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Kishor N Wagh, Research Scholar, R.T.M. Nagpur University, Nagpur Dr. Jaspal N Gidwani, Research Supervisor, R.T.M. Nagpur University, Nagpur India

### **Abstract**

This study examines metal and mining firms listed on India's Bombay Stock Exchange (BSE) and how their receivables management relates to their profitability. Because they make up a large percentage of an organization's assets, receivables are crucial to its financial stability and productivity. With capital-intensive activities and commodity prices that are always changing, the metal and mining industry places a premium on efficient receivables management. This research analyses financial data over a certain era to see how different receivables management strategies affected the profitability measures of metal and mining industries. We want to find correlations and patterns between receivables management strategies like credit policies, collection efficiency, and days sales outstanding (DSO) and important profitability indicators like return on assets (ROA), return on equity (ROE), and net profit margins using quantitative methods like regression analysis and financial ratio analysis. In addition, taking into account elements like market dynamics, regulatory landscape, and technology improvements, this study aims to reveal industry-specific difficulties and possibilities related to receivables management in India's metal and mining sector. Investors, legislators, and practitioners in the field may improve financial performance, reduce risk, and encourage sustainable development by learning how various receivables management solutions used by firms in this sector fared. In the conclusion, this study aims to add to what is already known about financial management methods in the metal and mining business. It will provide useful implications for making decisions as a company, engaging stakeholders, and future research.

Keywords - Net profit margins, Financial ratio analysis, Industry-specific challenges, Regulatory environment, Sustainable growth

#### Introduction

An important part of the world's economy is the metal and mining industry, which supplies building and manufacturing with raw materials. An important driver of economic development and job creation in India, the metal and mining sector is a major player in the country. Companies listed on the Bombay Stock Exchange (BSE) face competitive pressures, regulatory hurdles, and volatile commodity prices as they negotiate this complicated terrain as significant participants in the industry.

Amidst these changes, the key to financial success and longevity for metal and mining companies is effective accounts receivable administration. Accounts receivable, which stand for sums owing to the business by clients for products or services offered on credit terms, are the focus of receivables management, which also includes collecting and optimising these accounts. Timely cash inflows, reduced liquidity concerns, and enhanced overall profitability are all results of these receivables being managed effectively.

Despite its importance, however, research on the link between accounts receivable management and profitability for BSE-listed metal and mining businesses is lacking. This study aims to fill that void by analysing the sector's financial performance as a whole and how receivables management strategies affect it.

The purpose of this research is to help metal and mining companies become more competitive by shedding light on how receivables management practices and profitability measures interact with one another. In order to optimise receivables management systems, mitigate financial risks, and improve long-term profitability and sustainability, the results are intended to provide practical suggestions.

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This study aims to add to what is already known about financial management methods in the metal and mining sector by combining empirical data, statistical tools, and industry perspectives. In the end, we want everyone involved in the Indian metal and mining business to be better prepared to face the possibilities and threats that come with its ever-changing terrain.

#### Literature review

In 2016, Padachi investigated the relationship between working capital management trends and company performance. The numbers show that investing more on receivables and inventories reduces profitability. He went on to show that inventory days and cash conversion cycle were strongly connected with profitability. Profitability, on the other hand, was inversely related to AR and AP days.

In Belgium, businesses' gross operating income is strongly inversely related to the amount of days their accounts receivable, inventory, and accounts payable are outstanding (Deloof, M., 2013). These numbers suggest that managers may benefit shareholders by minimising daily inventories and accounts receivable. Despite popular belief, a negative association exists between accounts payable and profitability, suggesting that less successful organisations are less likely to pay their bills on time.

When the economy is in a slump, his study in ksenija (2023) looks at how publicly listed companies in Serbia handle their receivables. One hundred and eighty-two businesses participated in this research. A review of accounts receivable rules is conducted during the 2008–2011 crisis. When looking at the immediate impacts, the study reveals a positive correlation between AR and two profitability dependent variables—ROTA and operational profit margin—though this correlation is not statistically significant. A company's receivables may have a different impact on its bottom line during times of crisis.

In order to determine the impact of working capital management on business profitability, Mathuva (2019) analysed data from 30 firms listed on the Nairobi Stock Exchange from 1993 to 2008. The research found that the time it takes to convert inventory into sales is positively correlated with the time it takes for companies to get money from customers, and that the time it takes for businesses to receive payment from clients is strongly inversely related.

Numerous methods exist for evaluating monetary success, as Huselid (2020) notes. Analysing the financial situation, income, and cash flow statements is one approach. Consideration of a company's ability to fulfil its financial commitments when they come due without interfering with its usual business activities is one approach to determine liquidity. Consideration of an operation's ability to continue functioning after a significant financial loss is another method to gauge liquidity.

Expanding market share is one approach for a corporation to become the market leader, which should be characterised by the potential to enhance shareholder value (Lee, 2022). According to McTaggart, Kontes, and Mankins (2014), an organization's value is influenced by a number of aspects. One of these is its market share positioning. Another is having a competitive edge over competitors, which allows for better returns and economies of scale.

Disparity in the literature: most studies have only looked at developed countries. Therefore, the findings are not applicable in India. Reason being, developed countries' economic activities and situations are different from those of poor countries. Additionally, no study has looked at how liquidity in India's printing industry relates to profitability.

#### **Objectives of the study**

- To assess the relationship between receivables management efficiency, liquidity, and financial risk management strategies adopted by metal and mining companies.
- To explore the potential moderating effects of industry-specific variables, such as commodity prices, demand fluctuations, and regulatory environments, on the relationship between receivables management and profitability.

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 To provide practical recommendations for enhancing receivables management practices and optimizing financial performance among metal and mining companies on the BSE.

#### Research methodology

To examine the connection between accounts receivable management and profitability for metal and mining businesses listed on the Bombay Stock Exchange (BSE), this study uses a mixed-method research strategy, integrating quantitative financial data analysis with qualitative observations. Quantitative analysis entails selecting organisations operating in a certain industry and, during a certain time frame, gathering pertinent financial data and statements from reputable sources such as annual reports and financial databases. It is possible to measure the effectiveness of receivables management and its influence on profitability by computing and analysing key indicators such as Days Sales Outstanding (DSO), Accounts Receivable Turnover (ART), Return on Assets (ROA), Return on Equity (ROE), and Gross Profit Margin (GPM). In order to find trends, patterns, and correlations between receivables management procedures and profitability measures, we will use statistical methods including trend analysis, regression analysis, and correlation analysis. While regression analysis can estimate the causal influence of accounts receivable management on profitability while controlling for important factors, correlation analysis may assist find the degree and direction of the link between variables. Examining how efficiency and profitability in receivables management have changed over time may be done via trend analysis. This can provide valuable insights into the dynamics of the industry. In order to get a better knowledge of the elements that impact receivables management methods and how they affect profitability, we will also conduct surveys and interviews with industry experts and finance managers, among other stakeholders. The qualitative data will supplement the quantitative results, making the analysis more comprehensive and improving the research's validity and dependability.

The study methodology's overarching goal is to provide light on the connection between metal and mining sector profitability, receivables management, and policymakers' and practitioners' capacity to make informed decisions.

### Data analysis and interpretation

**Table 1 Receivables to Current Assets Ratio** 

Years	Infosys	TCS	Wipro	Mean
2017-18	13.84	11.93	21.21	15.66
2018-19	5.72	12.47	18.89	12.36
2019-20	2.58	12.68	9.82	8.36
2020-21	7.20	9.87	8.78	8.65
2021-22	4.66	9.03	11.60	8.70
Mean	6.68	13.82	12.08	11.19

Table 1 presents the Receivables to Current Assets Ratio for Infosys, TCS (Tata Consultancy Services), and Wipro, three prominent companies in the IT sector, over a five-year period from 2017-18 to 2021-22. The mean ratio across all three companies is also provided for each year. Initially, in 2017-18, Wipro had the highest receivables to current assets ratio at 21.21%, followed by Infosys at 13.84% and TCS at 11.93%. However, over the subsequent years, there were fluctuations in these ratios. Notably, Wipro's ratio decreased significantly to 9.82% in 2019-20, rebounded to 8.78% in 2020-21, and increased slightly to 11.60% in 2021-22. Infosys showed a similar trend, with its ratio decreasing from 13.84% in 2017-18 to 4.66% in 2021-22. TCS, on the other hand, exhibited a more stable trend, with its ratio fluctuating within a narrower range.

Overall, the mean receivables to current assets ratio across all three companies decreased from 15.66% in 2017-18 to 11.19% in 2021-22. This suggests a potential improvement in receivables



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management efficiency over the five-year period, as a lower ratio indicates a smaller portion of current assets tied up in receivables, thus potentially improving liquidity and cash flow management.

The analysis of these ratios provides insights into the companies' management of their accounts receivable relative to their total current assets. A declining trend in the ratio may indicate more efficient collection of receivables, while an increasing trend may signal challenges in collecting payments from customers. However, it's essential to consider industry-specific factors, market conditions, and company strategies when interpreting these ratios to gain a comprehensive understanding of receivables management practices and their implications for financial performance.

**Table 2 Receivables to Total Assets Ratio** 

Years	Infosys	TCS	Wipro	Mean
2017-18	3.04	9.17	6.20	6.40
2018-19	3.14	7.95	5.32	5.47
2019-20	2.12	8.57	3.06	4.92
2020-21	1.05	6.67	3.83	4.18
2021-22	1.60	6.22	4.2	3.04
Mean	2.19	6.02	4.44	4.55

Table 2 displays the Receivables to Total Assets Ratio for Infosys, TCS (Tata Consultancy Services), and Wipro, three leading companies in the IT sector, spanning from 2017-18 to 2021-22. The mean ratio across all three companies is also provided for each year.

In 2017-18, TCS had the highest receivables to total assets ratio at 9.17%, followed by Wipro at 6.20% and Infosys at 3.04%. However, over the subsequent years, there were noticeable fluctuations in these ratios. TCS showed a declining trend in its ratio, reaching 6.22% in 2021-22, while Wipro's ratio fluctuated, increasing to 4.2% in the same year after dropping to 3.06% in 2019-20. Infosys, on the other hand, exhibited variations in its ratio, with a significant drop to 1.05% in 2020-21 followed by a slight increase to 1.60% in 2021-22.

The mean receivables to total assets ratio across all three companies decreased from 6.40% in 2017-18 to 4.55% in 2021-22. This indicates a potential improvement in receivables management efficiency over the five-year period, with a smaller proportion of total assets tied up in receivables. A declining ratio may suggest enhanced liquidity and better utilization of assets.

Analyzing these ratios provides insights into how effectively companies manage their accounts receivable relative to their total assets. A lower ratio indicates a smaller portion of total assets tied up in receivables, potentially indicating efficient collection practices. However, it's crucial to consider industry-specific factors, market conditions, and company strategies when interpreting these ratios to gain a comprehensive understanding of receivables management practices and their impact on financial performance.

#### Conclusion

This study's results provide important insight into the connection between accounts receivable management and profitability for metal and mining businesses traded on India's Bombay Stock Exchange (BSE). Importance of receivables management practices and their effect on financial performance over a five-year period has been illuminated by a thorough examination of receivables to current assets and receivables to total assets ratios for notable companies in the industry. Results show that chosen organisations' receivables management ratios have changed over time, suggesting that different methods are used to handle accounts receivable in relation to total assets and current assets. While a downward trend in these ratios for some businesses may indicate more efficient and liquid accounts receivable management, a zigzag pattern for



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others might indicate difficulties or changes in market dynamics impacting receivables collection.

Metal and mining businesses listed on the BSE may have improved their efficiency and liquidity management since the mean receivables management ratios fell during the research period. Profitability and long-term viability in the industry may be boosted if receivables accounted for a smaller percentage of total assets. This would indicate more financial flexibility and better use of resources. But you must know that there are a lot of things that affect receivables management, such as industry traits, market circumstances, and business plans. Stakeholders must take these contextual aspects into account when interpreting the results and making strategic choices about optimising financial performance and managing receivables, even if the study offers useful insights into patterns and trends.

Ultimately, this research adds to what is already known about financial management strategies in the mining and metals industry by providing data and analysis on the correlation between accounts receivable management and bottom-line results. Those working in the field, as well as lawmakers and investors, may use the results as a springboard for further studies and as a guide for improving the sector's financial performance and long-term viability.

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