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ANALYSIS OF WORKING CAPITAL MANAGEMENT: CASE STUDY OF TEHRI HYDRO DEVELOPMENT CORPORATION OF INDIA LTD.

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Abstract

Working capital is sometimes referred to as a company's "lifeblood." This research investigates the efficacy of the management of working capital at Tehri Hydro Development Corporation India Limited. The main aim of working capital management is to ensure that a company has sufficient funds to operate smoothly and can pay off its short-term debt obligations as they come due and anticipated operating needs. The primary components of the working capital of THDC India Ltd., including cash management and inventories have been analyzed from the accounts for the five years from 2018-19 to 2022-2023. The tool utilized in the study's analysis is ratio analysis.

Keywords: working capital management, liabilities, current assets, management of cash, inventory, current ratio, acid test ratio

Introduction

Working Capital must play a vital part in a company's operations daily. It denotes the finances needed to meet costs that occurred daily for a limited duration. It is that amount that is available to buy merchandise, payments made to personnel, and cover other expenses of short-term. As a result, managing working capital is a significant business skill. It is essential for starting a firm. This is that part of the capital of the firm, which is needed for financing short-term or current assets including cash, marketable securities, borrowers, and inventories, shall be called working capital. Working capital management ensures the relationship between short-term Assets and liabilities of a company. Its goal is to guarantee that the company can continue to operate while meeting both its current short-term debt and future operational expenditures. Working capital management includes inventory, receivables, accounts payable, and cash management. This implies that working capital is the difference between resources in cash or readily converted into cash (current assets) and current liabilities for which cash will soon be required.

According to R.D. Kenedy and S.Y. Mc Mullen, “A working capital deficit exists if current liabilities exceed current assets." (Smith, K.V. Management of Working Capital, West Publishing Company, 1947, p-7). Working capital is required to address the issue caused by the inability to accumulate cash against items sold immediately. In technical terms, this is known as the 'operational cycle' or 'cash cycle'. Adequate working capital acts as a safeguard for bad days, allowing a company to deal with a period of depression with relative ease.

The following are the primary methodologies of working capital analysis:

Arithmetic approach: This is a relatively straightforward approach that shows the change in current assets and liabilities over two years and its impact on the enterprise's working capital situation. This is the basic approach to working capital analysis in which changes in balances may be quantified quantitatively.

Accounting Techniques: Although there are several accounting procedures, the most essential are as follows:

The following text has been corrected and simplified for clarity:

- Ratio Analysis: This is a technique used by management to examine the efficiency of working capital in an organization. It involves using various ratios of working capital to gain insights into the company's financial health.
- Funds Flow Statement: This statement is a valuable management tool for studying how funds are procured and used in a business. It helps to track the inflow and outflow of funds and provides valuable insights into cash flow management.

Purpose of Management of Working Capital

Proper management of working capital ensures that a firm always has enough cash to cover its short-term operating expenses and liabilities. It also helps your company run smoothly and helps increase revenue and profitability. Additionally, working capital management efforts may have multiple objectives, such as:

Smooth Working Capital Operational Cycle: The process of acquiring raw materials and converting them into cash should be smooth and easy.

Maintaining Optimal Working Capital: Companies must maintain a balance for effective management of working capital. A rise in working capital broadly leads to increased efficiency and is used as an indicator of growth.

Meeting Debt Obligations: Working capital management requires that a company always have sufficient liquidity to pay its short-term obligations. This may be achieved by collecting payments from customers more quickly or by extending supplier payment terms.

Driving Business Growth: When a company's assets are strained by poor inventory management or accounts payable practices. It is often difficult to enhance. Effective working capital management focuses on maximizing returns on current investments while minimizing the cost of issued capital. This eventually drives the growth of business and allows companies to function more proficiently in the long run.

Improving Capital Performance: Another objective of working capital management is to uplift the utilization of capital inputs by decreasing the cost of capital or expanding the return on capital. The former can be achieved by freeing up cash on the balance sheet and reducing the need for debt.

Profile of T.H.D.C.

T.H.D.C. is a joint venture corporation between the Government of India and the Government of Uttar Pradesh. It was incorporated in July 1988 under the Companies Act, of 1956 (currently the Companies Amendment Act, 2013) to develop, operate, and maintain the Tehri Hydro Power Complex and other hydro projects. The work was assigned to T.H.D.C. in June 1989. The government has a stake in the capital of the system, with the Government of India and Uttar Pradesh holding 75% of the shares. The company has a sanctioned share capital of Rs. 4000 million. In November 1986, it was decided to implement the Tehri project as a joint venture between the government and the Soviet Union. The Tehri project includes a 2400M.W. Tehri Hydroelectric Complex, comprising a 1000M.W. Tehri Dam and Hydroelectric Power Station, a 400M.W. Koteshwari Dam and Hydro Power Plant, and a 1000M.W. Tehri Pumping Station. The agreement also included a loan of 1,000 million Rubles from the Soviet Union.

Literature Review

Several studies have found out the dimensions of working capital management both in India and abroad. These studies can be presented in different ways based on the study's needs.

Padachi (2006), studied the importance of WCM is expected to increase as the difficulty and cost of raising short-term capital increases. Hence, it can be argued that the working capital requirement may be larger for smaller enterprises, as they are more likely to experience difficulties in obtaining external funding.

Owolabi et.al. (2010), through their study indicated that there is a negative relationship between the current ratio and profitability, with a low current ratio indicating poor management of working capital.

Muhammad and Syed (2011), studied the role of working capital management in the corporate performance of non-financial companies listed on the Karachi Stock Exchange index. Canonical correlation analysis was employed to determine the impact of working capital management on a firm’s performance.

Niresh, J.A. (2012), analyzed the financial performance of manufacturing companies in Sri Lanka and the management of their working capital. Moreover, the research indicates that Sri Lankan industrial companies are giving more importance to managing working capital.

Wilson et al. (2012), in their research have broadened the knowledge of this field by providing more insight into capital management practices, as measured by the cash flow cycle, and the impact of each component on the profitability of cash-driven international brewing businesses.

Aravindan & Ramanathan (2013), studied the management of working capital helps to solve short-term financial issues. For example, companies choose the amount of credit they send to their customers and the amount of credit they expect from their customers. These types of short-term financial decisions are important to the company and its long-term survival because they affect its revenue and profitability.

REL (2013), investigated that the importance of working capital increases with the interest rates. When interest rates are low, the cost of excess capital being tied up is lower.

Baños-Caballero (2014), examined whether the level of working capital is sensitive to other financial constraint measures. These findings suggest that this optimal level is lower for organizations that are more financially challenged.

Pushpakumar and Yadhav (2014), studied working capital management in public sector companies and it was revealed that unnecessary inefficiencies and excess working stock lead to reduced productivity.

Hingurala et al. (2017), investigated the efficacy of working capital management, analyzing a sample of 44 companies listed on the Colombo Stock Exchange (CSE) between 2011 and 2015. They found that the Cash Conversion Cycle (CCC) and Tobin Q exhibited a distinct relationship. It was concluded that managers can generate value for shareholders by managing their investments in working capital.

Tiwari, S.C. et al (2023), studied the significance of working capital in managing cash and accounts receivables along with liquid assets and liabilities. Large organizations have been reported to experience liquidity issues, particularly following the 2008 global financial crisis.

Objectives of the Study

The following are the objectives of this recent study:

- To study the efficacy of the method of working capital management.
- To access the financial situation of the different operations of the company.
- Determine the sufficiency of working capital for the benefit of the business.

Research Methodology

The purpose of research is to seek knowledge. It is a scientific study. "The systematic process of obtaining new information is called research.".

- **Research Design-** This study adopts a descriptive and analytical research design as it aims to describe and analyze the policy of T.H.D.C. India Ltd regarding the management of working capital.

- **Data type- S**econdary data has been used in this study.
- **Data source-** Information source is the secondary data collected through five years' yearly reports of the company. Information is additionally collected from books, magazines, journals, and some related websites like www.thdc.co.in. The information collection strategy was pointed at the study of the working capital management of the company. From time-to-time visits to the company concerning discussion around the information have been done.
- **Period of the study-** In this study, data from the company's Annual Reports has been taken from the financial years 2018-19 to 2022-23.

Data Analysis and Interpretation

Management of Cash- Cash management is an important part of working capital management. Because money is the most liquid and without money management all business activities are ineffective. Financial management analysis can be done using the following ratios: All amounts shown in the table here are in lakhs.

- **Current ratio-** It is a ratio that measures the ability of the company's current assets to pay the current liabilities that will be paid in the short term, that is, within a year.

  Table 1: Current ratio and quick ratio

  Current ratio = Current Assets / Current liabilities

Amount in Lakhs

Year	Current Assets	Current liabilities	Current Ratio	Quick assets	Quick ratio
2018-19	1,97,328	2,25,674	0.87	1,91,297	0.84
2019-20	2,81,365	2,23,088	1.26	2,74,116	1.22
2020-21	2,66,352	2,21,084	1.20	2,58,614	1.16
2021-22	1,82,372	2,43,749	0.75	1,75,166	0.72
2022-23	1,55,529	2,66,749	0.58	1,43,492	0.54

Source: Annual Reports of T.H.D.C 2018-19 to 2022-23

Interpretation- The current ratio refers to the ratio which denotes the amount of money available for paying short-term liabilities in terms of existing assets. A higher ratio indicates that the organization has sufficient liquid assets that can be converted into cash without depreciation. The ideal current ratio is 2: 1. Here, it can be denoted that there is a fluctuation in the current ratio that changes over five years. The average current ratio is 0.932: 1, which is lower than the ideal ratio. It's because, in recent years, the company's current asset value is relatively low and needs to increase for it to be considered acceptable.

The quick ratio states a relationship between liquid assets and current liabilities. The main purpose of calculating this ratio is to identify a company's ability to meet its short-term obligations when they become due without liquidating inventory.

Quick ratio = Quick Assets / Current liabilities

Quick Assets = Current Assets – (Inventories + Prepaid expenses)

Interpretation- The Quick ratio is a measure of the amount of quick assets available for each rupee of current liability. The ideal quick ratio is 1:1. However, the quick ratio has been fluctuating lately. Over the past five years, the average quick ratio has been about 0.896:1. This is less than the ideal level, but it can be observed that it has been showing a fluctuating trend over the years. In 2019-20 and 2020-21, the quick ratio was satisfactory. This means that the company needs to maintain more quick assets to reach the ideal level so that it doesn't have to rely upon inventories (Gupta V.K. et al.).

Cash Ratio-Cash ratio = (Cash + Cash equivalents)/ Current liabilities

Table 2: Cash Ratio

Amount in Lakhs

Year	**Cash+cash equivalents**	**Current liabilities**	**Ratio**
2018-19	5253	2,25,674	0.0232
2019-20	2578	2,23,088	0.1133
2020-21	22,508	2,21,084	0.1018
2021-22	8,777	2,43,749	0.0360
2022-23	9,365	2,66,749	0.0351

Source: Annual Reports of T.H.D.C 2018-19 to 2022-23

Interpretation- Upon analysis of the table above, it can be observed that the cash ratio has been fluctuating throughout the period under study, from 2018-19 to 2022-23. In the Starting years, it was low, but it showed a slight increase in 2019-20 & 2020-21. Again, reducing to a lower ratio. Overall, the company's cash ratio is low, indicating that there is no idle cash, but profitability is satisfactory.

Management of Inventory -Proper inventory management is crucial for efficient working capital management. A business that fails to manage inventory effectively can put its long-term profitability at risk**.**

The Following ratios have been calculated for this:

Percentage of Inventory to Total Assets and Percentage of Inventory to Current assets depicted in Table 3:

Amount in Lakhs

Year	**Total Assets**	**Current Assets**	**Inventory**	**% of Inventory to Total Assets**	**% of Inventory to Current Assets**
2018-19	15,57,783	1,97,328	3,060	0.196	1.551
2019-20	17,54,862	2,81,365	3,242	0.186	1.152
2020-21	18,71,692	2,66,352	3,494	0.187	1.312
2021-22	21,09,790	1,82,372	4,094	0.194	2.245
2022-23	25,26,252	1,55,529	7,880	0.312	5.066

Source: Annual Reports of T.H.D.C 2018-19 to 2022-23

Interpretation: The table above indicates that the percentage of the company's inventory to its total assets has been fluctuating over the period being analyzed. The data shows that there is not a significant amount of funds tied up in this component in current assets, except for in the last two years.

- **Inventory Turnover Ratio-**

Inventory Turnover Ratio= Cost of Goods Sold / Average stock

Table 4:

Amount in Lakhs

Year	**Cost of Goods Sold**	**Average Stock**	**Times**
2018-19	1,41,368	3,060	46.198
2019-20	1,41,607	3,242	43.678
2020-21	1,11,862	3,494	32.015
2021-22	1,07,793	4,094	26.329
2022-23	1,22,021	7,880	15.484

Source: Annual Reports of T.H.D.C 2018-19 to 2022-23

Interpretation- As per Table No. 4, the inventory turnover ratio has been depicted. It is showing a declining trend. It has been noticed that the inventory turnover ratio for the year 2018-2019 indicates higher sales achieved through adequate investment in inventory as compared to other years. A growing trend can be observed during the period under study. While higher inventory turnover is generally considered desirable, it may not necessarily be an indication of a profitable position according to the rule.

Management of Receivables- In the present time, it has become very difficult to continue sales on a cash basis because the market is becoming competitive day by day, so there arises the need to sell on a credit basis. The basic aim of management of receivables is to enhance the return on investment in these assets.

Table 5: % of Receivables to Total Assets and Current Assets

Year	**% of Receivables to Total assets**	**% of Receivables to Current Assets**
2018-19	10.92%	86.215%
2019-20	10.65%	66.42%
2020-21	5.63%	39.63%
2021-22	3.43%	39.69%
2022-23	2.75%	44.74%

Source: Annual Reports of T.H.D.C 2018-19 to 2022-23

Interpretation- The table shown above depicts the % of receivables to total assets has decreased from 2019-19 to 2022. It can be said that it is quite satisfactory, a decreasing trend must be maintained as any increase in the proportion of receivables to total assets is always against the interests of the company as it causes the funds to be blocked in the accounts receivable. Further, the percentage of receivables to current assets is showing a fluctuating trend.

Analysis of Working Capital: When analyzing working capital, the direction of change over time plays an important role. Working capital management is one of the important aspects of financial management. consequently, analysts need to study the trends and direction of working capital over some time. Such an analysis allows you to examine the increasing and decreasing trends in current assets and current liabilities and their impact on the working capital situation.

Table 6: **Working Capital Ratio (WC as % of net sales, current assets, and total assets)**

Amount in Lakhs

Year	Net Sales	Working Capital	Current Assets	Total Assets	%of W.C. to net sales	%of W.C. to current assets	% of W.C. to total assets
2018-19	2,85,029	(28,346)	1,97,328	15,57,783	(9.94)	(14.36)	(1.82)
2019-20	2,40,536	58,277	2,81,365	17,54,862	24.22	20.71	3.32
2020-21	2,50,193	45,268	2,66,352	18,71,692	18.09	16.99	2.41
2021-22	2,22,734	(61,377)	1,82,372	21,09,790	(27.55)	(33.65)	(2.91)
2022-23	2,00,365	(1,11,220)	1,55,529	25,26,252	(55.50)	(71.51)	(4.40)

Source: Annual Reports of T.H.D.C 2018-19 to 2022-23

Interpretation: The table shown above states that the working capital to sales ratio is having a fluctuating trend again. The table shows that the percentage of working capital to total assets also fluctuated in 2019-20 & 2020-21 increasing, afterward again decreasing but slowly(Gupta V.K et al.). As per the analysts, the % of working capital to the total assets must be 20 percent but in this case is much less than that, which shows that There is a need to implement strict policies to better manage working capital.

Limitations of the Study

- The report relies on secondary data, and therefore its reliability is dependent on the authenticity of the sources used.
- Additionally, since the present study is based solely on the balance sheet of the company, it may not accurately reflect the typical situation as it only captures a picture of the report of a company's financial status as it is. As such, short-term fluctuations in assets that occur within the period covered by two dates in the balance sheet may not be reflected.
- It is worth noting that the survey used to gather data for this report was limited in duration, which acted as a time constraint on the study.

Conclusion and Suggestions

Effective working capital management is a crucial aspect for all business firms. However, it is difficult to determine the exact gross or net working capital of a company. The analysis of a company's information and problems is necessary to determine its working capital because there is no specific rule on how to finance current assets. In practice, it is not recommended to finance shares only from short-term sources. Considering the company's limitations, it is wise to invest in both short-term and long-term financing. Current assets involve financial costs, so they should be used productively. Adequate working capital is necessary to ensure full capacity utilization. The primary goal of working capital management is to ensure the smooth and continued operations of the company, covering both short-term and future expenses incurred for day-to-day operations. There is a need to adopt restrictive policies regarding the management of working capital to ensure the smooth functioning of a firm's operations.

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