

A Study on Operating Capital Management Problems and Countermeasures of BYD Company Based on Channel Management

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Abstract

With the development of economy and the increasing awareness of environmental protection, new energy vehicles have entered the public's vision as an emerging industry. Good operation of working capital is conducive to the capital turnover of enterprises, saving the cost of capital and improving the solvency of enterprises. If enterprises do not pay attention to the management of working capital, it will impact the market position and competitiveness of enterprises. This paper takes BYD Company as the research object and uses a series of research methods. Based on the relevant theories and the working capital management theory from the perspective of channel, this paper analyzes the working capital status and asset structure of the company in the past three years, thereby leading to a new management model. Make the use and management of funds more clear in the production and marketing links. Through the calculation of working capital turnover cycle, the paper analyzes the working capital problems faced by enterprises in each channel, and puts forward corresponding management countermeasures.

Keywords: Capital Management; Channel Management; New Energy Automobile



1. Introduction

The Chinese economy continues to grow, and the market environment is constantly changing. The management of enterprise operating funds is increasingly attracting attention from the industry and academia. In the practical field, with the innovation of financial markets and the diversification of business models, the practice of working capital management is continuously exploring and developing. Many enterprises have begun to focus on optimizing their cash flow, using measures such as strengthening internal controls and improving the efficiency of fund utilization to achieve the optimal allocation of working capital. At the same time, with the rapid advancement of information technology, the means and methods of working capital management are constantly updated. The application of cutting-edge technologies such as supply chain finance and big data analysis has opened up new thinking paths and implementation strategies for enterprise working capital management.

Scholars have explored the theoretical framework, optimization measures, and core functions of working capital management from multiple perspectives, covering a wide range of key aspects such as performance evaluation systems, management model innovation, and financial risk prevention and control (Sun and Qi, 2021; Hu, 2023; Wang, 2024). Although scholars have made some progress in working capital management from the perspective of channel management, they still face many shortcomings. The traditional model focuses too much on a single financial indicator and ignores the correlation and overall nature between channels. In addition, factors such as incomplete information systems and unreasonable channel structures have constrained management efficiency. Therefore, it is urgent to conduct in-depth research to enrich the research results in this field.

As a leading enterprise in the new energy vehicle industry, BYD's working capital management is representative. BYD is at the forefront of new energy vehicle manufacturing in China, and its working capital management not only reflects the company's own operating conditions, but also provides reference for other companies in the same industry (Hong et al., 2018). This article selects BYD Company and conducts an in-depth analysis of the working capital management of new energy enterprises based on channel theory, identifying existing problems and deficiencies. Based on the analysis of the problem, propose targeted improvement suggestions.

The significance of this study lies in the in-depth analysis of BYD's problems and the proposal of improvement measures, which can not only provide guidance for BYD's fund management improvement, but also provide valuable reference for other new energy enterprises to optimize fund management. In addition, this also has important reference significance for the entire new energy industry, especially for new energy companies transformed from state-owned enterprises, in building enterprise fund management systems.



2. Analysis of the Current Situation of BYD's Operating Capital Management Based on Channel Theory

2.1. Analysis of Operating Capital Efficiency of Various Channels

As shown in table 1, after calculating the supply, production, and sales operation cycle, the turnover period based on channel operating funds is calculated. During the period of 2021-2023, the procurement turnover period showed an upward trend in 2022, followed by a downward trend in 2023. This change indicates that the improvement measures implemented by BYD Company for procurement channels are correct, which has enabled BYD Company to continuously improve the management efficiency of operating funds in this part. However, the production turnover period continued to decline during the period of 2021-2023, which means that BYD Company has a high efficiency in the utilization of funds in production and operation. The continuous decline in marketing turnover period from 2021 to 2023 indicates that BYD Company is making better use of funds in marketing channels; The turnover period of operating funds has been continuously decreasing from 2022 to 2023, indicating an improvement in the utilization of operating funds. The average operating capital cycle in the procurement channel is -69 days, and the average cycle time in the marketing channel is 134 days. BYD Company has a large amount of accounts payable in the procurement channel, so it can form strong bargaining power with buyers; On the other hand, BYD Company has a large amount of accounts receivable in its marketing channels, so the company should pay attention to the possibility of bad debts.

Table 1. BYD Company's channel based operating capital turnover period from 2021 to 2023

year	2021	2022	2023
Procurement turnover period	-58	-48	-101
Production turnover period	-52	-89	-139
Marketing turnover period	164	129	110
Business activity capital cycle	813	87	-68

2.2. Efficiency Analysis of Operating Funds in Procurement Channels

From Table 2, it can be seen that the procurement channel cycle fluctuates greatly over the past three years, rising from -58 days in 2021 to -48 days in 2022 and then decreasing to -101 days in 2023. This indicates that the company has a strong procurement process, strong



operational capabilities, and overall confidence in the procurement process.

Table 2. Detailed Statement of Operating Funds for Procurement Channels of BYD

year	2021	2022	2023
Raw material Inventory	43,354,782	79,107,199	87,676,748
Prepaid expenses	20,365,77	8,223,567	2,215,413
Accounts payable and bills	80,491,626	143,765,729	198,483,131
Procurement channel turnover period	-58	-48	-101

In the past three years, there has been a significant increase in accounts payable projects from 2022 to 2023, with a continuously rising proportion. However, a low proportion of monetary funds and a high proportion of accounts payable projects are not a good thing. If a company occupies them for a long time or suppliers urge payment, it can easily lead to short-term financial fractures and affect brand credit, resulting in increased financial risks.

In the past three years of the procurement channel operation cycle, it has been negative, indicating a significant reliance on supplier funds by the enterprise. This is manifested in the use of this capital flow to drive its own sustainable development, often leading to the expansion of production scale in the short term. However, from a strategic perspective, excessive reliance on financial support from suppliers may pose a potential threat to the stability of raw material supply, leading to the breakage of the company's financial chain, reducing the company's reputation value in the industry, and weakening cooperation with suppliers.

BYD should utilize its commercial credit in procurement channels and occupy funds from upstream suppliers to alleviate its financial pressure. However, this strategy needs to be used with caution to avoid excessive reliance on supplier funds, which could affect the cooperative relationship between both parties. BYD can ensure a healthy and stable cooperative relationship with suppliers through reasonable payment policies and credit management.

2.3 Analysis of Operational Capital Efficiency in Production Channels

As shown in Table 3, the production channel turnover periods of the company in 2021 and 2022 were -52 days and -89 days, respectively. The turnover period in 2023 was -139 days, indicating that the efficiency of operating capital management in the production process was high and the turnover speed of funds was fast during this period. From the



annual reports of the company in 2021-2023, it is shown that the awareness of external cooperation has been continuously enhanced. The company has successively reached strategic cooperation with the automotive parts technology company Faurecia Group, signed a joint venture agreement with Toyota, and signed a strategic alliance with Hino Auto Co., Ltd., continuously improving the internal quality of products and R&D capabilities to consolidate core technologies, gradually establishing the company's parts supply market, achieving the long-term development of the group, and reducing internal capital consumption.

Table 3. Detailed Statement of Production Channel Operating Funds of BY

year	2021	2022	2023
In product	14,360,249	26,812,272	30,236,001
Other receivables	1,410,751	1,910,009	2,757,912
Payroll payable	5,848,870	12,037,011	17,138,836
Other payables	41,348,102	122,123,841	164,972,849
Production channel turnover period	-52	-89	-139

The proportion of products in inventory has shown a downward trend in the past three years, at 23%, 16%, and 14% respectively. The increasing proportion of inventory year by year indicates the expansion of enterprise scale and the increase of production costs. Although the turnover speed of funds in the production process is fast, the proportion of products in the enterprise is relatively high, which invisibly increases the management expenses of products.

The main analysis of production channels is inventory management, to ensure that inventory production meets market demand rather than inventory backlog. Although the proportion of products in inventory has been continuously decreasing in the past three years, it is still at a high level, which increases the cost of inventory management.

BYD can improve the turnover efficiency of supply chain capital operations by continuously optimizing production processes and inventory control. Enterprises should strengthen monitoring of the production process to ensure smooth operation of production, while reducing inventory backlog to improve capital utilization efficiency.

2.4. Analysis of Operating Capital Efficiency in Marketing Channels

From Table 4, it can be seen that the turnover period of the enterprise has been



continuously decreasing from 164 days to 110 days from 2022 to 2023. The longer turnover period of the enterprise in the first two years may be due to the impact of Sino US trade on the external environment, resulting in a slow sales rate. Secondly, in 2023, the global economy was hit by the epidemic, causing the operation of the Chinese economy to first decline and then rise. The Chinese economy recovered strongly and became the only major economy in the world to achieve positive economic growth, gradually adapting to market changes. From the internal environment of the enterprise, the enterprise actively carried out strategic adjustments, technological innovation, and increased exports.

Table 4. BYD Company's Operating Funds for Marketing Channels

year	2021	2022	2023
Finished goods	17,786,026	31,793,681	38,712,460
Accounts receivable and bills	82,746,075	124,269,010	153,707,313
Advance from customers	1300	0	0
Taxes payable	1,779,018	4,326,394	7,852,324
Marketing channel turnover period	164	129	110

In the detailed list of operating channels, accounts receivable and bills account for the largest proportion, resulting in a long turnover period for marketing channels. Enterprises have expanded their sales through credit sales, and while seeing an increase in sales revenue, they should also pay attention to the risk of bad debts.

Enterprises sell products to customers and receive corresponding payment. The time lag in obtaining payment for goods is caused by the high proportion of accounts receivable, imperfect accounts receivable system, and insufficient capital turnover ability of the enterprise. Although the new energy vehicle industry has developed well in recent years, there is also a risk of a single sales channel.

BYD can strengthen communication and coordination with customers by establishing a rigorous accounts receivable management system to ensure timely collection of accounts receivable. With a credit evaluation system, BYD can assess customers' credit status and reduce the risk of bad debts. In addition, BYD can accelerate the turnover speed of accounts receivable and improve the efficiency of fund utilization.



2.5. Comparative Analysis of Working Capital Management with Target Enterprises

BYD and Great Wall Motors are both leading companies in the Chinese automotive industry, holding important positions in the fields of new energy vehicles and traditional fuel vehicles, respectively. BYD, as a representative of new energy vehicles, has shown outstanding performance in market expansion and technology research and development in recent years, while Great Wall Motors is known for its efficient management capabilities and stable profitability. By comparing the performance of two companies in working capital management, we can better understand their strengths and weaknesses in industry competition.

Table 5. Great Wall Motors Company's Channel Operating Capital Turnover

year	2021	2022	2023
Procurement turnover period	-127	-91	-79
Production turnover period	-16	-22	-18
Marketing turnover period	-0.7	4	2
Business activity turnover period	-143	-108	-94

Comparing Table 1 with Table 5, from 2021 to 2023, BYD's procurement turnover period increased in 2022 and significantly decreased in 2023, while Great Wall Motors continued to increase. BYD Company has made better improvements to its procurement channels than Great Wall Motors; The production turnover period of BYD has been continuously decreasing from 2021 to 2023, while Great Wall Motors has decreased from 2021 to 2022 and increased in 2023. BYD Company's utilization of production channel operating funds is better than Great Wall Motors' utilization of production channel operating funds; BYD's marketing turnover period continued to decline from 2021 to 2023, while Great Wall Motors saw an increase in 2021-2022 and a decrease in 2023. The turnover period of Great Wall Motors is much smaller than that of BYD. Great Wall Motors and BYD Company have relatively better utilization of marketing channel funds; The turnover period of operating funds for BYD continued to decline from 2021 to 2023, while Great Wall Motors continued to rise from 2021 to 2023. Although Great Wall Motors has continued to rise from 2021 to 2023, the data is smaller than BYD's. Great Wall Motors has better utilization of operating funds than BYD.



BYD and Great Wall Motors have their own strengths and weaknesses in operating capital management over the past three years. BYD has improved its capital utilization efficiency through vertical integration and supply chain optimization, but further improvements are still needed in accounts receivable and inventory management; Great Wall Motors needs to optimize the efficiency of fund utilization in its procurement and production processes, and strengthen cash flow management and capital structure optimization. Both companies need to continue to focus on optimizing channel management in order to improve overall capital utilization efficiency and competitiveness in their future development.

3. Problems and Causes of BYD's Operating Capital Management Based on Channel Theory

3.1. The Proportion of Payable Items is too High

According to BYD's 2021-2023 financial report disclosure information (see Table 2 for details), the company's supply chain financing scale has shown a significant growth trend. Its accounts payable and bill balance have increased year by year from 80491626 yuan in 2021 to 142765729 yuan in 2022, and reached 198483131 yuan in 2023, with a cumulative growth rate of over 146% over three years.

The new energy vehicle industry has high R&D investment and capital intensity, and BYD, as the industry leader, needs to continue investing to maintain its competitive advantage (Cai, 2022). This characteristic makes companies more inclined to meet their funding needs through short-term financing, such as accounts payable and short-term borrowings, rather than relying on long-term financing. In recent years, with the popularity of new energy vehicles, companies have increased their procurement of raw materials and components to cope with the rapid growth of the new energy vehicle market, resulting in an increase in accounts payable and notes payable.

3.2. When the Proportion of Products in Inventory is Relatively High

According to the financial data in Table 3, BYD Company's product to inventory ratio shows a decreasing trend from 23% to 14% from 2021 to 2023. However, in-depth analysis of absolute values reveals that the amount of this subject has significantly increased from 14.3602 million yuan in 2021 to 26.8123 million yuan in 2022. Although it has decreased to 20.236 million yuan in 2023, it still maintains a high level compared to the benchmark year. It should be noted that due to the continuous expansion of total inventory, although the proportion indicator has decreased, the actual capital occupation scale of product projects is still in the sensitive range of enterprise operation.

BYD is rapidly expanding in the new energy vehicle market, but its funding needs are increasing day by day. The excessive pursuit of scale expansion has led to the neglect of



quality control and financial management, resulting in gradually emerging financial pressures (Duan, 2024). The reduction of subsidies for new energy vehicles and fluctuations in market demand have also had an impact on BYD's funding chain. Although the company has reduced costs by optimizing supply chain management and improving production efficiency, changes in the market environment still have a negative impact on sales performance.

3.3. Accounts Receivable Account for a Relatively Large Proportion

According to the statistical data in Table 4, the accounts receivable scale of BYD Company's marketing channels has shown a significant growth trend in the past three years, reaching 82746075 yuan, 124269681 yuan, and 153707313 yuan respectively from 2021 to 2023. By calculation, it can be concluded that the average annual growth rate of this indicator exceeds 23%, accounting for a significant proportion of the overall revenue. Its continuous upward trend reflects the actual implementation effect of credit policies by enterprises in the process of market expansion.

The new energy vehicle and power battery business is a constantly developing field that requires continuous investment in research and development and capacity expansion, but capital expenditures are enormous (Feng, 2024). The fluctuation of operating cash flow in this industry poses greater challenges to accounts receivable management. In order to remain invincible in market competition, BYD has adopted a relatively relaxed sales credit policy, allowing customers with higher credit ratings to enjoy longer payment cycles. However, although this measure eased the financial pressure on customers, it also led to an increase in accounts receivable (Fan, 2024). Especially after 2020, the impact of the epidemic has led to a decrease in the repayment ability of some customers and an increase in the proportion of overdue accounts receivable. However, the company's failure to adjust its collection efforts and credit evaluation mechanism in a timely manner has led to certain risks.

4. Suggestions

4.1 Suggestions for Improving the Management of Operating Funds in Procurement

4.1.1. Optimize Supplier Management

BYD should establish detailed credit files when selecting suppliers, including key information such as the supplier's financial status, credit records, and delivery capabilities. This helps BYD better assess supplier risks and select reliable partners.

BYD should regularly evaluate suppliers' commercial credit, product quality, delivery time, and other aspects, and select high-quality suppliers based on the evaluation results. This helps BYD reduce procurement risks and ensure the stability and reliability of the supply chain.



BYD is committed to building a robust supply chain network, forming lasting partnerships with outstanding suppliers, effectively promoting the circulation and integration of internal and external information through an information sharing platform, improving procurement efficiency, and reducing costs. This cooperation model is not only beneficial for mutual benefit between both parties, but also drives the development of the entire industry chain. At the same time, establishing a stable cooperative relationship can not only ensure the quality of materials and delivery time, but also facilitate both parties to jointly explore innovative solutions and promote sustainable business development.

4.1.2. Strengthen Procurement Budget Management

To optimize its procurement strategy, BYD should establish a market research mechanism to collect detailed raw material price dynamics from various suppliers, thereby providing strong data support for decision-makers.

Based on in-depth analysis of market research, the procurement department needs to develop a practical and feasible procurement budget, and firmly implement it in practical operations to prevent financial overruns and resource depletion during the procurement process.

4.1.3. Optimize the Turnover of Operating Funds in Procurement Channels

BYD should try to minimize the occupation of funds from upstream suppliers, reduce financial pressure on suppliers by arranging procurement plans and payment times reasonably, and maintain good supplier relationships.

BYD can shorten the procurement cycle by restructuring and streamlining the procurement process, which can improve the efficiency of working capital utilization in procurement channels. In addition, integrating centralized procurement and bidding procurement strategies can also help reduce procurement costs and enhance the efficiency of fund utilization.

4.2. Suggestions for Improving Working Capital Management in Production

4.2.1. Optimize the Funding Structure

BYD should cleverly utilize short-term liabilities to meet the demand for current assets, while avoiding holding a large amount of current assets in pursuit of excessive liquidity. At the same time, current liabilities should not be used for long-term investments to ensure the stability of the funding structure. Only by flexibly utilizing various short-term liabilities can BYD better respond to the needs of capital turnover and corporate development, and maintain financial stability.

Establishing a strict credit approval system and a reasonable credit sales plan, selecting appropriate settlement methods based on customers' profitability, debt paying ability, and credit status, can effectively improve the speed of fund recovery and reduce bad debt risks.



By scientifically and reasonably managing credit sales business, the financial security of enterprises can be guaranteed and economic benefits can be improved. At the same time, regularly review the credit status of credit sales customers, adjust settlement methods in a timely manner, and ensure the long-term stable development of the enterprise. Establishing an effective credit sales management system is an indispensable and important link in the development process of enterprises.

4.2.2. Improve the Efficiency of Fund Utilization

By using advanced computer management systems to carry out centralized inventory management, this management method is scientific and efficient. Reserve quotas for various types of inventory such as raw materials and finished products are set, and information technology is used to reduce the occupation of inventory funds, thereby improving the speed of capital turnover. This approach can effectively manage enterprise inventory, optimize capital operations to the greatest extent possible, improve capital utilization efficiency, and provide strong support for the stable development of enterprises.

Comprehensive budget management is of great significance to enterprises. Fund budget management can accurately predict cash flow and fund demand, effectively control fund expenditure and utilization, and improve fund utilization efficiency. Only by strictly implementing fund budget management can enterprises avoid financial shortages and waste, ensure that funds are fully utilized and achieve maximum benefits. When carrying out comprehensive budget management, enterprises need to pay attention to the significance of fund budget management, do a good job in fund planning and forecasting, ensure that funds can be reasonably allocated and utilized, and achieve the optimal allocation of funds.

4.2.3. Balance Direct Sales and Distributor Channels

BYD should continue to optimize its channel structure and balance the relationship between direct sales and dealer channels. Direct sales channels have advantages in efficiency and market response speed, while dealer channels perform better in market coverage and after-sales service. Therefore, BYD needs to develop differentiated channel strategies based on different markets and consumer demands. By allocating resources reasonably and cultivating channel partnerships, we aim to enhance brand influence and market competitiveness. Only by maintaining balance, highlighting strengths and avoiding weaknesses, can we better meet consumer needs and achieve sustainable development. May BYD continue to strive for excellence and achieve greater success on its future development path.

Measures such as improving information transparency and establishing incentive mechanisms can reduce channel conflicts and enhance channel synergy. This provides strong support for BYD to integrate resources and enhance market competitiveness.



4.3. Suggestions for Improving Working Capital Management in Marketing

4.3.1. Optimize Channel Management and Improve the Efficiency of Fund Circulation

Establish a comprehensive credit file system and regularly evaluate the commercial reputation, product quality, and timely delivery of suppliers to maintain the stability of the supply chain.

By establishing long-term strategic partnerships with reputable suppliers, we can seek better procurement prices and payment terms, thereby reducing procurement costs and improving the efficiency of fund utilization.

4.3.2. Improve the Construction of Sales Network

BYD should continue to deepen its offline channels, optimize the layout of 4S stores and direct sales stores, especially by increasing the number of stores in first tier and new first tier cities to enhance brand influence and market share.

At the same time, we will strengthen the construction and operation of online channels, such as e-commerce platforms and social media, to provide consumers with convenient car purchasing and consulting services, and expand sales channels.

4.3.3. Optimize Sales Channels

Expand diversified sales channels, such as e-commerce platforms and second-hand car markets, to accelerate inventory turnover.

Establish close cooperative relationships with distributors, jointly carry out promotional activities, and increase inventory sales volume.

5. Conclusion

This article takes BYD Company in the new energy vehicle industry as an example and analyzes its working capital management in the past three years based on channel theory. It analyzes the turnover period of working capital in the three links of procurement, production, and marketing, identifies problems through analysis, and proposes suggestions. Therefore, we can draw the following conclusion: under the theory of channel management, analyzing the operational capital turnover efficiency of various channels, enterprises have strong procurement advantages and good profitability in the procurement channel. However, the problem of upstream capital occupation and delayed debt cannot be ignored. The continuous expansion of enterprise scale in production channels has led to the problem of inventory backlog and increased inventory management costs. Discovering an imperfect accounts receivable system in marketing channels can easily lead to bad debts for enterprises.

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BYD must deeply understand the strategic significance of fund management and actively implement corresponding measures. In order to achieve steady improvement in its financial situation, it is necessary to take a series of strategic improvement measures in view of the problems exposed in BYD's operating fund management. The company can optimize its fund management effectiveness, ensure the effective utilization of funds and the stable development of the company. However, this article still has its shortcomings. Firstly, this article only analyzes BYD Company and does not represent that the new energy vehicle industry also has the same problems, nor does the proposed improvement suggestions apply to all companies in the new energy vehicle industry. Secondly, this article only analyzed the management of working capital and did not touch on other aspects.

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