INTERNATIONAL RESEARCH STARS

ISSN: 2583-276X (Online)
Volume: 4, Issue: 1, Jan -March, 2025

AN ANALYTICAL STUDY OF FINANCIAL RATIOS AT KALPATARU GLOBAL ALLOYS PVT. LTD.

*K Saikumar[1], and Dr.B. Ankaiah[2]
Department Of Management Studies Narayana Engineering College (Autonomous), Gudur

Abstract

The purpose of this project is to explore and evaluate the financial health and performance of selected companies through detailed ratio analysis. Ratio analysis serves as an essential analytical tool in financial management, enabling stakeholders to assess a company's performance in areas such as profitability, liquidity, operational efficiency, and solvency. This study utilizes key financial ratios, including but not limited to, the current ratio, quick ratio, debt-equity ratio, return on assets (ROA), return on equity (ROE), net profit margin, and inventory turnover ratio. Using annual report data and audited financial statements, the project conducts a comparative analysis across companies within the same industry to identify trends, strengths, weaknesses, and strategic gaps. This approach helps in understanding how efficiently resources are being utilized, how well the firm manages its debts and obligations, and how profitable its operations are relative to its peers.

Keywords: Liquidity, profitability, solvency, efficiency.

Introduction

Kalpataru Global Alloys is an emerging player in the Indian steel and alloys sector, known for its commitment to quality manufacturing and value-added services in the field of ferrous and non-ferrous metal alloys. The company primarily engages in the processing and trading of various steel products and alloys, catering to industries such as construction, infrastructure, engineering, and fabrication. With a focus on sustainable growth, Kalpataru Global Alloys emphasizes innovation, customer satisfaction, and responsible business practices. The company's robust supply chain network, strategic partnerships, and compliance with international standards have enabled it to gain a competitive edge in a rapidly evolving industrial landscape. Financially, Kalpataru Global Alloys reflects the trends of mid-sized Indian manufacturers striving for global relevance while contributing significantly to domestic industrial demand.

The steel and alloys industry holds a vital place in the Indian economy, serving as the backbone for industrial development and infrastructure expansion. It directly influences sectors such as construction, railways, defense, automotive, and energy, thereby driving employment and contributing to GDP growth. Companies like Kalpataru Global Alloys play a key role in ensuring the availability of specialized materials that support high-end manufacturing and engineering applications. From a societal perspective, this industry fosters regional development, enhances skill development, and promotes industrialization in semi-urban and rural areas. Additionally, the focus on recyclable alloys and sustainable steelmaking processes has amplified the industry's role in promoting environmental responsibility and circular economy practices. Thus, the industry not only boosts economic output but also aligns with long-term developmental goals such as "Make in India" and infrastructure modernization.

ISSN: 2583-276X (Online)
Volume: 4, Issue: 1, Jan -March, 2025

Financial ratios are essential tools for analyzing a company's financial health, operational efficiency, and profitability. They provide insights into an organization's performance and help stakeholders make informed decisions. This study focuses on an analytical examination of financial ratios at Kalpataru Global Alloys Pvt. Ltd., a company engaged in the manufacturing of alloy-based products. By analyzing key ratios such as liquidity, profitability, solvency, and efficiency over a specific period, the study aims to evaluate the company's financial stability and growth potential. The analysis helps identify strengths and weaknesses in financial management, providing a basis for strategic planning and decision-making to enhance future performance.

Review of literature

Bliss, J. H. (1923) Bliss offers one of the earliest systematic examinations of financial and operating ratios in management. His work underscores the utility of ratios in decision-making and managerial control. He categorizes various ratios and connects them to efficiency, profitability, and operational success. The book provides a foundational framework for later financial analysis literature. Bliss's early work emphasizes simplicity and practical application. It remains historically significant in financial analysis education.

Chabotar, K. J. (1989) Chabotar introduces financial ratio analysis to the nonprofit sector, traditionally underserved in this domain. The article adapts business financial tools to educational institutions and nonprofits. He emphasizes liquidity, solvency, and performance indicators tailored to mission-driven organizations. The study advocates for transparency and strategic use of ratios in nonprofit governance. It broadens the application of ratio analysis beyond the corporate context. This work is pivotal in nonprofit financial management literature.

Gonzalez-Bravo, M. I. (2007) This study presents the Prior-Ratio-Analysis (PRA) procedure to enhance the performance of Data Envelopment Analysis (DEA). By integrating financial ratios before applying DEA, the model improves discrimination among decision-making units. It bridges traditional ratio analysis with modern operational research techniques. The paper contributes to improving performance measurement in complex environments. It emphasizes methodological enhancement in financial efficiency evaluations. Suitable for scholars blending accounting with quantitative modelling.

Horrigan, J. O. (1965) Horrigan explores the empirical basis of financial ratio analysis, questioning its theoretical underpinnings and validity. The study assesses the consistency, reliability, and predictive power of various ratios. He highlights that while ratios are widely used, their interpretations can vary. His empirical work supports cautious use of ratios in comparative analyses. It remains a cornerstone for those studying the analytical limitations of financial ratios. A key work in validating ratio analysis statistically.

Suthar, K. (2018) This paper provides a theoretical overview of financial ratio analysis and its relevance in modern business decision-making. Suthar categorizes ratios into profitability, liquidity, solvency, and efficiency. It emphasizes the role of ratios in evaluating financial health and performance. The study also discusses limitations like window-dressing and standardization issues. It serves as a concise yet insightful introduction to financial ratio theory. Particularly useful for beginners and academic learners.

ISSN: 2583-276X (Online)
Volume: 4, Issue: 1, Jan -March, 2025

Pai, N. N. (1964) Pai discusses the integration of accounting ratios into management accounting practices. He emphasizes the role of ratios in strategic planning, budgeting, and performance evaluation. The work highlights both financial and cost accounting perspectives. It demonstrates how ratios can offer insights into internal efficiency and profitability. Pai's work supports a managerial, decision-oriented use of accounting data. It laid groundwork for later developments in management control systems.

Patton, J. M. (1982) Patton critiques the use of ratio analysis within the context of efficient market theory. He examines whether publicly available financial ratios provide useful information in efficient markets. The paper suggests that ratio analysis still holds pedagogical value despite theoretical limitations. It contributes to the academic debate on the relevance of accounting in market valuation. Patton's insights bridge financial theory and accounting education. It's a critical reflection within accounting curricula.

Nelson, R. G. H. (1960) Nelson explores how ratios serve as tools in both financial and cost accounting. The paper emphasizes the analytical strength of ratios in identifying cost efficiency and profitability trends. He distinguishes between internal managerial use and external reporting purposes. Nelson also discusses the limitations of overly simplistic ratio interpretation. The article contributes to early discourse on integrating cost control with financial metrics. It adds value to practical accounting practices of the era.

R.K. Dalal (1956) Dalal's article highlights the practical application of accounting ratios in business analysis. He classifies and discusses key ratios, including profitability, liquidity, and solvency metrics. The work emphasizes interpretative skill as essential to meaningful ratio use. Dalal warns against mechanical use of ratios without contextual understanding. His insights are particularly relevant to Indian corporate reporting practices. This is one of the early Indian perspectives on financial analysis.

Marginean, R., Mihaltan, D. C., & Todea, N. (2015) This study examines structure ratios derived from the Profit and Loss Account as tools for performance evaluation. The authors argue these ratios help decode financial structure, operational efficiency, and profitability. They present a case for integrating structure ratios in modern financial diagnosis. The article provides both theoretical context and practical applications. It emphasizes how ratios inform stakeholders of organizational stability. A modern European perspective on internal financial performance metrics.

Financial performance analysis is a crucial aspect of business management, as it helps in assessing a company's profitability, liquidity, efficiency, and solvency. Ratio analysis serves as a key tool for financial evaluation, enabling businesses, investors, and stakeholders to make informed decisions. However, despite its significance, several challenges exist in the effective application of ratio analysis.

Research Methodology

Financial forecasting is an integral part of financial planning. Forecasting uses past data to estimate the future financial requirement. Ratio analysis is a powerful tool of financial analysis. Ratios help to summarizes large quantities of financial data and to make qualitative judgment about the firm's

ISSN: 2583-276X (Online)
Volume: 4, Issue: 1, Jan -March, 2025

financial performance. The purpose of the project is to study the working of the company with reference to financial management.

The scope of the study on ratio analysis with reference to Kalpataru Global Alloys (P) Ltd focuses on assessing the company's financial performance through various financial ratios. This study helps in evaluating liquidity, profitability, efficiency, and solvency, providing valuable insights for investors, management, and stakeholders. It aids in decision-making, identifying financial strengths and weaknesses, and ensuring better financial planning for the company's growth and sustainability.

Objectives of the study

- To assess the financial health and performance of CIFAL Herbal Private Limited.
- To study the short-term liquidity positions of company.
- To analyse the asset turnover ratio.
- To study the effectiveness of credit management of the company.

Research Design

The research design adopted for this project is descriptive and analytical in nature, focusing on evaluating the financial performance of Kalpataru Global Alloys using ratio analysis. A descriptive design is suitable as it enables a detailed examination of financial data over a specified period, helping to identify patterns, trends, and deviations in the company's performance. Analytical research complements this by interpreting the quantitative data gathered, providing meaningful insights into the company's operational efficiency, liquidity status, solvency position, and overall profitability. The study aims to provide both a standalone analysis of Kalpataru Global Alloys and a comparative perspective against industry benchmarks or peers to gauge relative performance.

The study primarily relies on secondary data collected from reliable and publicly available sources. Financial statements such as the balance sheet, profit and loss account, and cash flow statements form the core of data collection. These are obtained from the company's annual reports, official filings with regulatory authorities such as the Ministry of Corporate Affairs (MCA), and financial databases like Moneycontrol, Screener, or the Bombay Stock Exchange (BSE). The data spans a period of the last 3–5 financial years to ensure a consistent and meaningful trend analysis. Care is taken to ensure that the data is audited and authentic to maintain the credibility of the research.

The core analytical method used in the project is ratio analysis, which includes the calculation and interpretation of various financial ratios categorized into profitability ratios (e.g., net profit margin, ROE), liquidity ratios (e.g., current ratio, quick ratio), solvency ratios (e.g., debt-equity ratio, interest coverage ratio), and activity ratios (e.g., inventory turnover, receivables turnover). MS Excel is used as the primary tool for data tabulation and ratio computation, as it allows for accurate formula-based calculations, trend analysis through charts, and comparative analysis through pivot tables. In addition, visual tools such as bar graphs and line charts are used to better represent the

ISSN: 2583-276X (Online)
Volume: 4, Issue: 1, Jan -March, 2025

data insights and highlight year-on-year trends. The analysis is supplemented by qualitative interpretation to assess the financial soundness and strategic positioning of the company.

DATA ANALYSIS AND INTERPRETATION

CURRENT RATIO

The current ratio is a liquidity ratio that measures a company's ability to pay off its shortterm liabilities with its short-term assets. It provides a snapshot of the company's short term financial health and its efficiency in managing working capital.

Table 1 Current Ratio

Financial Year	Current Assets (₹ in Lakhs)	Current Liabilities (₹ Rs in Lakhs)	Current Ratio (Times)
2019-20	67700	101150	0.67
2020-21	116500	103500	1.13
2021-22	101500	100900	1.01
2022-23	183000	126400	1.45
2023-24	170500	100700	1.69

Source: Secondary Data

The current ratio (table 1) improved from 0.67 in 2019-20 to 1.69 in 2023-24, indicating stronger short-term liquidity.A ratio below 1 earlier suggested liquidity issues, but recent values above 1 reflect better working capital management.

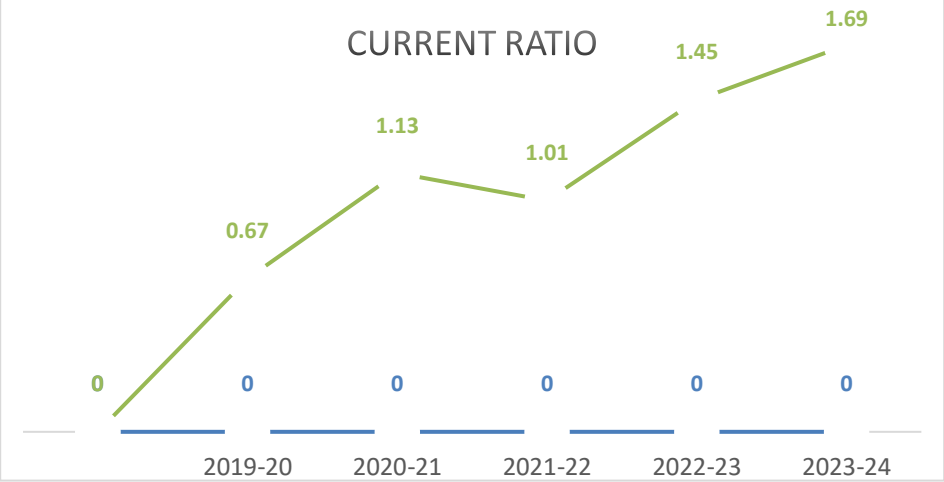

Figure 1 Current Ratio

The above figure shows a consistent improvement in the company's short-term liquidity position over the five-year period. In 2019–20, the ratio was below 1 (0.67), indicating that current liabilities exceeded current assets, suggesting potential liquidity issues. However, from 2020–21 onwards, the ratio crossed the benchmark of 1 and continued to rise, reaching 1.69 in 2023–24.

Quick Ratio

ISSN: 2583-276X (Online)
Volume: 4, Issue: 1, Jan -March, 2025

Quick Ratio, also called Acid Test Ratio, A Quick Ratio express the relationship between the quick assets and current liabilities. It is obtained by measure quick assets by current liabilities. A quick ratio of 1:1 considered adequate. For every one rupee current liabilities there should be maintained one rupee of worth of quick assets.

Table 2 Quick Ratio

Financial Year	Current Assets (₹ in Lakhs)	Inventory (₹ in Lakhs)	Current Liabilities (₹ in Lakhs)	Quick Ratio
2019-20	67700	14000	101150	0.53
2020-21	116500	20000	103500	0.93
2021-22	101500	30000	100900	0.7
2022-23	183000	40000	126400	1.13
2023-24	170500	60000	100700	1.09

Source: Secondary Data

The quick ratio (table 2)rose from 0.53 in 2019-20 to above 1 in the last two years, showing improved immediate liquidity.It highlights reduced dependence on inventory for meeting short-term obligations.Sustained values above 1 suggest sufficient liquid assets like cash and receivables.

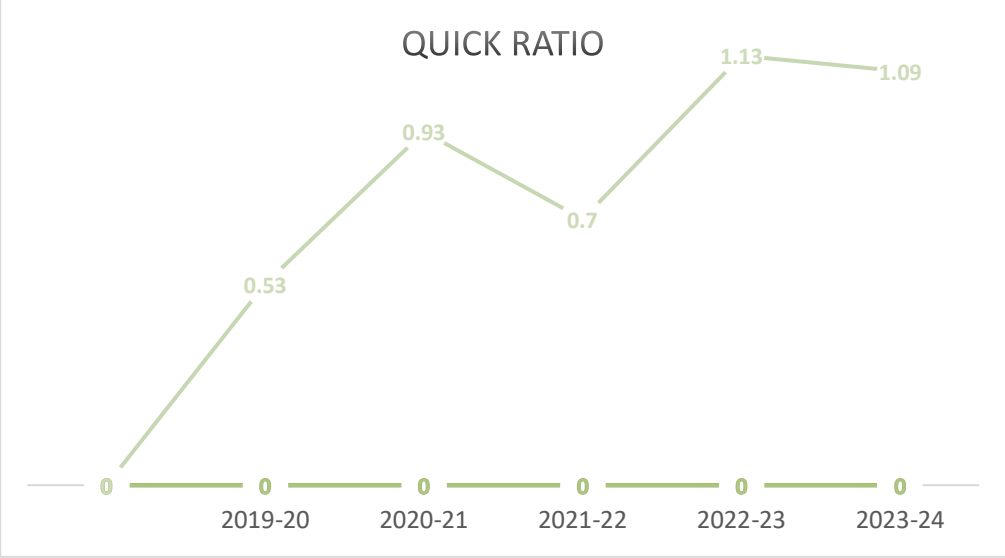

Figure 2 Quick Ratio

The quick ratio (Figure 2), which excludes inventory from current assets to assess immediate liquidity, shows a gradual improvement over the years. In 2019–20, the ratio was only 0.53, indicating a weak ability to meet short-term liabilities without relying on inventory. By 2020–21, it improved to 0.93, nearing the ideal benchmark of 1. Although there was a slight dip in 2021–22 (0.70), the ratio recovered in the following years, reaching 1.13 in 2022–23 and maintaining a strong position at 1.09 in 2023–24.

ISSN: 2583-276X (Online)
Volume: 4, Issue: 1, Jan -March, 2025

Debt Ratio

Debt Ratio used to analyse the long-term solvency of a firm. The firm interested in knowing the proportion of the interest-bearing debt in the Capital Structure. It may therefore, compute debt ratio by dividing total debt by capital employed.

Table 3 Debt Ratio

Financial Year	Total Debt	Total Debt + Net worth	Debt Ratio
2020	4050	-19000	-0.2
2021	8500	-5700	-1.5
2022	11500	16000	0.7
2023	12600	53000	0.2
2024	14000	78500	0.2

Source: Secondary Data

The ratio moved from -0.2 in 2020 to -1.5 in 2021, indicating a deepening negative leverage. In 2022, it shifted to a positive 0.7, reflecting a reversal in the debt structure. By 2023, the ratio stabilized at 0.2, showing an improved and steadier debt position.

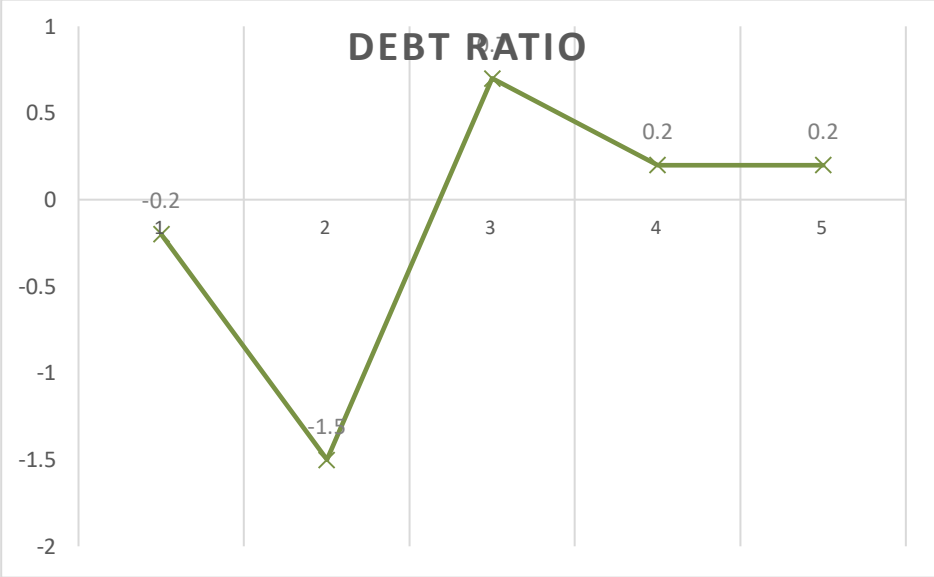

Figure 3 Debt Ratio

The debt ratio shows how much of the company's assets are financed through debt. In 2020 and 2021, the ratio is negative (-0.2 and -1.5) due to negative net worth, indicating severe financial distress and insolvency risk. However, from 2022 onward, the debt ratio becomes positive, improving to 0.7 in 2022 and stabilizing at 0.2 in both 2023 and 2024.

ISSN: 2583-276X (Online)
Volume: 4, Issue: 1, Jan -March, 2025

Debt Equity Ratio

The relationship describing the lender's c is called Debt-Equity ratio. The debt equity measures the long term financial solvency of a business concern. Debt equity ratio is directly computed by dividing total debt by net worth.

Table 4 Debt Equity Ratio

Financial Years	Total Debt	Net Worth	Ratio
2020	4050	-23050.0	-0.2
2021	8500	-14200.0	-0.6
2022	11500	4500.0	2.6
2023	12600	40400.0	0.3
2024	14000	64500.0	0.2

Source: Secondary Data

Starting at -0.2 in 2020 and -0.6 in 2021, the negative values suggest a net negative debt scenario.A sharp increase to 2.6 in 2022 indicates a drastic change in leveraging. The moderation to 0.3 in 2023 and 0.2 in 2024 signals stabilization in the firm's financial leverage.

Figure 4 Debt Equity Ratio

The debt-to-equity ratio reflects the company's financial leverage and reliance on borrowed funds compared to shareholders' equity. In 2020 and 2021, the ratio is negative (**-0.2** and **-0.6**) due to negative net worth, indicating a highly risky and unsustainable financial position. In 2022, the

ISSN: 2583-276X (Online)
Volume: 4, Issue: 1, Jan -March, 2025

ratio jumps to **2.6**, showing heavy dependence on debt. However, a strong recovery is seen in 2023 and 2024, with the ratio improving to **0.3** and **0.2**, respectively.

Gross Profit Ratio

The first Profitability Ratio in relation to Sales is the Gross Profit Margin Gross Margin Ratio) The Gross Profit Margin reflects the efficiency with which management produces each unit of product.it is calculated by gross profit by sales. It also helps in ascertaining whether the average percentage of mark-up on the goods in maintained.

Table 5 Gross Profit Ratio

Financial Year	Gross Profit	Sales	Gross Profit Ratio
2019-20	95300	140000	0.7
2020-21	120300	185000	0.7
2021-22	59300	150000	0.4
2022-23	38000	120000	0.3
2023-24	78000	200000	0.4

Source: Secondary Data

The ratio declined from 0.7 in 2019-20 and 2020-21 to 0.3 in 2022-23, showing reduced profitability from core operations. A slight recovery to 0.4 in 2023-24 indicates marginal improvement in cost control or pricing. Overall, the trend reflects pressure on gross margins over the five-year period.

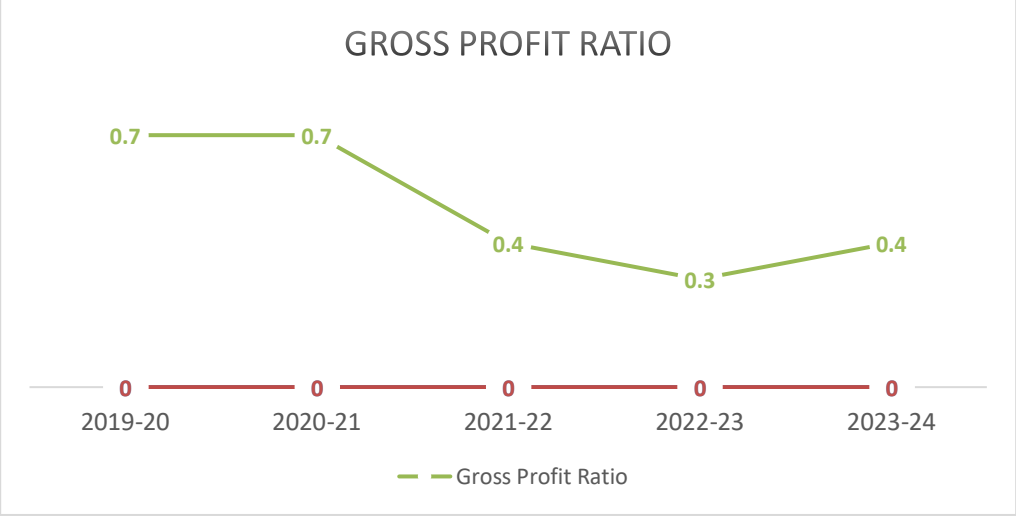

Figure 5 Gross Profit Ratio

The gross profit margin indicates the company's efficiency in managing production and direct costs. In 2019–20 and 2020–21, the margin was strong at 0.7, showing high profitability from sales. However, there was a sharp decline in 2021–22 (0.4) and further to 0.3 in 2022–23, reflecting increased cost of goods sold or pricing pressures.

ISSN: 2583-276X (Online)
Volume: 4, Issue: 1, Jan -March, 2025

ANALYSIS OF FINDINGS

The company's current ratio has steadily improved, indicating enhanced short-term liquidity and financial health. The quick ratio has improved over the years, indicating better immediate liquidity and reduced dependency on inventory. The company transitioned from a negative to a stable and healthy debt ratio, indicating improved financial stability and reduced reliance on debt. The debt-to-equity ratio improved significantly after 2021, indicating reduced financial risk and a stronger equity position. The gross profit margin declined sharply after 2020–21, indicating rising production costs or reduced pricing power, with only slight recovery in 2023–24.

RECOMMENDATIONS

Managers

Financial ratio analysis reveals crucial insights into a firm's operational efficiency, liquidity position, and overall financial health. Managers should incorporate ratio analysis not just as a retrospective diagnostic tool but also as a forward-looking strategic instrument. By continuously monitoring key ratios such as Return on Assets (ROA), Debt-to-Equity (D/E), and Current Ratio, they can make informed decisions on investment, cost control, and capital structure. This proactive approach can enhance internal financial discipline and performance forecasting. Moreover, managers must benchmark their ratios against industry standards to identify relative strengths and weaknesses, fostering competitive advantage through data-driven strategies.

Policy Makers

Policy makers can utilize aggregated industry-level ratio analysis to gauge the financial stability and resilience of key economic sectors. This data is instrumental in shaping regulatory frameworks that promote transparency, accountability, and sustainable financial practices. Encouraging the standardization of financial reporting and ratio disclosure across firms will enable more accurate industry comparisons and risk assessments.

Industry Development

For the broader industry, ratio analysis should be institutionalized as a best practice for governance and investor communication. Industry associations can develop benchmarking reports and sector-wide ratio dashboards to support smaller firms in performance evaluation. Training programs and digital tools that simplify financial ratio interpretation can help improve financial literacy among business owners and entrepreneurs.

Scholarly Contribution

Academicians and researchers can expand the scope of ratio analysis by integrating it with predictive modelling and machine learning techniques to forecast financial distress and sectoral shifts. There is significant scope for scholarly exploration in correlating financial ratios with macroeconomic variables, market behaviour, and firm-specific attributes like governance structures. Longitudinal and cross-industry studies could provide deeper insights into the causal relationships between ratio trends and firm performance.

Scope for further study

ISSN: 2583-276X (Online)
Volume: 4, Issue: 1, Jan -March, 2025

While ratio analysis provides a foundational understanding of a firm's financial standing, future research can delve into more dynamic and integrated approaches. There is substantial scope to combine traditional ratio metrics with advanced statistical and econometric models for predictive insights, such as forecasting bankruptcy or identifying early warning signs of financial distress. Cross-border comparative studies can further highlight the impact of regulatory environments, cultural factors, and economic structures on financial performance. Additionally, incorporating environmental, social, and governance (ESG) metrics alongside financial ratios could offer a more holistic evaluation of long-term sustainability

LIMITATIONS

Despite its widespread use, ratio analysis has inherent limitations that must be acknowledged. Firstly, it is primarily based on historical financial data, which may not reflect current market realities or future performance. Ratios are also sensitive to accounting policies and practices, which can vary significantly across firms and distort comparability. Moreover, external factors such as inflation, interest rate fluctuations, and economic policy changes are not captured in standard ratio analysis, potentially leading to incomplete interpretations

CONCLUSION

The ratio analysis reveals that the company has shown significant improvement in its financial performance over the five-year period. Liquidity ratios like the current and quick ratios indicate enhanced short-term financial stability. Leverage ratios reflect a shift from high debt dependency to a more balanced capital structure. Profitability ratios show fluctuating margins but an overall positive trend in earnings. The company has managed to recover from earlier financial stress and is now on a stable growth path. Continued focus on cost control and efficient resource management will further strengthen its financial position.

REFERENCES

Bliss, J. H. (1923). Financial and Operating Ratio in Management, The Ronald Press Company, pp. 34-38.

Chabotar, K. J. (1989). Financial ratio analysis comes to nonprofits. *The Journal of Higher Education*, *60*(2), 188-208.

Gonzalez-Bravo, M. I. (2007). Prior-Ratio-Analysis procedure to improve data envelopment analysis for performance measurement. *Journal of the Operational Research Society*, *58*(9), 1214-1222.

Horrigan, J. O. (1965). Some empirical bases of financial ratio analysis. *Accounting Review*, *40*(3), pp. 558-568.

Suthar, K. (2018). Financial ratio analysis: A theoretical study. *International Journal of Research in all Subjects in Multi Languages*, *6*(3), 61-64.

Pai, N. N. (1964). Use of Accounting Ratios in Management Accounting. *Chowdhary, Analysis of Company Financial Statements, Asian Publication House*.

ISSN: 2583-276X (Online)
Volume: 4, Issue: 1, Jan -March, 2025

Patton, J. M. (1982). Ratio analysis and efficient markets in introductory financial accounting. *Accounting Review*, 627-630.

Nelson, R. G. H. (1960). The Use of Ratios in Financial and Cost Accounting. *The Accountant*, *142*(4443), 188-191.

R.K.Dalal. (1956). Accounting Ratio. *The Chartered Accountant(India)* , pp. 452-457.

Marginean, R., Mihaltan, D. C., & Todea, N. (2015). Structure ratios of Profit and Loss Account–source of information for performance analysis. *Procedia Economics and Finance*, *26*, 396-403.

