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IMPACT OF WORKING CAPITAL MANAGEMENT ON PROFITABILITY OF SELECTED AUTOMOBILE COMPANIES IN INDIA

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Abstract

Working capital management plays an important role in maintaining liquidity and improving the profitability of business enterprises. Efficient management of current assets and current liabilities helps firms reduce unnecessary investment in working capital and improve the utilisation of available financial resources. The automobile industry requires substantial investment in inventories, production activities and supply-chain operations; therefore, working capital efficiency is particularly important for financial performance. The present study examines the relationship between working capital management and profitability using five years of financial data available in the uploaded dataset. The analysis uses the financial information of Mahindra & Mahindra Limited for the period from March 2022 to March 2026. The study evaluates liquidity, inventory management, receivables management and the cash conversion cycle in relation to profitability. Current Ratio, Quick Ratio, Inventory Turnover Ratio, Receivables Turnover Ratio and Cash Conversion Cycle are used as indicators of working capital management, while Net Profit Margin and Return on Assets are used as profitability indicators. Ratio analysis, trend analysis, descriptive statistics and correlation analysis are applied. The findings show a substantial improvement in profitability during the study period. Inventory turnover and receivables efficiency show fluctuations, while the company maintained a negative cash conversion cycle throughout the study period. The analysis suggests that working capital management remains an important element of profitability; however, the results should be interpreted cautiously because the uploaded dataset presently contains financial data for only one automobile company.

Keywords: Working capital management, profitability, automobile industry, inventory turnover, receivables management, cash conversion cycle, liquidity, return on assets.

1. Introduction

Working capital management is an important area of financial management because it deals with the management of short-term assets and short-term liabilities required for the day-to-day operations of a business. Working capital generally includes cash, inventories, trade receivables and other current assets, while current liabilities include trade payables and other short-term obligations.

The objective of working capital management is to maintain an appropriate balance between liquidity and profitability. Excessive investment in current assets may improve the ability of a company to meet short-term obligations, but it can also result in idle funds and reduce profitability. Conversely, insufficient working capital may create operational difficulties and affect production, sales and financial stability.

The automobile industry requires effective working capital management because automobile manufacturing involves substantial investment in raw materials, components, inventories and distribution activities. The efficient management of inventory and receivables can help reduce the amount of funds blocked in operating activities. Similarly, the management of supplier credit and trade payables influences the time required to convert investments into cash.

The Cash Conversion Cycle is an important measure of working capital efficiency. It measures the period between investment in operating activities and the recovery of cash through sales. A shorter cash conversion cycle generally indicates faster recovery of funds, although the relationship between working capital efficiency and profitability may differ according to the operational characteristics of a company.

The present study analyses the impact of working capital management on profitability using the five-year financial data provided in the uploaded dataset.

2. Review of Literature

Raheman and Nasr (2007) examined the relationship between working capital management and corporate profitability. Their study highlighted the importance of managing the cash conversion period and maintaining an efficient level of investment in current assets.

Vijayakumar (2011) examined corporate liquidity and profitability and emphasised that efficient management of working capital components can contribute to improved financial performance.

Biswas (2017) studied working capital management and profitability among selected auto ancillary companies. The study considered inventory, receivables, payables and liquidity as important components of working capital management.

Dave and Raval (2021) examined the relationship between working capital management and profitability in the Indian passenger automobile manufacturing sector. Their study considered several components of current assets and current liabilities in evaluating financial performance.

Garg and Meentu (2023) studied the impact of working capital management on profitability in the Indian automobile sector. Their findings indicated that working capital components, particularly the cash conversion cycle, inventory conversion period and receivables period, have an important relationship with profitability.

3. Statement of the Problem

Automobile companies require significant investment in inventories and other operating assets. Inefficient management of these assets may result in excessive investment of funds and affect profitability. Similarly, delays in the collection of receivables may increase the amount of funds blocked in business operations.

The management of trade payables is also important because supplier credit can influence the operating cycle and liquidity position of the company. Therefore, automobile companies need to maintain a balance between inventory investment, receivables collection, supplier payments and profitability.

The financial data provided for the study show substantial changes in revenue, profitability, inventories, receivables and current liabilities during the five-year period. Therefore, it is necessary to examine how working capital indicators have changed in relation to profitability.

4. Objectives of the Study

1. To examine the relationship between working capital management and profitability of selected automobile companies in India.
2. To understand the effect of inventory management on profitability.
3. To examine the role of receivables management in improving financial performance.
4. To study the importance of the cash conversion cycle in automobile companies.
5. To suggest measures for improving working capital efficiency and profitability.

5. Research Methodology

Source of Data

The study is based on secondary financial data provided in the uploaded Excel dataset.

6.Period of the Study

March 2022 to March 2026

The present study covers a period of five financial years from March 2022 to March 2026. The study examines changes in working capital management and profitability during the selected period.

7. Tools Used for Analysis

The following tools were used:

1. Ratio Analysis
2. Trend Analysis
3. Mean
4. Standard Deviation
5. Minimum and Maximum Analysis
6. Correlation Analysis

Because only **five annual observations for one company** are available, a large multiple regression model would not provide reliable statistical results. Therefore, the present analysis gives greater emphasis to ratio trends and descriptive and correlation analysis.

8. Analysis and Interpretation

Table 1

Working Capital Management and Profitability Ratios

Year	Current Ratio	Quick Ratio	NPM (%)	ROA (%)	Inventory Turnover	Inventory Days	Receivables Turnover	Receivables Days	Payables Days	CCC Days
Mar-22	0.99	0.78	8.76	6.72	11.98	30.46	27.75	13.15	84.14	-40.53
Mar-23	0.58	0.36	7.87	7.87	15.07	24.22	25.26	14.45	66.6	-27.93
Mar-24	0.77	0.6	11.06	9.72	17.96	20.32	21.06	17.33	71.92	-34.27
Mar-25	0.87	0.68	10.39	9.44	16.85	21.66	17.45	20.91	73.65	-31.08
Mar-26	1.07	0.76	10.94	10.66	9.79	37.28	26.8	13.62	72.93	-22.02

Source: Calculated from the financial data.

9. Working Capital Management and Profitability

The Current Ratio fluctuated during the study period. It declined from 0.99 in March 2022 to 0.58 in March 2023, before improving gradually to 1.07 in March 2026. The Quick Ratio also declined initially from 0.78 to 0.36, followed by recovery to 0.76 in March 2026.

The profitability indicators show an overall improvement. Net Profit Margin increased from 8.76% in March 2022 to 10.94% in March 2026, although a temporary decline was observed in March 2023. Return on Assets increased from 6.72% to 10.66% during the study period.

The simultaneous improvement in liquidity ratios and profitability towards the later period suggests that the company was able to strengthen its short-term financial position while maintaining profitability growth. However, the year-to-year pattern does not indicate a perfectly consistent relationship between liquidity and profitability.

Table 2

Descriptive Statistics

Variable	Mean	Standard Deviation	Minimum	Maximum
Current Ratio	0.86	0.19	0.58	1.07
Quick Ratio	0.63	0.17	0.36	0.78
NPM (%)	9.8	1.42	7.87	11.06
ROA (%)	8.88	1.57	6.72	10.66

Inventory Turnover	14.33	3.4	9.79	17.96
Inventory Days	26.79	7.04	20.32	37.28
Receivables Turnover	23.66	4.31	17.45	27.75
Receivables Days	15.89	3.24	13.15	20.91
Payables Days	73.85	6.38	66.6	84.14
CCC Days	-31.17	6.92	-40.53	-22.02

Source: Calculated from the financial data.

The mean Current Ratio of 0.86 indicates that the company's current assets were, on average, below current liabilities during the period. The Quick Ratio averaged 0.63, indicating dependence on inventory and other current assets for meeting short-term obligations.

The average NPM was 9.80%, while the average ROA was 8.88%, reflecting an overall improvement in profitability. The company maintained an average negative Cash Conversion Cycle of approximately 31 days, indicating that, based on the calculated ratios, supplier credit financed a significant portion of the operating cycle.

10. Effect of Inventory Management on Profitability

Inventory turnover improved from 11.98 times in March 2022 to 17.96 times in March 2024. During the same period, inventory holding days declined from 30.46 days to 20.32 days, indicating faster movement of inventory.

However, inventory turnover subsequently declined to 9.79 times in March 2026, while inventory days increased to 37.28 days.

Profitability did not move exactly in the same direction during all years. Despite the decline in inventory turnover during March 2026, ROA reached its highest value of 10.66%.

The results indicate that inventory efficiency is an important component of working capital management, but inventory turnover alone does not explain profitability. The increase in profitability despite a lower inventory turnover in the final year suggests that other factors, including revenue growth, operating margins and the management of other working capital components, may also influence profitability.

Therefore, inventory management should be considered as one component of the overall working capital strategy rather than as the sole determinant of profitability.

11. Receivables Management and Financial Performance

Receivables turnover declined from 27.75 times in March 2022 to 17.45 times in March 2025, indicating a relatively slower turnover of receivables. Correspondingly, the receivables collection period increased from 13.15 days to 20.91 days.

In March 2026, receivables turnover improved significantly to 26.80 times, while the collection period declined to 13.62 days.

The improvement in receivables turnover in the final year indicates more efficient collection of funds from customers. The reduction in the collection period can improve liquidity by reducing the amount of funds locked in trade receivables.

The overall analysis suggests that receivables management remains important for working capital efficiency. Faster collection can support cash availability and reduce the need for additional short-term financing.

12. Objective 4: Cash Conversion Cycle and Profitability

The company maintained a negative Cash Conversion Cycle throughout the five-year period.

Year	CCC Days
Mar-22	-40.53
Mar-23	-27.93
Mar-24	-34.27
Mar-25	-31.08
Mar-26	-22.02

Source: Calculated from the financial data.

The negative CCC indicates that the calculated payables period was longer than the combined inventory and receivables periods.

A negative cash conversion cycle can indicate an efficient operating cycle in which the company receives cash from operations before payments to suppliers become due. This reduces the amount of external working capital financing required.

However, the CCC became less negative in March 2026, moving from **-40.53 days in March 2022 to -22.02 days in March 2026**. This suggests that the advantage derived from the operating financing cycle reduced over the study period.

Therefore, the company should continuously monitor the relationship between inventory days, receivables days and payables days to maintain an efficient operating cycle.

13. Correlation Analysis

Table 3

Correlation of Working Capital Variables with Profitability

Variable	Correlation with NPM	Correlation with ROA
Current Ratio	0.506	0.262
Quick Ratio	0.513	0.162
Inventory Turnover	0.1	0.033
Receivables Turnover	-0.438	-0.388
Cash Conversion Cycle	0.255	0.706

Source: Calculated from the financial data.

The Current Ratio shows a moderate positive relationship with NPM (r = 0.506), while its relationship with ROA is comparatively weak (r = 0.262).

The Quick Ratio also shows a moderate positive relationship with NPM (r = 0.513) and a weak positive relationship with ROA (r = 0.162).

Inventory Turnover shows a very weak positive relationship with both NPM (r = 0.100) and ROA (r = 0.033). This indicates that inventory turnover alone was not strongly associated with profitability during the five-year period.

Receivables Turnover shows a negative relationship with both NPM (r = -0.438) and ROA (r = -0.388). This result should be interpreted cautiously because only five observations are available.

The Cash Conversion Cycle shows a positive relationship with ROA (r = 0.706). This statistical association should not automatically be interpreted as a causal effect because of the very small sample size and the influence of other profitability factors.

14. Findings

The major findings of the study are as follows:

1. The profitability of the company showed an overall improvement during the five-year period.
2. Net Profit Margin increased from 8.76% in March 2022 to 10.94% in March 2026.
3. Return on Assets increased from 6.72% to 10.66% during the study period.
4. The Current Ratio improved from 0.58 in March 2023 to 1.07 in March 2026.
5. The Quick Ratio improved after March 2023, indicating an improvement in the short-term liquidity position.
6. Inventory turnover reached its highest level of 17.96 times in March 2024, but subsequently declined.
7. Inventory holding days increased to 37.28 days in March 2026, indicating a relatively higher investment period in inventory during the final year.
8. Receivables management improved significantly in March 2026, with the collection period declining to 13.62 days.
9. The company maintained a negative Cash Conversion Cycle throughout the study period.
10. The correlation analysis did not indicate a strong and consistent relationship between inventory turnover and profitability.
11. Liquidity ratios showed a moderate positive association with Net Profit Margin.
12. The analysis indicates that profitability is influenced by working capital management together with other financial and operational factors.

15. Suggestions

Based on the analysis, the following suggestions are made:

1. Improve Inventory Planning

The increase in inventory days in the final year should be monitored. The company may strengthen demand forecasting and inventory planning to avoid unnecessary accumulation of inventory.

2. Maintain Efficient Receivables Collection

The improvement in receivables turnover in March 2026 should be maintained through effective credit policies and collection procedures.

3. Monitor the Cash Conversion Cycle

The company should regularly monitor inventory, receivables and payables periods to maintain an efficient operating cycle.

4. Maintain Liquidity Improvement

The improvement in the Current Ratio and Quick Ratio should be sustained without maintaining excessive idle current assets.

5. Use Integrated Working Capital Monitoring

Inventory, receivables, payables and profitability should be evaluated together rather than independently.

Conclusion

The study examined the impact of working capital management on profitability using five years of financial data available for Mahindra & Mahindra Limited. The analysis considered liquidity, inventory management, receivables management and the Cash Conversion Cycle in relation to Net Profit Margin and Return on Assets.

The findings show that profitability improved substantially during the study period. Both NPM and ROA recorded an overall upward trend. The liquidity position also improved during the later years of the study.

Inventory management and receivables management showed year-to-year fluctuations. The company maintained a negative Cash Conversion Cycle throughout the study period, indicating that the trade payables period was longer than the combined inventory and receivables periods based on the calculated data.

The correlation results suggest that the relationship between individual working capital variables and profitability is not uniform. Therefore, working capital management should be viewed as an integrated financial process rather than relying on a single ratio.

References

Biswas, B. (2017). Working capital management and profitability: A study of selected auto ancillary companies in India. *MUDRA: Journal of Finance and Accounting, 4*(1), 144–158.

Dave, A. R., & Raval, A. (2021). Empirical study of relationship of working capital management and profitability of Indian passenger car manufacturing sector. *International Journal of Management Studies.*

Deloof, M. (2003). Does working capital management affect profitability of Belgian firms? *Journal of Business Finance & Accounting, 30*(3–4), 573–588.

Garg, M. C., &Meentu. (2023). Impact of working capital management on firm's profitability of automobile sector firms in India. *Asia-Pacific Journal of Management Research and Innovation, 18*(3–4), 107–119.

Lazaridis, I., &Tryfonidis, D. (2006). Relationship between working capital management and profitability of listed companies. *Journal of Financial Management and Analysis, 19*(1), 26–35.

Nazir, M. S., & Afza, T. (2009). Working capital requirements and the determining factors in Pakistan. *IUP Journal of Applied Finance, 15*(4), 28–38.

Padachi, K. (2006). Trends in working capital management and its impact on firms' performance. *International Review of Business Research Papers, 2*(2), 45–58.

Raheman, A., & Nasr, M. (2007). Working capital management and profitability: Case of Pakistani firms. *International Review of Business Research Papers, 3*(1), 279–300.

Vijayakumar, A. (2011). Management of corporate liquidity and profitability: An empirical study. *International Journal of Marketing and Technology, 1*(6), 156–175.

Shin, H. H., & Soenen, L. (1998). Efficiency of working capital management and corporate profitability. *Financial Practice and Education, 8*(2), 37–45.