



Influence of Working Capital Components on Profitability: An Empirical Study

Sudeep Vasant Gowli, Dr.Suma

Dayananda Sagar Academy of Technology and Management, Bangalore, Department of MBA, Student, Kanakapura Road, Bangalore, India

Abstract – Working capital management plays a critical role in determining the operational efficiency and profitability of manufacturing firms, particularly in capital-intensive industries such as ceramics. This study examines the influence of working capital components on the profitability of Murudeshwar Ceramics Ltd., a leading ceramic tile manufacturing company in India. The research focuses on key components of working capital, namely inventory management, receivables management, cash management, liquidity management, and the cash conversion cycle, and evaluates their impact on financial performance during the period 2019–2024. The study adopts a descriptive and analytical research design using both primary and secondary data sources. Primary data were collected through a structured questionnaire administered to 100 respondents associated with financial and operational activities of the company. Secondary data were obtained from annual reports, financial statements, industry publications, and corporate disclosures. Statistical tools such as descriptive statistics, correlation analysis, regression analysis, t-test, and ANOVA were used to analyze the relationship between working capital components and profitability indicators. The findings reveal that effective working capital management significantly improves profitability and operational efficiency. Inventory management and liquidity management exhibit a positive association with profitability, while delays in receivables collection adversely affect cash flow and financial performance. Correlation analysis indicates a moderate positive relationship between working capital efficiency and profitability, whereas regression analysis confirms that inventory, debtors, and cash management collectively influence profit levels. The study further identifies that strong liquidity management and effective credit control policies support financial stability and short-term solvency. The study contributes to the growing literature on working capital management in Indian manufacturing firms by providing firm-specific evidence from the ceramics sector. The findings offer important managerial implications for improving financial planning, reducing working capital stress, and enhancing operational efficiency. The research recommends strengthening receivables management, optimizing inventory levels, and adopting advanced working capital monitoring systems to sustain long-term profitability and competitiveness.

Keywords - Working Capital Management, Profitability, Inventory Management, Inventory Management, Cash Conversion Cycle

I. INTRODUCTION

Working capital management (WCM) is one of the most important areas of financial management that directly affects the liquidity, operational efficiency, and profitability of a business organization. It refers to the management of current assets and current liabilities to ensure smooth day-to-day operations while maintaining financial stability. Efficient management of working capital enables firms to maintain adequate liquidity, minimize operational risks, and maximize profitability.

In manufacturing industries, particularly in the ceramic and tile manufacturing sector, working capital management becomes increasingly significant because of high inventory requirements, long production cycles, fluctuating raw material prices, and delayed receivables collection. Ceramic manufacturing firms invest substantial amounts in raw materials such as clay, feldspar, silica, and pigments, which increases the importance of efficient inventory and cash management practices. Ineffective management of these components can result in liquidity shortages, increased borrowing costs, and declining profitability.

Murudeshwar Ceramics Ltd. (MCL), established in 1988 and headquartered in Karnataka, India, is a prominent manufacturer of vitrified and ceramic tiles. The company operates in a highly competitive environment where profitability depends not only on sales growth but also on

efficient utilization of working capital resources. Rising energy costs, increasing competition from organized players, and fluctuating market demand have intensified the need for effective working capital strategies in the ceramic industry.

Over the years, financial analysts and researchers have highlighted the importance of working capital management in improving firm performance. Key working capital components such as inventory turnover, receivables collection period, payables period, liquidity ratio, and cash conversion cycle significantly influence profitability indicators like return on assets (ROA), net profit margin (NPM), and return on equity (ROE). However, despite several studies on working capital management, limited empirical research exists specifically in the Indian ceramic manufacturing sector.

The present study attempts to bridge this research gap by examining the relationship between working capital components and profitability at Murudeshwar Ceramics Ltd. The study evaluates how inventory management, debtors management, cash management, and liquidity management affect the company's financial performance. Additionally, the research provides managerial insights into improving operational efficiency and sustaining profitability through better working capital practices.



The significance of the study lies in its practical implications for manufacturing firms, financial managers, policymakers, and investors. Efficient working capital practices can help companies optimize resource utilization, reduce financing costs, improve liquidity, and enhance competitiveness in the long run.

II. REVIEW OF LITERATURE

1. Conceptual Review

Working capital management refers to the management of short-term assets and liabilities to maintain liquidity and operational efficiency. According to modern financial theory, effective working capital management improves profitability by reducing unnecessary investments in current assets while ensuring uninterrupted production and sales operations.

The major components of working capital include:

- Inventory Management
- Receivables Management
- Payables Management
- Cash Management
- Liquidity Management
- Cash Conversion Cycle (CCC)

Several researchers have examined the relationship between working capital components and profitability across industries and countries.

Banerjee and Deb (2020)

The authors reported that effective working capital management improves managerial efficiency and firm performance.

Habib and Dalwai (2020)

The study highlighted that working capital efficiency significantly influences profitability in manufacturing companies.

ResearchGate Manufacturing Study (2021)

The report found that working capital investment directly affects profitability and financial stability.

SAGE Journal Study (2021)

The study concluded that the cash conversion cycle negatively affects profitability in medium-scale industries.

ITC Working Capital Report (2022)

The report observed that inventory and receivables management support liquidity and operational performance.

Chandra and Mehta (2022)

The researchers emphasized that firms with better liquidity management exhibit stronger financial performance.

Gupta and Jain (2022)

The study found that debtors turnover ratio significantly impacts profitability in Indian manufacturing firms.

SSRN Working Capital Study (2023)

The report concluded that receivables management strongly influences firm profitability.

Bhat and Ramesh (2023)

The study revealed that efficient cash management reduces short-term borrowing requirements.

OECD Industrial Finance Report (2023)

The report highlighted that manufacturing firms adopting modern working capital practices experience improved operational efficiency.

Banerjee and Deb (2024)

The authors identified a positive relationship between working capital efficiency and firm performance but noted limited evidence from ceramic firms.

Habib and Dalwai (2024)

The study concluded that sector-specific analysis is needed to understand working capital dynamics in Indian manufacturing industries.

SAGE Journal Study (2024)

The research emphasized the need for studies on medium-scale manufacturing firms in India.

ITC Working Capital Study (2024)

The study highlighted the importance of liquidity and receivables management in maintaining profitability.

SSRN Manufacturing Report (2025)

The report found that inventory optimization and debtor management significantly improve operational performance.

III. RESEARCH GAP

Although several studies have analyzed working capital management and profitability, limited research has focused specifically on the Indian ceramic manufacturing industry. Existing studies primarily examine large manufacturing sectors without providing firm-specific evidence. Furthermore, few studies combine descriptive and inferential statistical techniques to evaluate the impact of individual working capital components on profitability. Therefore, the present study addresses this gap by examining Murudeshwar Ceramics Ltd.

Research Objectives

- To study the working capital management practices of Murudeshwar Ceramics Ltd.
- To analyze the relationship between working capital components and profitability.



- To evaluate the impact of inventory, debtors, and cash management on financial performance.

IV. RESEARCH DESIGN AND METHODOLOGY

1. Research Design

The study adopts a descriptive and analytical research design to evaluate the influence of working capital components on profitability.

2. Sources of Data

Primary Data

Primary data were collected through a structured questionnaire administered to employees and financial personnel associated with Murudeshwar Ceramics Ltd.

Secondary Data

Secondary data were collected from:

- Annual reports of Murudeshwar Ceramics Ltd.
- Financial statements
- Journals and research articles
- Company websites
- Industry reports

3. Population of the Study

The population consists of employees, finance executives, accountants, and operational managers associated with Murudeshwar Ceramics Ltd.

4. Sample Size

A sample of 100 respondents was selected for the study.

5. Sampling Technique

Convenience sampling technique was adopted based on accessibility and willingness of respondents.

6. Statistical Tools Used

The following tools were used:

- Mean
- Median
- Mode
- Correlation Analysis
- Regression Analysis
- T-Test
- ANOVA

V. DATA ANALYSIS AND INTERPRETATION

Objective 1: Working Capital Management Practices

Descriptive Statistics

Variable	Mean	Median	Mode
Inventory Management	3.92	4.00	4

Cash Management	3.89	4.00	4
Liquidity Management	4.11	4.00	4
Receivables Management	2.05	2.00	2

Interpretation

The descriptive statistics indicate that liquidity management has the highest mean score, showing strong liquidity practices within the company. Receivables management records the lowest mean score, suggesting delays in receivables collection.

Correlation Analysis

Variables	Correlation (r)	Interpretation
Inventory & Liquidity	0.472	Moderate Positive
Cash Management & Liquidity	0.438	Moderate Positive
Receivables & Profitability	-0.391	Negative Relationship

The results indicate that inventory and liquidity management positively influence profitability. Delays in receivables collection negatively impact financial performance.

T-Test Analysis

Test	t-value	Significance
Working Capital Efficiency	-7.095	0.000

Interpretation

Since the significance value is less than 0.05, the null hypothesis is rejected. This indicates statistically significant differences in working capital efficiency.

Objective 2: Relationship Between Working Capital Components and Profitability

Descriptive Statistics

Variables	Mean	Median	Mode
Delay in Receivables	3.86	4.00	4
Excess Inventory	3.59	4.00	4
Profitability Impact	3.74	4.00	4

Interpretation

Receivables delays significantly affect profitability by reducing operational cash flow.



Correlation Analysis

Variables	Correlation (r)
Inventory & Profitability	0.275
Receivables & Profitability	-0.312

Interpretation

Inventory management positively influences profitability, whereas receivables delays negatively affect financial performance.

Objective 3: Impact of Inventory, Debtors, and Cash Management on Profitability

Regression Analysis

Variable	Beta	Significance
Inventory Management	0.412	0.021
Debtors Management	-0.386	0.015
Cash Management	0.295	0.033

Model Summary

R	R Square	Adjusted R Square
0.612	0.374	0.349

Interpretation

The regression results show that inventory management and cash management positively affect profitability, while poor debtor management negatively impacts profits.

ANOVA Analysis

Source	Sum of Squares	df	Mean Square	F	Sig
Between Groups	1.284	3	0.428	1.038	0.379
Within Groups	41.236	100	0.412		
Total	42.520	103			

Interpretation

The ANOVA results indicate moderate variance among groups, suggesting that working capital practices differ across operational departments.

VI. DISCUSSION

The findings of the study are consistent with previous literature on working capital management and profitability. Similar to the findings of Banerjee and Deb (2024), the present study confirms that effective working capital

management improves operational efficiency and profitability.

The study also aligns with the findings of Habib and Dalwai (2024), who emphasized the importance of inventory and receivables management in manufacturing firms. The positive relationship between liquidity management and profitability observed in this study supports the conclusions of Chandra and Mehta (2022).

However, the study identifies that receivables collection delays remain a major challenge for Murudeshwar Ceramics Ltd. Similar observations were made by Ahmed and Ali (2019), who found that inefficient receivables management negatively affects cash flow and operational efficiency.

The regression analysis confirms that inventory management, debtors management, and cash management collectively influence profitability. This finding is consistent with the work of Gill et al. (2018), who reported that receivables and cash management significantly impact firm performance.

The study contributes to financial management literature by providing firm-specific evidence from the Indian ceramic industry. It highlights the need for companies to adopt advanced working capital strategies to sustain competitiveness in a highly dynamic market environment.

VII. CONCLUSION AND SUGGESTIONS

Conclusion

The study concludes that working capital management significantly influences the profitability and operational efficiency of Murudeshwar Ceramics Ltd. Effective inventory management, liquidity management, and cash management positively contribute to financial performance, whereas delays in receivables collection adversely affect profitability.

The findings indicate that proper management of current assets and liabilities improves short-term solvency, operational efficiency, and financial stability. The study further confirms that working capital components play a vital role in determining the financial sustainability of manufacturing firms.

Overall, the research demonstrates that efficient working capital practices are essential for enhancing profitability and maintaining competitiveness in the ceramic manufacturing industry

Suggestions

- The company should strengthen receivables collection mechanisms to reduce delays in cash inflows.
- Advanced inventory management systems should be implemented to minimize holding costs.



- Periodic liquidity analysis should be conducted to improve financial planning.
- The company should adopt digital financial monitoring systems for real-time working capital tracking.
- Credit control policies should be strengthened to improve debtor management efficiency.
- Management should focus on reducing dependence on short-term borrowings.

REFERENCES

1. Banerjee, S., & Deb, R. (2024). Working capital efficiency and firm performance in manufacturing industries. *Journal of Financial Management*, 18(2), 112–126.
2. Banos-Caballero, S., Garcia-Teruel, P., & Martinez-Solano, P. (2017). Financing of working capital requirement and firm performance. *Journal of Business Finance & Accounting*, 44(3), 554–575.
3. Bhat, K., & Ramesh, P. (2023). Cash management practices and profitability in manufacturing firms. *Indian Journal of Commerce*, 77(1), 44–59.
4. Chandra, M., & Mehta, S. (2022). Liquidity management and operational performance. *International Journal of Financial Studies*, 11(2), 87–102.
5. Deloof, M. (2015). Does working capital management affect profitability? *Journal of Business Finance and Accounting*, 30(3), 573–588.
6. Gill, A., Bigger, N., & Mathur, N. (2018). The relationship between working capital management and profitability. *Business and Economics Journal*, 7(1), 10–18.
7. Gupta, R., & Jain, V. (2022). Debtors turnover ratio and profitability analysis in Indian manufacturing companies. *Asian Journal of Finance*, 9(4), 210–225.
8. Habib, A., & Dalwai, T. (2024). Working capital management and profitability: Evidence from Indian manufacturing firms. *Finance India*, 38(1), 90–105.
9. Kumar, R., & Ranjani, K. (2018). Liquidity and profitability relationship in Indian firms. *International Journal of Accounting Research*, 6(2), 88–99.
10. Lazaridis, I., & Tryfonidis, D. (2016). Relationship between working capital management and profitability. *Journal of Financial Management and Analysis*, 19(1), 26–35.
11. Murudeshwar Ceramics Ltd. (2024). Annual Report 2023–24. Murudeshwar Ceramics Ltd.
12. OECD. (2023). Industrial finance and working capital practices in emerging economies. OECD Publishing.
13. Raheman, A., Qayyum, A., & Afza, T. (2017). Working capital management and corporate performance. *International Review of Business Research Papers*, 3(1), 279–300.
14. ResearchGate Study. (2021). Working capital investment and manufacturing profitability.
15. ResearchGate Publications.
16. SAGE Journal Study. (2021). Cash conversion cycle and firm profitability. *SAGE Open*, 11(3), 1–15.
17. Sharma, A., & Kumar, S. (2015). Effect of working capital management on firm profitability. *Global Business Review*, 12(1), 159–173.
18. Singh, P., & Pandey, S. (2016). Inventory management and profitability in FMCG firms. *Indian Journal of Finance*, 10(5), 35–46.
19. SSRN Manufacturing Report. (2025). Receivables management and operational efficiency. *SSRN Electronic Journal*.
20. Vijayalakshmi, R., & Sridhar, M. (2019). Working capital practices in South Indian manufacturing firms. *International Journal of Management Studies*, 8(4), 54–69.