Research on Working Capital Management of Company H from the Supply Chain Perspective

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Abstract. The operation capital of power lithium battery companies involves multiple processes such as purchasing, production, and sales, and the level of operation capital management directly affects the business performance of the company. In recent years, relevant national departments have issued numerous policy plans related to power lithium batteries to encourage and support the development of China's power lithium battery industry, focusing on promoting the application of power lithium batteries in other fields and layout of the industrial recycling process of lithium batteries. With the support and guidance of national policies, the lithium battery market has entered a period of rapid development. At the same time, Company H, as a leading power battery manufacturer, its operation capital management strategy is crucial. In view of this, the article mainly analyzes the current situation of operation capital management of Company H and proposes targeted optimization strategies for the problems existing in its operation process, and finally draws corresponding conclusions.

Keywords: Supply chain, Operation capital management, Capital turnover period

1 INTRODUCTION

During the "14th Five-Year Plan" period, the power lithium battery industry has entered a stage of orderly development, focusing on breakthroughs in key technologies for high-safety power batteries for new energy vehicles. Over the past two years, the State Council and other departments have issued numerous policy plans related to power lithium batteries to encourage and support the development of China's power lithium battery industry, mainly focusing on promoting the application of power lithium batteries in other fields and laying out the industrial recycling process of lithium batteries. With the support and policy guidance from the Chinese government for the new energy vehicle industry, the lithium battery market has entered a period of rapid growth.

Operation capital management is a core part of corporate financial management, especially important from a supply chain perspective. Research on enterprise operation capital management has evolved from analyzing single elements to studying the interrelationships between elements as a whole, integrating non-financial factors, and considering the impact of management level on corporate profitability performance[1]. Peng & Zhou analyze the changes in the performance of enterprise operation capital

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management from the perspective of core enterprise relationships with upstream and downstream partners, furthering research in this area[2]. Shiyi Zhang and Yanna Yin believe that a sound operation capital management based on the supply chain context can not only consolidate and strengthen the operational and solvency capabilities of the enterprise but also promote the continuous improvement of its development and profitability capabilities[3]. Overall, there has been extensive research on enterprise operation capital management through analysis of procurement, production, sales, and internal and external management of operation capital[4]. In the current lithium battery industry, Company H, as a leading power battery manufacturer, its operation capital management strategy is crucial.

Given this, the article aims to analyze the current status of Company H's operation capital management from a supply chain perspective, identify the problems and deficiencies in its operation capital management process, and propose targeted development strategies to achieve sustainable development in the future[5].

2 CURRENT SITUATION OF OPERATING CAPITAL MANAGEMENT IN COMPANY H

2.1 Company H Introduction

Company H is a global leading new energy innovation and technology company, as well as a global leader in lithium-ion battery suppliers. It focuses on the research, development, production, and sales of new energy vehicle power battery systems and energy storage systems, aiming to provide top-notch solutions for global new energy applications. The company's main products include power battery systems, energy storage systems, and lithium battery materials.

2.2 Overview of Company H's Business Management

Procurement Process. Company H's procurement model mainly includes aspects such as supply chain management, procurement processes, and supplier relationships. The company selects qualified suppliers through rigorous evaluation and assessment procedures and closely cooperates with suppliers through technical authorization, long-term agreements, joint ventures, and cooperation to ensure the technological advancement, product reliability, and cost competitiveness of raw materials and equipment.

Production Process. Company H considers market conditions and customer demands in production scheduling. The company possesses advanced production technology and continuously optimizes process flows to improve automation levels and production efficiency, reduce production costs, and guarantee product performance and stability. Additionally, Company H places high importance on product quality and has established a comprehensive quality management system. Through quality control, the company ensures that products meet relevant standards and customer requirements, thereby enhancing market competitiveness.

Sale Process. Company H's main business is the research, development, production, and sales of lithium-ion batteries and related products. In addition, the company provides new energy application solutions and services such as "EVOGO battery swapping service," "Qiji battery swapping service," and "electric intelligent unmanned mines" through business model innovation. Company H actively explores domestic and international markets, continuously expands the application fields of its products, and values cooperative relationships with customers, emphasizing the establishment of long-term and stable partnerships.

3 ANALYSIS OF COMPANY H'S WORKING CAPITAL MANAGEMENT

3.1 Analysis of Internal Supply Chain Operating Capital Management

Procurement Process. In the procurement process, Company H utilizes advanced supply chain management systems to achieve digitalization and intelligent management of the procurement process, optimizing procurement cycles and inventory levels, and avoiding unnecessary stockpiling. From Table 1, it can be seen that Company H's operating cash turnover period in procurement has been negative from 2020 to 2023, indicating that most of Company H's operating funds in procurement during these four years did not come from its own liquid assets, but relied on current liabilities such as accounts payable and notes payable. This situation suggests that Company H has strong bargaining power with upstream suppliers, enabling it to secure longer payment terms, demonstrating the company's strong market position and negotiating ability. However, at the same time, this indicates that Company H has excessive accounts payable, and if Company H is unable to repay these accounts payable on time, it will face considerable debt repayment pressure, with debt repayment ability risks continuously escalating. Although Company H's operating cash turnover period in procurement has been negative, by 2023, the absolute value is continuously decreasing, reflecting that after implementing supply chain optimization measures, the speed of its operating cash turnover is increasing.

Table 1. Operating capital turnover status in the procurement process of Company H from 2020 to 2023

Item	2020	2021	2022	2023
Materials inventory (billions)	2.57	8.13	4.98	4.70
Prepayments (billions)	1.00	6.47	15.84	6.96
Accounts payable (billions)	15.63	48.78	94.53	117.0
Accounts receivable (billions)	15.64	58.41	126.2	77.51
Turnover period of procurement channel operating capital (days)	-198.19	-255.63	-219.01	-164.19

Production Process. In the production process, Company H implements a flexible production strategy, adjusting production plans and production line layouts according to market demand. The company can rapidly adjust production processes based on changes in customer orders, enabling customized manufacturing. As shown in Table 2, it can be observed that Company H's operating cash turnover period in the production channel has been negative, indicating that the production channel does not impact the company's operating funds. With product inventory being relatively low, while other accounts payable show a rapid increase, reaching a peak of 15.01 billion yuan in 2022 and then decreasing to 13.65 billion yuan in 2023. This is mainly due to the company confirming inventory shares and other accounts payable due to repurchase obligations in 2022 and 2023, and in 2022, the company's performance guarantees and deposits increased more than tenfold compared to the beginning of the year. This is primarily because of the increasing focus on the new energy vehicle market in various countries and regions, driving rapid expansion in the power battery industry, which has resulted in excessive accounts payable and cash flow shortages. This indicates that Company H does not face liquidity issues due to product inventory in the production process, but attention should be paid to other accounts payable and controlled within a reasonable range.

Table 2. Operating capital turnover status in the production process of Company H from 2020 to 2023

Item	2020	2021	2022	2023
Finished goods inventory(billions)	0.35	0.36	0.63	0.63
Other receivables(billions)	3.30	3.12	8.68	3.44
Wages payable(billions)	2.66	5.12	9.48	14.85
Other payables(billions)	4.41	6.18	15.01	13.65
Turnover period of production channel operating capital(days)	-24.40	-21.61	-16.63	-21.94

Sale Process. In the sales process, Company H has adopted a strategy that combines direct sales with channel sales. They sell directly to large customers and key customers. According to Table 3, it can be seen that the operating capital turnover period of Company H in the sales link has been continuously decreasing, from 180.55 days in 2020 to 62.26 days in 2023, a decrease of approximately 1.9 times. This is due to the severe impact of the epidemic on Company H in 2020, with sales restrictions leading to fewer accounts receivable, resulting in a longer cash turnover period in the sales process. With the improvement of the economic situation, finished goods inventory continues to increase and accounts receivable also increase. Company H has increased the turnover speed of operating funds in the sales process after optimizing the supply chain. However, the number of accounts receivable is continuously increasing, so timely collection management of accounts receivable is particularly important.

Table 3. Operating capital turnover status in the sales process of Company H from 2020 to 2023

Item	2020	2021	2022	2023
Finished goods inventory(billions)	5.39	19.31	29.66	15.31
Accounts receivable(billions)	11.29	23.75	57.97	64.02
Notes receivable(billions)	9.88	1.46	3.53	1.75
Prepaid accounts(billions)	-	-	-	-
Taxes payable(billions)	1.32	2.40	4.73	11.74
Turnover period of sales channel operating capital(days)	180.55	116.27	86.96	62.26

3.2 Analysis of External Supply Chain Working Capital Management

Upstream Suppliers. Company H has close connections with the same industry, jointly promoting the development of new technologies with suppliers, and jointly building a supply chain system with sustained global competitiveness. By establishing quality standards, inspection processes, etc., they ensure that the quality of raw materials meets requirements, reducing quality risks in the product manufacturing process. As shown in Table 4, the accounts payable turnover ratio of Company H over the past four years has been continuously increasing overall after optimizing the supply chain. This improvement has enhanced communication and collaboration with upstream suppliers, making suppliers more willing to provide flexible payment terms such as extending payment periods or offering discounts. This has improved the efficiency of Company H's logistics and supply chain.

Table 4. Accounts payable and accounts receivable turnover ratios of Company H from 2020 to 2023

Item	2020	2021	2022	2023
Accounts payable turnover ratio	1.69	1.88	2.00	1.93
Accounts receivable turnover ratio	2.57	5.62	7.58	6.30

Downstream Customers. Company H has the most extensive customer base coverage and maintains long-term cooperative relationships with them. In addition to product sales, they also engage in comprehensive cooperation with customers through methods such as shareholding, joint ventures, and technology licensing to help customers build global leading competitiveness. As shown in Table 4, Company H's accounts receivable turnover ratio is showing a continuous acceleration trend overall. With the continuous optimization of the supply chain, Company H's accounts receivable turnover ratio is also accelerating, showing progress in financial management and customer relationships. Company H can recover accounts receivable more timely, thus having more funds for investment and expansion, further consolidating the company's competitive advantage.

4 THE PROBLEMS IN THE MANAGEMENT OF OPERATING FUNDS OF COMPANY H

4.1 Overutilization of the Reputation of Upstream Suppliers

From the data in Table 1, it can be seen that Company H showed a significant overall increase in accounts payable from 2020 to 2023, especially with year-on-year growth rates of 94% and 24% in 2022 and 2023, respectively. Through analysis, it can be found that Company H owes a large amount of money to upstream suppliers in the procurement process. While it may temporarily defer payment, this practice can pose risks to the company in the long run. Excessive and rapidly increasing accounts payable will continually increase the company's short-term debt burden. The credit limit of accounts payable is based on the credit reputation between the parties, rather than just focusing on the amount of accounts payable. Having a good reputation relationship with upstream suppliers helps establish long-term cooperation and achieve a win-win situation between suppliers and the company, thereby promoting business development.

4.2 Excessive Other Payables Leading to Insufficient Cash Flow

Other payables, as a type of payables, generally refer to prepaid payments or service payments that a company has made to suppliers, partners, or other business partners but have not been settled. Other payables of a company, as a type of payables, need to be verified and managed promptly to ensure accurate accounting records and normal capital turnover. As indicated in Table 2, Company H's other payables show a significant growth trend. Upon further investigation, it was found that this increase is primarily due to the substantial rise in performance guarantees and deposits by Company H. Company H should proactively explore measures to further reduce other payables to alleviate the company's debt burden and financial pressure.

4.3 Credit Management for Downstream Customers Needs to be Strengthened

From Table 3 and Table 4, it can be seen that Company H's working capital turnover efficiency in the sales process is constantly accelerating, indicating that it has achieved good results in sales. With the faster sales speed, funds are quickly recovered, leading to an improvement in capital turnover efficiency. However, further analysis reveals that Company H's accounts receivable are continuously increasing, indicating the need to strengthen accounts receivable management and enhance the level of accounts receivable management. By implementing a series of measures to help Company H reduce credit risks and bad debt risks, safeguard its financial stability and liquidity, and ensure the sustainability of long-term business development.

5 OPTIMIZATION MEASURES FOR COMPANY H'S WORKING CAPITAL MANAGEMENT

5.1 Optimize Accounts Payable Management

In the economic activities of enterprises, upstream suppliers usually offer cash discounts to encourage companies to make advanced payments. By accepting the supplier's cash discount policy, companies can save funds on accounts payable that have not yet been paid to the supplier. These saved funds can be used for the company's own business activities, such as expanding production scale, developing new products, and marketing. However, the longer a company delays payment on its accounts payable, the more detrimental it is to its reputation. Company H needs to carefully assess the pros and cons of this practice, strengthen accounts payable management, better utilize credit policies, and enhance operational working capital management capabilities in the procurement process.

5.2 Standardize the Management of Accounts Receivable and Payable

Company H should fully leverage the advantages of supply chain management to regulate the management of payables with upstream suppliers and downstream customers from a holistic perspective. By establishing a comprehensive supply chain management system, including creating supplier and customer databases, clarifying payment terms and cycles for all parties, and implementing corresponding discount policies. Through the use of information management systems, monitoring and automated reminders for payables can be achieved to ensure timely settlement and optimal utilization. Other payables are a critical item in payables management, and for Company H, it is important to control other payables within a reasonable range and effectively improve the operational working capital turnover efficiency in the production channels.

5.3 Timely Monitoring and Management of Accounts Receivable

Company H's operating capital turnover speed in the sales process is continuously accelerating, but at the same time, the accounts receivable amount is increasing. Therefore, Company H needs to continue focusing on improving the collection speed of accounts receivable to expedite the realization of sales revenue. Company H can combine the situation of accounts receivable with supply chain management and fund flow to enhance downstream user stickiness, strengthen the management and supervision of the entire customer base, ensure the collection of as many receivables as possible, and timely set aside bad debt provisions to prevent unrecoverable accounts receivable from turning into bad debt losses.

6 CONCLUSION

In today's era, working capital management is of great significance to the development of enterprises. Analyzing working capital management from a supply chain perspective can help companies optimize cash flow, reduce costs, mitigate risks, improve operational efficiency, and enhance competitiveness, leading to sustained development and growth4. Companies should focus on timely repayment of accounts payable, prevent inventory accumulation, and ensure timely collection of accounts receivable. At the same time, companies need to maintain good business cooperation with upstream suppliers and downstream customers to achieve win-win outcomes.

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