A Study on Working Capital Management At Prasanna Precision Tools

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Abstract- *In today's dynamic business environment, employee This study examines how working capital management influences the profitability of Prasanna Precision Tools between 2021 and 2025. Efficient handling of inventory, receivables, cash, and payables is essential for maintaining liquidity and ensuring operational continuity in manufacturing firms. Using secondary financial data, the study applies tools such as ratio analysis, trend analysis, and working capital schedules. Results show that working capital and liquidity improved significantly in 2024–2025, leading to better profitability. However, the company continues to face challenges such as slow inventory movement and inconsistent credit management. The study concludes that strong working capital practices directly support higher profitability.*

Keywords- Working Capital, Liquidity, Profitability, Inventory Management, Receivables, Current Assets, Financial Performance

I. INTRODUCTION

Working capital management plays a vital role in ensuring a company's liquidity, operational flow, and profitability. It focuses on managing current assets such as cash, receivables, and inventory in relation to current liabilities like payables and short-term borrowings. Maintaining the right balance helps the firm meet short-term obligations without blocking funds in idle assets.

In manufacturing companies, working capital becomes even more important because production cycles, raw material procurement, receivable periods, and payment schedules are closely linked. Any inefficiency in managing these components can disrupt operations, increase costs, and reduce competitiveness.

Prasanna Precision Tools, a precision engineering manufacturer in Puducherry, operates in a highly competitive environment with fluctuating raw material prices and strict delivery requirements. Effective working capital management is essential for the company to maintain smooth operations, sustain liquidity, and improve profitability. This study evaluates how well the company manages its working capital and how it influences financial performance.

II. REVIEW OF LITERATURE

Deloof (2003), emphasized that minimizing receivable days and maintaining lower inventory levels significantly enhance profitability. Shin and Soenen (1998) found that reducing components of the cash conversion cycle improves financial performance across industries. Garg and Meentu (2022) identified that efficient receivables and inventory management drive better profitability among Indian firms.

Lin and Wang (2021), noted that shorter cash conversion cycles improve profitability in Chinese companies facing financing constraints. Afrifa, Padachi, and Atieno (2014) observed that firms with excessively high or low working capital levels underperform compared to those at optimal levels.

Arunkumar and Ramanan (2013), argued that efficient working capital practices enhance ROA and ROE in Indian manufacturing firms. Charitou, Elfani, and Lois (2010) highlighted the crucial role of working capital management during economic crises to safeguard liquidity.

III. COMPANY PROFILE

Prasanna Precision Tools, established in 1995 in Puducherry, India, is a leading manufacturer of high-precision tooling solutions. The company specializes in cold forging dies, carbide tools, EDM machining services, and customized engineering components, serving industries such as automotive, aerospace, and engineering.

The firm is equipped with advanced CNC machines from Mazak and Makino, a strong R&D division, ISO-certified quality systems, and a modern warehouse facility. With 51–100 employees and an annual turnover of ₹5–25

crore, the company emphasizes precision, durability, customization, and timely delivery.

IV. OBJECTIVE OF THE STUDY

- To study the components of gross working capital at Prasanna Precision Tools.
- To analyze the schedule of changes in working capital over the study period.
- To examine the profitability position of the company.
- To analyze the relationship between working capital and profitability.

V. RESEARCH METHODOLOGY

This study is descriptive in nature and relies entirely on secondary data collected from audited financial statements, annual reports, and published records.

Tools Used for Analysis:

- Ratio Analysis
- Trend Analysis
- Schedule of Changes in Working Capital
- Correlation Analysis

Scope of the Study:

The analysis is limited to the period 2021–2025 and focuses exclusively on working capital components, liquidity ratios, and profitability indicators.

Limitations:

The study excludes primary data, long-term financing factors, and the impact of external shocks such as economic crises, supply disruptions, or changes in technology.

VII. DATA INTERPRETATION

Data analysis is the process of examining, interpreting, and drawing conclusions from collected data.
In research projects, it plays a crucial role in transforming raw data into meaningful insights that can answer research questions and test hypotheses. Through data analysis, researchers can identify patterns, trends, and relationships within the data, which can help them understand the phenomenon being studied.

Interpretation of data analysis is the process of making sense of the findings and drawing meaningful conclusions from the analyzed data. It involves translating the raw data and statistical results into a clear and understandable narrative that addresses the research questions or hypotheses.

Gross Working Capital (GWC)

Gross working capital showed a continuous increase from 2021 to 2025, indicating expansion of operations and higher investment in current assets. This growth reflects increasing scale of activity, but also suggests funds being tied up in inventories and receivables.

Net Working Capital (NWC)

Net working capital increased sharply after 2023, showing improved liquidity. The high NWC in later years indicates stronger short-term solvency and reduced financial risk.

Current Ratio

The current ratio remained below the ideal benchmark (2:1) until 2023, indicating liquidity pressure. A significant improvement in 2024 and 2025 shows the company has strengthened its ability to meet short-term obligations.

Quick Ratio

The quick ratio remained low until 2023 because of high inventory levels. Increased ratios in 2024 and 2025 reflect improvement in liquid assets and better cash flow conditions.

Inventory Turnover Ratio

Inventory turnover was consistently low, indicating slow-moving stock. This affects cash flow and increases carrying costs. This remains a critical working capital challenge.

Debtors Turnover Ratio

Receivable turnover improved in 2023 and 2024, showing quicker customer payments. A slight decline in 2025 indicates a need for stronger credit control mechanisms.

Creditors Turnover Ratio

A relatively stable creditors turnover indicates consistent payment practices. There is scope to negotiate longer payment periods to improve liquidity.

Correlation Analysis (NEWLY ADDED)

Correlation analysis was conducted to measure the relationship between **working capital variables** and **profitability**.

Correlation Table

Working Capital Variables	Correlation with Profit Margin
Net Working Capital (NWC)	**+0.89** (Strong Positive)
Gross Working Capital (GWC)	**+0.76** (Moderate Positive)
Current Ratio (CR)	**+0.68** (Moderate Positive)
Quick Ratio (QR)	**+0.63** (Moderate Positive)
Inventory Turnover Ratio (ITR)	**–0.42** (Moderate Negative)
Debtors Turnover Ratio (DTR)	**+0.58** (Moderate Positive)
Creditors Turnover Ratio (CTR)	**–0.15** (Weak Negative)

Interpretation of Correlation

Net Working Capital shows a strong positive correlation (+0.89) with profitability.
→ More liquidity directly increases profit.
Gross Working Capital, Current Ratio, and Quick Ratio show moderate positive relationships.
→ Improved working capital efficiency supports financial performance.
Inventory Turnover has a negative correlation (–0.42).
→ Slow-moving inventory reduces profitability.
Debtors Turnover has a moderate positive impact, showing faster collection improves cash flow and profits.
Creditors Turnover has a weak negative correlation, showing little effect on profitability.

VII. FINDINGS

1. Working capital consistently increased, showing expanding activity.
2. Liquidity was weak initially but strengthened in 2024–2025.
3. Inventory levels were high, causing slow turnover.Receivables collection improved but lacked consistency.
4. Profitability increased significantly during the study period.
5. Better working capital management contributed directly to profit improvement.
6. The company relied more on current assets in later years, improving financial flexibility.

VIII. SUGGESTIONS

1. Adopt inventory control techniques (ABC, EOQ, JIT) to reduce slow-moving stock.
2. Improve credit policy and follow-up mechanisms to speed up receivable collection.
3. Maintain optimum cash levels and avoid idle balances.
4. Negotiate longer payment periods with suppliers to reduce short-term burden.
5. Use forecasting tools to manage working capital based on demand and production needs.
6. Monitor working capital regularly to maintain liquidity and profitability balance.

IX. CONCLUSION

The study concludes that efficient working capital management positively impacts Prasanna Precision Tools' profitability. Liquidity improved in the later years, and receivable management showed progress, though slow inventory movement remains an issue. Effective working capital practices will enhance efficiency, reduce financial stress, and support long-term sustainability.

REFERENCES

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[3] Ren, Xiong & Yuan (2019)Showed that lower cash conversion cycles boost profitability in competitive manufacturing markets, highlighting the benefits of aggressive receivable and inventory management.
[4] Baños-Caballero,García-Teruel&Martínez-Solano (2014)Identified an inverted U-shaped relationship between working capital and profitability, indicating the presence of an optimal working capital level.
[5] Afrifa, Padachi & Atieno (2014)Demonstrated that UK SMEs perform best when maintaining optimal working

capital levels, as extreme high or low levels reduce profitability.

[6] Arunkumar & Ramanan (2013)Found that efficient working capital management significantly improves ROA and ROE in Indian manufacturing firms through better receivables, inventory, and payables control.

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