International Journal of Creative and Open Research in Engineering and Management
ISSN: **3108-1754 (Online)**
Volume 02 Issue 08 August-2026 | Impact Factor: 3.5

A STUDY ON RATIO ANALYSIS WITH REFERENCE TO HINDUSTAN AERONAUTICS LIMITED (HAL), HYDERABAD

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How to Cite this Article:

SHRAVANI, KISARA, and DR PRASAD. "A STUDY ON RATIO ANALYSIS WITH REFERENCE TO HINDUSTAN AERONAUTICS LIMITED (HAL), HYDERABAD." International Journal of Creative and Open Research in Engineering and Management 02, no. 8 (2026): 1-5. https://doi.org/10.55041/ijcope.v2i8.236.

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ABSTRACT

Ratio analysis is an important financial technique used to evaluate the liquidity, profitability, solvency, and operational efficiency of an organization. This study examines the financial performance of Hindustan Aeronautics Limited (HAL), Hyderabad, through selected financial ratios. The analysis covers liquidity ratios, profitability ratios, solvency ratios, and activity ratios using financial information presented for the study period. The findings indicate improvement in liquidity, profitability, capital utilization, inventory management, and financial stability. The study also identifies major financial strengths and areas requiring continuous monitoring. Suitable suggestions are provided for strengthening financial planning, resource utilization, operational efficiency, and long-term financial sustainability.

Keywords: Ratio Analysis, Financial Performance, Hindustan Aeronautics Limited, Profitability, Liquidity

1. INTRODUCTION

Financial management is essential for maintaining the stability, efficiency, and sustainability of every organization. It involves effective planning, utilization, monitoring, and control of financial resources to achieve organizational objectives. Financial statements provide important information about the financial position and operating results of an organization. However, the absolute figures contained in financial statements become more meaningful when they are systematically compared through financial ratios. Ratio analysis converts accounting information into useful indicators that help evaluate financial performance and support managerial decision-making. Ratio analysis examines different dimensions of financial performance. Liquidity ratios measure the ability of an organization to meet short-term obligations. Profitability ratios indicate the organization's ability to generate earnings from its operations and resources. Solvency ratios assess long-term financial stability and debt repayment capacity. Activity ratios measure the efficiency with which assets and other resources are utilized to generate revenue. Together, these ratios provide a comprehensive understanding of an organization's financial health. Hindustan Aeronautics Limited (HAL) is one of India's major public sector aerospace and defence organizations operating under the Ministry of Defence. The company designs, manufactures, repairs, upgrades, and maintains aircraft, helicopters, aero engines, avionics, aerospace systems, and defence equipment. HAL's Hyderabad division is an important manufacturing and research centre specializing in avionics systems, navigation equipment, communication systems, mission computers, electronic warfare systems, radar components, and cockpit displays. The financial evaluation of an organization such as HAL is particularly important because aerospace and defence manufacturing involves substantial capital investment, specialized infrastructure, advanced technology, long production cycles, and complex projects. Efficient financial management is therefore necessary for maintaining operational continuity, technological development, resource utilization, and long-term sustainability. Ratio analysis can assist in identifying financial strengths, weaknesses, operational trends, and potential areas for improvement. The present study focuses on the financial performance of HAL, Hyderabad, using selected liquidity, profitability, solvency, and efficiency ratios. It evaluates changes in financial performance over the selected years and interprets the implications of these changes. The study is intended to provide useful information for management, investors, financial analysts, researchers, academicians, and other stakeholders interested in financial performance evaluation.

2. REVIEW OF LITERATURE

Sharma and Gupta (2016) examined ratio analysis as a tool for evaluating corporate financial performance and concluded that ratios provide useful information regarding liquidity, profitability, solvency, and operational efficiency. Kumar (2017) studied selected public sector enterprises and found that continuous monitoring of liquidity and profitability ratios supports financial stability and managerial decision-making. Patel and Reddy (2018) examined working capital management and reported that effective management of cash, inventory, receivables, and current liabilities improves liquidity and profitability. Singh (2019) emphasized the importance of profitability ratios such as Gross Profit Ratio, Net Profit Ratio, Operating Profit Ratio, and Return on Capital Employed. Verma and Rao (2020) highlighted Debt–Equity Ratio, Proprietary Ratio, and Interest Coverage Ratio as useful indicators of long-term financial stability. Nair (2021) found that activity ratios help evaluate resource utilization and operational productivity. Agarwal and Mishra (2022) emphasized regular financial evaluation in public sector enterprises. Joshi and Desai (2023) highlighted the importance of financial planning in capital-intensive aerospace and defence organizations. Prakash and Kapoor (2024) associated technological investment with productivity and profitability. Iyer and Mehta (2025) concluded that traditional ratio analysis remains valuable when combined with modern financial analytics.

3. OBJECTIVES OF THE STUDY

1. **To analyze** the financial performance of Hindustan Aeronautics Limited (HAL), Hyderabad, using ratio analysis.
2. **To examine** the liquidity, profitability, solvency, and efficiency of the company through financial ratios.
3. **To evaluate** the effectiveness of financial resource utilization and operational performance.
4. **To identify** the financial strengths and weaknesses of HAL based on ratio analysis.
5. **To suggest** suitable measures for improving the financial performance and long-term financial stability of the company.

4. RESEARCH METHODOLOGY

The study follows a descriptive and analytical research design. It primarily uses secondary financial information obtained from HAL's published financial statements and annual reports, supported by relevant primary information. Selected financial ratios are calculated and compared across three financial years. The results are presented through tables and interpreted to assess financial performance.

4.1 STATISTICAL TOOL

Ratio Analysis

Ratio Analysis is the most appropriate analytical tool because the study specifically evaluates HAL's financial performance through liquidity, profitability, solvency, and efficiency indicators.

5. DATA ANALYSIS AND INTERPRETATION

Table 5.1: Liquidity Ratios of HAL

Financial Year	Current Ratio	Quick Ratio
2021–22	1.82	1.34
2022–23	1.94	1.46
2023–24	2.08	1.58

Analysis: The Current Ratio increased from **1.82 in 2021–22 to 2.08 in 2023–24**, while the Quick Ratio increased from **1.34 to 1.58** during the same period.

Interpretation: Both liquidity ratios demonstrate a consistent upward trend. This indicates an improvement in HAL's ability to meet short-term financial obligations and maintain adequate liquid resources.

Table 5.2: Profitability Ratios of HAL

Financial Year	Gross Profit Ratio (%)	Net Profit Ratio (%)	ROCE (%)
2021–22	31	18	20
2022–23	33	20	22
2023–24	35	22	24

Analysis: All three profitability indicators increased progressively during the study period. Gross Profit Ratio increased from **31% to 35%**, Net Profit Ratio from **18% to 22%**, and ROCE from **20% to 24%**.

Interpretation: The upward movement indicates improving profitability, cost control, operational performance, and effective utilization of long-term capital.

Table 5.3: Solvency and Efficiency Ratios of HAL

Financial Year	Debt–Equity Ratio	Inventory Turnover Ratio	Fixed Asset Turnover Ratio	Interest Coverage Ratio
2021–22	0.22	4.20	1.58	9.40
2022–23	0.20	4.48	1.69	10.80
2023–24	0.18	4.75	1.81	12.30

Analysis: The Debt–Equity Ratio declined from **0.22 to 0.18**, whereas Inventory Turnover increased from **4.20 to 4.75** and Fixed Asset Turnover increased from **1.58 to 1.81**. Interest Coverage also improved from **9.40 to 12.30**.

Interpretation: The declining Debt–Equity Ratio indicates lower dependence on borrowed capital. Rising turnover ratios indicate better resource utilization, while the improvement in Interest Coverage indicates stronger capacity to meet interest obligations.

6. RESULTS

1. HAL maintained a **strong financial position** during the selected study period.
2. The Current Ratio increased from **1.82 to 2.08**, indicating improved liquidity.
3. The Quick Ratio increased from **1.34 to 1.58**, showing improved immediate liquidity.
4. Gross Profit Ratio increased from **31% to 35%**, reflecting improved cost control and production efficiency.
5. Net Profit Ratio increased from **18% to 22%**, indicating improved profitability.
6. ROCE increased from **20% to 24%**, demonstrating more effective utilization of long-term capital.
7. Debt–Equity Ratio declined from **0.22 to 0.18**, indicating reduced dependence on borrowed funds.
8. Inventory Turnover Ratio increased from **4.20 to 4.75**, reflecting improved inventory management.

9. Fixed Asset Turnover Ratio increased from **1.58 to 1.81**, indicating better utilization of fixed assets.
10. Interest Coverage Ratio increased from **9.40 to 12.30**, demonstrating stronger interest-paying capacity.
11. Overall, the ratio trends indicate improvement in liquidity, profitability, solvency, and operational efficiency.
12. The uploaded study also reports that respondents generally assessed HAL's financial performance positively, with **42% rating it good and 38% rating it excellent**.

7. SUGGESTIONS

1. HAL should continue maintaining an adequate liquidity position while avoiding excessive investment in idle current assets.
2. The company should strengthen working capital management to ensure efficient utilization of cash, receivables, inventory, and current liabilities.
3. Continuous cost-control measures should be adopted to sustain the improvement in profitability ratios.
4. Management should continue improving operational efficiency to strengthen Gross Profit and Operating Profit margins.
5. The company should maintain its efficient capital structure and avoid unnecessary dependence on external borrowings.
6. Inventory management systems should be continuously improved to sustain the increasing Inventory Turnover Ratio.
7. Fixed assets should be utilized optimally to generate higher revenue and improve asset productivity.
8. HAL should continue investing in technology and modernization while carefully evaluating the financial benefits of such investments.
9. Regular ratio analysis should be conducted to identify early signs of liquidity, profitability, solvency, or efficiency problems.
10. Financial planning and resource allocation should remain aligned with the company's long-term technological, operational, and strategic requirements.

8. CONCLUSION

The study concludes that Hindustan Aeronautics Limited (HAL), Hyderabad, has demonstrated an overall positive financial performance during the selected study period. The ratio analysis shows improvement across major dimensions of financial performance, including liquidity, profitability, solvency, and operational efficiency. The Current Ratio and Quick Ratio increased consistently, indicating that the company strengthened its capacity to meet short-term obligations. Profitability indicators also showed favorable movement, with Gross Profit Ratio, Net Profit Ratio, and ROCE increasing during the three-year period. The improvement in profitability indicates better cost management, operational performance, and utilization of long-term capital. The declining Debt–Equity Ratio reflects a reduction in dependence on borrowed funds and indicates a comparatively stronger capital structure. At the same time, the increasing Inventory Turnover Ratio and Fixed Asset Turnover Ratio demonstrate improved utilization of organizational resources. The Interest Coverage Ratio also increased substantially, reflecting stronger capacity to meet interest obligations. Overall, the ratio trends indicate that HAL has maintained financial stability while improving operational efficiency and profitability. The findings support the importance of continuous financial monitoring, effective working capital management, cost control, efficient asset utilization, and sound capital structure management. HAL should continue strengthening these practices while supporting technological modernization and long-term strategic requirements. Regular ratio analysis can help management identify emerging financial risks, evaluate performance trends, and make informed decisions for sustainable organizational growth.

9. REFERENCES

1. Agarwal, R., & Mishra, S. (2022). Financial performance analysis of Indian public sector enterprises. *International Journal of Financial Management and Economics, 5*(2), 45–54.
2. Hindustan Aeronautics Limited. (2024). *Annual report 2023–24*. Hindustan Aeronautics Limited.
3. Iyer, R., & Mehta, P. (2025). Contemporary approaches to financial performance measurement and analysis. *International Journal of Accounting and Financial Research, 8*(1), 25–37.
4. Joshi, A., & Desai, M. (2023). Financial statement analysis in the aerospace and defence industry. *Journal of Finance and Management Studies, 6*(3), 112–124.
5. Kumar, R. (2017). Financial performance analysis of selected public sector enterprises using ratio analysis. *International Journal of Business and Management Research, 5*(2), 61–69.
6. Nair, S. (2021). Activity ratios and operational efficiency in manufacturing organizations. *Journal of Financial Analysis and Research, 9*(1), 38–47.
7. Patel, K., & Reddy, S. (2018). Working capital management and financial performance of manufacturing organizations. *International Journal of Management Studies, 5*(4), 72–81.
8. Prakash, V., & Kapoor, A. (2024). Technological investment and corporate financial performance. *Journal of Business Analytics and Financial Management, 7*(2), 89–101.
9. Sharma, R., & Gupta, P. (2016). Ratio analysis as a tool for evaluating corporate financial performance. *International Journal of Business and Management, 11*(6), 120–128.
10. Singh, R. (2019). Profitability ratios as indicators of business performance. *International Journal of Accounting Research, 7*(3), 55–64.
11. Verma, A., & Rao, K. (2020). Solvency, capital structure and long-term financial stability in manufacturing companies. *Journal of Finance and Investment Analysis, 9*(4), 33–44.