

A Study on Financial Performance Analysis through Ratios of NMDC

Sokke Shwetha¹, Bagali Ambreen², Dr. Shaheeda Banu S³

¹Student of 4th semester (USN: 3BR22BA143) Department of Management Studies, Ballari Institute of Technology and Management, Ballari, Karnataka, India.

²Assistant Professor, Department of Management Studies, Ballari Institute of Technology and Management, Ballari, Karnataka, India.

³Professor, Department of Management Studies, Ballari Institute of Technology and Management, Ballari, Karnataka, India.

ABSTRACT: This study aims to evaluate the financial performance of firms through the use of financial ratios. Financial ratios are essential tools that provide insight into a company's financial health, operational efficiency, and profitability. By analysing a set of key financial ratios, including liquidity, profitability, solvency ratios, and the study employs a quantitative approach by analysing data from financial statements of company over a specified period. The results indicate significant variations in financial performance among the firms, influenced by macroeconomic conditions. This research underscores the importance of financial ratios as diagnostic tools for investors, managers, and stakeholders in making informed decisions and enhancing corporate governance.

Keywords: Financial ratios, Efficiency, Financial health, corporate Governance, NMDC.

INTRODUCTION

Financial ratios are vital analytical tools used to assess various aspects of a company's financial health and performance. These ratios are derived from the financial statements of a business, including the balance sheet, income statement. By comparing different financial metrics, financial ratios offer a comprehensive view of a company's operational efficiency, liquidity, profitability, and solvency.

The importance of financial ratios lies in their ability to provide quick insights into a company's financial status, enabling stakeholders such as investors, creditors, and management to make informed decisions. For instance, liquidity ratios like the current ratio and quick ratio assess a company's ability to meet its short-term obligations, while profitability ratios such as the net profit margin and return on assets evaluate the company's ability to generate profit relative to its revenue and assets. Solvency ratios,

including the debt-to-equity ratio, measure the long-term financial stability of a company by examining its debt levels compared to equity. Efficiency ratios, such as inventory turnover and accounts receivable turnover, gauge how effectively a company utilizes its assets.

REVIEW OF LITERATURE

SS Chairunisa (2023)

The results show that total asset turnover, cash flow ratio both have positive and significant impacts on financial performance on the contrary, debt/asset ratio has negative and significant impacts on financial performance. However, current ratio does not affect financial performance.

K Kadim (2020)

Using path analysis and Sobel tests, the study evaluates the relationship. The results show that financial ratios such as liquidity, solvency and profitability do not have a impact on dividend policy, but dividend policy significantly affects corporate value. Furthermore, solvency ratio and profitability, when adjusted by dividend policy, influence firm value, while liquidity ratio and Intellectual capital do not have a impact.

M Dance (2019)

This study examines the effect of liquidity, profitability, financial leverage and operating cash flow on financial constraints among companies listed on the Indonesia Stock Exchange. 2013 to 2017, logistic regression analysis shows that the current ratio (CR) negatively affects financial hardship. Return on assets (ROA) negatively affects financial difficulties, debt ratio (DER) positively affects financial

difficulties, during operations Cash flow does not impact on financial distress.

D H Nadar (2019)

The study identifies and organizes past studies into several key areas. These include using ratios for predicting insolvency, valuing businesses, understanding the relationships between different financial metrics, benchmarking against industry standards, aiding decision-making processes, and conducting technical analysis.

AHN Kariyawasam (2019)

French, This study aims to examine how certain financial ratios relate to the financial performance of companies. The financial ratios considered are quick ratio, earnings per share (EPS), company size and debt ratio. Financial performance is measured by net profit margin growth rate.

K laitinen (2018)

The sample comprises 9160 active and 81 bankrupt Finnish firms. In simpler terms, the research seeks to uncover how shifts in both the top and bottom parts of financial ratios influence the overall trends in financial performance indicators over time.

T restianti (2018)

Study examines impact of different financial ratios on listed companies, Indonesia Stock, found and Exchange from 2013 to 2013. By analyzing 35 companies using logistic regression, returns before interest and taxes (EBIT) on total assets and returns on capital (ROE) affects financial distress, while general liquidity ratio, retained earnings to total assets. Research shows that reducing debt, increasing revenue and optimizing the use of assets and equity can help avoid financial difficulties.

.CA Rashid (2018)

This study centers on assessing a company's liquidity through financial ratio analysis. A specific UK retail company was chosen for this evaluation by examining data from its financial statements. The study primarily utilized the cash flow statement because it contains crucial information for evaluating liquidity.

R Myskova (2017)

This study Identifying Problem of an Enterprise is for researchers and practitioners. Determining performance using financial ratios is a challenging

and interesting financial ratio because being able to accurately predict a company's performance is important for those decision makers. Initially, exploratory factor analysis (EFA) was used to identify and validate the underlying dimensions of financial ratios. PT Mustika ratu (2017)

This study focuses on financial, the two most important variables. ratio analysis is a tool used to evaluate a company's performance by examining various financial relationships and indicators. This analysis helps highlight changes in financial condition or operating performance over time and identify trends that indicate potential risks and opportunities within the company. Objective 3 Mustika Ratu, Tbk uses ratio analysis. 21 of its 9 study includes assessment of PT's financial performance. The study uses descriptive analysis techniques with a qualitative approach. The results show that PT. Mustika Ratu, Tbk's financial performance shows a level of volatility of. These fluctuations are influenced by both external and internal factors affecting the company. Therefore, PT. Mustika Ratu, Tbk needs to implement new strategies to improve its performance, better meet market demands and increase its market presence.

Pazak (2017)

The study examines how ratios affect Prague stocks prices in the energy sector and Exchanges Warsaw stock exchange. Using financial statements, ratios such as debt-to-equity ratio, liquidity ratio, profit ratio to equity, profit margin. and are analyzed. T Akran (2016)

This study examines the role of stocks in financial ratios in financial markets from 2005 to 2015. Using multiple regression and the STEPWISE method to eliminate inefficient variables, the study The study developed equations for estimated prices in each sector. The results show that some financial ratios such as ROA, ROE, and net profit margin of the industrial sector and the ROA, ROE, P/E and EPS ratios of the service and investment sector have a relationship.

BK Asir(2015)

Furthermore, 1 Research reveals that market perceptions vary between companies with high growth opportunities and those with low growth opportunities, as measured by the Q ratio.

JY Wijaya - 2015

The analysis was performed using multiple linear regression. The results indicate that yield and book

value ratio in general return on assets, debt to equity, dividend yield, earnings have a significant impact to Department of management research tock profit . Individually, yield Page 18 Financial performance analysis through NMDC asset ratio, dividend yield, earnings yield and book-to-market ratio significantly affect debt to equity ratio

BK Asir (2014)

.The research found that ROA is the most important factor in determining market value, followed by beta. Additionally, the study shows that the size of a company, measured by total assets and Tobin's Q ratio, significantly impacts its market value. Investors interpret signals differently from small firms compared to large ones, and from growth-oriented firms compared to those without growth.

K chong (2013)

This paper explores the factor analysis to evaluate ratios and their distribution properties. Starting with 28 financial ratios, the study identified seven ratios with the highest factor loadings for further analysis. These seven ratios were then tested for normality and found to be positively skewed. After removing outliers and transforming the values, only one ratio achieved normality, while another came close. The study concludes that it's unnecessary to use a large number of ratios to assess financial performance effectively. It also highlights that financial ratios typically do not follow a normal distribution, though some can be adjusted to approach normality through specific corrective measures.

C Kuzey (2013)

Determining a company's performance using various financial ratios is challenging. Identifying specific financial ratios that can accurately predict a company's performance is valuable to decision makers. The results indicate that the CHAID and C5.0 decision tree algorithms provided the most accurate predictions. Sensitivity Profit ratio Analysis shows that most pre-tax profit/equity ratios and variables are important in predicting company performance .

E Muresan (2004)

Financial ratios provide valuable information about a company's financial health, but with so many choices, deciding which is most essential can be overwhelming. Additionally, properly is very important to understand about ratios 7 financial analysis. This article presents a mnemonic to help

identify the five main categories of financial ratios provide a complete picture of a company's financial position. Profitability, asset utilization efficiency, long-term solvency, market value and short-term solvency ratios. This mnemonic is not only easy to remember but also flexible and logically structured, making it easy for analysts to systematically evaluate and explain a company's financial situation.

YJ wang (2008)

When companies assess their performance, it's impractical to consider all financial ratios. Instead, they select a subset as evaluation criteria. Typically, financial ratios are grouped into clusters, and a representative ratio from each cluster is chosen for evaluation. This study suggests a clustering method that groups financial ratios from different companies based on similar variations. A fuzzy relation is used to measure similarity between ratios, and a cluster validation index determines the optimal number of clusters. Once clustered, a representative ratio is identified for each group.

SS Cowen (1982)

Researchers used factor analysis to investigate how these ratios are interconnected and if they fit into the traditional categories found in financial analysis literature. They then applied cluster analysis to the combined ratios from the factor analysis to see if firms consistently grouped together over time. The study analyzed data from 72 companies between 1966 and 1975, using Dunn and Bradstreet ratios and Compustat data.

PMS Tan (1997)

Further analysis showed that financial ratio averages differ significantly across industries, suggesting that industry-specific benchmarks are better for evaluating company performance than economy-wide benchmarks. Additionally, five of the key ratios changed significantly over time, and not all industry averages followed the same trend, indicating that industry averages might not always be reliable benchmarks for long-term performance evaluation.

STATEMENT OF THE PROBLEM

The national mineral development corporation faces challenges that impact NMDC's operations and profitability this is mainly impact on financial performance of the company.

OBJECTIVES OF THE STUDY

- To study and analyse the financial performance of the NMDC through ratios

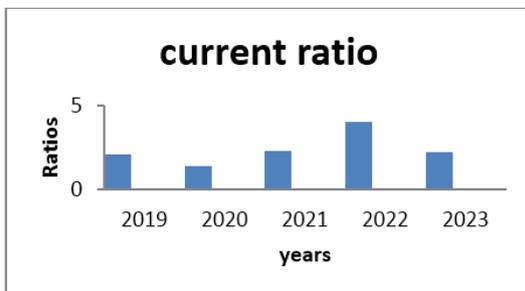
RESEARCH METHODOLOGY

Type of research implemented	Descriptive research
Type of data used	Secondary data
Period of the research	05 years
Statistical tool used	Ratio analysis
Scope of the research sample	NMDC – NATIONAL MINERAL DEVELOPMENT CORPORATION
Data source	NMDC Data base, NMDC websites and reports

DATA ANALYSIS AND INTERPRETATION

- Liquidity ratio
 - Current ratio = Current assets / current liabilities

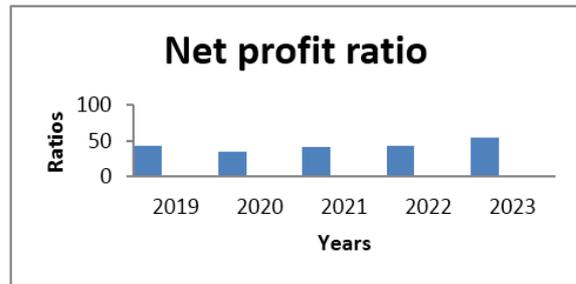
Ideal ratio – 2:1



INTERPRETATION

During the period from 2019 to 2023, the company experienced significant fluctuations and liabilities, affecting the current ratio: current assets Short-term solvency ratios fell sharply in 2020, reflecting a difficult 2020 in liquidity conditions.

- Profitability ratio :A) Net profit ratio
 Net profit ratio = net profit \ net sales*100

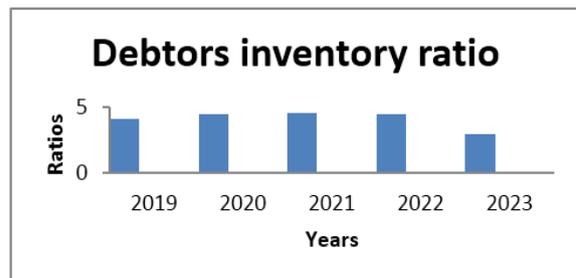


INTERPRETATION

The table provided shows the net profit from 2019 to 2023. Here is a brief conclusion about the data. The net profit margin has also increased steadily over the years, indicating improved profitability.

- Debtors inventory ratio

Debtors turnover ratio = Net sales/ Average debtor



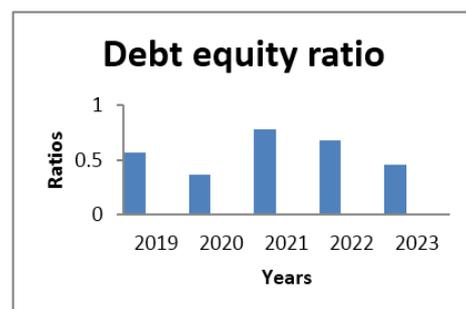
INTERPRETATION

There is a decline in the debtors inventory ratio from 2019 to 2023. The ratio starts at 4.902 in 2019 and decreases to 2.970 by 2023. The declining debtors inventory ratio suggests improved efficiency in collecting receivables, although the decrease in net sales from 2022 to 2023 indicates a need to monitor overall sales.

- Leverage\ solvency ratio

- Debt equity ratio

Debt equity ratio = Total debt \ Total shareholders fund



INTERPRETATION

From 2019 to 2023, the company's debt-to-equity ratio experienced fluctuations. In 2020, the ratio was very low at 0.0368, indicating minimal debt relative to equity. The ratio increased significantly in 2021 to 0.777 and peaked in 2021 at 0.777, suggesting an increase in the company's leverage, it showed signs of improving financial stability by reducing its debt relative to equity in 2022 and 2023

FINDINGS

During the study period the current ratio of NMDC has more than the ideal ratio 2:1 for the year 2019, 2022, 2022, 2023. Except 2020 The ratio was slightly low. In all the five years quick ratio was above the ideal ratio, it is good for the company. In 2019 only absolute liquid ratio is high remaining all years we can see the fluctuation. But if we compare to the ideal ratio its less than the ideal ratio 0.5 to 1. Operating expense ratio in the year 2021 is little bit low compared to other years, less operating expense ratio is beneficial for the company. In 2023 return on capital is very low compare to other years this shows company finding some difficulties in earning return on capital. but more than the ideal ratio 20%. Debtors inventory ratio debt collected within 15 days for four years except in 2020. Asset turnover ratio is not constant. One year it decreases and another year it increases it repeats for all the 5 years. The debt equity ratio increased significantly in 2021 to and peaked in 2021 at 0.777, suggesting an increase in the NMDC leverage, it showed signs of improving financial stability by reducing its debt relative to equity in 2022 and 2023. Debt ratio in the year 2023 ratio decreased to 0.291, indicating an improvement in the company's financial stability as its debt relative to its assets declined. 2020 and 2021 proprietary ratio is less than the ideal ratio 0.5. Remaining all years satisfied the ideal ratio.

CONCLUSION

The study mainly concentrates on the analysis of financial performance through ratios and soundness of NMDC. It helps to know how company is working. It can be concluded that NMDC (National mineral development corporation) has satisfactory position with regard to profitability and NMDC needs to improve its liquidity and solvency. If NMDC company continues to work with more efficiency, it can have greater success in the near future. Ratio analysis helps for taking decision to the managers, employees as well as customers.

REFERENCES

- [1]. Abdullah Rashid, C. (2021). The efficiency of financial ratios analysis to evaluate company's profitability. *Journal of Global Economics and Business*, 2(4), 119–132. <https://www.researchgate.net/publication/348686551>
- [2]. Chairunisa, S. S., Digdowiseiso, K., & Karyatun, S. (2023). The Effect of Total Assets Turnover, Debt to Assets Ratio, Cash Ratio and Current Ratio on Financial Performance of Companies The Hotel, Restaurant and Tourism Subsector in IDX for The Period 2016-2020. *Jurnal Syntax Admiration*, 4(3), 548–558. <https://doi.org/10.46799/jsa.v4i3.907>
- [3]. Ginting, E. S. (2021). Ratio-Based Financial Performance Analysis of PT. Mustika Ratu, Tbk. *Journal of Management*, 11(2), 456–462. www.idx.comperiod
- [4]. Khalaf, R. Z., & Al-Kadim, K. A. (2020). Truncated Rayleigh Pareto Distribution. *Journal of Physics: Conference Series*, 1591(1). <https://doi.org/10.1088/1742-6596/1591/1/012106>
- [5]. Laitinen, E. K. (2018). Financial Reporting: Long-Term Change of Financial Ratios. *American Journal of Industrial and Business Management*, 08(09), 1893–1927. <https://doi.org/10.4236/ajibm.2018.89128>
- [6]. Mesak, D. (2019). Financial Ratio Analysis in Predicting Financial Conditions Distress in Indonesia Stock Exchange. *Russian Journal of Agricultural and Socio-Economic Sciences*, 86(2), 155–165. <https://doi.org/10.18551/rjoas.2019-02.18>
- [7]. Muresan, E. R., & Wolitzer, P. (2005). Organize your Financial Ratios Analysis with PALMS. *SSRN Electronic Journal*, 1–20. <https://doi.org/10.2139/ssrn.375880>
- [8]. Myšková, R., & Hájek, P. (2017). Comprehensive assessment of firm financial performance using financial ratios and linguistic analysis of annual reports. *Journal of International Studies*, 10(4), 96–108. <https://doi.org/10.14254/2071-8330.2017/10-4/7>
- [9]. Restianti, T., & Agustina, L. (2018). Accounting Analysis Journal The Effect of Financial Ratios on Financial Distress Conditions in Sub Industrial Sector Company. *Accounting Analysis Journal*, 7(1), 25–33.

- <https://doi.org/10.15294/aaj.v5i3.18996>
- [10]. Salmanidou, D. M., Beck, J., Pazak, P., & Guillas, S. (2021). Ratio-Based Financial Performance Analysis of PT. Mustika Ratu, Tbk Probabilistic, high-resolution tsunami predictions in northern Cascadia by exploiting sequential design for efficient emulation. *Natural Hazards and Earth System Sciences*, 21(12), 3789–3807.
<https://doi.org/10.5194/nhess-21-3789-2021>