

PUBLIC SECTOR UNITS WORKING CAPITAL MANAGEMENT: A CASE STUDY OF BHARAT HEAVY ELECTRICALS LIMITED, BHOPAL, INDIA

Ms. Garima Dohar*
Ms. Ankita Rajput**
Dr. Gautam Prasad***

ABSTRACT

Working capital management has emerged as one of the most crucial elements of financial statements in every industrial unit. It significantly contributes to the improved performance of manufacturing companies. The current research concentrates on the working capital management of Bharat Heavy Electricals Limited (BHEL), a leading PSU in the heavy electrical industry in India, which is located in Bhopal. In this research paper, an attempt has been made to study the working capital management and performance of BHEL Bhopal, to examine the profitability and liquidity position of the company, and also assess its efficiency. For the purpose of the study, the data is collected from secondary sources. The present study considers 5 years of data starting from April 2017- March 2022. The data collection has been done through annual reports of BHEL Bhopal and ratios have been computed manually. This paper concluded that BHEL Bhopal's performance was not satisfactory from 2019 to 2021 but can be improved afterward.

KEYWORDS: PSUs, Working Capital, BHEL, Liquidity, Profitability.

Introduction

The current reality is far from ideal, it is characterized by a sizable amount of unpredictability in terms of supply, market pricing, product quality, and availability of one's own and suppliers' goods. These practical realities present issues and necessitate the need for working capital. Working capital is referred to as the capital that is essential for running the day-to-day operations of a business.

Working Capital = Current Assets – Current Liability

Working capital is divided into two concepts: quantitative and qualitative. The terms "gross concept" and "net concept" are also used to describe the two aspects.



Figure 1: Working Capital Concept

* UGC-NET JRF, Research Scholar, Department of Commerce, School of Commerce & Management, Dr. Harisingh Gour Vishwavidyalaya Sagar (A Central University), Madhya Pradesh, India.

** Gold Medallist, UGC-NET SRF, Research Scholar, Department of Commerce, School of Commerce & Management, Dr. Harisingh Gour Vishwavidyalaya Sagar (A Central University), Madhya Pradesh, India.

*** Assistant Professor, Department of Commerce, School of Commerce & Management, Dr. Harisingh Gour Vishwavidyalaya Sagar (A Central University), Madhya Pradesh, India.

Quantitatively speaking, the total quantity of current assets is referred to as working capital. In this approach, gross working capital is referred to as current assets. An idea of the source of financing capital is provided by the qualitative concept. Working capital is defined as "excess of current assets over current liabilities" in terms of the qualitative concept.

The management of working capital is the most crucial aspect of the company's daily operations. Working capital management, which affects decisions about short-term finances, seems to have not attracted much attention in the literature on finance. A company's working capital is regarded as its lifeblood. A business can exist and continue to operate without earning a profit, but it cannot do so without a working capital fund. By keeping an eye on and making the most use of a company's current assets and liabilities, working capital management is a business strategy used to make sure it runs smoothly. Working capital is a reflection of a company's operational effectiveness, short-term financial stability, and position regarding liquidity. A sick business is not turning a profit. Over time, a lack of working capital may result in closure and insolvency. All managerial choices and actions that typically affect the amount and efficiency of working capital are referred to as working capital management. It is focused on making the best choice of working capital sources and figuring out the right amount and utilization of current assets.

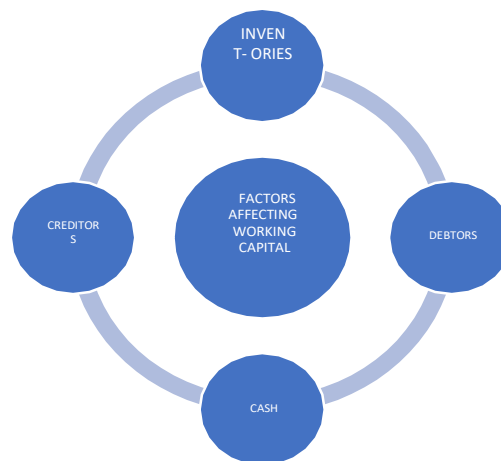


Figure 2: Factors affecting Working Capital

The level of working capital needed depends on several factors viz., inventories, debtors, creditors, cash, etc., some of which the company can control and others that it cannot. A financial manager must shortlist all relevant elements to calculate the ideal level of working capital. Additionally, there are periodic changes to these variables. The need for working capital is generally influenced by the following variables.

Profile of BHEL Bhopal

India is on the verge of achieving stronger economic growth. The new era will bring with it new prospects for progress. The landscape of technology and competitiveness is also transforming. This Paper looked at India's largest energy and infrastructure engineering and manufacturing firm, Bharat Heavy Electricals Limited (BHEL) Unit located in Bhopal, capable of producing a whole range of power plant equipment. BHEL, one of India's premier PSUs, serves the demands of key economic sectors such as power, transmission, industry, transportation (including railways), defense, renewable energy, and a variety of industries such as petrochemicals, petroleum, steel, cement, and fertilizers. BHEL is in its reforming stage, with a focus on responsiveness, resilience, and rising to meet the requirements of customers, shareholders, employees, and society. In this paper, an attempt is made to analyze the working capital management of the firm regarding its liquidity, profitability, and efficiency.

Review of Literature

Rahimi & Prabhakar (2022)⁷ attempted to evaluate how working capital affects Bharat Heavy Electricals Limited (BHEL) performance and to establish the appropriate level for it. The results of this study's analysis reveal that BHEL Company did not have an optimum working capital ratio throughout the previous six years, with the ratio being mostly negative and facing issues.

Mathapati & Nirgude (2021)⁶ want to make conclusions about the working capital management and profitability of 5 selected Indian electrical companies. A company must maintain a balance between profit and liquidity while carrying out its daily operations. Another requirement for demand is liquidity, which proves that a company is prepared to meet its short-term obligations and that its ongoing cash flow will even be guaranteed by a successful business venture.

Seth et al. (2020)⁹ investigate the relationship between working capital management (WCM) efficiency in the Indian manufacturing sector, as well as its subindustries that are involved in export activities. The importance of numerous firm-specific and macroeconomic variables on the WCM efficiency of Indian manufacturing enterprises engaged in exporting activities is revealed in this study. This evidence, taken together, shows a more efficient strategy for managing working capital.

Kumar (2020)⁵ assesses working capital management, examines working capital sufficiency, observes actual liquidity and solvency situations, and makes helpful recommendations for the adequacy and healthy management of working capital in these units. He concluded in his study that inventory was ineffectively converted into sales and that both units' coverage of current liabilities was adequate. He also recommended that SAIL enhance liquidity and RINL reduce working capital funds.

Sheela & Kanagavalli (2020)¹⁰ researchers used numerous analysis methodologies to throw light on Hindustan Aeronautics Limited's working capital management. Based on an examination of Hindustan Aeronautics Limited's financial statements, the report concluded that the company's overall operational stability, soundness, and financial performance have improved over time. They also suggested that the company should exert control over the cost of assembly and seek out all available resources for lowering its production costs.

Saha et al. (2020)⁸ researchers attempt to assess the effectiveness of working capital management in Assam's three power sector units. The researcher attempted to analyze the pattern of current assets and current liabilities in power sector units because it has a substantial impact on any managerial choice. They found in their study that there is a significant level of mismanagement in the areas of receivables, payables, and cash and cash equivalents, all of which must be addressed to ensure long-term viability. They also claim that the financial condition of the power sector units could not be improved even after the industry was restructured and reshaped.

Kaur & Kalotra (2019)⁴ examine the relationship between working capital and profitability in an Indian IT firm (TCS). data for this study was gathered from the leading IT companies in India (5 Years). Researchers concluded that the firms must make attempts to maximize their return on capital employed. This company can increase its net worth by investing in high- yielding initiatives.

Jana (2018)³ looks at the relationship and efficiency of working capital management strategies used by Fast Moving Consumer Goods (FMCG) companies in India. The study's major objective is to determine the link between working capital management and business profitability for FMCG companies. She concluded that for an FMCG company, effective working capital management not only has a positive relationship with profitability but also has a significant impact on profitability.

Jaiswal (2016)² analyzed the working capital performance of BHEL, the main objective of the study is to examine the liquidity position of the company and to analyze the component of working capital from 2005-06 to 2009-10. In his research, he concluded that debtors and debt collection policies both need to be improved. The management should make an effort to make effective use of debtors and to keep debtors in line with their needs so that liquidity is not disrupted.

Objectives of the Studies

- To analyze the financial performance of BHEL Bhopal.
- To study the working capital management of the BHEL company.
- To examine the profitability of BHEL Bhopal.
- To examine the liquidity position of BHEL Bhopal.
- To assess the working efficacy of the BHEL Bhopal.

Hypothesis of the Study

H₀₁: The working capital of BHEL Bhopal is very positive in liquidity and Profitability. H₀₂: The working capital turnover ratio of BHEL Bhopal is positive.

Research Methodology

For the study, the data is collected from secondary sources. The present study considers 5 years of data starting from April 2017- March 2022. The data collection has been done through annual reports of BHEL Bhopal and ratios have been computed manually.

Various international and national journals, a paper published in books, and annual reports of BHEL have been studied. The annual reports include a balance sheet, profit and loss account, cash flow statement, financial results, and statement of assets and liabilities. The self-analysis has been done in this paper.

The Limitations of the study are Mentioned below:

- The study does not apply to the whole of India as it is restrained only to BHEL Bhopal.
- This is a time-bounded study (April 2017 to March 2021).
- The computation and analysis are done by the author herself. So, there may be possibilities of calculation mistakes.

Data Analysis and Interpretation

To understand the working capital management of the company following ratios are used:

Ratios	Abbreviation	Measurement
Current Ratio	CR	Current Assets/current liability
Quick Ratio	QR	Quick Assets/ current liability
Return on Assets	ROA	Net Income/ total assets
Return on Equity	ROE	Net Income/shareholder's equity
Return on Capital Employed	ROCE	EBIT/ capital employed
Working Capital turnover Ratio	WCTR	Net Sales/net working capital

For the study company's liquidity ratio, profitability ratio, and working capital turnover ratio are analyzed and interpreted.

Table 1: Liquidity Ratios of BHEL Bhopal

Year	CR	QR
2018	1.923	1.637
2019	1.666	1.327
2020	1.444	1.050
2021	1.394	1.040
2022	1.303	0.996

Source- BHEL Bhopal Audited financial results. <https://bhel.com/audited-results>

A Company's Current Ratio evaluates its short-term solvency or liquidity. Table 1 reveals that the Current Ratio of BHEL Bhopal is expected to drop from 1.923 in 2017-18 to 1.303 in 2021-22. The company whose Current Ratio is less than the desired ratio of 2:1.

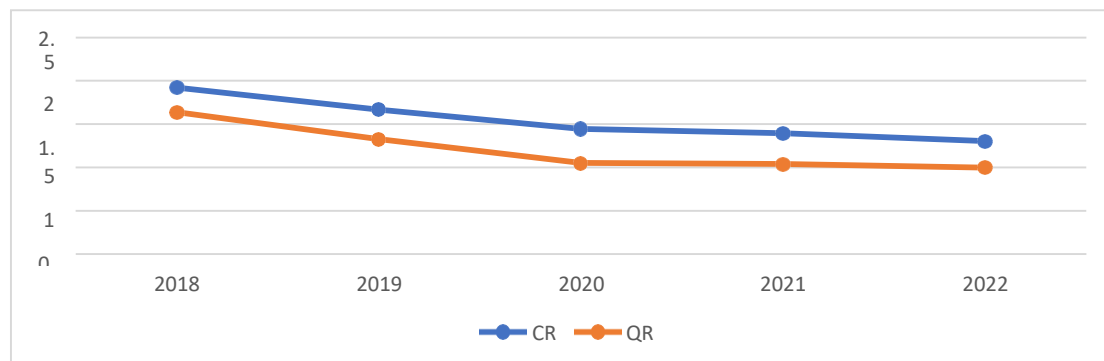


Figure 3: Chart Statement of Liquidity Ratios of BHEL Bhopal

Source- BHEL Bhopal Audited financial results. <https://bhel.com/audited-results>

In the same proportion as the Current Ratio, table 1 shows that the Company's Quick Ratio was also obtained. However, the Company's Quick Ratio exceeds the optimal ratio of 1:1 in 2 years out of the 5 years. Figure 3 shows a lot of decline in the year 2019 and 2020.

Profitability ratios assess a business's capacity for making a profit. Sales revenue as well as elements like operational expenses (OPEX), balance sheet assets, and shareholders' equity are included.

Table 2: Profitability Ratios of BHEL Bhopal

Year	ROA	ROE	ROCE
2018	0.012	0.024	0.037
2019	0.018	0.038	0.049
2020	-0.024	-0.050	0.017
2021	-0.048	-0.102	-0.102
2022	0.007	0.015	0.012

Source- BHEL Bhopal Audited financial results. <https://bhel.com/audited-results>

ROA indicates that whether a business makes a profit by using its assets effectively. Table 2 shows in the years 2018 to 2019 increased from 0.012 to 0.018 far from ideal, but in the years 2020 and 2021 negative ROA indicates that the company is not making the profits it should be or is really losing money. In 2022 ROA has positive results but was not satisfactory at all.

As for the ROE, the company has improved from 2018 to 20219 but shows negative results in the year 2020 to 2021. The company shows positive results in the year 2022 but is far from ideal.

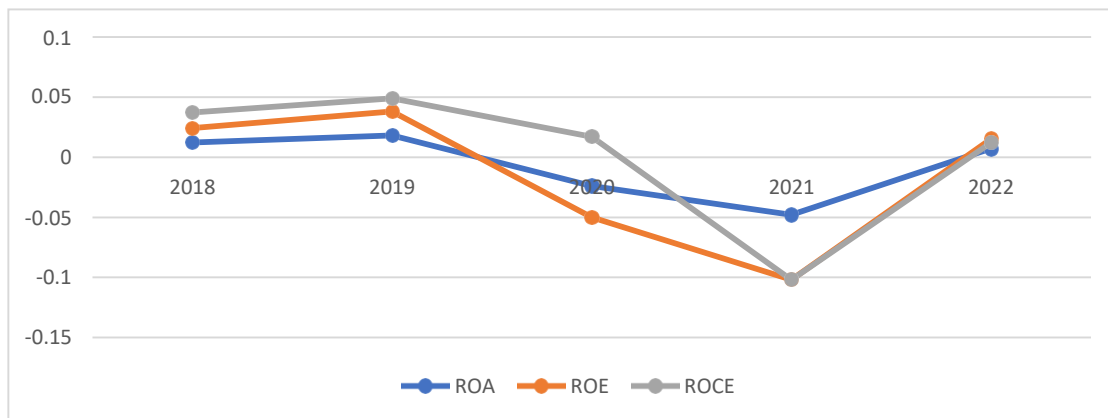


Figure 4: Chart Statement of Profitability Ratios of BHEL Bhopal

Source- BHEL Bhopal Audited financial results. <https://bhel.com/audited-results>

ROCE is used to evaluate a company's capital efficiency and profitability. According to table 2, the company in the year 2018 to 2019 increased from 0.037 to 0.049. also figure 4 indicates company declined in 2020 and shows negative results in the year 2021. The year 2022 ratio demonstrates that trends are upward between 2021 to 2022. So, this concluded from the analysis from 2018- 19 the ROA and ROE are negative but in 2020 and onward its shows a positive result so the hypothesis is negative

The **Working Capital Turnover Ratio** evaluates the effectiveness with which a company generates revenue using its working capital.

Table 3: Working Capital Turnover Ratio of BHEL Bhopal

Year	WCTR
2018	1.329
2019	1.675
2020	1.689
2021	1.908
2022	2.924

Source- BHEL Bhopal Audited financial results. <https://bhel.com/audited-results>

From Figure 5 and Table 3, The WCTR is 1.329 in 2018 and 1.675 in 2019 and 1.689 in 2020, 1.908 in 2021, and 1.34 in 2019-20. The Working Capital Turnover Ratio of the firm year to year increased, Firm has financially stable and has adequate liquidity. but the year 2022 working capital is higher than the ideal ratio which is 2.924, indicating the efficient management of working capital. so that the null hypothesis of The working capital turnover ratio of BHEL Bhopal is positive.

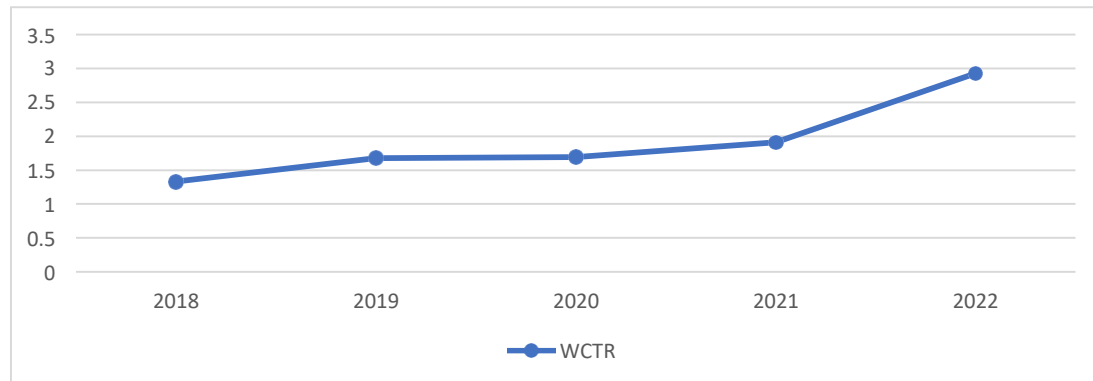


Figure 5: Chart Statement of Working Capital Turnover Ratio of BHEL Bhopal

Source- BHEL Bhopal Audited financial results. <https://bhel.com/audited-results>

Conclusion, Findings and Suggestions

Working capital management (WCM) is the practical area of finance that handles all of the company's current accounts. It concerns the connection between a company's current assets and current liabilities. The working capital management of BHEL Bhopal shows a mixed trend with regard to liquidity and profitability in the last 5 years from 2018 to 2022. the following conclusion can be drawn from the above analysis

- The current ratio which shows the liquidity is less than the desired ratio of 2:1 in the last five years.
- The Company's Quick Ratio exceeds the optimal ratio of 1:1 in 2 years out of the 5 years and shows declined trend.
- The company's ROA shows a fluctuating trend. A falling ROA indicates that firms made poor investment decisions, excessive expenditure, and potential threats to the firm.
- The Firms ROE shows an upward trend from 2018 to 2019 and a decline from 2019 to 2021 and has a negative result from 2020 to 2021 which indicates that investors in the company are losing money.
- As the results show ROCE is not efficiently using its money and is not generating a high rate of return on investment.
- The Working Capital Turnover Ratio of the firm year to year increased, Firm has financially stable and has adequate liquidity.
- The company's liquidity ratio is not satisfactory, paying off debt, reducing expenses, utilizing long-term financing, and managing receivables and payables can all help to increase a company's liquidity ratios, which assess a company's ability to do that. The profitability ratio serves as a key indicator of a company's success. For improving profitability company should reduce costs, improving turnover, productivity, and efficiency. High working capital indicates that a business is well-managed and that it has the possibility for explosive growth. The overall company performance is not good from 2019 to 2020 but improved afterward.

References

1. *Bharat Heavy Electricals Limited, Bhopal.* (n.d.). Retrieved October 15, 2022, from <https://bhel.com/audited-results>
2. Jaiswal, B. K. (2016). Working Capital Management of Bharat Heavy Electrical Limited: A Study. *International Journal of Development Studies (IJDS)*, 8(1), 101–106. www.rsmeena.com/ijds

3. Jana, D. (2018). Impact of Working Capital Management on Profitability of the Selected Listed FMCG Companies in India. *International Research Journal of Business Studies*, 11(1), 21–30. <https://doi.org/10.21632/irjbs>
4. Kaur, R., & Kalotra, A. (2019). To Analyze Relationship between Working Capital Management and Profitability. *International Journal of Management, Technology, And Engineering*, 9(3), 1512–1522. <https://www.researchgate.net/publication/343162003>
5. Kumar, N. K. P. (2020). An Analysis of Working Capital Management in SAIL and RINL. *RESEARCH EXPLORER*, VII I(26), 2349–1647. www.iaraindia.com
7. Mathapati, V., & Nirgude, S. (2021). A Study on Working Capital Management & Impact of Profitability of Electrical Industries in India. *International Journal of Research Publication and Reviews*, 2(10), 812–819. www.ijrpr.com
8. Rahimi, M. R., & Prabhakar, A. (2022). A Study on Analysis of Working Capital Management with Special Reference to BHEL, Visakhapatnam. *International Journal of Law Management & Humanities*, 5(2), 1088–1099. <https://doi.org/10.1000/IJLMH.112928>
9. Saha, A., Das, A., & Saha, M. (2020). Effectiveness of Working Capital Management: A study on selected public enterprises in Assam. *Test Engineering and Management*. <https://www.researchgate.net/publication/353399501>
10. Seth, H., Chadha, S., Ruparel, N., Arora, P. K., & Sharma, S. K. (2020). Assessing working capital management efficiency of Indian manufacturing exporters. *Managerial Finance*, 46(8), 1061–1079. <https://doi.org/10.1108/MF-02-2019-0076>
11. Sheela, V. S., & Kanagavalli, G. (2020, March). A Study on Working Capital of Hindustan Aeronautics Limited. *Wc 1-Merged*. https://www.researchgate.net/profile/Kanagavalli-G/publication/339947191_wc_1-merged/links/5e6f294392851c6ba7066507/wc-1-merged.pdf.

