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Analysis of Y Company's Working Capital Management from the Perspective of Supply Chain

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Abstract: The traditional working capital management model, lacking an overall perspective, is somewhat outdated and cannot keep up with the rapid development pace of modern enterprises. The supply chain closely integrates enterprises with upstream suppliers and downstream customers to form a closed loop. Therefore, integrating supply chain management concepts into working capital management has become a new research direction. Taking Y company, a leading enterprise in the pharmaceutical manufacturing industry, as an example, this paper reclassifies working capital management according to the supply chain into working capital management in the procurement stage, working capital management in the production stage, and working capital management in the sales stage. It evaluates the performance of its working capital management, analyzes the problems existing in its working capital management, and proposes targeted optimization measures, aiming to provide assistance for enterprises in China's pharmaceutical manufacturing industry to improve the efficiency of working capital management.

Keywords: Supply chain management, Working capital management.

1. Introduction

With the rapid development of China's economy, the disposable income of residents has been constantly improved. The status of drugs in people's life has become increasingly prominent, which is closely related to people's health. In addition to the national family planning policy and the aggravation of the aging population, people's demand for drugs in life is increasing, thus providing a broad prospect for the development of the pharmaceutical industry. Through supply chain integration and global layout, Y company Group has not only demonstrated unique advantages in procurement, production, sales and other links, but also accumulated valuable experience in optimizing working capital structure. Based on this, this paper intends to analyze the current situation of Y company Group's working capital management in the three links of procurement, production and sales from the perspective of supply chain, and discuss how to optimize the supply chain to improve the financial efficiency and market performance of the enterprise, aiming to provide reference for similar enterprises to optimize the working capital management in the supply chain environment.

2. Analysis of Working Capital Status of Y Company

2.1. Enterprise Profile

Y company Group Co., LTD. (hereinafter referred to as Y company Group) is a company mainly engaged in chemical raw materials, chemical pharmaceutical preparations, proprietary Chinese medicine, Chinese medicinal materials, biological products, etc. Founded in 1993 and listed in Shenzhen Stock Exchange in 1994, headquartered in Kunming, Yunnan Province, it is the first listed enterprise in Yunnan Province. It has been selected as one of China's top 500 enterprises for 17 consecutive years and its brand value reached 41.352 billion yuan in 2024.

2.2. Analysis of Working Capital Management Status of Y company Group

Working capital, also known as net working capital, is the net amount of funds used to maintain normal business activities and pay short-term liabilities in the daily operation of an enterprise. Working capital can be divided into narrow sense and broad sense. In the narrow sense, working capital is the net amount of current assets minus current liabilities, that is, net working capital, reflecting the real short-term funds at the disposal of an enterprise. The calculation formula is: working capital in the narrow sense = current assets − current liabilities. Broad working capital refers to the sum of all current assets of an enterprise, including cash, accounts receivable, inventory, short-term investments and other short-term assets. This section uses the theory of working capital in a narrow sense, that is, the net working capital of an enterprise is the difference between current assets and current liabilities, so as to analyze the scale and structure of working capital of Y company. Starting from the overall scale, the specific composition of current assets and current liabilities, the relevant data of the annual report of the enterprise in the past four years are sorted out and counted to master the distribution of working capital of the enterprise.

2.3. Analysis of Working Capital Scale

The current assets of Y company declined significantly in 2022. The core reason is that the company significantly reduced the investment in the secondary market, and the trading financial assets decreased from 4.72 billion yuan to 2.415 billion yuan, a decrease of up to 95%. Meanwhile, the company announced to gradually withdraw from high-risk financial investment, and the company's strategic focus shifted from financial investment to the main business of medicine and health. The proportion of current assets in the total assets fluctuates, and the proportion is always high. In the past four years, the proportion is close to or even more than 50%, indicating that current assets account for more than half of the asset structure of the enterprise, and the company has a large number of current assets, which means that the enterprise has a strong liquidity ability and low short-term debt risk. The income that current assets can bring is limited, so it is easy to know that Ming Y company holds current assets in a conservative way.

Current liabilities as a percentage of total assets reflect the firm's dependence on short-term creditors. The higher this indicator is, the greater the dependence of the company on short-term financing is, and the greater the short-term financial pressure of the company is. The ratio of current liabilities to total assets of Y company has fluctuated in the past four years, but it has tended to be stable on the whole. Although the ratio has fluctuated, the peak value still does not exceed 30% and has remained at a low level. This shows that Yunnan Y Company's main financing method is long-term financing, so it faces less financial risk.

Therefore, according to the changes of current assets and current liabilities of Y company in 2021-2024, it can be seen that the essence of Y company in recent years is the strategic transformation of "moving from the virtual to the real."

2.4. Analysis of Working Capital Structure

In terms of working capital structure, this paper analyzes and studies the two aspects of current assets and current liabilities. This paper analyzes the current assets structure of Y company, and the composition of its internal current assets. Through the analysis of the data , it can be seen that the subjects with great changes are:

(1) Monetary capital. From 48.20% in 2021 to 31.88% in 2024, showing an overall downward trend, but still within a reasonable range. The change trend reflects the company's changes in capital utilization, business expansion, debt paying ability, market environment and business strategy, and risk management. However, a high proportion also means that the company's capital utilization efficiency ratio is relatively low, which may affect the company's capital income. At the same time, the proportion of monetary capital in the current assets project of Y company from 2021 to 2024 is the highest, indicating that the capital structure is good.

(2) Accounts receivable. From 2021 to 2024, the receivables of Y company showed a continuous upward trend, which not only reflected the rapid growth of Yunnan Y Company's turnover, but also reflected the excessive borrowing of its funds by other partners. In 2024, the ratio of accounts receivable remains high, reaching 29.06%, indicating that the company's credit sales business is gradually growing, accompanied by a steady increase in the provision for bad debts. In the long run, this may pose a threat to the security of enterprise funds, weaken the discourse power of enterprises in the market, and then is not conducive to the long-term development of enterprises, reflecting the weakening trend of Yunnan Y Company's ability to hold funds in the supply chain.

(3) Transactional financial assets. Y company had made big profits from stock trading before 2021, with a high proportion of trading financial assets. From 2021 to 2023, the proportion of transactional financial assets of Y company has been declining all the way, plummeting from 10.37% in 2021 to 0.41% in 2023, which may be related to the sharp decline in the market value of Yunnan Y Company's heavy positions such as Xiaomi and Tencent Holdings in 2021, resulting in a sharp decrease in the company's net profit. Subsequently, the company announced to gradually withdraw from securities investment in the secondary market, and the proportion of trading financial assets decreased significantly. In 2023, the company liquidated all its stocks and fund investments, including Xiaomi, and announced that it would use idle funds for low-risk products such as bank certificates of deposit and money funds. In 2024, the held-for-trading financial assets grew to RMB1.046 billion, of which RMB1.0 billion was bank wealth management products, reflecting the Company's shift from risky stocks to prudent wealth management.

3. Working Capital Analysis of Y Company from The Perspective of Supply Chain

Referring to the theory of Professor Wang Zhu quan's team, this paper reclassifies the working capital of operational activities from the perspective of supply chain: procurement, production and sales, and combines it with working capital management.

3.1. Analysis of Working Capital in The Procurement Process

Since 2013, Y company has been building a centralized procurement platform and setting up a procurement center. In the following five years, it has established and improved the organizational process, control system and supplier management system under the centralized procurement model. At the beginning of establishing the procurement center, Y company Group adopted the MRP procurement model, and also had the JIT and VMI procurement models. Later, Y company attempted to implement electronic procurement and electronic bidding procurement, and carried out strategic procurement and reserve procurement for strategic materials and special materials. Y company has been innovating the value of its supply chain through the "trade volume-based procurement model", optimizing the services of the supply chain in this way. As a result, it has reduced the overall cost of the supply chain, enhanced the competitiveness of its products, and achieved a win-win situation for both supply and demand. The working capital of the procurement channel of Y company Group was calculated based on the formula, and the management of its working capital was analyzed through a longitudinal comparison of the data.

From 2021 to 2024, the raw material inventory of Y company Group has been declining, which indicates that its business scale is constantly shrinking. The working capital of Y company Group in the procurement process has all been negative. It was -3.332 billion yuan in 2021 and -4.832 billion yuan in 2024, showing a stable trend with a slight decline. The negative working capital of the procurement channel of Y company Group indicates that the value of inventory is far less than the sum of accounts payable and advance notes, which means that Y company Group mainly relies on the financial support of upstream suppliers for procurement activities and does not occupy its own funds. This reflects that in the procurement process, Y company Group has its own commercial reputation to counterbalance upstream suppliers. It holds an advantageous position in the procurement process. Meanwhile, the working capital of the procurement channels has been decreasing year by year, indicating that no additional working capital is needed and the accounts payable are sufficient to cover the costs.

Over the past four years,Y Company's working capital turnover period in the procurement process has been negative.

The working capital turnover days in the procurement process of Y company have continuously decreased from -32.98 days in 2021 to -43.45 days in 2024. This indicates that the company's operational capacity is quite excellent and it occupies a large amount of suppliers in the procurement aspect. This has thus elevated its position in the industry. In its daily operations, Y company relies on current liabilities to support its operations. Y company can fully leverage this advantage to maximize the extension of payment terms and quickly convert inventory into cash inflows, thereby optimizing the efficiency of fund utilization. However, Y company should also be vigilant about the proportion of funds used by its suppliers to avoid putting excessive pressure on them and thereby causing an imbalance in the entire supply chain.

3.2. Analysis of Working Capital in the Production Process

Y Company's industrial products are customer-centered and adopt an "order-based" production mode. It pays attention to the matching of production and sales, optimizes the work process and system, and builds a top-down, progressive safety production management organization system to enhance the level of safety production management. This system not only standardizes every link and process of production, but also effectively ensures the stability of product production and the controllability of quality. Y company also fully relies on the natural resources of the Yunnan region as the foundation, and is committed to building a standardized full industrial chain for strategic medicinal materials mainly including Polyphylla and Sanqi. The company promotes the digital transformation process throughout the entire supply chain by establishing digital infrastructure and information construction for the Sanqi industrial chain. The company's long-term and continuous investment in the field of strategic major varieties of Chinese medicinal materials It has achieved a closed loop of the entire process and the entire industrial chain from seedling selection and breeding, medicinal material cultivation to production and processing.

The working capital and working capital turnover period of the production process of Y company from 2021 to 2024 are both negative, indicating that the funds of the enterprise itself are occupied in this process. From the perspective of the constituent elements of the formula, the majority of the working capital in this link is borne by employee compensation payable and other payables. This indicates that Y company Group actually uses external suppliers and internal employee wages to support the operation of its own production link, reducing the need for external financing and lowering the company's debt pressure. However, from a long-term perspective, Y company should be vigilant against adverse risks such as a decline in employee satisfaction and tight management of upstream suppliers. Meanwhile, the working capital turnover period of the production process of Y company Group showed a trend of "first rising and then falling, with an overall upward trend". In 2022, it saw a significant increase of 129%, growing to -12.40. However, it continued to decline in the following two years, reaching -20.51.

3.3. Analysis of Working Capital in the Sales Link

Y company adopts multiple sales and collection principles: In terms of self-made industrial products, Y company Group mainly follows the principle of "payment before delivery", signing annual agreements with distributors to stipulate payment terms and other matters. For important terminals, the company has professional staff to maintain them and has a strong ability to control the terminals. The business mainly focuses on wholesale and also has retail operations. Wholesale business mainly targets customers with large purchase volumes and long-term stability, such as medical institutions and commercial companies, and adopts the principle of "payment after delivery". For the retail business segment, the principle of "cash on delivery" is adopted.

The working capital of the sales link of Y company Group has shown an upward trend from 2021 to 2024 and has remained positive all along, indicating that the enterprise mainly uses its own funds in the sales end. The working capital turnover period of the sales channel has also been positive. It increased from 102.67 days in 2021 to 116.20 days in 2024, reaching a peak of 120.08 days in 2022. Although it dropped to 114.96 days in 2023, the overall trend has been downward. It indicates that the efficiency of the enterprise in collecting sales revenue has significantly declined. From the perspective of its formula composition elements, the proportion of inventory goods and receivables in the working capital of the sales link is very high, which seriously affects the working capital turnover efficiency of the enterprise in the sales link. Meanwhile, the inventory of goods has been decreasing year by year from 2021 to 2024, reflecting the increasing sales orders of Y company.

4. Problems in the Working Capital Management of Y Company Group from the Perspective of Supply Chain

4.1. Excessive Occupation of Suppliers' Funds

From the perspective of the supply chain, suppliers are an important link in the supply chain. The relationship between enterprises and suppliers deeply affects the performance level of working capital in the enterprise's procurement channels. The working capital of Y company Group in both the procurement and production links is negative.

Among them, raw materials, accounts payable, notes payable and other payables account for a relatively large proportion, indicating that Y company Group purchased a large number of raw materials in the procurement process, but failed to pay the purchase price in time, and instead converted them into accounts payable and notes payable. In the short term, transferring most of the financial pressure to suppliers can indeed enhance the liquidity of working capital for Y company Group, reduce short-term financial risks, and give it an advantageous position when conducting transactions with suppliers. As an important link in the procurement process, suppliers have long and excessively occupied their funds, maintaining a high degree of risk exposure and dependence on the funds of upstream suppliers. This not only causes the risk of fund repayment but also weakens the long-term business reputation of Y company, deteriorates the relationship with suppliers, increases the difficulty of obtaining high-quality resources in the future, and poses a hidden threat to production and operation.

4.2. Difficulty in Recovering Accounts Receivable

From 2021 to 2024, the receivables of Y company Group showed a continuous upward trend, increasing from 7.512 billion yuan in 2021 to 10.853 billion yuan in 2024. Moreover, the proportion of receivables in the working capital of the sales link was all above 70%, indicating that a part of the sales revenue of Y company Group was converted into credit sales. It has increased the uncertainty and risk for enterprises to recover funds.

Although credit sales can stimulate purchasing power, tap into potential customers and boost sales, excessively high accounts receivable and notes receivable will increase the credit risk of enterprises. The overly expanded scale of accounts receivable will trigger multiple chain reactions: Firstly, the expansion of credit exposure directly raises the risk of default exposure; Secondly, the extension of the capital turnover cycle will weaken the stability of the enterprise's cash flow and cause a liquidity gap in working capital.

5. Suggestions for Optimizing the Working Capital Management of Y Company Group from the Perspective of Supply Chain

5.1. Optimize the Cooperative Relationship with Suppliers

The upstream activities of an enterprise in the supply chain refer to the procurement activities carried out by the enterprise. This stage serves as the connection between the enterprise and its suppliers, so the relationship between the enterprise and its suppliers is very close. Therefore, in order to establish a good cooperative relationship with suppliers, Y company needs to enhance communication and coordination with them, conduct regular business investigations, jointly analyze the trends of supply and demand changes, and formulate response strategies. Y company can optimize its allocation and achieve in-depth cooperation by jointly discussing the "supply-supply" assessment trends with its suppliers. Optimize the relationship with suppliers, establish good cooperation, increase the concentration of suppliers, strive for preferential discounts on suppliers, enhance bargaining power, improve the working capital turnover efficiency of procurement channels, and reduce the cost of working capital turnover. By cooperating with suppliers, we can jointly bear risks and share benefits, thereby reducing procurement costs, improving the quality of raw materials and stabilizing supply, and enhancing the performance of working capital utilization in the procurement channel.

5.2. Reasonably Control Accounts Receivable in The Sales Channels

In response to the problem that Y company Group is currently facing, where the amount and proportion of receivables are increasing year by year, Y company needs to carefully consider the costs and benefits generated by receivables, strengthen the management of accounts receivable and optimize credit policies, improve the efficiency of capital turnover and reduce the risk of bad debts. Specifically, Y company should establish a strict commercial credit rating system for suppliers based on their sales volume, commercial credit, and cooperation duration, etc. Based on the rating results, it should set credit limits and payment terms for suppliers, and irregularly identify the status of receivables to promptly identify risks. If necessary, it should consider factoring with financial instruments to recover all or part of the receivables in advance. Enhance the liquidity of funds and the ability to resist risks. To encourage customers to make advance payments, discount policies or other preferential conditions can also be set up. This can help enterprises accelerate cash flow, reduce capital occupation, and thereby achieve the goal of optimizing their own working capital management.

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