International Journal for Multidisciplinary Research (IJFMR)
E-ISSN: 2582-2160 ● Website: www.ijfmr.com ● Email: editor@ijfmr.com

Working Capital Management and Profitability: An Empirical Study of Selected Listed FMCG Companies in India

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Abstract

The study will focus on the association between working capital management (WCM) and profitability of ten selected listed FMCG companies in India for the period FY2016-FY2025. In this study, a balanced panel data set of 100 firm-year observations will be collected primarily from the CMIE Prowess database. The measures of working capital management are ICP, RCP, PDP and CCC, while that of profitability is ROA, ROE and NPM. Descriptive and trend analyses will be conducted for the first two objectives, Pearson correlation will be used for bivariate associations and for the last objective, panel regression will be conducted using Hausman specification test. There was a considerable reduction in the CCC average of the sector from
22.75 days in 2016 to 4.69 days in 2025, while ICP decreased from 77.64 days to 66.32 days and PDP increased from 66.61 days to 81.95 days. Pearson correlation results suggest there is a significant negative correlation between ICP and CCC with ROE, while there is a negative correlation between RCP and ROE and a positive correlation between RCP and NPM, whereas PDP has a positive correlation with ROE. In the panel regression model, PDP had a positive coefficient for ROE and NPM, and RCP had a positive coefficient for NPM.

Keywords: Working Capital Management; FMCG; Cash Conversion Cycle; Inventory Conversion Period; Receivables Collection Period; Payables Deferral Period; Profitability; Panel Data

1. Introduction

The working capital management includes decision making involving current assets and current liabilities which is also closely associated with the operating cycle of the firm. It affects the amount of money which is tied in inventory, receivables and payables. In FMCG companies, the importance of this topic is more because of the nature of the industry where there are large transactions and heavy reliance on inventory and distributors.

It has been found that empirical connection between working capital and profitably varies in literature that forms the basis of the current thesis. The connection can be either negative, positive or non-linear. Empirical evidence in the Indian context is also varied based on industry and sample selection. There is a clear requirement to examine the connection between selected Indian FMCG firms for ten years continuously.

It is in this context that this study tries to fill that gap through the analysis of ten listed FMCG firms for

the period FY2016-FY2025 using trend analysis, Pearson correlation and panel regression. The study uses the Hausman specification test to decide on the most appropriate model between fixed effects and random effects models.

1.1 Research Gap

- No study tracks FMCG working capital trends across this specific decade. Existing trend data stops at either 2011-2012 or 2020-2024.
- FMCG profitability has only been studied in short. No study offers a continuous ten-year profitability trend for a defined set of companies.
- Existing studies disagree on which WCM component drives profitability and in what direction. No recent multi-firm study has re-tested this relationship to resolve the inconsistency.
- Prior impact studies rely on short or single-firm datasets that produce statistically unreliable results.

1.2 Objectives

1. To examine the trends in working capital management of selected FMCG companies during 2016-2025.
2. To evaluate the profitability of selected FMCG companies during 2016-2025.
3. To examine the relationship between working capital management and profitability of selected FMCG companies.
4. To determine the impact of working capital management on the profitability of selected FMCG companies.

5. Review of Literature

Study	Context	Major Finding in Thesis Review
Pais and Gama (2015)	Portuguese SMEs	Efficiency of working capital management has been found to have a positive relationship with SME profitability.
Afrifa (2016)	UK SMEs	The research involved net working capital, cash flow and performance and found a relationship between working capital and profitability where cash flow was found to affect
		the relationship.
Bhatia and Srivastava (2016)	Indian firms	The research involved working capital management and firm performance within an emerging economy setting and provided data from India.
Jana (2018)	Listed Indian FMCG companies	The research involved direct examination of the relationship between working capital

		management and profitability for selected listed Indian FMCG firms.
Le (2019)	Developing market	The research involved working capital management with respect to firm value, profitability and risk and found that working capital level at either high or low extremes may matter.
Seth et al. (2020)	Indian manufacturing exporters	The research involved assessment of efficiency of working capital management based on data for Indian manufacturing exporters.
Dash, Sethi and Swain (2023)	Indian companies	The research involved financial condition and working capital management with respect to profitability.
Kiymaz, Haque and Choudhury (2024)	Developed and emerging economies	The study involved an analysis of the association between working capital management and firm performance in both developed and developing countries.
Huynh, Nguyen and Nguyen (2025)	Vietnamese listed firms	The study assessed the effect of working capital management on financial performance.
Kukreja and Kumar (2025)	Indian manufacturing with an FMCG sub-sample	The thesis review points to this being related research methodologically that involves a ten-year panel using fixed/random effects, with the FMCG sub-sample showing a significant association between receivables and ROE.

However, in general, it can be noted that the studied literature proves the importance of working capital management for the performance of enterprises but fails to prove one universal direction or dominant element of working capital management. The need for a sector-based analysis emerges due to these factors.

6. Methodology

6.1 Research Design and Sample

The study uses a quantitative, longitudinal, and explanatory research design. For selection of the sample, purposive sampling method is used where 10 listed FMCG companies that provide the necessary financial data are chosen. Thus, a balanced panel comprising 10 companies over 10 financial years yields 100 firm-year observations.

Companies selected for analysis: Britannia Industries Ltd; Colgate-Palmolive (India) Ltd; Dabur India Ltd; Emami Ltd; Godrej Consumer Products Ltd; Hindustan Unilever Ltd; ITC Ltd; Marico Ltd; Nestle India Ltd; Tata Consumer Products Ltd.

6.2 Data Source and Variables

The financial data was extracted from CMIE Prowess. The research will make use of accounting based secondary data. The key variables for the research on WCM and profitability include.

Variable	Full form	Measurement	Unit
ICP	Inventory Conversion Period	Average Inventory / COGS × 365	Days
RCP	Receivables Collection Period	Average Trade Receivables / Net Credit Sales × 365	Days
PDP	Payables Deferral Period	Average Trade Payables / Credit Purchases × 365	Days
CCC	Cash Conversion Cycle	ICP + RCP − PDP	Days
ROA	Return on Assets	PAT / Average Total Assets × 100	%
ROE	Return on Equity	PAT / Average Net Worth × 100	%
NPM	Net Profit Margin	PAT / Net Sales × 100	%

In the underlying thesis, purchases are considered through the working capital computation where there was no direct purchase information in the Prowess database selection; the study employs the thesis-based computation throughout the observation period.

6.3 Analytical Techniques

- Descriptive statistics and trend analysis based on years/companies were employed in achieving Objectives 1 and 2.
- For achieving Objective 3, Pearson product-moment correlation (two-tailed test with significance level $\alpha = 0.05$) was applied.
- Panel regression models for WCM-profitability relationships were estimated using fixed-effects and random-effects equations.
- Selection of the appropriate panel equation (FE/RE) was done using the Hausman specification

test.

- Residual diagnostics were conducted as well.

6.4 Hypotheses

- H01: There is no significant association between ICP and ROA / ROE / NPM.
- H02: There is no significant association between RCP and ROA / ROE / NPM.
- H03: There is no significant association between PDP and ROA / ROE / NPM.
- H04: There is no significant association between CCC and ROA / ROE / NPM.
- H05: There is no significant influence of working capital management factors on profitability of selected FMCG firms.

7. Results and Discussion

7.1 Working Capital Management Trends

The cash conversion cycle for the sectors is reduced on average. The ICP decreased from 77.64 days to 66.32 days between 2016 and 2025, whereas the PDP increased from 66.61 days to 81.95 days. The RCP increased from 11.72 days to 20.32 days. Thus, CCC has been reduced from 22.75 days to 4.69 days in 2025 and stayed below 10 days since 2018.

Year	ICP	RCP	PDP	CCC	ROA	ROE	NPM
2016	77.64	11.72	66.61	22.75	18.09	36.65	13.46
2018	75.85	13.48	80.89	8.45	17.59	31.93	15.80
2020	71.87	18.46	84.17	6.16	19.23	40.25	17.65
2022	69.43	13.91	76.67	6.67	18.18	39.14	17.29
2024	66.44	19.11	80.14	5.41	19.06	39.81	18.04
2025	66.32	20.32	81.95	4.69	18.20	35.69	17.32

Values are the yearly average values given in the thesis. ICP, RCP, PDP and CCC are days; ROA, ROE and NPM are in percentage form.

The presence of significant firm-specific differences exists. The thesis claims that ITC showed the highest average ICP value (129.75 days) and positive CCC (99.71 days). On the other hand, HUL, Colgate-Palmolive (India), and Godrej Consumer Products have shown extremely negative CCC values on average. These variations confirm the need for panel analysis instead of just pooled averages.

7.2 Profitability Trends

Profitability exhibited a slight fall in ROA, ROE, and NPM in the years 2016-2018 before recovering in the year 2019. The NPM was 13.46% in 2016 and rose to more than 17% after 2019, attaining 17.32% in the year 2025. ROE is the most unstable measure of profitability with an average of about 36.9% and a standard deviation of about 23.7% as stated in the thesis. According to the thesis, HUL and Nestle India are among those firms that have the highest average ROE.

7.3 Pearson Correlation Results

Relationship	Pearson r	p-value	Decision at 5%
ICP – ROA	-0.206	0.0398	Significant; negative
RCP – ROA	-0.092	0.3606	Not significant
PDP – ROA	-0.014	0.8879	Not significant

CCC – ROA	-0.129	0.2020	Not significant
ICP – ROE	-0.388	<0.001	Significant; negative
RCP – ROE	-0.447	<0.001	Significant; negative
PDP – ROE	0.208	0.0380	Significant; positive
CCC – ROE	-0.430	<0.001	Significant; negative
ICP – NPM	0.319	0.0012	Significant; positive
RCP – NPM	0.391	0.00006	Significant; positive
PDP – NPM	0.180	0.0735	Not significant
CCC – NPM	0.140	0.1663	Not significant

As seen from the results of the correlation analysis, the relationship between WCM and profitability is contingent on which WCM indicator and which profitability indicator is used. Specifically, ROE is negatively correlated with the first three WCM measures and positively correlated with the last one, while NPM is positively correlated with the first two WCM measures and not correlated with the latter two. This is a pooled relationship across firms and years, and thus should not be taken as a causal effect within the firm.

7.4 Panel Regression Results

Predictor → Outcome	**Preferred Model (Hausman)**	**Coefficient (β)**	**p-value**	**Inference**
CCC → ROA	Random Effects (χ^2=0.010, p=0.919)	-0.0190	0.280	Not significant
CCC → ROE	Random Effects	-0.1149	0.052	Marginal (10% level)
CCC → NPM	Random Effects	-0.0089	0.505	Not significant
ICP → NPM	Random Effects (χ^2=1.263, p=0.261)	0.0173	0.834 (FE)	Not significant
RCP → ROE	Fixed Effects (χ^2=8.911, p=0.003)	-0.0776	0.803	Not significant
PDP → ROE	Random Effects (χ^2=0.004, p=0.952)	0.1614	0.049 (FE)	Significant (positive)
PDP → NPM	Random Effects (χ^2=0.089, p=0.766)	0.0398	0.020 (FE)	Significant (positive)
RCP → NPM	Random Effects (χ^2=0.080, p=0.778)	0.2208	0.0009 (FE)	Significant (positive)

Considering the specific effect of each firm due to the chosen panel structure, the significant associations

identified in this thesis are PDP → ROE, PDP → NPM, and RCP → NPM. While the negative relationship between RCP and ROE, as a result of the pooled correlation, turns out to be non-significant due to the use of fixed-effects structure, the CCC for ROE is found to be negative but insignificant at the 5% level ($p = 0.052$).

7.5 Discussion

From the empirical results, it can be concluded that the working capital management is not a one dimensional determinant of FMCG profitability. Reduction in the value of CCC coincided with lower number of days spent on inventories and higher number of days spent in paying to suppliers during the study period. Nevertheless, from the regression results, there is no statistically significant relationship between CCC and ROA at 5% significance level while the CCC-ROE relationship is marginally significant at p=0.052. Rather, the payables management is the most consistent component in the above results with positively associated coefficient with ROE and NPM. The receivable management also shows significant positive association with NPM.

8. Key Findings and Contribution

- The mean CCC of the chosen FMCG sample has reduced from 22.75 days in 2016 to 4.69 days in 2025.
- The mean ICP has reduced over the period while the mean PDP has increased, while RCP has increased despite the reduction in CCC.
- Profitability performance has been on a recovery trend after 2018, with NPM remaining at more than 17% after 2018.
- CCC, ICP, and RCP are significantly negatively correlated with ROE, while PDP is positively correlated with ROE.
- ICP and RCP are significantly positively correlated with NPM.
- PDP is a significant positive predictor of ROE and NPM according to panel regression, while RCP is a significant positive predictor of NPM.
- The study contributes to a sector-specific 10-firm, 10-year panel and explicitly applies to the Hausman test to select between FE and RE specifications.

9. Conclusion

The study analyzed the impact of working capital management on profitability using ten selected listed FMCG companies in India from FY2016 to FY2025. The results showed that the impact was specific to each component rather than general as a function of the cash conversion cycle. Working capital management for the sector became more efficient during the decade as indicated by a decrease in the average values of CCC and ICP along with an increase in PDP.

From the correlation test, there is a high correlation between certain variables such as ROE. From panel regression, only selected relationships remain significant when we factor in firm-level heterogeneity. There is significance between payables management and ROE and NPM while receivables management is significant to NPM. In this regard, it becomes difficult to claim that a shorter CCC will increase profitability in all FMCG companies.

10. Implications

- For Managers: Working capital policy should be considered individually as opposed to the analysis

of CCC.

- Attention should be paid to payables policy since PDP is important for ROE and NPM reported panel models.
- Receivable policy needs to be considered relative to the effects on profits and customer and distribution aspects.
- For Researchers: Firm heterogeneity should be considered, as well as differences between cross-sectional correlations and within-panel relations.

11. Limitations and Future Research

- The sample is confined only to ten large-cap listed FMCG firms and thus cannot represent small and medium-sized FMCG firms.
- Secondly, the study employs secondary accounting data and does not consider any qualitative/primary information on working capital management practices.
- Third, correlation and panel regression are linear models, and thus no testing of any non-linear/threshold effects is done in the paper.
- Lastly, macroeconomic and industry-specific disturbances like commodity price cycles or the COVID-19 period have not been incorporated as control variables.
- Future studies may focus on these areas of improvement for the proposed framework.

References

1. Afrifa, G.A. (2016) 'Net working capital, cash flow and performance of UK SMEs', Review of Accounting and Finance, 15(1), pp. 21–44.
2. Bhatia, S. and Srivastava, A. (2016) 'Working capital management and firm performance in emerging economies: Evidence from India', Management and Labour Studies, 41(2),
3. pp. 71–87.
4. Bhattacharyya, S. (2023) 'Distinguished competency and efficacy of working capital management ensuing firm survival, liquidity, solvency and profitability: a study on automotive industry', American Business Review, 26(1), p. 3.
5. Chaklader, B. and Khatun, R. (2013) 'Relationship of Working Capital Management with FMCG Sector Firm's Profitability', Strategic Management, 12(3).
6. Dash, S.R., Sethi, M. and Swain, R.K. (2023) 'Financial condition, working capital policy and profitability: evidence from Indian companies', Journal of Indian Business Research, 15(3), pp. 318–355.
7. Hogerle, B., Charifzadeh, M., Ferencz, M. and Kostin, K.B. (2020) 'The development of working capital management and its impact on profitability and shareholder value: evidence from Germany', Strategic Management – International Journal of Strategic Management and Decision Support Systems in Strategic Management, 25(2).
8. Huynh, T.X.T., Nguyen, T.T.H. and Nguyen, C.V. (2025) 'The impact of working capital management on the financial performance of listed enterprises: empirical evidence from Vietnam', Cogent Business & Management, 12(1), p. 2473033.
9. Jana, D. (2018) 'Impact of working capital management on profitability of the selected listed FMCG companies in India', International Research Journal of Business Studies, 11(1), pp. 21–30.

10. Khaesarani, R. and Rokhim, R. (2025) 'Analysis Influence Working Capital Investment on Company Value and Investment Decisions Long Term: An Empirical Study of the Sector Manufacturing 2014–2023 in Indonesia', Eqien – Jurnal Ekonomi dan Bisnis, 14(2), pp. 414–439.
11. Kiymaz, H., Haque, S. and Choudhury, A.A. (2024) 'Working capital management and firm performance: A comparative analysis of developed and emerging economies', Borsa Istanbul Review, 24(3), pp. 634–642.
12. Kukreja, H. and Kumar, A. (2026) 'Strategic Financial Management and Firm Profitability: Evidence from Working Capital Practices in Indian Manufacturing'.
13. Le, B. (2019) 'Working capital management and firm's valuation, profitability and risk: Evidence from a developing market', International Journal of Managerial Finance, 15(2),
14. pp. 191–204.
15. Mehrotra, S. (2013) 'Working capital trends and liquidity analysis of FMCG sector in India', IOSR Journal of Business and Management, 9(4), pp. 45–52.
16. Pais, M.A. and Gama, P.M. (2015) 'Working capital management and SMEs profitability: Portuguese evidence', International Journal of Managerial Finance, 11(3), pp. 341–358.
17. Panigrahi, A.K. (2025) 'Working Capital Management and Profitability in India's Cement Sector: Evidence and Sustainability Implications', Journal of Risk and Financial Management, 18(10), p. 541.
18. Rahman, A. (2022) 'Relationship between working capital management and profitability of Indian automobile manufacturers', SSRN 4173907.
19. Reddy, B.U.K., Sushma, M. and JC, M.U. (2025) 'A study on working capital efficiency and liquidation in Indian food and beverage industry'.
20. Roy, P., Rossi, M., Salloum, C., Jarrar, H. and Ghose, B. (2025) 'Working capital management efficiency in large firms during crisis: implications for community-based enterprises', Journal of Enterprising Communities: People and Places in the Global Economy, 19(3), pp. 485–509.
21. Seth, H., Chadha, S., Ruparel, N., Arora, P.K. and Sharma, S.K. (2020) 'Assessing working capital management efficiency of Indian manufacturing exporters', Managerial Finance, 46(8), pp. 1061–1079.
22. Tahir, M. and Anuar, M.B.A. (2016) 'The determinants of working capital management and firms' performance of textile sector in Pakistan', Quality & Quantity, 50(2), pp. 605–618.
23. CMIE Prowess Database, Centre for Monitoring Indian Economy Pvt. Ltd.