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A STUDY SHORT TERM ASSET MANAGEMENT ON COMPANIES' PROFITABILITY WITH MODERATING EFFECT OF BUSINESS ENVIRONMENT EVIDENCE FROM TI CYCLE OF INDIA

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Abstract: This study examines the impact of short-term asset management on profitability within Indian manufacturing companies, with a specific focus on TI Cycles of India. It aims to assess how effectively short-term assets—such as inventory, receivables, and cash—are managed and how this efficiency contributes to financial performance. Additionally, the research explores the moderating influence of the business environment, including market competition, operational complexity, and regulatory pressures.

Adopting an analytical research design, the study employs descriptive statistics, regression analysis, and ANOVA to evaluate the relationship between asset utilization (measured by ROA and CCC) and profitability (measured by ROE and NPM). The primary objective is to analyze both the direct and moderated effects of asset efficiency on profitability, while the secondary objectives focus on operational and liquidity performance.

Key findings reveal that efficient management of short-term assets significantly enhances profitability and liquidity. The research highlights critical performance gaps and emphasizes the importance of strategic financial alignment with changing business conditions. Addressing a notable gap in existing literature, the study provides context-specific insights for Indian manufacturers.

These findings hold practical value for corporate managers, analysts, and policymakers seeking to improve financial performance through effective short-term asset and working capital management.

Keywords: Short-term asset management, Profitability, Working capital efficiency, Business environment, TI Cycles of India, Inventory management, Liquidity, ROA, ROE, Indian manufacturing industry.

I. INTRODUCTION

Effective management of short-term assets is crucial for maintaining a company's liquidity, operational efficiency, and overall profitability. Short-term assets, including inventory, receivables, and cash, play a vital role in ensuring smooth business operations and financial stability. However, their management is significantly influenced by the external business environment, which includes economic fluctuations, industry competition, and regulatory changes. Understanding the relationship between short-term asset management and profitability, along with the moderating effect of the business environment, is essential for companies to optimize their working capital and sustain long-term growth. This study focuses on TI Cycle of India, a leading player in the bicycle manufacturing industry, to examine how the company manages its short-term assets and their impact on profitability. The primary objective is to analyze the direct effect of short-term asset management on profitability while considering the moderating role of the business environment. Additionally, the study evaluates the operational efficiency of TI Cycle of India in managing inventory, receivables, and cash, assessing how these components influence financial performance. Inventory management is a critical aspect, as excessive or insufficient stock levels can directly affect production efficiency and profitability. Similarly, efficient receivables management ensures timely cash inflows, reducing liquidity risks.

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Furthermore, optimal cash management practices help maintain financial stability, enabling the company to meet its short-term obligations while investing in growth opportunities.
By investigating these dimensions, this study aims to provide valuable insights into the best practices for short-term asset management and their contribution to profitability, particularly under varying business environment conditions. The findings will be beneficial for financial managers, policymakers, and industry stakeholders in making informed decisions to enhance working capital efficiency and sustain competitive advantage.

OBJECTIVES OF THE STUDY

Primary Objectives

- To analyse the direct effect and the influence of profitability with moderating effect of business environment

Secondary Objective

- To evaluate the operational efficiency of TI Cycle of India in managing its short-term assets (inventory, receivables, cash).
- To assess the efficiency of inventory management at TI Cycle of India and its impact on profitability.
- To analyse the cash management practices of TI Cycle of India in maintaining liquidity and operational stability.

II.REVIEW OF LITERATURE

1. Corporate tax strategies exist Along a continuum, encompassing legal measures distinct from tax avoidance practices. However, some managers acknowledge employing complex and opaque tax avoidance Strategies, which could adversely affect an organization's cash flow. Similarly, agency theory Provides insight into this phenomenon, suggesting cash flow resulting from tax avoidance Might reflect consumption behaviour within the organization (Kogler & Kirchler, 2020). Likely, supposed that tax avoidance diminished cash inflows in the future, which will Subsequently diminish the company's performance. Tax avoidance can result in decreased Cash flow and increases in organizational capital cost plus reputational injury (Tiantian et Al., 2023). However, the empirical question of whether tax avoidance has a positive or Negative impact on sustainable firm performance remains unresolved, as the literature Contains a variety of findings (Du & Li, 2024). Free cash flow is a consequence of tax Avoidance, which impacts business performance in both the short and long term. Sustainable business environments, institutional frameworks, and social status all affect These increasingly dominant effects.
2. Numerous studies have explored the link between Working Capital Management (WCM) and company profitability. Several have shown a negative relationship between the Cash Conversion Cycle (CCC) and profitability, indicating that reducing CCC can enhance profitability (Deloof, 2003; Dalci et al., 2019; Fernandezlopez et al., 2020; Ahmad et al., 2022). However, other research, like that of Farhan & Yameen (2020) and Afrifa (2016), found a positive association. Some studies also highlight a complex, inverted U-shaped relationship, suggesting that while short-term CCC delays can reduce profitability, efficient long-term strategies improve performance (Tsuruta, 2019; Altaf & Shah, 2018; Aktas et al., 2015). Overall, selecting the right WCM approach is vital for sustaining profitability and liquidity.
3. Kumar and Gupta (2022): This research specifically looked at the effect of business cycles on the profitability of short-term property management companies in India. It showed that short-term rental companies face cyclical variations in profitability, where periods of rapid economic growth resulted in higher tourist arrivals and occupancy rates. However, during economic slowdowns, there was a notable reduction in demand, directly affecting profitability.
4. The rationale behind this focus is that employees—ranging from academic staff to administrative personnel—are integral to the institution's operations and overall success. Their satisfaction and engagement can directly impact the quality of Education provided, the work environment, and the institution's ability to achieve its goals. Therefore, addressing Employee satisfaction is essential for fostering a productive and supportive work environment, which, in turn, benefits the institution as a whole (Khan, 2022; Margolis & Calderon, 2021).
5. Tax avoidance, often regarded as a legal method of reducing a company's tax liability, involves utilising available tax loopholes, deductions, and incentives to minimise the amount of taxes paid. While tax avoidance is within the bounds of the law, its ethical and economic implications have sparked debates among policymakers, academics, and practitioners. Previous research offers compelling evidence that effective tax avoidance strategies can significantly affect a company's financial performance (Zolotoy et al., 2021)

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III. RESEARCH METHODOLOGY

RESEARCH DESIGN

The study employs an analytical research design to examine the relationship between short-term asset management and company profitability in the Indian Two-Wheeler and Tyre (TI) cycle industry. This design is suitable for identifying patterns, testing hypotheses, and evaluating financial performance across firms in a structured manner.

DATA COLLECTION

Secondary data was collected from published financial reports of 20 major companies operating in the TI sector of India. The data includes annual average values of key financial indicators such as:

- Return on Assets (ROA)
- Return on Equity (ROE)
- Net Profit Margin (NPM)
- Cash Conversion Cycle (CCC)
- Gross Profit Margin (GPM)
- Operating Profit Margin (OPM)
- Market Uniformity Index Factor (MUNIF)

DATA ANALYSIS TOOLS

- Descriptive Statistics: To understand the central tendencies (mean) of financial metrics across companies.
- Analysis of Variance (ANOVA): To test whether there are statistically significant differences in performance metrics among the companies.
- Regression Analysis: To assess the strength and direction of the relationship between ROA and ROE, determining how effectively companies convert asset utilization into profitability.

STATISTICAL SIGNIFICANCE LEVEL

A significance level of $\alpha = 0.05$ was adopted for hypothesis testing. P-values below this threshold indicate statistically significant results.

SCOPE AND LIMITATIONS

- The study focuses only on companies within the TI cycle industry in India
- The analysis is limited to financial data and does not consider qualitative factors such as management practices or macroeconomic influences.
- The business environment is inferred from inter-company and inter-segmental variations and not directly measured.

DESCRIPTIVE STATISTICS

Top performers:

- Hyundai Motor India and Castrol India exhibit the highest profitability metrics (ROA: 25.67% and 35.67%; ROE: 25.73% and 36.12%, respectively).
- Castrol India also leads in Net Profit Margin (NPM: 32.45%) and Gross Profit Margin (GPM: 32.80%).

Efficiency:

Hero MotoCorp and **TVS Motor** show the lowest Cash Conversion Cycle (CCC: 32.5 and 36.7 days), indicating efficient working capital management

Return on Assets (ROA):

$$ROA = \left(\frac{Total\ Assets}{Net\ Income}\right) \times 100$$

Return on Equity (ROE):

$$ROE = \left(\frac{Net\ Income}{Shareholders'\ Equity}\right) \times 100$$

Net Profit Margin (NPM):

$$NPM = \left(\frac{Net\ Income}{Revenue}\right) \times 100$$

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ANOVA Results (Comparing Performance Across Companies)
Significant Differences:
All metrics (ROA, ROE, NPM, CCC, GPM, OPM, MUNIF) show statistically significant differences across companies ($p < 0.05$), as indicated by high F-values (e.g., ROA F=12.45, ROE F=14.32).

Implication:
Company-specific strategies or industry segments (e.g., automotive vs. tyres) likely drive these variations.

F-Value (ANOVA):

$$F = \frac{Between - Group\ Variability}{Within - Group\ Variability}$$

Regression Analysis

ROA as a Predictor of ROE:

- Strong positive relationships exist for most companies (e.g., Castrol India: $R^2 = 0.95$, $\beta = 1.42$; Hyundai Motor India: $R^2 = 0.94$, $\beta = 1.28$).
- Moderate relationships are observed for companies like Apollo Tyres ($R^2 = 0.68$, $\beta = 0.82$)

Key Formula
R-squared (R^2):

$$R2 = 1 - \frac{Unexplained\ Variation}{Total\ Variation}$$

Slope (β):

$$\beta = \frac{Covariance(X,Y)}{Variance(X)}$$

KEY INSIGHTS

1. **Profitability**: Hyundai Motor India and Castrol India are outliers in profitability metrics.
2. **Efficiency**: Hero MotoCorp and TVS Motor manage working capital most effectively.
3. **Statistical Significance:** ANOVA confirms that company performance varies significantly across all metrics.
4. **Predictive Power:** ROA is a robust predictor of ROE, especially for high-performing companies.

IV. KEY FINDINGS

1. Hyundai Motor India and Castrol India emerged as top performers in profitability, with the highest ROA and ROE.
2. There is a strong positive correlation between ROA and ROE, emphasizing the role of asset utilization in driving profitability.
3. Companies with shorter Cash Conversion Cycles (CCC), like Hero MotoCorp and TVS Motor, demonstrated superior operational efficiency.
4. ANOVA results confirmed significant differences in financial performance across companies ($p < 0.05$), indicating variability based on company-specific strategies and external conditions.
5. Firms with lower metrics—such as Apollo Tyres and M&M—are likely experiencing inefficiencies in asset management and could benefit from benchmarking top performers.
6. Efficient short-term asset management is linked to better liquidity, working capital efficiency, and profitability.

V.LIMITATIONS

1. The study is based on secondary data, which may not reflect real-time operational challenges.
2. It focuses on one sector (TI/automotive) and may not generalize across all Indian industries.
3. The business environment is inferred from financial variation rather than measured through direct environmental indicators.
4. The case study of TI Cycles of India provides depth but may limit broader industry applicability.

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VI. COMPARISON WITH LITERATURE

- Prior literature acknowledges the role of working capital in financial performance but lacks India-specific empirical analysis, particularly in the manufacturing and automotive sectors.
- Unlike previous studies that primarily address large global corporations, this research provides granular insights into Indian mid-to-large companies.
- The strong correlation between ROA and ROE aligns with existing theories in financial management but adds depth by incorporating ANOVA and regression analyses across industry segments.

VII. CONCLUSION

This study reveals significant financial performance differences among India's automotive and auto-component companies, with Hyundai Motor India and Castrol India leading in profitability and operational efficiency. Their superior ROA and ROE highlight the impact of effective asset utilization on shareholder returns. The strong correlation between ROA and ROE across the industry emphasizes the importance of asset efficiency in driving profitability.

Companies with lower metrics often struggle with inefficiencies in asset and working capital management. Benchmarking against top performers can help identify best practices such as lean manufacturing, efficient inventory control, and cost optimization.

Improving working capital cycles—particularly reducing DSO and DIO—and enhancing margin management are key to unlocking cash flow and boosting profitability. Sustained success requires investment in technology, innovation, and agile operations.

By adopting these strategies, firms can improve financial performance, increase shareholder value, and achieve long-term competitiveness in India's fast-evolving automotive sector.

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