



Research on Working Capital Management of BL Company Based on Supply Chain Management

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Abstract. In recent years, with the release of the “Three Red Lines” and Loan Concentration Policy, coupled with the impact of the new crown epidemic, real estate companies have faced unprecedented challenges, with broken capital chains and frequent debt defaults. Working capital is the lifeblood of enterprise operation and development, which is very important to the survival and development of enterprises. Taking BL Company as an example, this paper analyzes and evaluates the current situation of working capital management from all links of the supply chain, and finds that there are deficiencies in the capital management of procurement and production, resulting in the overall poor working capital management of business activities. Finally, it puts forward improvement suggestions such as strengthening supplier relationship management and speeding up the project construction and development cycle, so as to improve the efficiency of working capital management.

Keywords: Working capital · supply chain management · working capital management

1 Introduction

At present, China has entered a new stage of development, and its economic development has shifted from high-speed growth to high-quality. With the deepening of supply side reform, real estate sales have accelerated, inventory has continued to decrease, and the effect of destocking is more obvious. As of the end of 2018, the area of commercial housing for sale decreased by 65.1 million square meters year-on-year, and the total area of commercial housing for sale in 2019 fell by 4.9% year-on-year. Since 2020, affected by the new crown epidemic, various industries have been hit a lot, especially the real estate, tourism and other industries are facing unprecedented challenges. At the same time, under the main tone of “housing is not for speculation”, the Chinese government has successively issued a series of regulatory policies, such as the “three red lines”, loan concentration policies, etc., which has continuously tightened the financing environment, greatly increased the capital pressure of real estate enterprises and frequent debt

defaults. Thus, working capital, which is the net amount after subtracting current liabilities from current assets, is the guarantee for the normal operation of an enterprise. And the development of enterprises is inseparable from good working capital management.

Foreign research on working capital began in the 1930s and began to consider the relationship between various items of current assets in the 1970s, but did not consider the overall relationship of working capital. For example, Knight (1972) pointed out that analyzing the various items of current assets can more effectively determine the optimal holding amount of enterprise working capital [1]. Later, Hampton and Wagner (1989) included credit rating, short-term financing and consumer credit, and expanded the content of working capital management [2]. In terms of performance evaluation, Laughlin (1980) proposed to use cash turnover period for evaluation [3]. By the end of the 1990s, the American REL consulting company and CFO magazine began to conduct a working capital survey on 1,000 companies in the United States, using the working capital turnover period indicator to measure the performance of working capital management. Chinese scholars have further broadened the thinking of working capital, for example, Wang and Ma (2005) applied the idea of distribution channel management to working capital management [4]. Wang et al. (2007) divided the working capital into financial activities and operating activities, further divided the working capital of operating activities into the working capital of procurement channels, production channels and marketing channels, and constructed a channel-based working capital management performance evaluation system [5]. In recent years, working capital management has been gradually integrated into the theories of channel management and supply chain management, but there is insufficient research on specific industries or enterprise cases. Therefore, this paper selects BL Company as a research case, and discusses the working capital management from the perspective of supply chain management, which has important practical significance for improving the working capital management efficiency of real estate enterprises.

2 Current Situation and Problem Analysis of BL Company's Working Capital Management Based on Supply Chain

BL Company was established in 1992 and listed on the Shanghai Stock Exchange in 2006. It is the first real estate listed company among the first batch of enterprises after the restart of IPO. At present, BL Company has 34 real estate platform companies and 18 professional companies, with a total of over 60,000 employees. And the company is mainly engaged in real estate development, sales, leasing, property management and other businesses, which covers more than 100 cities around the world with more than 1000 development projects. Since 2018, BL Company has taken the "real estate ecological platform" as its strategic positioning and is committed to building a new industry ecology integrating industry and finance.

In order to evaluate the status of BL Company's working capital management, this paper calculates the working capital turnover period of each link in the supply chain from 2018 to 2020 based on Professor Wang Zhuquan's reclassification of working capital, as shown in Table 1.

It can be seen from Table 1. that the working capital turnover period of BL company's operating activities was shortened from 467 days to 403 days in 2018–2019, and

Table 1. Comparative analysis of BL Company's working capital turnover period and the Industry.

Item	BL Company			Industry average		
	2018 year	2019 year	2020 year	2018 year	2019 year	2020 year
Working capital turnover period of procurement link ^a (days)	-16	-72	-133	-85	-102	-98
Working capital turnover period of production link ^b (days)	821	813	932	723	718	711
Working capital turnover period of marketing link ^c (days)	-337	-338	-371	-251	-275	-240
Working capital turnover period for operating activities ^d (days)	467	403	429	386	341	374

Note: a = (Material inventory + Prepayments - Accounts payable - Notes payable)/(Operating income/360).

b = (Development cost + Other receivables - Other payables - payroll payable)/(Operating income/360).

c = (Develop products + Accounts receivable - Notes receivable - Advances received - Taxes payable)/(Operating income/360)

d = a + b + c.

increased to 429 days in 2020, with a large overall fluctuation. In general, the turnover of BL Company's operating capital for operating activities is accelerating, and its management performance has improved. In terms of horizontal comparison, the working capital turnover period of BL Company's operating activities in the past three years is much higher than the industry average, which shows that the working capital management efficiency of BL Company's business activities is far lower than the industry average. In addition, it is necessary to strengthen the management of various supply chain links and improve the working capital management efficiency.

2.1 Analysis of Working Capital Management of Procurement Link

The procurement link is an important part of supply chain management, and its capital management efficiency directly affects the working capital management level of the whole operating activities of the enterprise. From 2018 to 2020, the working capital turnover period of BL Company's procurement link decreased significantly, and all of them were negative, indicating that BL Company occupied the funds of upstream suppliers, which accelerated the working capital turnover speed of procurement link and

Table 2. Occupation of working capital in the procurement link of BL Company (Unit: Million RMB).

Item	2018 year	2019 year	2020 year
Raw material	6.92	7.56	16.32
Accounts payable	46,049.47	105,325.35	136,563.77
Notes payable	4,636.86	7,827.56	14,918.77
Prepayments	26,044.93	42,750.95	42,196.67
Working capital of procurement link	-24,613.54	-70,392.50	-109,267.60

continuously improved the level of management performance. Horizontal comparison shows that the working capital turnover period of BL Company's procurement link in 2018–2019 is significantly higher than the industry average turnover period. However, its turnover period in procurement link is lower than the industry average by 2020. Overall, the working capital management efficiency of BL Company's procurement link has been greatly improved. However, there is still a certain gap compared with the same industry.

In order to further explore the factors that affect the working capital management level of BL Company's procurement link, this paper analyzes each item of its working capital. As shown in Table 2., BL Company's working capital in procurement link is mainly occupied by accounts payable and prepayments, while the raw material inventory occupies less capital, with an average proportion of less than 1%, which has little impact on the working capital of the procurement link. From the perspective of prepayment items, the prepaid accounts of BL Company showed an overall increasing trend from 2018 to 2020, but its proportion in the working capital of procurement link was declining. In terms of payables, the accounts payable of BL Company occupies a large amount, which far exceeds the funds occupied by raw materials and prepayments, resulting in a negative working capital turnover period. Combined with the turnover of accounts payable, the turnover period of accounts payable of BL Company was between 90 and 196 days from 2018 to 2020, showing a continuous growth trend. From a horizontal comparison, except for 2020, BL Company's accounts payable turnover period is significantly lower than the industry average. This shows that BL Company's capital management in the procurement link is not reasonable enough, and the utilization rate of accounts payable needs to be improved. Therefore, BL Company should strengthen the management of upstream supply chain funds in the future.

In the supply chain procurement link, the selection and management of suppliers is particularly important. In general, the supply chain partnership should be long-term and stable. From Table 3., it can be seen that the annual procurement proportion of the top five suppliers of BL Company is between 10% and 14% in 2018–2020, which is much lower than 50%, indicating that the suppliers of BL Company are relatively scattered. Based on the top five prepayments of the company, they were 28.02%, 29.61%, and 16.99% respectively from 2018 to 2020, which was in a downward trend as a whole, with an average of 24.87% in three years, indicating that the prepayments of BL Company to suppliers were relatively scattered and also reflecting the company's weak awareness

Table 3. Procurement and prepayment of top five suppliers of BL Company.

Item	2018 year	2019 year	2020 year
Annual procurement proportion of top five suppliers (%)	13.83	10.27	10.93
Proportion of top five prepayments (%)	28.02	29.61	16.99

of long-term cooperation. Therefore, BL Company needs to enhance its awareness of long-term cooperation in the future, and further strengthen its relationship with suppliers.

2.2 Analysis of Working Capital Management of Production Link

In the whole supply chain management, the production link plays a connecting role. From 2018 to 2019, the working capital turnover period of BL Company's production link was shortened from 821 days to 813 days, while it extended to 932 days in 2020, showing a slight increase. Overall, the working capital turnover period of BL Company's production links generally shows an upward trend, and the management efficiency has declined. Horizontally, compared with the industry, the working capital turnover speed of BL Company's production link is relatively slow. In recent three years, the turnover days of BL Company are much higher than the industry average, indicating that BL Company's management of working capital in production link is poor and needs to be further improved.

In the working capital of production link, the average development cost of BL Company accounts for more than 90%. It can be seen that the midstream supply chain management is mainly the management of inventory (development cost). As for Table 4., from 2018 to 2020, the development cost turnover period of BL Company showed an overall upward trend, extending from 763 days to 896 days. This shows that the development cost turnover speed of BL Company has slowed down and the management efficiency has declined in recent years. Moreover, the development cost turnover period is too long, resulting in the low turnover efficiency of working capital in the whole production link. However, other receivables account for 22%–24% of the working capital of production link, which is relatively large. And its turnover period increased from 170 days to 212 days, an increase of 24.71%, which reduced the management efficiency of working capital in production link to a certain extent. Combined with other payables, the amount of other payables of BL Company tends to increase as a whole, and the capital turnover period is extended from 113 days to 178 days, greatly prolonging the turnover time, which is conducive to the management of working capital in the production link. Overall, the working capital management efficiency of BL Company in the production link is poor, and the capital management in the midstream supply chain should be further strengthened.

2.3 Analysis of Working Capital Management of Marketing Link

The marketing link is the last link of enterprise's operating activities, and its working capital turnover has an important impact on the capital flow management of the entire

Table 4. Relevant indicators in production links of BL Company.

Item	2018 year	2019 year	2020 year
Development costs/Working capital of production link (%)	86.52	94.13	97.93
Development cost turnover period (days)	763	737	896
Other receivables turnover period (days)	170	193	212
Other payables turnover period (days)	113	116	178

Table 5. Relevant Indicators in Marketing Links of BL Company.

Item	2018 year	2019 year	2020 year
Advance receipts turnover period (days)	487	479	243
Accounts receivable turnover period (days)	4	3	3
Development product turnover period (days)	86	76	90

supply chain. From 2018 to 2020, the working capital turnover period of BL Company in the marketing link has always been negative and showed a continuous downward trend, indicating that BL Company's ability to occupy downstream funds has gradually increased in recent years, and the working capital management performance in the marketing link has been greatly improved. Horizontal comparison shows that the working capital turnover period of BL Company's marketing link has been lower than the industry average level, and the gap is obvious.

In the marketing link, advance receipts, product development and accounts receivables are important items of working capital management. It can be seen from Table 5. that although the turnover period of BL Company's advance receipts has decreased slightly from 2018 to 2019, the occupancy time is relatively long, indicating that BL Company has a strong ability to occupy funds from downstream customers. By 2020, the turnover period was shortened to 243 days, with a significant decline, mainly due to the change of the new income standard. On the whole, BL Company has good management of advance receipts. In terms of product development, in recent three years, the scale of product development of BL Company has been expanding, and the capital turnover period has been extended from 86 days to 90 days, reducing the efficiency of working capital management. From the perspective of receivables, although the scale of receivables of BL Company fluctuates, it is on the rise as a whole. Combined with the capital turnover, the average turnover period of BL Company's accounts receivable is 3 days, while the average turnover period of the real estate industry is 28 days. Obviously, compared with the industry, BL company's accounts receivable funds return faster, indicating that BL Company's accounts receivable management is more efficient. Overall, BL Company performs well in marketing link and has a high level of working capital management.

In the downstream sales link of the supply chain, the customer is an important object of management. It can be seen from Table 6. that the sales of BL Company's top five

Table 6. BL Company's Top Five Customers and the Proportion of Accounts Receivable.

Item	2018 year	2019 year	2020 year
Proportion of sales of top five customers (%)	3.16	2.03	1.51
Proportion of top five accounts receivable (%)	25.52	19.68	11.84

customers accounted for an average of 2.23% from 2018 to 2020, showing an overall downward trend. Horizontally, Vanke's three-year average proportion is 1%. Obviously, the operating income of BL Company's top five customers is relatively concentrated, indicating that BL Company has maintained good customer relations in recent years. Combined with the accounts receivable collected from customers, the proportion of the top five accounts receivable of BL Company decreased year by year, from 25.52% to 11.84%, with a decrease of 53.61%. This shows that the customer concentration of BL Company has decreased in recent years, which enhances its voice over customers.

3 Optimization Suggestions of Working Capital Management for BL Company Based on Supply Chain

3.1 Optimization Suggestions of Working Capital Management in Procurement Link

In view of the insufficient use of funds from upstream suppliers in the procurement link, BL Company should make rational use of commercial credit and improve the efficiency of fund management in the procurement link. Firstly, increase short-term liabilities appropriately, improve the proportion of bill settlement, and reasonably plan the quantity and scale of working capital. Secondly, strengthen supplier management, establish a good cooperative relationship with suppliers, and try to extend the payment term of the contract. Finally, improve the company's own core competitiveness, enhance the bargaining power with suppliers, reduce prepayments and appropriately extend the repayment period of accounts payable.

In view of the lack of close relationship with suppliers and lack of long-term cooperation awareness, BL Company should strengthen supplier management and establish long-term partnership. First, to determine the number of suppliers and select appropriate suppliers in combination with the company's own development needs. According to the proportion of the supply to the total purchase, the supplier is divided into grades, and the preferred supplier is selected. In addition, an appropriate number of alternative suppliers shall be reserved to deal with unexpected supply conditions. Second, to establish supplier credit files, implement dynamic management, regularly evaluate suppliers and replace unqualified suppliers. Third, to establish the long-term and stable cooperative relations with major suppliers, trust each other, and finally realize benefit sharing, risk sharing, mutual benefit and win-win results.

3.2 Optimization Suggestions of Working Capital Management in Production Link

In view of the long project development cycle, BL Company should actively take various measures to speed up the project construction and development, and improve the fund management efficiency of production links. Firstly, carry out the EPC project general contracting mode, implement unified management over the whole process of project construction, and avoid slow project construction due to insufficient funds and other problems. Secondly, following the market development trend, shift the focus to small and medium-sized housing development, shorten the construction cycle and speed up the return of funds. Thirdly, improve green production technology, promote new building materials, shorten construction cycle, speed up capital turnover and improve management efficiency.

In view of the large proportion of other receivables and the difficulty of collection, BL Company should strengthen the management of other receivables and speed up the fund recovery. Firstly, strengthen aging management, regularly count the actual occupied days of other receivables, and strengthen supervision and management, so as to prevent a large number of bad debts. Secondly, improve the responsibility collection system. For other receivables that are about to expire, the company can remind customers to pay in time by means of telephone, e-mail, etc., while for customers who fail to pay in time, it can hire the specialist to collect. Finally, pay attention to the management of security deposits, deal with the project margin in time, and optimize the business environment of the enterprise.

4 Conclusion

Working capital is the blood of business operation, and the quality of working capital management directly affects the survival and development of enterprises. As a capital intensive industry, the working capital management of the real estate industry is the key to the sustainable development of enterprises. From the perspective of supply chain management, this paper analyzes and evaluates the current situation of working capital management of BL Company from the three links of procurement, production and marketing, and finds that the working capital management of BL Company's operating activities is not good. Among them, the management performance of marketing link is good, but the management performance of procurement and production link is not high due to the long project development cycle and the lack of intimate relationship with suppliers, etc. In view of the problems existing in the working capital management of BL Company, this paper puts forward some suggestions, such as accelerating the project construction and development and strengthening the supplier relationship management, which will help real estate enterprises strengthen the working capital management and improve the efficiency of working capital management, and also have a certain reference value for the working capital management of enterprises in other industries.

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