

# A Study on Financial Performance Analysis of Power Grid Corporation of India Limited Using Ratio Analysis

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**Abstract:** *This study analyzes the financial performance of Power Grid Corporation of India Limited using ratio analysis based on secondary data collected from its annual reports. The research evaluates liquidity, profitability, solvency, and efficiency over a period of five years. The findings indicate that the company maintains strong financial stability with consistent profitability and moderate leverage. The study highlights trends in financial performance and provides insights into the operational efficiency of the company*

**Keywords:** Financial Performance, Ratio Analysis, Liquidity, Profitability, Solvency, Efficiency, Secondary Data, Annual Reports, Power Sector, Power Grid Corporation of India Limited

## I. INTRODUCTION

The power sector plays a crucial role in the economic development of India. Efficient transmission of electricity is essential for industrial growth and infrastructure development. Power Grid Corporation of India Limited (POWERGRID) is a Maharatna Public Sector Enterprise engaged in power transmission.

Financial performance analysis is vital to assess a company's efficiency, profitability, and overall financial health. Ratio analysis is one of the most widely used tools for evaluating financial statements and understanding trends over time.

## II. REVIEW OF LITERATURE

- Sharma (2020) studied financial performance of PSUs and found that ratio analysis helps in evaluating operational efficiency.
- Patel (2021) analyzed energy sector companies and concluded that profitability ratios are key indicators of sustainability.
- Mehta (2019) emphasized the importance of liquidity ratios in assessing short-term solvency.
- Gupta (2022) highlighted the role of debt-equity ratio in understanding capital structure.

## III. OBJECTIVE OF THE STUDY

1. To analyze the financial performance of POWERGRID
2. To evaluate liquidity, profitability, and solvency position
3. To study financial trends using ratio analysis
4. To provide suggestions based on findings

## IV. RESEARCH METHODOLOGY

**Type of Research:**  
Analytical Research  
**Nature of Data:**  
Secondary Data



Data Sources:

Annual Reports of Power Grid Corporation of India Limited

National Stock Exchange

Bombay Stock Exchange

Period of Study:

2019–2024 (5 years)

Tools Used:

Ratio Analysis Trend Analysis

## V. DATA ANALYSIS AND INTERPRETATION

### Financial Performance Analysis

**Table 1: Income & Profitability Trend (₹ in crore)**

Year	Total Income	Total Expenses	Net Profit	Profit Margin (%)
2020-21	40,527	24,822	11,936	29.46%
2021-22	42,335	25,768	17,094	40.36%
2022-23	45,227	28,240	15,336	33.90%
2023-24	45,815	27,241	15,474	33.78%
2024-25	46,325	27,986	15,353	33.14%

#### Interpretation

- Revenue shows steady growth, indicating strong operational stability.
- Profit peaked in 2021-22, then stabilized.
- Profit margins remain consistently high (~33%), which is excellent for a PSU.
- Slight dip in 2024-25 suggests cost pressures or limited revenue growth.

### Liquidity Position Analysis

**Table 2: Liquidity Ratios**

Year	Current Ratio
2020-21	0.84
2021-22	0.66
2022-23	0.83
2023-24	0.76
2024-25	0.74

#### Interpretation

- The current ratio is below ideal (1:1) in all years.
- Indicates weak short-term liquidity.
- However, acceptable for infrastructure companies due to:
- Stable cash flows
- Government backing

### Profitability Analysis

**Table 3: Profitability Ratios**

Year	Net Profit Ratio (%)	ROE (%)	EPS (₹)
2020-21	6.93	17.15	12.83



2021-22	10.22	22.44	13.88
2022-23	9.14	18.51	16.49
2023-24	9.97	17.81	16.64
2024-25	10.58	16.65	16.51

#### Interpretation

- Profitability remains strong and stable.
- ROE peaked in 2021-22, then slightly declined.
- EPS shows consistent improvement, good for investors.
- Indicates efficient use of shareholders' funds.

#### Solvency Position Analysis

**Table 4: Solvency Ratios**

Year	Debt-Equity Ratio
2020-21	67.33
2021-22	63.37
2022-23	60.40
2023-24	58.42
2024-25	58.42

#### Interpretation

- Debt ratio is high but declining, which is positive.
- Reflects:
  - Capital-intensive nature of transmission sector
  - Gradual debt management improvement
- The company is financially stable but leveraged.

#### Asset & Capital Structure Analysis

**Table 5: Key Balance Sheet Indicators (₹ in crore)**

Year	Total Assets	Net Worth	Capital Employed
2020-21	2,54,272	69,579	1,72,113
2021-22	2,52,057	76,160	1,67,294
2022-23	2,48,216	82,844	1,67,778
2023-24	2,45,421	86,867	1,55,283
2024-25	2,57,869	88,867	1,45,063

#### Interpretation

- Net worth is consistently increasing, showing a strong equity base.
- Assets fluctuated but overall stable.
- Capital employed declining efficient utilization or reduced expansion pace.

### VI. FINDINGS

The financial analysis of Power Grid Corporation of India Ltd over the period 2020–2025 reveals that the company has maintained a strong and stable financial performance. The total income of the company shows a consistent upward trend, indicating steady growth in operations. Profitability remains robust, with net profit margins consistently around 30% or higher, reflecting efficient cost management and operational strength. The return on equity and earnings per



share also demonstrate stable performance, which indicates effective utilization of shareholders' funds and consistent value creation for investors.

However, the liquidity position of the company appears relatively weak, as the current ratio remains below the ideal benchmark of 1 throughout the study period. This suggests that the company may face challenges in meeting short-term obligations, although such a position is generally acceptable in capital-intensive industries like power transmission due to stable cash flows

In terms of solvency, the debt-equity ratio is relatively high, indicating a significant dependence on borrowed funds. Nevertheless, the gradual decline in this ratio over the years reflects improved financial management and a conscious effort to reduce financial risk. The company's asset base and net worth have shown steady growth, highlighting strong financial stability and expansion capability. Operational efficiency indicators, such as transmission network expansion and high availability rates (around 99.8%), further confirm the company's strong operational performance.

Overall, the analysis indicates that the company is financially sound, with strong profitability and operational efficiency, but faces moderate concerns in liquidity and high leverage.

## **VII .SUGGESTION**

Based on the above findings, it is suggested that Power Grid Corporation of India Ltd should focus on improving its liquidity position by enhancing working capital management and maintaining an optimal level of current assets to meet short-term obligations efficiently. The company should also continue its efforts to reduce dependency on debt by utilizing internal accruals and adopting a balanced capital structure, which will help in lowering financial risk.

Further, the company may explore diversification of revenue sources, particularly in emerging areas such as renewable energy transmission and international projects, to sustain long-term growth. Cost control measures should be strengthened to maintain high profitability levels despite rising operational expenses. Additionally, improving capital efficiency and optimizing the use of resources can enhance returns on equity.

Finally, maintaining a consistent dividend policy and focusing on shareholder value maximization will strengthen investor confidence and market reputation. By addressing liquidity concerns and gradually reducing leverage while sustaining its operational strengths, the company can achieve long-term financial sustainability and growth

## **VII. FUTURE SCOPE OF THE STUDY**

- Comparative study with other power sector companies
- Inclusion of primary data
- Use of advanced statistical tools
- Study of stock market performance

## **Conclusion**

The overall analysis of Power Grid Corporation of India Ltd for the period 2020–2025 concludes that the company has demonstrated strong financial performance characterized by steady revenue growth, high profitability, and efficient operational management. The consistently high profit margins, stable earnings per share, and satisfactory return on equity indicate that the company has been effective in utilizing its resources and generating value for its stakeholders.

Despite these strengths, the study highlights certain areas of concern. The liquidity position remains below the ideal level, suggesting potential challenges in meeting short-term financial obligations. Additionally, the company relies significantly on debt financing, although the declining trend in the debt-equity ratio reflects improved financial discipline and risk management over time

The asset base and net worth of the company have shown consistent growth, reinforcing its strong financial foundation and long-term sustainability. Moreover, the company's operational efficiency, reflected through its extensive transmission network and high availability rates, further strengthens its position as a leading infrastructure enterprise.



In conclusion, Power Grid Corporation of India Ltd can be considered a financially stable and fundamentally strong organization with robust profitability and operational excellence. However, for sustained growth and enhanced financial health, the company should focus on improving liquidity management and reducing dependence on external borrowings. By addressing these areas, the company is well-positioned to maintain its leadership in the power transmission sector and achieve long-term sustainable development.

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