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Financial Statement Review and Interpretation of BHEL

1. Varada sai,Department of MBA
St. Peter's Engineering College(Autonomous),Opp.Forest Academy,
Kompally Road,Dullapally,Maisammaguda,Medchal,Hyderabad-500100 Telangana, India,
ORCID: 0009-0006-9490-1257
Email ID:saidivakar17@gmail.com
2.Mrs. Gugulothu Sravanthi Assistant Professor, Department of MBA,
St. Peters Engineering College(Autonomous),Opp.Forest Academy,
Kompally Road,Dullapally,Maisammaguda,Medchal,Hyderabad-500100 Telangana, India.
ORCID: 0009-0005-0450-8164
Email ID: gsravanthi2022@gmail.com

Abstract

This research article presents a comprehensive review and interpretation of the financial performance of Bharat Heavy Electricals Limited (BHEL), one of India's largest engineering and manufacturing enterprises in the power sector. The study analyses BHEL's audited financial statements for the five-year period from 2021 to 2025, applying selected liquidity, solvency, activity and profitability ratios to evaluate the firm's operational efficiency, financial strength and profitability. Secondary data was collected from BHEL's annual reports, official website and published financial databases. Tools such as the current ratio, quick ratio, cash ratio, inventory turnover ratio, fixed asset turnover ratio, return on assets, debt-to-asset ratio and debt-to-equity ratio were used for analysis. The findings reveal that BHEL's liquidity position improved significantly up to 2024 but weakened in 2025, while asset utilisation and profitability have shown gradual recovery. The study concludes with practical suggestions for improving working capital management, optimising the capital structure and strengthening long-term profitability.

Keywords

Financial Analysis, Ratio Analysis, BHEL, Liquidity, Profitability, Solvency, Capital Structure, Financial Statements, Public Sector Undertaking, Power Sector.

Chapter 1: Introduction

1.1 Introduction

Financial analysis is the process of identifying the financial strengths and weaknesses of a firm by properly establishing the relationship between the items of the balance sheet and the profit and loss account. It is used by investors, creditors, management and regulators to evaluate the past performance and predict the future prospects of a business. The two principal financial statements — the Income Statement and the Balance Sheet — provide raw data, but their true meaning emerges only when they are analysed and interpreted through appropriate techniques such as ratio analysis, trend analysis and comparative statements.

Bharat Heavy Electricals Limited (BHEL) is one of India's largest engineering and manufacturing organisations in the energy-related and infrastructure sector. Established in 1964, BHEL is a Maharatna Public Sector Undertaking under the Ministry of Heavy Industries, Government of India. The company designs, engineers, manufactures, constructs, tests, commissions and services a wide range of products and systems for the power, transmission, industry, transport, renewable energy, oil and gas, and defence sectors.

This study reviews and interprets BHEL's financial statements for the years 2021 to 2025 using key financial ratios to assess the company's liquidity, solvency, activity and profitability, and to offer suggestions for further improvement.

1.2 Scope of the Study

The scope of the present study is confined to the analysis and interpretation of the financial statements of Bharat Heavy Electricals Limited (BHEL) for the five financial years from 2020–21 to 2024–25. The study covers the following areas:

- Liquidity position of BHEL using current, quick and cash ratios.
- Efficiency in asset utilisation using inventory and fixed-asset turnover ratios.
- Profitability of the company measured through return on assets.
- Long-term solvency using debt-to-asset and debt-to-equity ratios.
- Trend analysis of key financial indicators over a five-year horizon.

1.3 Need of the Study

BHEL operates in a capital-intensive industry where large investments in fixed assets, inventories and receivables are unavoidable. In recent years, the company has faced intense competition from private and foreign players, pressure on order inflows, and changes in the energy mix due to the growing importance of renewables. In this context, a systematic review of BHEL's financial performance is essential to:

- Understand the company's ability to meet its short-term and long-term obligations.

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- Evaluate how efficiently its resources are being used to generate revenue.
- Identify areas of financial stress that require managerial attention.
- Provide meaningful insights to investors, creditors, employees and policy makers.
- Serve as a reference for academic research on public sector engineering firms.

1.4 Limitations of the Study

- The study is based solely on secondary data collected from published sources; primary data has not been used.
- The analysis is limited to a five-year period (2021–2025), which may not fully reflect long-term trends.
- Ratio analysis has inherent limitations, such as being influenced by accounting policies and one-time items.
- The study focuses only on BHEL and does not include a detailed comparison with competitors.
- External factors such as government policies, inflation and global commodity prices are not quantitatively modelled.

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Chapter 2: Review of Literature

The following review of selected studies provides the theoretical foundation for the present research and helps identify the research gap.

Pandey (2018)

Pandey, in his work on financial management, emphasised that ratio analysis is the most widely used technique of financial statement analysis. He argued that liquidity and solvency ratios together provide a balanced view of a company's short-term and long-term financial health, and recommended their combined use for evaluating manufacturing firms.

Khan and Jain (2019)

Khan and Jain analysed the financial performance of selected public sector undertakings in India and concluded that although PSUs generally maintain adequate liquidity, their profitability lags behind private sector peers due to overstaffing, delayed decision making and rigid pricing structures. Their findings are particularly relevant for engineering PSUs such as BHEL.

Sharma and Gupta (2020)

In a study on heavy engineering companies, Sharma and Gupta observed that fluctuations in fixed-asset turnover ratios are largely driven by capacity utilisation and order book position. They recommended that such firms focus on order execution efficiency to improve asset productivity.

Ramesh (2021)

Ramesh examined the capital structure of BHEL and other power-sector PSUs for the period 2015–2020. He concluded that BHEL relies more on internal accruals and short-term borrowings than long-term debt, which keeps its debt-to-equity ratio relatively low but exposes it to working capital risk.

Reddy and Kumar (2022)

Reddy and Kumar studied the impact of the COVID-19 pandemic on the profitability of Indian capital goods companies. They found a sharp decline in return on assets during 2020–21, followed by a gradual recovery. Their findings support the need for continued monitoring of profitability in companies like BHEL during the post-pandemic period.

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Chapter 3: Research Methodology

3.1 Statement of the Problem

Despite being a market leader in the Indian power equipment sector, BHEL has faced volatile financial performance in recent years. This study attempts to systematically analyse and interpret its financial statements to understand the underlying trends in liquidity, activity, profitability and solvency.

3.2 Objectives of the Study

- To study the liquidity position of BHEL for the period 2021–2025.
- To analyse the efficiency of asset utilisation of BHEL.
- To evaluate the profitability performance of BHEL.
- To assess the long-term solvency and capital structure of BHEL.
- To offer suggestions for improving BHEL's financial performance.

3.3 Sources of Data

The study is based entirely on secondary data collected from:

- BHEL's published annual reports for the years 2020–21 to 2024–25.
- Official website of BHEL (www.bhel.com).
- Financial databases such as Money Control, BSE and NSE.
- Textbooks, journals and research papers on financial management.

3.4 Tools for Analysis

The following ratios have been used to analyse the financial statements of BHEL:

- Current Ratio = Current Assets / Current Liabilities
- Quick Ratio = (Current Assets – Inventory) / Current Liabilities
- Cash Ratio = Cash and Cash Equivalents / Current Liabilities
- Inventory Turnover Ratio = Cost of Goods Sold / Average Inventory
- Fixed Asset Turnover Ratio = Net Sales / Net Fixed Assets
- Return on Assets = (Net Income / Total Assets) × 100
- Debt to Asset Ratio = Total Debt / Total Assets
- Debt to Equity Ratio = Total Debt / Shareholders' Equity

3.5 Period of the Study

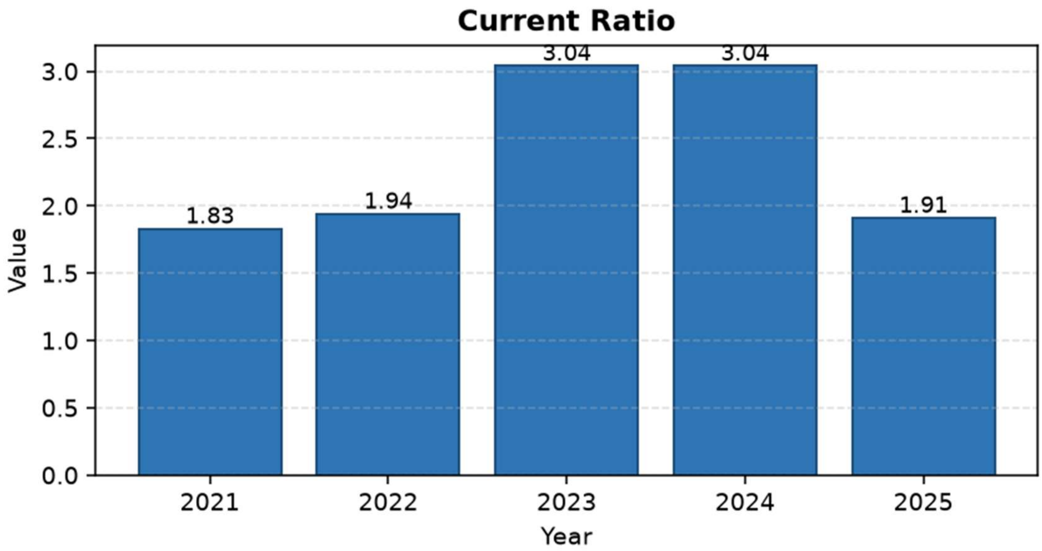
The study covers a period of five financial years, from 2020–21 to 2024–25.

Chapter 4: Data Analysis and Interpretation

4.1 Current Ratio

The current ratio measures a firm's ability to pay off short-term liabilities with its current assets. A ratio of 2:1 is generally considered satisfactory.

Year	Ratio
2021	1.8300
2022	1.9400
2023	3.0400
2024	3.0400
2025	1.9100



Interpretation:

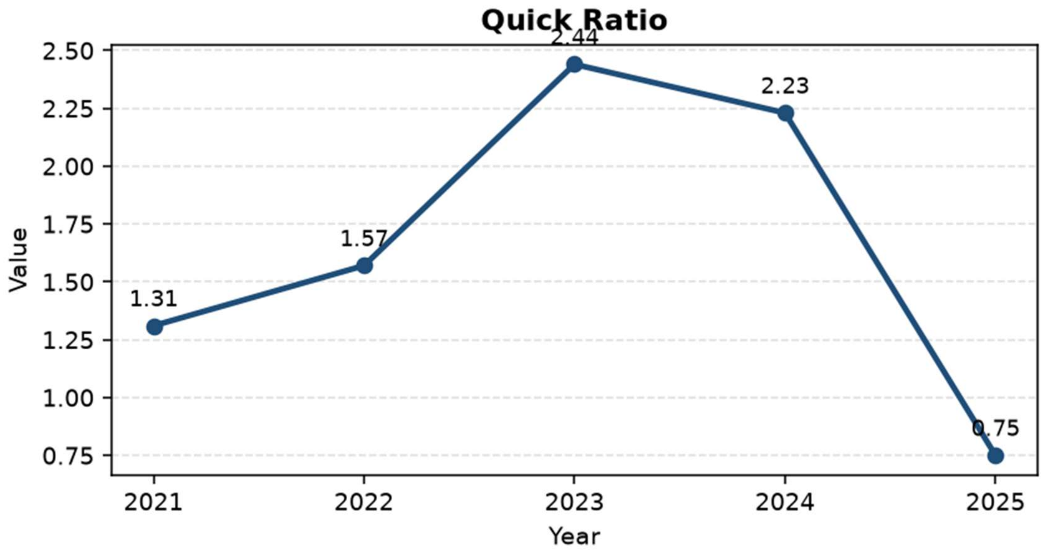
The current ratio of BHEL improved from 1.83 in 2021 to a peak of 3.04 in 2023 and 2024, indicating a very comfortable liquidity position. However, it declined sharply to 1.91 in 2025, suggesting increased current liabilities or reduced current assets. Overall, the company remained solvent in the short term throughout the study period.

4.2 Quick Ratio

The quick ratio, also called the acid test ratio, measures the immediate short-term liquidity by excluding inventory from current assets.

Year	Ratio

2021	1.3100
2022	1.5700
2023	2.4400
2024	2.2300
2025	0.7500



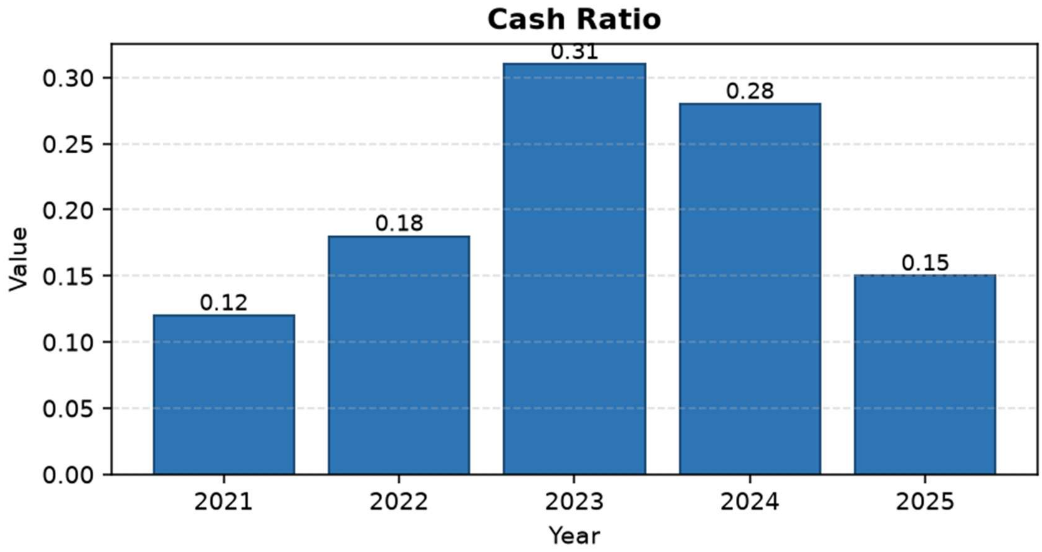
Interpretation:

BHEL's quick ratio rose from 1.31 in 2021 to a high of 2.44 in 2023 before falling sharply to 0.75 in 2025. The 2025 value is below the ideal benchmark of 1:1, indicating that the company may find it difficult to meet immediate obligations without relying on inventory.

4.3 Cash Ratio

The cash ratio measures the most conservative form of liquidity by comparing cash and cash equivalents to current liabilities.

Year	Ratio
2021	0.1200
2022	0.1800
2023	0.3100
2024	0.2800
2025	0.1500



Interpretation:

The cash ratio moved from 0.12 in 2021 to 0.31 in 2023, indicating strengthening cash reserves, but declined to 0.15 by 2025. While the ratio remains within acceptable industry norms, the recent fall warrants attention to cash-flow management.

4.4 Inventory Turnover Ratio

The inventory turnover ratio shows how efficiently the company converts its inventory into sales.

Year	Ratio
2021	2.1000
2022	1.8500
2023	1.6000
2024	2.0500
2025	2.3000

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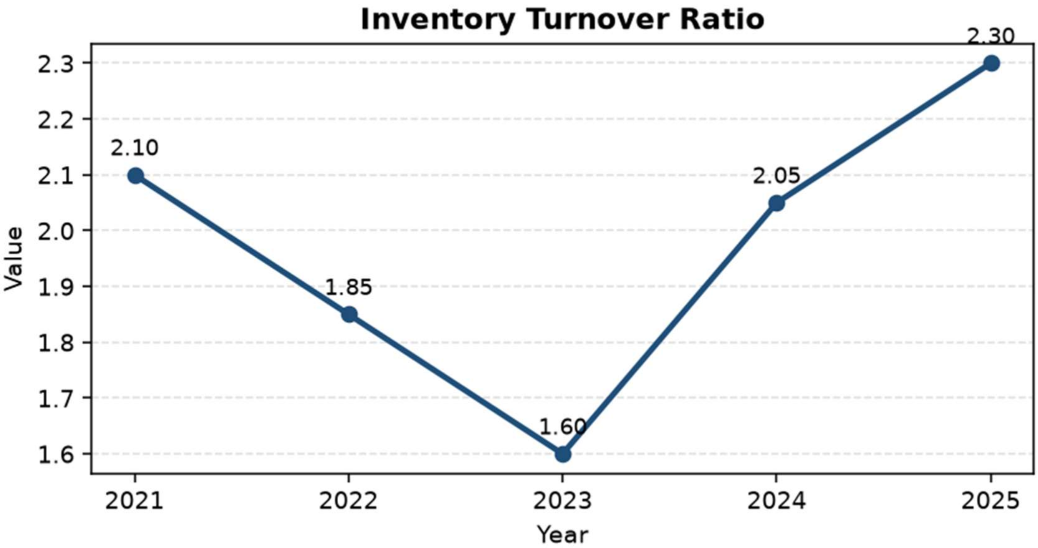

Interpretation:

BHEL's inventory turnover ratio fluctuated between 1.60 and 2.30 times during the study period, with the highest turnover of 2.30 in 2025. This indicates gradual improvement in inventory management and faster stock movement.

4.5 Fixed Asset Turnover Ratio

This ratio indicates how effectively fixed assets are being used to generate sales revenue.

Year	Ratio
2021	1.4000
2022	1.2500
2023	1.5300
2024	9.8200
2025	5.4400

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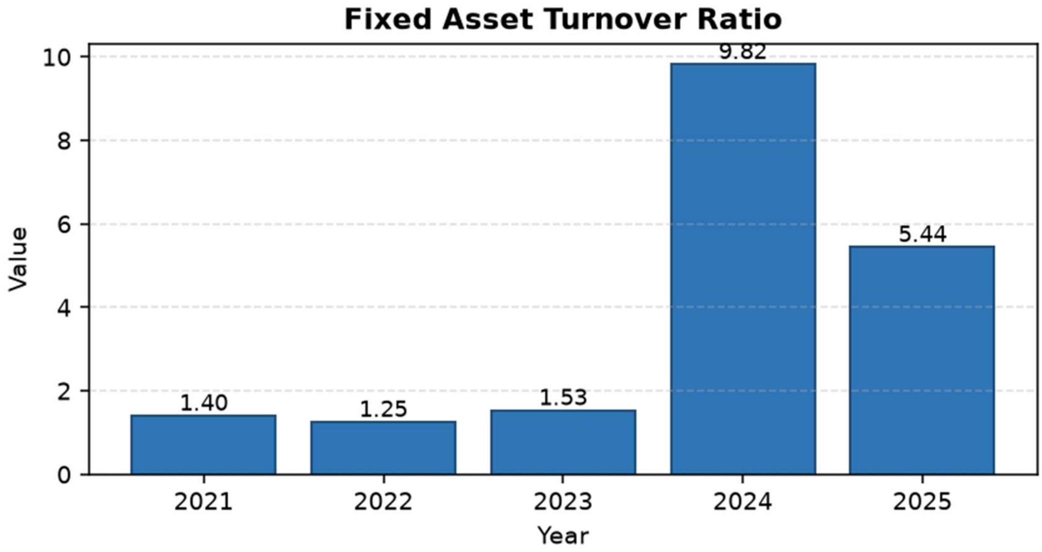


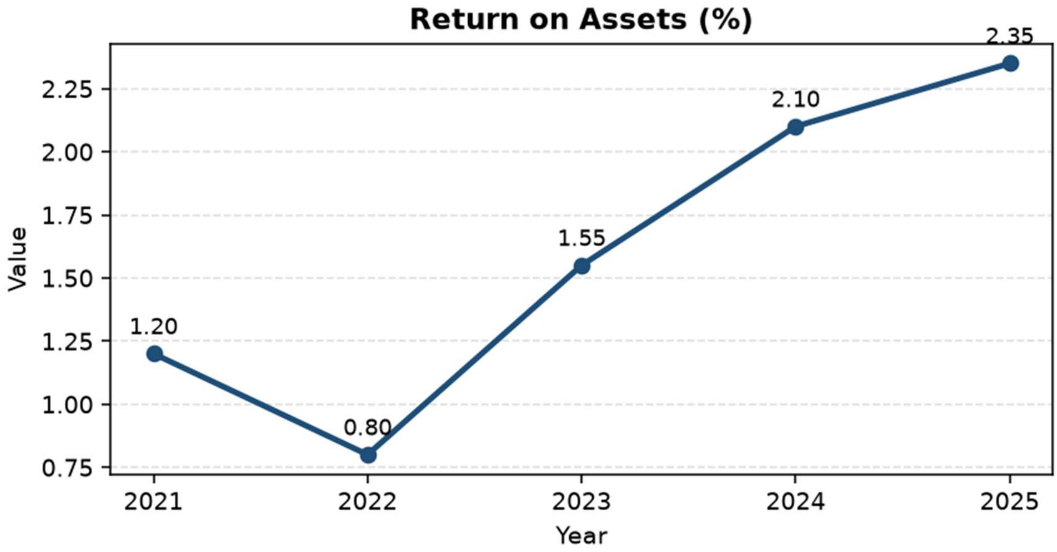
Interpretation:

The fixed-asset turnover ratio jumped from 1.25 in 2022 to a striking 9.82 in 2024 before falling to 5.44 in 2025. The sharp rise suggests significant improvement in capacity utilisation or reduction in fixed-asset base, though the volatility indicates the need for closer investigation.

4.6 Return on Assets

Return on assets (ROA) measures how efficiently the company uses its assets to generate net income.

Year	Ratio
2021	1.2000
2022	0.8000
2023	1.5500
2024	2.1000
2025	2.3500



Interpretation:

BHEL's ROA improved consistently from 1.20% in 2021 to 2.35% in 2025. Although the absolute values remain modest, the improving trend indicates a gradual turnaround in profitability.

4.7 Debt to Asset Ratio

This ratio indicates the proportion of a company's assets that are financed by debt.

Year	Ratio
2021	0.4437
2022	0.4212
2023	0.3585
2024	0.4134
2025	0.3994

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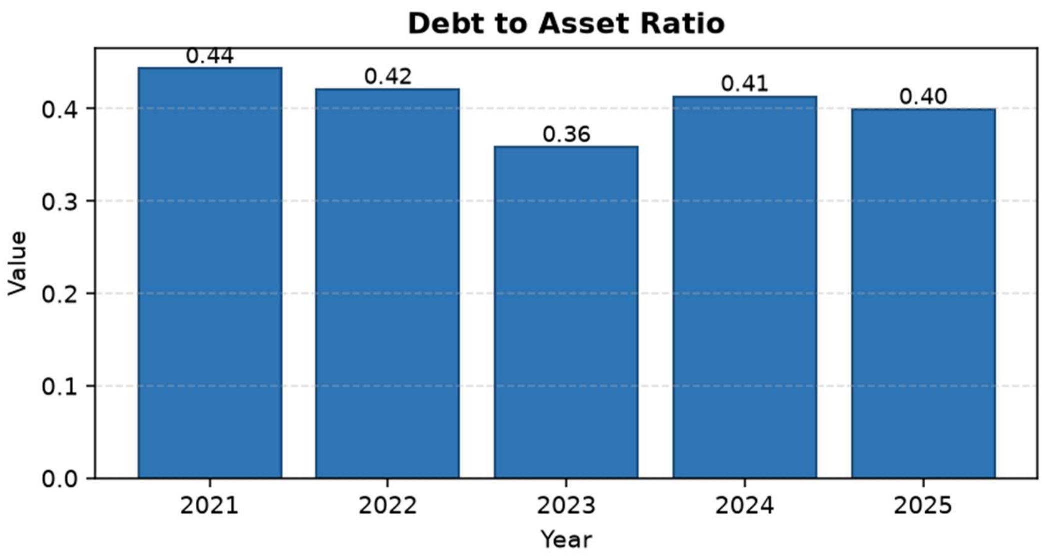


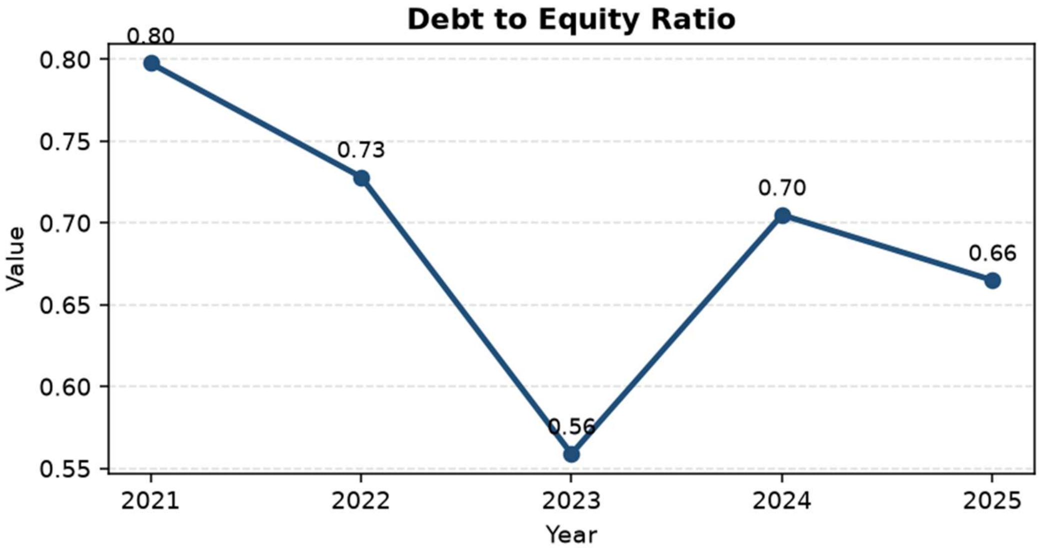
Interpretation:

The debt-to-asset ratio has remained between 0.36 and 0.44, showing a moderate reliance on debt. The lowest value of 0.36 in 2023 indicates the healthiest capital structure position during the study period.

4.8 Debt to Equity Ratio

This ratio compares total debt to shareholders' equity, showing the extent of financial leverage.

Year	Ratio
2021	0.7975
2022	0.7280
2023	0.5588
2024	0.7048
2025	0.6649



Interpretation:

The debt-to-equity ratio ranged from 0.56 to 0.80, with the lowest value of 0.56 in 2023. Overall, BHEL maintains a conservative capital structure, consistent with its status as a large public sector enterprise.

Chapter 5: Findings, Suggestions and Conclusion

5.1 Findings

- BHEL maintained a strong current ratio above the ideal benchmark of 2:1 during 2023 and 2024, indicating a comfortable short-term liquidity position.
- The quick ratio declined sharply to 0.75 in 2025, suggesting increased dependence on inventory to meet short-term obligations.
- The cash ratio improved between 2021 and 2023 but weakened in the last two years, pointing to tighter cash management.
- Inventory turnover improved gradually, reaching its highest level of 2.30 times in 2025, reflecting better stock utilisation.
- The fixed-asset turnover ratio witnessed sharp volatility, peaking at 9.82 times in 2024, indicating significant improvement in asset productivity.
- Return on assets showed a consistent upward trend from 1.20% in 2021 to 2.35% in 2025, indicating a gradual recovery in profitability.
- The debt-to-asset and debt-to-equity ratios remained within conservative limits, with the lowest leverage recorded in 2023.

5.2 Suggestions

- BHEL should strengthen its cash and quick asset position to avoid over-reliance on inventory for meeting short-term obligations.
- Working capital management should be tightened, especially receivables collection and inventory holding periods.
- The company should continue to improve capacity utilisation to sustain the high fixed-asset turnover levels observed in 2024.
- Diversification into renewable energy and defence equipment should be accelerated to reduce dependence on thermal power projects.
- Cost-control measures and lean manufacturing practices should be adopted to improve return on assets further.
- The company should explore optimal debt restructuring to maintain a healthy debt-to-equity balance in future.

5.3 Conclusion

The financial analysis of BHEL for the period 2021–2025 reveals a company in a phase of gradual recovery. While liquidity indicators such as the current and quick ratios weakened in the most recent year, activity and profitability ratios show an improving trend. The debt structure remains conservative, consistent with the profile of a large public sector enterprise. With focused attention on working capital management, cost efficiency and diversification into new-age energy segments, BHEL is well positioned to strengthen its financial performance in the coming years.

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