

A Study on Working Capital Management and Its Impact on Profitability

A Comprehensive Financial Evaluation of Tata Motors Limited

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ABSTRACT

Working capital management is a critical dimension of corporate financial strategy, directly influencing short-term liquidity, operational risk, and ultimate firm profitability. This research paper evaluates the consolidated working capital dynamics of Tata Motors Limited across a five-year reporting horizon (FY 2020–21 to FY 2024–25). Utilizing financial figures sourced from integrated annual reports, the investigation analyzes current assets, current liabilities, net working capital (NWC), current ratio, operating revenue, and operating profit margins. The empirical observations indicate that Tata Motors has sustained a negative net working capital structure and a current ratio consistently below the conventional 1.0 threshold throughout the period. Despite short-term liquidity constraints, operating profit margins experienced significant recovery, peaking at 16.11 % in FY 2023–24. The study highlights strategic liquidity management and operational control frameworks required to maintain solvency while maximizing shareholder value.

Keywords: Working Capital Management, Profitability, Current Ratio, Net Working Capital, Operating Profit Margin, Tata Motors, Liquidity Risk.

1. INTRODUCTION

Financial management comprises the systematic planning, acquisition, allocation, and control of monetary resources to maximize firm value. Within this realm, working capital management focuses on short-term financial decisions involving current assets (cash, marketables, inventories, trade receivables) and current liabilities (trade payables, short-term debt). The goal of working capital optimization is to strike an effective balance between liquidity and profitability, ensuring the enterprise meets operational obligations without locking excess capital in non-earning assets.

2. COMPANY PROFILE

Tata Motors Limited, a flagship entity of the Tata Group, is a leading global automobile manufacturer with a portfolio encompassing commercial vehicles, passenger cars, luxury sports utility vehicles, and electric vehicles (EVs). Operating through major subsidiaries including Jaguar Land Rover (JLR), the company maintains production facilities and market penetration across Asia, Europe, North America, and Africa. Consolidated financial statements offer an integrated view of group operations, capturing supply chain efficiencies and international market exposures.

3. STATEMENT OF THE PROBLEM

Modern automotive conglomerates face volatile input costs, supply chain disruptions, and intense capital expenditure demands for EV transitions. The key problem is evaluating how Tata Motors manages its short-term asset-liability mix amid negative net working capital structures, and determining whether aggressive working capital strategies affect operating profitability and short-term solvency.

4. NEED AND SIGNIFICANCE OF THE STUDY

- **Liquidity Risk Assessment:** Helps investors and creditors evaluate short-term debt servicing capability under persistent working capital deficits.
- **Operational Continuity:** Analyzes inventory and trade credit management required to support international automotive assembly.
- **Strategic Insight:** Provides empirical context regarding aggressive working capital approaches in capital-intensive manufacturing.
- **Academic Application:** Bridges financial theory with real-world corporate financial data for postgraduate research.

5. OBJECTIVES OF THE STUDY

1. To analyze the trends in current assets and current liabilities of Tata Motors Limited (Consolidated).
2. To compute and evaluate key liquidity measures including Net Working Capital and Current Ratio.
3. To examine growth trends in revenue from operations and operating profit margins across the five-year period.
4. To evaluate the association between liquidity positions and operating profitability outcomes.
5. To propose financial and operational recommendations for optimizing working capital efficiency.

6. RESEARCH METHODOLOGY

This study employs a descriptive and analytical research design utilizing secondary financial data extracted from Tata Motors Limited's audited Consolidated Integrated Annual Reports (FY 2020–21 through FY 2024–25). Analytical tools include ratio analysis, comparative financial statements, trend evaluation, and graphical visualizations.

7. FINANCIAL DATA & QUANTITATIVE ANALYSIS

7.1 Consolidated Financial Highlights (in ₹ Crore)

Financial Year	Revenue from Ops (₹ cr)	Operating Profit (₹ cr)	Current Assets (₹ cr)	Current Liabilities (₹ cr)
FY 2020–21	249,794.75	35,781 .91	146,887.64	1 57,749.1 8
FY 2021 –22	278,453.62	37,076.35	146,977.54	150,682.81
FY 2022–23	345,966.97	42,491 .51	1 51 ,528.47	155,027.33
FY 2023–24	437,927.77	70,568.80	1 67,71 8.00	1 73,61 6.00
FY 2024–25	439,695.00	65,848.00	1 59,811 .00	166,684.00

7.2 Working Capital Indicators

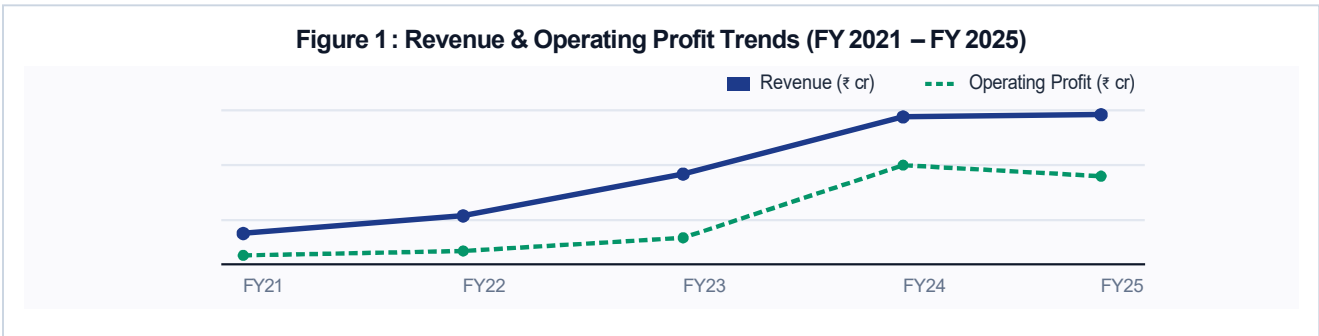
Financial Year	Current Assets (₹ cr)	Current Liabilities (₹ cr)	Net Working Capital (₹ cr)	Current Ratio
FY 2020–21	146,887.64	1 57,749.1 8	-1 0,861 .54	0.931
FY 2021–22	146,977.54	150,682.81	-3,705.27	0.975
FY 2022–23	1 51 ,528.47	155,027.33	-3,498.86	0.977
FY 2023–24	1 67,71 8.00	1 73,61 6.00	-5,898.00	0.966
FY 2024–25	1 59,811 .00	166,684.00	-6,873.00	0.959

7.3 Profitability Metrics

Financial Year	Revenue from Operations (₹ cr)	Operating Profit (₹ cr)	Operating Profit Margin (%)
FY 2020–21	249,794.75	35,781 .91	14.32%
FY 2021–22	278,453.62	37,076.35	13.32%
FY 2022–23	345,966.97	42,491 .51	12.28%
FY 2023–24	437,927.77	70,568.80	1 6.11 %
FY 2024–25	439,695.00	65,848.00	14.98%

Mathematical Formulas:

- Net Working Capital (NWC) = Current Assets – Current Liabilities
- Current Ratio = Current Assets ÷ Current Liabilities
- Operating Profit Margin (%) = (Operating Profit ÷ Revenue from Operations) × 100



8. ANALYSIS AND INTERPRETATION

The quantitative findings highlight a distinct capital structure strategy executed by Tata Motors Limited. The current ratio remained bounded between 0.931 and 0.977 throughout FY 2021 –25, persistently below the traditional benchmark of 1 .0. Consequently, Net Working Capital remained negative, reaching its lowest deficit of ₹-10,861 .54 crore in FY 2020–21 before stabilizing around ₹-6,873.00 crore in FY 2024–25. In capital-intensive automotive manufacturing, negative working capital often reflects strong bargaining power over suppliers (extended payables) and efficient inventory turnover via Just-in-Time (JIT) production. Operating profit margins demonstrated substantial resilience, expanding from 12.28% in FY23 to 16.11 % in FY24, driven by commercial vehicle demand recovery and JLR margin expansion.

9. KEY FINDINGS

- **Persistent Negative NWC:** Tata Motors routinely operates with negative net working capital, relying on strong operational cash inflows rather than current asset buffers.
- **Stable Liquidity Ratio:** The current ratio exhibited minimal volatility (0.93 to 0.98), reflecting disciplined control over short-term debt and current assets.
- **Profitability Decoupling:** Operating profitability expanded significantly during FY 2023–24 despite negative working capital, showing that top-line recovery and cost efficiencies were primary earnings drivers.

10. RECOMMENDATIONS & SUGGESTIONS

- 1 **13-Week Cash Flow Forecasting:** Implement high-frequency liquidity monitoring to mitigate default risks associated with tight current liability coverage.
- 2 **Vendor Financing Optimization:** Balance extended trade payables with strategic vendor financing to ensure supply chain stability without stressing supplier relations.
- 3 **Inventory Holding Rationalization:** Utilize real-time IoT tracking in global supply chains to reduce buffer stock holdings at assembly facilities.
- 4 **Short-Term Debt Refinancing:** Extend maturity profiles of short-term borrowings into medium-term instruments to improve the current ratio toward industry norms.

11. CONCLUSION

The empirical investigation reveals that Tata Motors Limited maintains an aggressive working capital strategy characterized by negative net working capital and current ratios below unity. While this framework maximizes capital efficiency, it places heightened importance on cash-flow forecasting and operational execution. The robust recovery in operating profit margins demonstrates that structural operational improvements and product mix optimization can drive corporate profitability even under compressed liquidity margins.

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