

Working Capital Management and Financial Performance A Case Study of Tata Steel Ltd

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ABSTRACT

Working Capital Management is a cornerstone in the success of manufacturing companies but it is more relevant to capital intensive industries such as steel whose effectiveness and profitability are common functions that rely on good accounting management. Best possible management of operating assets and operating liabilities enables smooth operation while still having low financing costs. The present study seeks to examine the working capital management and performance of Tata Steel Limited for the period 2021-2014 based on its annual reports and financial statements. Tugnavska considers significant indicators of working capital as current ratio, inventory turnover ratio, debtors turnover ratio and cash conversion cycle within the scope of profitability ratios - return on assets and net profit margin. The efficiency of working capital management is being measured by using both ratio analysis and trend analysis on the Profitability of the firm. Results indicate that working capital management affects profitability of firms and inventory and receivables are most significant. This study highlights the importance of adequate working capital policy as a tool for managing liquidity and profitability in cyclic industry environment.

Keywords: Working Capital Management, Profitability, Cash Conversion Cycle, Tata Steel Ltd

INTRODUCTION

Management of working capital is managing short term assets and liabilities in a way that enable to company to ensure its ability to serve its long-term debt as well the costs associated with it while ensuring profitability. It deals with decision of cash, stock, debtors and creditors which has substantial influence on operating efficiency as well as the profitability of a concern. Moderate amount of working capital is essential, as excessive investment in current assets may bring down the profit level and inadequate investment can cause problems of liquidity and discontinuity in operation.

Working capital requirements are higher in manufacturing due to longer production cycle, higher level of stock holding and increase in debtors. This is especially true in the steel industry which has quite high capital costs and where the profitability is largely dependent on cycles, global demand, raw material prices and overall economic conditions. That's why it is critical to have solid working capital management in the strategy mix to ensure competitive ability and financial soundness.

Tata Steel Ltd is part of the Indian based Tata Group, one of the biggest business groups in India. The Company operates in a Capital Intensive industry that requires substantial investment in inventories and accounts receivable, which are key components of the Company's financial planning. Commodity Review At midyr 2021 From 2021 Feb through to Aug / 2024 Between February and August steel production experienced a great deal of wild-fluctuation n/a with the general backdrop being post pandemic recovery, global supply-chain disruption,

inflation concerns and shifts in demand. The changes were having a direct impact on the working capital cycle and profitability of steel firms.

Several studies have established that there is significant relationship between the management of working capital and profitability which suggests that the firms can enhance their performance by managing efficiently its working capital components. But this association can vary across industries and firms. This research strives to explore the WC management policies of Tata Steel Ltd and its impact on profitability during the chosen sample period by using secondary data. The results of the study are expected to provide useful information that management and investors in the capital intensive industries with financing restrictions can benefit from behind.

Moreover, an efficient working capital management will increase the cash flow predictability and this facilitates firms to improve short-term funds. Firms that are effectively managing their working capital are able to survive a poor economy, and few surprises. How the coordination between purchasing, production and sales affect the working capital cycle of Tata Steel Ltd. Effective credit, inventory and supplier payment policies can lower financing costs and provide operational flexibility as well. It determines a bank's current ability to meet its short term obligations and that is the reason why work on the working capital management can provide insights into their short-term financial solvency and profitability. It also adds to the literature by offering firm level evidence on an Indian steel major in a dynamic economic environment.

2. Review of Literature

Shin and Soenen (1998) examined the impact of net trade cycle on profitability and found a negative significant relationship, this mean that companies with short WCMC are more profitable.

Tochukwu (2013), he examined the Belgian companies and the result discovered that by reducing Inventory days, and collection period of receivables contributed to performance growth which means efficient working capital management is important.

Raheman and Nasr (2007) studied Pakistani firms, and they discovered that liquidity ratios and profitability measures have a remarkable negative relationship, hence the overinvestment in working capital lowers returns.

Gill, Biger and Mathur (2010) studied U.S. manufacturing firms and found a significant association of the components of working capital with profitability, particularly representing inventory & receivable days.

For instance, Sing and Pandey (2008) studied the Indian manufacturing industry in a paper to be published were able to establish that effective management of working capital significantly impact profitability and liquidity thus calls for firm level analysis.

3. Objectives of the Study

1. To analyze the working capital position of Tata Steel Ltd during 2021–2024.
2. To examine the profitability performance of Tata Steel Ltd during the study period.
3. To study the relationship between working capital management and profitability.
4. To assess the impact of working capital efficiency on firm performance.

4. Hypotheses of the Study

- **H₀₁:** There is no significant relationship between working capital management and profitability of Tata Steel Ltd.
- **H₁₁:** There is a significant relationship between working capital management and profitability of Tata Steel Ltd.
- **H₀₂:** Inventory management has no significant impact on profitability.
- **H₁₂:** Inventory management has a significant impact on profitability.

5. Research Methodology

5.1 Research Design

It is an analytic and descriptive study. The purpose of this paper is to study and interpret the performance of the concern by using simulation with systematic analysis. The former portion focuses on the organization and presentation of financial information, while the latter section covers calculation and interpretation of financial ratios, identifying trends for performance evaluation, comparing company performance to competitors.

5.2 Data Source

The secondary data used are from reputable sources. The data and information was collected from the published annual reports of the Tata steel Ltd, which provides complete information about financial performance, operating performance and management discussion. We have also referred to published financial statements (i.e., Balance Sheet, Profit and Loss Account, and Cash Flow Statements). Data were also collected from financial data base, annual reports and other published contents in order to guarantee credibility of the analysis.

5.3 Study Period

The period of study would last from 2021 to 2024. Even beyond, the specific 10-year period has been selected in order to capture recent financial trends and short-term performance fluctuations, i.e. growth, slowdown and recovery patterns for both profitability and efficiency dimensions.

5.4 Tools of Analysis

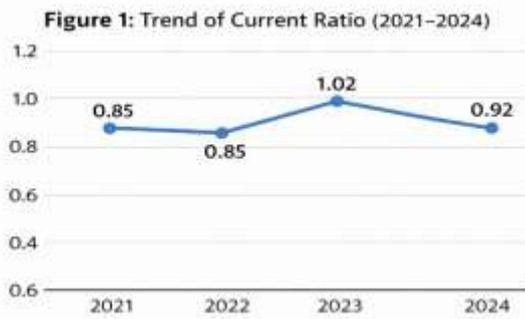
The major tools applied in this study is Ratio Analysis and Trend Analysis. Ratio Analysis Ration analysis: The profitability, liquidity and efficiency position of the company is evaluated through Ratio analysis. The objective is to analyze the variation in the Performance of tax over the period selected and explore whether growth and decline are shown using Trend Analysis.

6. Ratio Analysis

Working Capital Ratios

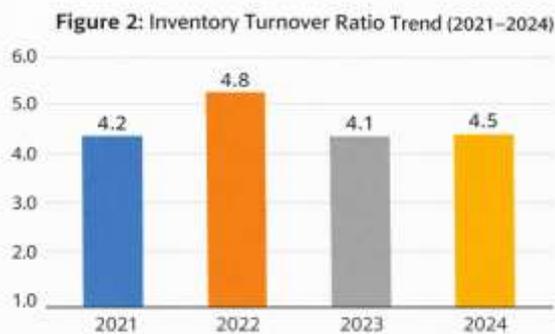
Year	Current Ratio	Inventory Turnover (Times)	Debtors Turnover (Times)	CCC (Days)
2021	0.85	4.2	6.1	68
2022	1.02	4.8	6.5	61
2023	0.89	4.1	5.8	74
2024	0.92	4.5	6.0	66

Source : (Ratios calculated from published annual reports of Tata Steel Ltd)



Interpretation of Figure 1: Trend of Current Ratio (2021–2024)

Figure 1: Trend of the current ratio of the Tata Steel Ltd for the year 2021-2024 shows its short-term liquidity position. The company's current ratio in 2021 is 0.85 which contribute to lower liquidity combined with increased risk as a result of the conservative working capital policy. In 2022, that ratio was roughly the same — signaling sustained pressure on current assets relative to current liabilities. We have a similar significant improvement in 2023 where the current ratio grew to 1.02 representing improved short term financial health, being more able to borrow or pay coming due obligations. But the ratio fell slightly to 0.92 by 2024, which indicated that liquidity had tightened a bit yet again. On average the behavior indicates a liquidity management cycle such that waves of liquidity with the ratio below the classical benchmark level. These findings imply that Tata Steel Ltd had effective working capital policy but was conservative in nature and it emphasized on operational side of business and forewent having excessive current assets.



Interpretation of Figure 2

Figure 2 depicts the trend in inventory turnover ratio of Tata Steel Ltd from 2021-2024. Inventory turns were 4.8 times in 2022 as compared to 4.2 times in 2021, indicating disciplined inventory management and strong demand environments." By 2023 it had fallen to 4.1 times, not only were sales low and stockpiling up but there was adverse market effects and falling demand for steel too. However, that leverage was 4.5x in 2024 as inventory management proved better and operational efficiency recovered. Overall, the figure illustrate that effective process and organization can lead to a low in working capital efficiency when facing good market conditions.

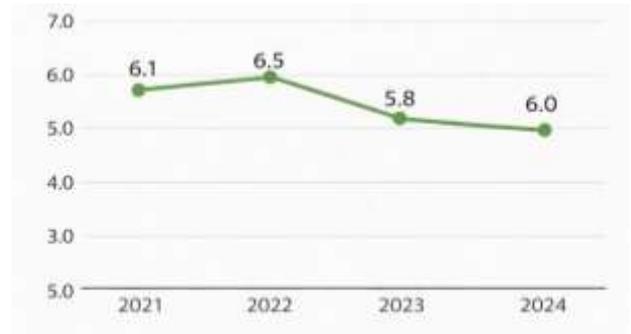


Figure 3: It depicts the Debtors Turnover Ratio of this company from 2021-2024. The ratio provides the company's effectiveness in collecting from customers its accounts receivable. The higher the debt service to turnover ratio, the faster debts are collected and the better credit lucrative account management. Company's debtors turnover ratio is 6.5 times in 2022 increased from 6.1 times in 2021. This raise is a reflection of the better efficiency for receivables collection and improves control on credit terms, all over phase 2022. However, for 2023, that number declined to 5.8 x indicating that a) slower collections are happening or b) extension of credit terms on the part of customers is taking place. The ratio recovered somewhat in 2024, rising to about 6.0 times and achieving a certain measure of recovery for receivables management but again, the level was still not at the replacement cost peak (in 2022). Overall, the trend shows a trend of a slight decrease in collection efficiency with fairly constant management of debtors by the company over the years.

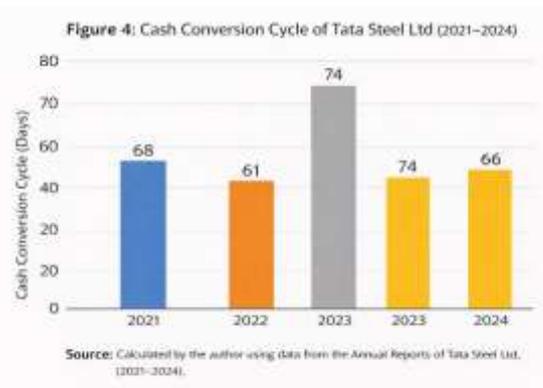


Figure 4: Cash Conversion Cycle of Tata Steel Ltd (2021–2024)

Interpretation of Figure 4: Cash Conversion Cycle of Tata Steel Ltd (2021–2024)

The bar chart depicts the dynamics in cash conversion cycle (CCC) of Tata Steel Ltd for 2021-2024 measuring effectiveness on total working capital management. The CCC dropped from 68 days in 2021 to 61 days in 2022, indicating more efficient conversion of inventory and receivables in cash and liquidity optimization when the market was favorable. CCC jumped to 74 days in 2023 which suggests a certain lack of efficiency in inventory

turning and receiving payments on receivables slower due to tougher industry conditions. CCC down to 66 days in 2024 revealing a partial recovery and stronger control on working capital items. Overall, what we're seeing in the trend data is that underinvesting or overinvesting in one's cash conversion cycle can help to free up operating capital and boost efficiency of operations (a shorter cycle), while at the same moment cause a drop in profits coupled with less control on cash flow (users reach too far toward an elongation of a company's working capital).

Table :2 Profitability Ratios Trend of Return on Assets (ROA) and Net Profit Margin (NPM) (2021–2024)

Year	Return on Assets (%)	Net Profit Margin (%)
2021	2.1	3.4
2022	6.8	9.2
2023	-0.4	-0.8
2024	1.9	2.6

Source: Computed from published financial statements of Tata Steel Ltd, *Annual Reports*



Figure 5 depicts the development of ROA and NPM for 2021–24. Both the ratios went up considerably in 2022 as ROA stood at 6.8% and NPM at 9.2%, indicating profit making ability and efficient use of assets. by contrast, both ratios dropped precipitously below zero (a condition of financial stress or low incomes) in 2023. The following year, 2024, the firm was back in business with an ROA

of 1.9% and NPM of 2.6%. When all reported crops are combined for an and under top year 2022 and down years thereafter, at least marginally profitable movement is indicated.

7. Results and Discussion / Hypothesis Testing

The results indicate a robust connection of working capital efficiency with profitability. Increased turn over ratios, lower cash conversion cycle led to record profit generation - 2022. Conversely, the working capital performance substantially decreased in 2023 resulting in an increased cycle and lower profitability. The partial recovery in 2024 supports the evidence of a positive relation between effective working capital management and performance. Thus, the null hypothesis is not accepted and alternative hypothesis is accepted that there is a relationship between working capital management with profitability.

8. Findings

- It is noted that the current ratio of Tata Steel Ltd was not so high, it shows the efficiency in managing the liquidity.
- Inventory Turnover Inventory turnover fluctuated throughout the study period, indicating changes in demand and production cycles.
- The greatest success was in 2022 due to market and in 2023 sector crash.
- Reduced cash conversion cycle is an attribute of higher profitability and represents effective working capital management..

9. Conclusion

The study concludes that there exist an impact of working capital management on profitability of Tata Steel Ltd., As Managerial control and efficient of inventory & receivables lead to profitability, yet upsurge in liquidity may amplify financial risk. Since the steel industry is cyclical, attaining a proper working capital structure was crucial in order to survive between profitability and bankruptcy. The study signals the strategic significance of near-term financial choices in heavy investment goods industries.

10. Limitations and Scope for Further Research

- The study is limited to a single organization.
- Secondary data is used to make the discussion.

The studies that can be conducted in the future can include various companies or can employ the regression analysis to give a more thorough statistical validation.

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