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# A STUDY ON THE IMPACT OF DEBT COMMITMENTS ON WORKING CAPITAL PERFORMANCE (TVS MOTOR COMPANY LIMITED)

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***Abstract:*** *This study examines the impact of debt commitments on the working capital performance of TVS Motor Company Limited for the five-year period from 2020–21 to 2024–25. The research employs an analytical and descriptive research design using secondary data sourced from the company's published annual reports. Ratio analysis, Mean, Standard Deviation and Coefficient of Variation are applied as analytical tools to assess liquidity, solvency, operational efficiency and profitability. The findings reveal that TVS Motor Company maintains a consistently low current ratio well below the industry benchmark of 2:1, indicating a lean liquidity position. However, the company demonstrates strong solvency with a steady ratio of 1.0 and exceptional reserve accumulation, reflected in a reserves-to-equity ratio averaging 3,660.96. The debt-equity ratio shows a rising trend from 69.99 to 174.22, confirming increasing financial leverage aligned with aggressive EV investments and global expansion. Despite a declining net profit ratio from 23.5% to 15%, the average of 20.34% reflects healthy profitability. The study concludes that while higher debt commitments exert pressure on short-term liquidity, effective financial management has enabled TVS Motor to maintain operational stability and long-term solvency throughout the study period.*

***Index Terms —*** *Working Capital Management, Debt Commitments, Liquidity, Solvency, Ratio Analysis, TVS Motor Company, Automobile Industry, Financial Performance, Profitability, Net Working Capital.*

## I. INTRODUCTION

Working capital management is a critical aspect of a company's financial health, as it ensures that the firm can meet its short-term obligations while efficiently utilising its resources. It involves managing the balance between current assets — such as cash, receivables and inventory — and current liabilities including payables and short-term loans. Effective working capital management enables a company to maintain smooth operations, avoid financial crises and support sustainable growth.

Debt commitments, including short-term loans, long-term borrowings and other financial obligations, play a significant role in influencing working capital performance. While debt can provide the necessary funds to expand operations and invest in new projects, it also creates financial obligations that must be met on time and can strain liquidity if not managed prudently.

The Indian automobile industry is a vital engine of national economic growth. India currently stands as the world's largest tractor producer, second-largest bus manufacturer and third-largest heavy truck manufacturer, with annual production exceeding 25.9 million vehicles. The two-wheeler segment, valued at USD 18.24 billion in 2024, is expected to reach USD 33.20 billion by 2030, driven by electrification and rural demand.

TVS Motor Company Limited is a leading manufacturer of two and three-wheelers, operating across 80+ countries with manufacturing facilities in Hosur, Mysuru, Nalagarh and Indonesia. Rooted in a 100-year legacy of Trust, Value and Service, TVS recorded 101% growth in Electric Vehicle sales in FY 2024–25 and has consistently ranked No. 1 in the J.D. Power Customer Service Satisfaction Survey for four consecutive years. The company's aggressive EV investment and global expansion necessitate a rigorous analysis of how its debt commitments are influencing working capital.

This study analyses the relationship between debt commitments and working capital performance at TVS Motor Company Limited, providing insights into how financial leverage affects liquidity, profitability and operational efficiency over the five-year period from 2020–21 to 2024–25.

## II. REVIEW OF LITERATURE

Banerjee (1982) found that in manufacturing industries, the relationship between liquidity and profitability varies by sector — in some industries higher cash levels directly enhance profits, while in others the relationship is indirect and mediated by operational efficiency.

Saleem and Rehman (2011) emphasised that maintaining a proper balance between liquidity and profitability is essential for smooth business functioning. Their study found that liquid ratios significantly impact Return on Assets, confirming that efficient management of liquid assets ensures better financial performance.

Vijayakumar (2011) studied 20 Indian automobile firms and found that managers could boost profits by accelerating receivables collection and inventory turnover, directly reducing the cash conversion cycle. Pratheepkanth (2011) highlighted that high levels of borrowing increase interest obligations, which negatively affect overall financial performance.

Solomon (2012) found that effective liquidity management became particularly critical after the global financial crisis, as tighter borrowing conditions increased the importance of internal cash flow discipline for maintaining profitability. Hijazi and Tariq (2006) identified an inverse relationship between firm size and debt usage, suggesting that larger firms prefer internally generated funds over external borrowings.

Sandhar and Janglani (2013) and Ben-Caleb (2013) found that current ratios often have a negative or insignificant relationship with profit, suggesting that holding excessive liquid assets can reduce earnings. Conversely, Sindhasha (2015) found that for large Indian companies, maintaining strong liquidity signals financial strength and can improve profitability.

Mushtaq and Chishti (2022) explored the trade-off between liquidity and profitability, concluding that profit-driven businesses must find a balance where the two reinforce rather than oppose each other. Venkatachalam (2025) concluded that for large organisations to succeed, controlling operating expenses and maintaining strict oversight of liquid assets are essential.

Recent comparative studies of Indian auto firms including TVS and Bajaj Auto (2023) found that while TVS maintains superior liquidity, its profit margins are sometimes lower than Bajaj's — attributable to TVS's heavier investment in EV technology and premium global branding. Research on 'Green Working Capital' (2024) further demonstrates that EV manufacturers face unique working capital pressures due to higher battery inventory costs and longer supply chain cycles.

## III. RESEARCH METHODOLOGY

### 3.1 Research Design

This study employs an Analytical and Descriptive Research Design. The analytical approach allows examination of the relationship between debt commitments and working capital, while the descriptive component provides a factual snapshot of TVS Motor Company's financial variables across the study period.

### 3.2 Data Collection

The study relies entirely on secondary data sourced from TVS Motor Company's official annual reports, academic journals, trade publications and financial databases. The study period covers five financial years from 2020–21 to 2024–25. Data compilation and analysis were conducted between January 2026 and March 2026.

### 3.3 Tools and Techniques

Ratio Analysis is the primary tool used to assess liquidity, solvency, efficiency and profitability. The Mean (Average) is calculated to identify the central performance level across the five-year period. The Standard Deviation (SD) measures the degree of fluctuation in financial performance. The Coefficient of Variation (CV) measures consistency, with a lower CV indicating greater stability. These tools together provide a comprehensive diagnostic view of TVS Motor's financial health and the influence of debt on working capital.

## IV. DATA ANALYSIS AND RESULTS

### 4.1 Liquidity Analysis

The Current Ratio averaged 0.07 across the study period, well below the standard 2:1 benchmark. It peaked at 0.094 in 2020–21 and declined to 0.058 in 2024–25, reflecting an increasing proportion of current liabilities driven by trade payables and short-term borrowings. The Absolute Liquid Ratio followed a similar pattern, averaging 0.07 with a CV of 22.03%, indicating moderate volatility in the company's most liquid asset position.

The consistently low liquidity ratios indicate that TVS Motor operates with a lean working capital structure. This is not uncommon for large automobile manufacturers that rely on supplier credit and efficient inventory management to optimise cash deployment. However, the declining trend warrants monitoring as debt obligations continue to grow.

### 4.2 Working Capital and Efficiency

The Working Capital Turnover Ratio remained stable, averaging 0.71 with a low CV of 3.59% — the most consistent ratio in the study. This indicates that the company effectively deployed its net working capital to generate cost-of-goods-sold throughput despite rising liabilities. The Total Assets Turnover Ratio held constant at 0.20 for the first three years before improving to 0.21 in 2023–24 and 2024–25, reflecting improving asset utilisation efficiency as TVS scaled revenues across its growing asset base.

The Capital Turnover Ratio fluctuated between 12.05 and 17.26, driven primarily by shifts in working capital requirements aligned with seasonal and expansion-related activity. The Current Assets to Proprietary Fund Ratio saw significant volatility, declining from a high of 5.03 in 2023–24 to 4.29 in 2024–25, reflecting a strategic rebalancing of short-term assets relative to internal equity.

### 4.3 Solvency and Capital Structure

The Debt-Equity Ratio increased sharply from 69.99 in 2020–21 to 174.22 in 2024–25, with a mean of 127.39 and CV of 33.16%, confirming a significant and consistent rise in financial leverage. This reflects TVS Motor's aggressive debt-funded expansion into EV manufacturing, global markets and the acquisition of premium brands including Norton Motorcycles. Despite this rising leverage, the Solvency Ratio remained rock-steady at 1.0 throughout the study period, confirming the company's reliable ability to meet all long-term obligations.

The Proprietary Ratio averaged just 0.017, reflecting the heavy reliance on debt and external funds relative to total assets. The Total Liability to Net Worth Ratio averaged 4.3, which, while high, remained stable with a low CV of 7.35%, confirming that the company manages its leverage within a predictable and controlled band. The Reserves to Equity Ratio is exceptionally strong, averaging 3,660.96 — a reflection of years of successful profit retention that acts as a powerful financial cushion against debt-related stress.

### 4.4 Profitability

The Net Profit Ratio followed a declining trend from 23.5% in 2020–21 to 15.0% in 2024–25, with a mean of 20.34% and CV of 18.11%. This decline is primarily attributable to rising operational expenditures associated with EV investment, technology upgradation and global market entry costs. Return on Total Assets declined from 4.79 to 3.28, largely driven by the growing asset base from capital investments that are yet to reach full productivity. The Expense Ratio averaged 28.71%, with its lowest point of 26% in 2022–23, before rising to 32.38% in 2024–25 as investment spending accelerated.

The Dividend Payout Ratio increased substantially from 2.3 in 2020–21 to 15.56 in 2024–25, demonstrating TVS Motor's strengthening commitment to shareholder returns even during a period of heavy capital deployment. Return on Shareholders' Funds averaged 564.83, confirming that the company consistently delivered strong returns to equity holders throughout the study period.

### 4.5 Comparative Financial Statement Analysis

Comparative analysis of year-on-year financial statements reveals that net working capital turned negative from 2021–22 onward, declining from a positive ₹5,398.9 lakhs in 2020–21 to –58,642.03 lakhs in 2023–24. This shift into negative working capital territory reflects the rapid scaling of short-term borrowings and trade payables that accompanied TVS Motor's aggressive production expansion. While negative working capital is operationally viable for large manufacturers with predictable revenue cycles, the accelerating gap between current liabilities and current assets warrants proactive management attention.

## V. KEY FINDINGS

1. The Current Ratio and Absolute Liquid Ratio both averaged 0.07, significantly below the standard 2:1 benchmark, confirming a lean but operationally functional liquidity position throughout the study period.
2. The Working Capital Turnover Ratio averaged 0.71 with a CV of only 3.59% — the most stable ratio in the study — indicating consistent operational efficiency in deploying working capital.
3. The Debt-Equity Ratio rose sharply from 69.99 to 174.22 across the five years, confirming TVS Motor's increasing financial leverage driven by EV investment and international expansion.
4. Despite rising leverage, the Solvency Ratio remained perfectly constant at 1.0 throughout the period, confirming the company's reliable long-term debt-meeting capability.
5. The Net Profit Ratio declined from 23.5% to 15.0%, yet the five-year average of 20.34% remains robust, indicating healthy underlying profitability despite rising investment-related expenses.
6. The Reserves to Equity Ratio averaged 3,660.96, reflecting exceptional retained earnings that serve as a financial buffer against liquidity stress caused by rising debt commitments.
7. The Dividend Payout Ratio increased from 2.3 to 15.56, demonstrating TVS Motor's sustained and growing commitment to rewarding shareholders even during a capital-intensive growth phase.
8. Net working capital turned negative from 2021–22 onward, reaching –58,642 lakhs in 2023–24, driven primarily by the rapid growth of trade payables and short-term borrowings associated with production scaling.

## VI. CONCLUSION

This study provides a comprehensive empirical analysis of how debt commitments influence the working capital performance and overall financial health of TVS Motor Company Limited over the five-year period from 2020–21 to 2024–25. The analysis confirms that rising debt obligations have exerted measurable downward pressure on the company's liquidity ratios and net profit margins. However, TVS Motor's exceptional reserve base, consistent solvency and disciplined working capital turnover demonstrate that these pressures are being managed within a sound and resilient financial framework.

The central finding of this study is that debt commitments at TVS Motor have been predominantly growth-oriented rather than distress-driven. The rising Debt-Equity Ratio reflects deliberate strategic leverage — funding EV technology, international manufacturing and premium brand acquisitions — rather than an inability to generate internal resources. The company's sustained profitability, strong dividend growth and rock-steady solvency ratio together confirm that its financial management has successfully balanced ambition with stability.

To maintain this balance going forward, TVS Motor should prioritise optimising receivables collection, tightening dealership payment cycles and implementing continuous ratio monitoring to ensure that current liquidity does not deteriorate further as debt service obligations grow. With a strong foundation of reserves and a globally competitive product portfolio, the company is well positioned to sustain its financial health while continuing to lead India's transition to sustainable mobility.

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