. Expenditure in the development stage can be capitalized only when conditions such as technical feasibility, resource support, and reliable cost measurement are met.

In 2024, BYD's R&D expenditure was about RMB 54.161 billion, of which capitalized R&D expenditure was about RMB 966 million, with a capitalization ratio of about 1.78%. In 2025, R&D expenditure increased to about RMB 63.441 billion, capitalized R&D expenditure was about RMB 5.463 billion, and the capitalization ratio increased to about 8.61%. Although most R&D expenditure in 2025 was still expensed, the capitalized amount and capitalization ratio increased significantly, reflecting that some R&D projects gradually entered the achievement development stage.

The growth of R&D investment reflects BYD's strategic choice of technological competitive advantages, and attention also needs to be paid to the impact of R&D capitalization on financial information. On the one hand, R&D investment can promote the enterprise's long-term growth through technological breakthroughs, product upgrades, and improvement of market competitiveness. On the other hand, capitalized R&D expenditure reduces current expense recognition and increases current profit and asset scale. Therefore, when analyzing changes in BYD's profitability, attention needs to be paid to whether growth in R&D investment matches growth in profit, so as to avoid judging the enterprise's operating results only through profit indicators.

Second, from the perspective of fixed-asset depreciation, BYD adheres to the industrial-chain integration strategy and improves its independent control over core links through the layout of power batteries, component production, complete-vehicle manufacturing, and other links. At the same time, with the expansion of the NEV market, the company has continued to build production bases and promote overseas market layout, causing the scale of fixed assets to continue growing. Fixed-asset investment can enhance the enterprise's production capability and provide a basis for scaled operations, but it also brings problems such as increased depreciation costs and changes in asset utilization efficiency. BYD determines service life, estimated net residual value, and depreciation methods according to different asset categories, and regularly reviews related accounting estimates.

From 2021 to 2025, BYD's fixed-asset scale continued to increase, reflecting the enterprise's strategic investment in expanding NEV capacity, improving industrial-chain layout, and promoting global development. However, the NEV industry has a rapid pace of technological iteration, and some production equipment may face the risk of early elimination. If the estimated service life of fixed assets is higher than the actual economic life, depreciation expenses may be insufficiently recognized in earlier periods, causing the carrying amount of assets to be overstated. Therefore, when focusing on the competitive advantages brought by enterprise scale expansion, it is also necessary to further analyze whether new assets can be effectively transformed into capacity utilization and profitability.

From the perspective of inventory impairment provision, in 2025, BYD's inventory carrying balance was about RMB 142.622 billion, and the inventory impairment provision was about RMB 4.201 billion. The NEV industry has intense competition and rapid product updates. Changes in market prices may cause the value of some vehicle models, components, and raw materials to decline. Therefore, whether sufficient inventory impairment provision has been made directly affects asset quality and corporate profit.

Finally, expected credit loss of receivables is also an accounting policy that needs key attention. BYD has a large business scale and many customer types and business models. Risk judgment for accounts receivable and long-term receivables involve customer credit ratings, aging, historical collection, macroeconomic environment, and other factors. In 2025, the carrying amount of accounts receivable was about RMB 37 billion, and the carrying amount of long-term receivables was about RMB 24.4 billion. Although the enterprise has relatively strong collection ability by relying on its industry position and market competitive advantages, the difficulty of receivables management may also increase as sales scale expands and overseas business develops. If credit-risk assessment is insufficient, asset quality may decline and the stability of corporate cash flow may be affected [10]. Therefore, when analyzing BYD's growth capability, it is necessary to pay attention at the same time to the matching relationship between revenue growth and cash collection ability, so as to avoid pressure from fund occupation during enterprise scale expansion.

4.4 Detection of Accounting Distortion and Accounting Adjustment

When analyzing corporate financial performance, attention needs to be paid to the possible impact of key accounting matters on financial information. In combination with BYD's technological innovation, capacity expansion, and market competition environment, this study focuses on matters such as R&D expenditure capitalization, inventory impairment provision, and credit risk of receivables.

First, from the perspective of R&D expenditure, BYD's R&D investment has continued to increase, and capitalized R&D expenditure in 2025 increased significantly compared with 2024. R&D capitalization conforms to the requirements of enterprise accounting standards, but changes in the capitalization ratio may affect the comparability of profits in different periods [11]. Therefore, when evaluating the enterprise's profitability, it is necessary to make a comprehensive judgment in combination with the scale of R&D investment and the transformation of R&D achievements, rather than evaluating the enterprise's operating results only on the basis of changes in current profit.

Second, from the perspective of inventory, intensified competition in the NEV industry and faster product updates may lead to a decline in the value of some vehicle models and components. BYD has made inventory impairment provision according to market conditions, but it still needs to pay attention to the impact of future market price changes on asset quality and profitability.

Finally, from the perspective of receivables, with the expansion of the enterprise's sales scale, the scale of accounts receivable increases accordingly. Although no obvious credit risk has been found at present, future overseas business expansion and business scale enlargement may increase pressure on fund management, and the recovery of accounts receivable needs continuous attention.

Overall, there is currently no obvious evidence of distortion in BYD's accounting information, and its financial statements can reasonably reflect the enterprise's operating conditions. However, factors such as changes in R&D capitalization, asset-scale expansion, and intensified market competition may still affect the results of financial analysis. Therefore, subsequent financial analysis needs to make a comprehensive evaluation in combination with strategic changes and the industry environment.

5. Financial Analysis

5.1 Profitability Analysis

Table 3: Profitability Analysis Table

Year	2021	2022	2023	2024	2025
Return on equity (ROE) (%)	3.73	16.14	24.4	26.05	15.31
Gross margin	13.02	17.04	18.58	19.44	17.74
Net profit margin	1.84	4.18	5.20	5.35	4.28

As shown in Table 3, from 2021 to 2024, BYD's return on equity (ROE), gross margin, and net profit margin all continued to increase, indicating that the ability of the enterprise's assets and capital to create profit was continuously strengthening. In 2025, all three profitability indicators declined. ROE fell to 15.31%, gross margin fell to 17.74%, and net profit margin fell to 4.28%. In combination with the preceding analysis, BYD adopted a vertical integration strategy to improve profitability by reducing supply-chain costs, but as price competition in the NEV industry intensified, the cost advantage was partly offset by price declines. Therefore, gross margin declined in 2025.

5.2 Solvency Analysis

Table 4: Solvency Analysis Table

Year	2021	2022	2023	2024	2025
Current ratio	0.970	0.722	0.666	0.747	0.793
Quick ratio	0.717	0.485	0.473	0.513	0.497
Asset-liability ratio (%)	64.76	75.42	77.86	74.64	70.74

The ideal values of a company's current ratio and quick ratio are 2 and 1 respectively. As shown in Table 4, BYD's current ratio continued to decline from 2021 to 2025 and was below 1 in all years, reflecting that the

enterprise used more operating liabilities and financing to support scale growth during the high-speed expansion stage, and this needs to be judged comprehensively in combination with the enterprise's expansion strategy and cash-creation ability. The quick ratio decreased from 0.717 in 2021 to 0.497 in 2025, indicating that BYD's liquidity risk increased. The asset-liability ratio continued to rise from 2021 to 2023, indicating weak long-term solvency. From 2024 to 2025, the asset-liability ratio declined, and long-term solvency improved. Overall, BYD's solvency is relatively weak, but because BYD has relatively strong cash reserves, this will not affect its debt repayment [12].

5.3 Operating Capability Analysis

Table 5: Operating Capability Analysis Table

Year	2021	2022	2023	2024	2025
Inventory turnover ratio	4.244	4.869	5.360	6.026	5.146
Accounts receivable turnover ratio	5.58	11.30	11.96	12.52	16.19
Total asset turnover ratio	0.870	1.074	1.027	1.062	0.965

As shown in Table 5, from 2021 to 2025, BYD's inventory turnover ratio, accounts receivable turnover ratio, and total asset turnover ratio all increased overall, indicating improvement in the operating capability of assets and in asset utilization and liquidity. From 2021 to 2024, BYD's inventory turnover ratio continued to rise, reflecting strong demand in the NEV market. It declined in 2025, mainly because the enterprise increased stock preparation for overseas market layout and because the growth rate of industry demand slowed. The total asset turnover ratio continued to rise from 2021 to 2024 and declined in 2025 because of fixed-asset expansion. The accounts receivable turnover ratio increased significantly. Relying on BYD's leading position in the industry, the company has relatively strong bargaining power over dealers and others, greatly reducing bad-debt risk. From the vertical comparison, BYD's operating-asset management has greatly improved on its own basis [13]. Overall, BYD's operating efficiency improved compared with the beginning of the period from 2021 to 2025, but the inventory turnover ratio and total asset turnover ratio declined in 2025, indicating that the efficiency of its asset and inventory management still requires continuous attention under the background of expanded asset scale and inventory scale.

5.4 Growth Capability Analysis

Table 6: Growth Capability Analysis Table

Year	2021	2022	2023	2024	2025
YoY growth of net profit after deducting non-recurring gains and losses (%)	-57.53	1146.32	82.01	29.94	-20.38
YoY growth of net profit attributable to shareholders (%)	-28.08	445.86	80.72	34.00	-18.97
YoY growth of operating revenue (%)	38.02	96.20	42.04	29.02	3.46

As shown in Table 6, the year-on-year growth rates of operating revenue, net profit attributable to shareholders, and net profit after deducting non-recurring gains and losses can directly reflect the enterprise's scale expansion and profit-growth potential. From the perspective of operating revenue growth, BYD's growth shows obvious staged characteristics. From 2021 to 2022, due to the outbreak of the NEV industry, high-speed expansion was achieved, and the year-on-year growth rate of revenue reached 96.20% in 2022. Sales of complete-vehicle and power-battery businesses rose sharply, and market scale expanded rapidly. From 2023 to 2025, revenue growth continued to decline, and in 2025 it increased by only 3.46% year on year. The domestic NEV market entered the stage of stock competition, the industry price war intensified, overseas capacity layout was still in the investment cycle, and overall revenue expansion momentum weakened significantly. In 2021, rising raw-material prices and increased capacity-expansion costs caused corporate net profit to decline sharply year on year. In 2022, market demand was concentratedly released, economies of scale reduced production costs, net profit after deducting non-recurring gains and losses increased by 1146.32% year on year, and profitability achieved a leap-type recovery. From 2023 to 2024, profit growth gradually declined but still maintained positive growth. In 2025, affected by continuous price reductions in the industry and increased operating investment, the year-on-year growth rates of net profit attributable to shareholders and net profit after deducting non-recurring gains and losses both turned negative, and the enterprise's profit scale contracted.

Taken together, the three growth indicators show that BYD fully grasped the industry trend in the early stage and achieved dual growth in scale and profit. However, in 2025, revenue growth nearly stagnated and profit declined year on year. The enterprise needs to rely on second growth curves such as overseas markets, energy storage, and photovoltaics to open growth space and alleviate the growth pressure brought by domestic stock-market competition. Whether overseas expansion can offset the decline in domestic market growth is an important factor in whether future strategic transformation can form new growth.

5.5 Transmission Mechanism Through Which Strategic Factors Affect Financial Indicators

Based on the HAF, the preceding sections analyzed and studied BYD's operating conditions from three aspects: strategic analysis, accounting analysis, and financial analysis. The analysis found that changes in BYD's financial performance are affected not only by the development environment of the NEV industry, but are also closely related to the enterprise's own strategic choices. Corporate strategic advantages are not directly manifested as financial results, but need to be gradually transmitted through resource allocation, operating activities, and accounting matters, and are ultimately reflected in financial indicators such as profitability, growth capability, and financial risk.

In combination with the preceding analysis, this study holds that BYD mainly affects corporate financial performance through the industrial-chain integration strategy, technological innovation strategy, and international expansion strategy. The specific transmission paths are as follows.

5.5.1 The Industrial-chain Integration Strategy Affects Profitability Through Cost Control

BYD has long adhered to the industrial-chain integration strategy. Through the layout of core links such as power batteries, automobile components, and complete-vehicle manufacturing, it improves the enterprise's control over supply-chain resources. Industrial-chain integration can reduce the enterprise's dependence on external suppliers, improve supply-chain stability, and reduce unit production costs through scaled production.

The transmission path is as follows: industrial-chain integration strategy → increased autonomy of core components → reduced production costs → formation of product cost advantages → improved profitability.

From the perspective of financial indicators, BYD's gross margin increased from 13.02% in 2021 to 19.44% in 2024, indicating that the industrial-chain synergy effect and scale advantages effectively improved the enterprise's profitability during the rapid development stage of NEVs. However, gross margin declined to 17.74% in 2025, showing that as competition in the NEV industry intensified, price competition weakened the effect of transforming cost advantages into profit advantages. Therefore, although the industrial-chain integration strategy constitutes an important competitive advantage for BYD, its promoting effect on profitability is still affected by changes in the industry competition environment.

5.5.2 The Technological Innovation Strategy Affects Corporate Growth Capability Through Achievement Transformation

The NEV industry has technology-intensive characteristics, and technological innovation capability is an important basis for an enterprise to maintain long-term competitive advantages. BYD has continued to increase R&D investment and has formed certain technological advantages in power batteries, hybrid technology, and core NEV technologies.

The transmission path is as follows: technological innovation strategy → increased R&D investment → formation of technological achievements → improvement of product competitiveness → expansion of market scale → enhancement of corporate growth capability.

R&D investment can improve an enterprise's long-term competitive capability, but because technological R&D has characteristics such as a long investment cycle and a complex achievement-transformation process, its economic value is not immediately reflected in financial indicators [14]. From the preceding analysis, BYD's R&D investment was about RMB 54.161 billion in 2024 and further increased to about RMB 63.441 billion in 2025, reflecting the enterprise's development strategy of continuously strengthening technological advantages. However, the growth rate of operating revenue declined during the same period, indicating that R&D investment needs to be further transformed through the commercialization of technological achievements and market competitive advantages before sustained financial returns can be formed. Therefore, when

evaluating the effect of the technological innovation strategy, attention should not be paid only to the scale of R&D investment; the efficiency of R&D achievement transformation also needs attention [15].

5.5.3 The International Expansion Strategy Affects Financial Structure Through Capital Investment

As competition in the NEV industry gradually intensifies, BYD actively promotes overseas market layout and expands new growth space by increasing exports and building overseas production bases. International expansion can improve the enterprise's market coverage, but it also requires large amounts of capital for capacity construction, channel construction, and market development [16].

The transmission path is as follows: international expansion strategy → increased overseas investment → expansion of fixed assets and capital investment → increased financing demand → influence on the enterprise's asset structure and solvency.

From the perspective of financial performance, BYD's asset scale has continued to expand in recent years, and fixed-asset investment has grown significantly, reflecting that the enterprise supports capacity expansion and global layout through capital investment. At the same time, the scale of liabilities has also increased with business expansion. Although the asset-liability ratio has declined in recent years, attention still needs to be paid to the efficiency of fund use and changes in capital structure during rapid expansion. Therefore, the internationalization strategy can not only provide new revenue growth space for the enterprise, but may also increase short-term financial pressure [17].

In summary, the process by which BYD's strategic factors affect financial performance can be summarized as follows: strategic choices affect the enterprise's resource allocation and operating activities, further act on accounting matters, and are ultimately reflected in changes in financial indicators. Among them, the industrial-chain integration strategy mainly affects profitability through the cost-control mechanism, the technological innovation strategy mainly affects growth capability through the achievement-transformation mechanism, and the international expansion strategy mainly affects financial risk through the capital-investment mechanism. It can be seen that after the NEV industry enters the stage of deepening competition from the stage of high-speed growth, enterprises need to pay attention not only to strategic advantages themselves, but also to the efficiency with which strategic advantages are transformed into financial results, so as to achieve long-term sustainable development.

6. Prospect Analysis

6.1 Development Prospects

The NEV market has broad development prospects. With the enhancement of environmental awareness, governments in various countries and regions have continuously introduced NEV subsidy policies to encourage NEV production. In addition, with the continuous development of science and technology, NEVs are also moving toward greater intelligence. In the long run, NEVs are expected to replace traditional fuel vehicles, and more intense market competition will follow [18]. As a leading enterprise in the NEV market, BYD's development prospects are worth expecting.

In terms of capacity and capital, because BYD has developed for a long time, it already has a complete industrial chain, complete industrial layout, and strong capacity. It has connected upstream and downstream suppliers, achieved self-sufficiency in some components, has abundant capital reserves, smooth capital-chain circulation, and relatively strong financing ability.

In terms of technological R&D, BYD has mature technological R&D capabilities, a large number of professional technical talents and large-scale scientific research teams, and at the same time holds many technological patents.

In terms of market expansion, BYD actively develops overseas markets, further expands global market share, continuously increases export volume, and has successfully covered 60 sovereign markets on six continents. In 2025, BYD's passenger-car exports reached 1.01 million vehicles, accounting for 55% of the increase in China's passenger-car exports, showing extremely strong growth momentum and global

competitiveness. In addition, BYD has achieved significant results in market transformation. The launch of Denza and Yangwang marks BYD's breakthrough in the high-end market.

6.2 Development Suggestions

6.2.1 Improve the Efficiency of Industrial-chain Integration

The industrial-chain integration strategy is an important competitive advantage that distinguishes BYD from some NEV enterprises. It helps reduce the risk of external supply-chain fluctuations and improve the enterprise's production efficiency. However, as the NEV industry gradually enters the stage of deepening competition and market price competition continues to intensify, the cost advantage formed solely by relying on scale expansion is being challenged. From the perspective of financial indicators, BYD's gross margin and net profit margin both declined in 2025, indicating that the enterprise needs to further improve the utilization efficiency of industrial-chain resources and enhance the ability to transform strategic advantages into profitability. Therefore, in the future, BYD should shift from "expanding the scale of the industrial chain" to "improving the efficiency of the industrial chain." On the one hand, it should further optimize supply-chain management, improve the coordination efficiency of key component production and complete-vehicle manufacturing, and reduce production costs through digital management and lean production. On the other hand, it should pay attention to the utilization efficiency of new capacity, strengthen management of returns on fixed-asset investment, and avoid a decline in asset utilization efficiency caused by excessively rapid capacity expansion. At the same time, the enterprise also needs to improve product added value through technological upgrading and product-structure optimization, reducing the impact of price competition on profitability.

6.2.2 Improve the Transformation Efficiency of R&D Investment

The core of competition in the NEV industry is gradually shifting from scale competition to technology competition, and continuous R&D investment is an important basis for an enterprise to maintain long-term competitive advantages. In recent years, BYD has continuously increased R&D investment and has formed certain technological advantages in power batteries, hybrid technology, intelligent technology, and other fields, providing support for market expansion and product competitiveness improvement. However, R&D investment has characteristics such as a long investment cycle and a complex achievement-transformation process, and the expansion of R&D scale does not mean that the enterprise can immediately obtain financial returns. According to the preceding analysis, BYD's R&D investment continued to grow, but its operating revenue growth rate declined in 2025. This shows that the enterprise needs to further improve the allocation efficiency of R&D resources and transform technological advantages into operating results more effectively. Therefore, in the future, BYD should further optimize the structure of R&D investment and improve the commercialization efficiency of R&D achievements. On the one hand, it should strengthen continuous investment in core technology fields and maintain technological leading advantages in power batteries, intelligent driving, and other fields. On the other hand, it should establish a linkage mechanism between R&D investment and market demand, accelerate the transformation of technological achievements into product applications, and improve the contribution of R&D investment to revenue growth and profitability improvement. At the same time, in terms of the accounting treatment of R&D expenditure, continuous attention should also be paid to the impact of changes in the capitalization ratio on the comparability of financial information, so as to ensure that financial information can truly reflect the enterprise's innovation capability.

6.2.3 Optimize the Pace of International Expansion

As competition in the domestic NEV market intensifies, BYD actively promotes its internationalization strategy and expands new growth space by increasing overseas sales and building overseas production bases. Internationalized layout can help the enterprise break through the growth limitation of the domestic market and improve long-term growth capability, but overseas market development is also accompanied by relatively high demand for capital investment, including production-base construction, channel construction, brand promotion investment, and other inputs. From the preceding analysis, BYD's asset scale has continued to expand in recent years, fixed-asset investment has increased, and the scale of liabilities has also grown, indicating that international expansion requires a large amount of financial support. Therefore, in the process of promoting global development, the enterprise needs to balance growth targets and financial stability, avoiding pressure on cash flow and solvency caused by rapid expansion. In the future, BYD should adopt

differentiated internationalization strategies according to the characteristics of different regional markets. In mature markets, it should pay more attention to brand building and product-structure optimization, and improve market recognition and profitability. In emerging markets, it should reasonably arrange production capacity in combination with local market demand and the industrial environment, so as to avoid overinvestment. At the same time, the enterprise should strengthen the evaluation mechanism for overseas investment projects and dynamically assess the effect of overseas expansion through indicators such as return on investment, cash flow, and asset utilization efficiency, so as to realize coordinated development between the internationalization strategy and financial-risk control.

7. Conclusion and Outlook

7.1 Conclusion

Based on the HAF and taking BYD as the research object, this study conducts research from four dimensions: strategic analysis, accounting analysis, financial analysis, and prospect analysis. On the basis of the HAF, this study further focuses on the process by which corporate strategic advantages are transformed into financial performance, and analyzes how strategic factors affect corporate financial performance through operating activities and accounting matters.

The study finds that the competitive advantages formed by BYD in recent years mainly come from strategic choices such as industrial-chain integration, technological innovation, and internationalized layout. Among them, the industrial-chain integration strategy strengthens the enterprise's control over power batteries, core components, and complete-vehicle manufacturing links, and improves profitability by reducing supply-chain costs and improving production efficiency. Financial data show that from 2021 to 2024, BYD's gross margin continued to increase, indicating that the industrial-chain synergy effect and scale advantages were effectively transformed into profit advantages during the high-speed development stage of the industry. However, as competition in the NEV market intensified, the enterprise's gross margin and net profit margin declined in 2025, indicating that the process of transforming strategic advantages into profit advantages was affected by industry price competition.

The technological innovation strategy is an important basis for BYD to maintain long-term competitive capability. The enterprise has continuously increased R&D investment and has formed technological advantages in power batteries, hybrid technology, and intelligent fields. However, R&D investment does not immediately transform into financial results, but needs to go through the process of technological achievement transformation and market application. Therefore, the enterprise needs to pay attention to the matching relationship between the scale of R&D investment and the efficiency of achievement transformation, so as to avoid evaluating strategic effects only through the growth of R&D investment.

The international expansion strategy provides BYD with new growth space, but it also brings capital-investment and financial-management pressure. Overseas market development, production-base construction, and channel investment all require large amounts of financial support and further affect the enterprise's asset structure and solvency. Therefore, in the process of promoting global layout, it is necessary to balance the speed of strategic expansion and the ability to control financial risks.

Overall, corporate strategic advantages do not directly form financial performance, but need to go through the transmission process of "strategic choice → resource allocation → operating activities → accounting matters → financial indicators." By constructing the relationship between strategic factors and financial performance, this study further explains that the financial evaluation of NEV enterprises needs to focus not only on result indicators, but also to analyze the strategic logic behind the formation of financial results.

7.2 Outlook

Because this study mainly conducts analysis based on BYD's public financial data and case materials, there are still certain limitations. On the one hand, public data mainly reflect the enterprise's external operating results and cannot fully obtain micro-level information such as internal R&D management, supply-chain coordination efficiency, and overseas operating conditions. Therefore, the analysis of the specific action process of strategic factors still has certain limitations. On the other hand, this study takes a single enterprise

case as the research object. Although it can deeply analyze the process by which BYD's strategic advantages are transformed into financial performance, the applicability of the research conclusions to different NEV enterprises still needs further verification. Future research can expand the sample range and explore the differences in the impact of different strategic models on financial performance through comparative analysis of enterprises in the same industry.

In addition, as the competitive environment of the NEV industry continues to change, the formation and transformation process of corporate strategic advantages also has dynamic characteristics. Future research can combine enterprise value-assessment models, financial forecasting models, and empirical analysis methods to further verify the mechanism through which strategic factors affect financial performance. At the same time, it can also combine factors such as digital transformation, the development of intelligent driving technology, and adjustment of global industrial chains to further expand the application scope of the HAF in NEV enterprise research. In addition, although the HAF has broken through the limitations of traditional financial analysis, there is still room for expansion, and it can be combined across disciplines to extend its application boundaries [19].

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