

Enhancing Firm Performance Through Effective Working Capital Management: A Study of Indian Manufacturing Firms Listed at S&P BSE 500

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Abstract

The Covid-19 epidemic had a significant and far-reaching effect on the worldwide economy. The circumstances have led to the degradation of financial markets, significant decreases in household consumption, the transmission of diminished demand to various industries and economies worldwide, and substantial shrink in business sales. Consequently, firms have experienced a substantial decline in their overall performance. As the proper administration of money plays a crucial role in the success of enterprises. Consequently, it is critical to investigate the connection between working capital management and manufacturing firms' success. This research investigates the correlation between several aspects of working capital management and the performance of Indian manufacturing companies listed on the S&P BSE 500, utilizing Tobin's Q as a measure. The study included correlation and regression analytic techniques. The study's findings indicate that both Inventory Conversion Period (ICP) and Accounts Receivables Period (ARP) have a negative impact on the business's worth, as evaluated by Tobin-Q (TQ). Conversely, Cash Conversion Cycle (CCC) and (Accounts payable period) APP have a positive effect on the financial performance of the organization. Furthermore, the study indicates that efficient management of working capital can improve business performance, leading to the attainment of sustainable development goals. This study's findings are highly valuable for financial managers, policy-makers, academics, investors, and other government bodies.

Keywords: Accounts Payable Period, Accounts Receivables Period, Cash Conversion Cycle, Inventory Conversion Period, Tobin-Q, Working Capital Management.

Introduction

The manufacturing sector in India has the most capacity to drive economic growth and generate job opportunities. India possesses significant potential to engage in global markets because of factors such as a technology revolution, expansion of power infrastructure, promising long-term employment opportunities, and pathways for skill development for millions of individuals. It is anticipated that increased automation and process-driven manufacturing would boost productivity and efficiency in India's manufacturing industry. According to provincial estimates of Government of India, India brand equity foundation (IBEF) reports, India overtook the UK to rise to fifth largest GDP in the first quarter of FY23 due to robust economic development after recovering from the COVID-19 pandemic shock. In contrast to the First Revised

Estimates (FRE) of GDP for the year 2022–2023 of Rs. 269.50 lakh crores (US\$ 3.23 trillion), the Nominal GDP, for the year 2023–2024 is predicted to be Rs. 293.90 lakh crores (US\$ 3.52 trillion). Over the preceding 10 years, it accounted for around 16.3% of the nominal GVA. By 2030, India has much potential to become a major hub for manufacturing. As manufacturing sector is an important pillar of growth for Indian economy so its deliberate management of finance is much essential. Therefore, working capital management emerges as the preeminent and most arduous duty of financial managers, given their status as significant stakeholders who affect the financial health of firms. Several recent researchers have underscored the impact of economic downturns on organizations' attitudes and consciousness regarding the optimisation of working capital

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(Received 21st March 2024; Accepted 20th July 2024; Published 30th July 2024)

management to enhance firm performance (1-4). Late in 2019, a catastrophic infectious disease called COVID-19 swept the globe, engulfing the entire global population in its ferocious assault (5). As a result, the world economies consequently experienced financial turmoil and India was no more an exception to it. The Covid-19 pandemic had an extensive impact on the global economy. Consequently, financial markets have deteriorated, domestic consumption has plummeted, weaker demand has permeated numerous industries and economies worldwide, and business sales have plummeted as discussed by the study of (6). Which has culminated in a precipitous decline in firm performance (7)? Many companies around the world had to shut down their business due to poor finance structure, especially regarding ineffective management of their working capital. Furthermore, several past and present studies have verified the impact of working capital management on the performance, profitability, and liquidity of the firms (8-10). As most corporate finance academicians worldwide have looked at the various aspects of working capital management, though a few early studies have concentrated on some of the key indicators and looked at how firms differ in terms of various ratios relating to liquidity, profitability, and investments like those by (9-11). A negative correlation between a company's market worth and its aggressive investment policy is found in the research work conducted by (12). Moreover, the outcome also shows that businesses with aggressive working capital management generate negative returns. Furthermore, study finds that businesses which adopt an aggressive working capital approach will experience negative returns (13). However, the firm's profitability was not significantly impacted by the finance and working capital investment practices (14). A significantly negative correlation between financial performance and payables management policies is documented in the research work (15). Firms that are highly sensitive to changes in working capital and the firms with a strong focus on working capital tend to have high sensitivities to working capital investment in relation to cash flow, while having low sensitivities to fixed capital investment in relation to cash flow (16). The results also imply that firms could balance a trade-off between actions to reduce the impact of cash flow shocks on

fixed capital investment. In their analysis of the relative relationships between the working capital management of 10 major industrial groups study found a considerable disparity between the policies of various industries (17-18). The above study also discovered a strong and unfavourable association between firms' performance and payables management, suggesting that relatively conservative working capital finance policies could mitigate the risk associated with applying aggressive working capital investment policies. Some studies show that working capital regulations are important predictors of a firm's market value (19-20). Whereas, the research points out that firms with minimal investments in current assets largely bank-on current liabilities for their working capital financing, which is why working capital investing and working financing policy contributes to firm's profitability (21). On the other hand, the research found that working capital investment policies enable businesses to maximise their market value by making significant investments in current assets and avoiding the peril of obtaining working capital through current liabilities (22). Moreover, the corporations can increase their market value by following an effective working capital management strategy (23). Hence, this research is an attempt to explore the significance of working capital management in enhancing firm performance as well as achieving sustainable development goals by selecting 210 Indian manufacturing firms listed at S&P BSE-500.

Methodology

This study examines the influence of working capital management on the financial performance of Indian manufacturing firms listed on the S&P BSE 500 index between 2014 and 2023, using data extracted through the Centre for Monitoring Indian Economy (CMIE) Prowess databases. The first sample comprises of 500 firms listed at S&P BSE 500 index, which is a wide representation of the Indian market, encompassing almost 20 key industries and accounting for approximately 93% of market capitalization of the Bombay stock exchange. The final sample, after excluding missing data, outliers, and banking and financial services, is a balanced panel of 210 firms across a 10-year period, yielding 2100 firm-year observations. Tobin's-Q is used as an explained proxy indicator for measuring firm financial performance, whereas Account Receivables Period, Accounts Payable

Period, Inventory Conversion Period, and Cash Conversion Cycle are used as explanatory proxy variables to gauge the association and effect of working capital management on manufacturing firm performance. The analysis also contains three control variables that are distinctive to each company. The variables discussed above are summarized here.

Explained Variable

Tobin's q = Total Market Capitalisation of firm/ Total Assets Book Value.

TQ is a metric that assesses how well a firm's value relates to the book worth of its assets. A lesser TQ ratio between 0 to 1 explains that stocks are undervalued. On the other TQ ratio of more than 1 indicates that a company's stock is overvalued.

Explanatory Variable

The explanatory variables are the inputs or causes that may account for the variance in the explained variable. The study employs the explanatory variables.

Account Receivables Period (ARP) = (Accounts Receivables/Sales) $\times$ 365. It demonstrates the firm's capacity to collect cash from customers in a timely manner, hence improving liquidity.

Accounts Payables period (APP) = (Accounts Payables/Cost of Goods Sold) $\times$ 365. It illustrates how extensive it takes a company to make payments its creditors; the longer the payable period, the more liquidity is maintained.

Inventory Conversion Period (ICP) = (Inventory/Cost of Goods Sold) $\times$ 365. The inventory turnover ratio is a measure of efficiency that calculates the average number of days a firm takes to sell its inventory. As time gets lower, the firm becomes more productive.

Cash Conversion Cycle (CCC) = {(AR + ICP) – AP}. It is a statistical metric which determines the time taken by a company to transform its invested resources again into cash.

Control Variables

A control variable is a factor that is kept consistent during an experiment. It aids the researcher in identifying the variables to utilize in the investigation and determining the most effective way to establish their relationship. A significant number of the initial researchers in the field of corporate finance literature used control factors alongside the major variables of their studies. Many of the researchers namely (8, 11, 19, 21, and

23) have taken these variables as a control variable in their study.

(1) Firm Size = The size of a firm is indicative of its strength and is determined by calculating the natural logarithm of its total assets.

(2) Leverage = This ratio is utilized to assess the correlation between the firm's external funding and its total assets. The formula for calculating it is (Short-Term Loans + Long-Term Loans) divided by Total Assets.

(3) Sales Growth = (Current year sales/ last year sales)-1. Growth is a quantitative assessment of a company's success within the market.

Process

The data collected from CMIE prowess was first organized, categorized, and encoded using logs. Subsequently, the data were analysed in alignment with the goals of the study. Descriptive statistics were employed as the initial stage in the analysis to elucidate the crucial elements of the investigation. The gathered data was analysed using several quantitative analytic approaches, such as Correlation and linear panel data regression analysis. Correlation analysis was employed to assess the association between the variables. Regression analysis was employed in the study to evaluate the impact of working capital determinants on the financial performance of Indian manufacturing firms listed at S&P BSE500.

Results

Correlation analysis is a statistical tool used to quantify the degree of linear association between two or more variables. Table 1 displays the correlation matrix of the factors examined in the study. This research is conducted to determine the link between the different aspects of working capital management and a proxy measure of financial performance in manufacturing companies. It indicates the degree of correlation between two variables, whether it is strong or weak. Our findings indicate a negative correlation between Tobin's- q (TQ) and the firm's accounts receivables, Conversion period of Inventory, and cash conversion cycle. The negative association between accounts receivables and profitability implies that an increase in the average receivable's duration will have a detrimental effect on profitability. This means that the longer it takes to collect debts, the less cash is available for enterprises to replenish their inventory. The

observed inverse correlation between ICP and CCC with TQ suggests that reducing the duration of ICP and CCC will lead to increased profitability, enabling the business to optimize financial gain (24). The association between the size and growth of companies with the value of the firm is positive, indicating that increasing the size and sales growth of a firm will result in leading to the maximization of its financial performance. The result is in consistent with earlier studies conducted by (25-

28). Furthermore, the findings indicate a favourable correlation between AR and ICP, CCC, and leverage. The relationship between Size and the variables, except TQ, is negative. This means that when the firm's Size upsurges, it will result in improved financial performance. The level of leverage is directly connected to the ICP and the CCC, indicating that a highly leveraged company would often have a longer CCC and ICP.

Table1: Correlation Matrix Table

TQ	ARP	APP	ICP	CCC	LEV	SIZE	GRO
TQ	-.445**	.032	-.413**	-.313**	-.132	.210*	.249**
ARP		.012	.656**	.803**	.413**	-.373**	-.059
APP			.029	-.296**	-.293**	-.137*	-.049
ICP				.891**	1.210**	-.256**	-.124*
CCC					1.372**	-.309**	-.053
LEV						-.301**	-.034
SIZE							-.076
GRO							1

Regression Analysis

The present study employs the Correlation and Multiple regression approach to analyse various elements of working capital management. Regression analysis quantifies the functional correlation between working capital management, particular characteristics of a firm, and profitability. The study has employed balanced panel data analysis to ensure impartial results, considering the nature of the investigation and the kind of data. Prior to conducting data analysis, certain assumptions of multiple regressions were integrated into the study.

Regression Assumptions: Prior to doing a regression analysis, the different researchers across globe have suggested ensuring that the financial data fulfil specific regression assumptions (29-31). To get objective results and determine if the data are suitable for regression analysis, multiple regression assumption test has been conducted. Plots of normal probability and the Doornik-Hansen test are used to determine if the data is normal (P-P). Even though the data appear non-normal. Hence, the research assumes that the variables follow a normal distribution, as stated by the Central Limit theorem, which holds true when the sample size is equal to or greater than 30. Further, the conducted study suggests that breaking the normalcy assumption is not

problematic (32). By using a Q-Q plot to examine the residual shapes in the corresponding models, the study's linearity assumption has been verified. The variance inflationary factor (VIF) is tested to examine the multicollinearity problem after the correlation matrix. The correlation matrix presented in Table 1 indicates that there is no multicollinearity, with correlation coefficient values falling between -.001 and .70. Nevertheless, the VIF value, ranging from 1.007 to 1.703, provides further evidence. This range is considerably lower than the recommended threshold level 10 of multicollinearity (32). The Wald-test in the regression model was used to verify the study's heteroscedasticity assumption. Arellano's (1987) standard errors correction test, or the HAC (Heteroscedasticity and Autocorrelation Consistent) test, was then used to eliminate the heteroscedasticity issue. Thus, the regression model is applied and the outcomes are displayed when the regression assumptions are verified. In accordance with the needs of the study, the assumption test was carried out using statistical programs such as SPSS (version 28) and E-views (version 13).

For Multiple Regression: The study's hypotheses scrutinize the link between working capital components and manufacturing firms' financial performance.

Hypotheses of the Study

H₀₁: ARP (Accounts receivable period) is negatively associated with TQ (Tobin-Q).

H₀₂: APP (Accounts payable period) is positively associated with TQ (Tobin-Q).

H₀₃: ICP (Inventory conversion period) is negatively associated with TQ (Tobin-Q).

H₀₄: CCC (Cash conversion cycle) is negatively associated with TQ (Tobin-Q).

Regression Model: The study has constructed four regression models to achieve the research aims. The models have been designed in accordance with the earlier researchers in their work (33-37).

Model 1: $(TQ)_{i,t} = \alpha + \beta_1 (ARP)_{i,t} + \beta_2 (LEV)_{i,t} + \beta_3 (SIZE)_{i,t} + \beta_4 (GRO)_{i,t} + \varepsilon_{i,t}$

Model 2: $(TQ)_{i,t} = \alpha + \beta_1 (APP)_{i,t} + \beta_2 (LEV)_{i,t} + \beta_3 (SIZE)_{i,t} + \beta_4 (GRO)_{i,t} + \varepsilon_{i,t}$

Model 3: $(TQ)_{i,t} = \alpha + \beta_1 (ICP)_{i,t} + \beta_2 (LEV)_{i,t} + \beta_3 (SIZE)_{i,t} + \beta_4 (GRO)_{i,t} + \varepsilon_{i,t}$

Model 4: $(TQ)_{i,t} = \alpha + \beta_1 (CCC)_{i,t} + \beta_2 (LEV)_{i,t} + \beta_3 (SIZE)_{i,t} + \beta_4 (GRO)_{i,t} + \varepsilon_{i,t}$

In the above model, α represents the intercept, ε represents the error term, Subscript i refers to firms in the cross-section dimensions, while t refers to years in the time-series dimensions. β_1 is a constant term that represents the Y intercept of the regression line. TQ represents Tobin's-Q, ARP stands for Accounts Receivables Period, APP is an acronym for Accounts Payable period, ICP for Inventory Conversion Period, CCC shows Cash conversion Cycle, LEV- Financial leverage of firms, Size of firm measured by total assets is represented by SIZE, GRO- Firm's growth rate measured by growth in sales.

(Model 1 $(TQ)_{i,t} = \alpha + \beta_1 (ARP)_{i,t} + \beta_2 (LEV)_{i,t} + \beta_3 (SIZE)_{i,t} + \beta_4 (GRO)_{i,t} + \varepsilon_{i,t}$)

Fixed-effects, using 2100 occurrences

Comprised 210 cross-sectional units

Time-series length = 10

Dependent variable: TQ

Robust (HAC) standard errors

Table 2: Regression Table – Model 1

Variables	C	ARP	LEV	SIZE	GRO
Coefficient	-1.7422	-0.0055	-1.3302	1.1008	0.0433
Std. error	0.6721	0.0026	0.2769	0.1462	0.1035
t- statistics	-2.441	-2.016	-3.467	6.426	0.3693
P-value	0.0119**	0.0442**	0.000***	0.000**	0.6890

*** Shows the Significance at 1%, ** Shows level of significance at 5%, F-statistics: 32.4370 with p-value 0.000, R-squared: 0.7521, Adjusted R²: 0.6689; Note: TQ- Tobin's Q, ARP- Accounts receivable period, LEV- Leverage, SIZE- Size of the firm, GRO- Firm's growth rate.

The 1st regression model (displayed in Table 2) applied in the research was assessed using all three models: the Pooled OLS model, the Random Effect Model (REM), and the Fixed Effect Model (FEM). Using the F-test, Breusch and Pagan Lagrangian Multiplier, and Hausman Fixed test to select the optimal model, it was determined that the FEM is the most appropriate for this equation. At the 5% level of significance, the regression result indicates that the ARP has a negative and significant effect on the financial performance of firms as measured by TQ. At the 1% level of significance, the size of firm has a strong and positive impact on its TQ, whereas the level of leverage has a strong and negative impact on the

firm's value as assessed by TQ. No discernible effect of firm's growth rate, as measured by GRO, on TQ is observed. The model's adjusted R² value of 0.669 indicates that both the independent and control variables influence the financial performance of firms by 67%. The fitness of the model is indicated by the p-value (0.000) of the F-statistics (32.43) at a significance level of 1%.

(Model 2 $(TQ)_{i,t} = \alpha + \beta_1 (APP)_{i,t} + \beta_2 (LEV)_{i,t} + \beta_3 (SIZE)_{i,t} + \beta_4 (GRO)_{i,t} + \varepsilon_{i,t}$)

Fixed-effects, using 1010 occurrences

Comprised 101 units of cross-sections

Time-series length = 10

Dependent variable: TQ

Robust (HAC) standard errors

Table 3: Regression Table – Model 2

Variables	C	APP	LEV	SIZE	GRO
Coefficient	-2.0447	0.0005	-1.3572	1.1052	0.0750
Std. error	0.7332	0.0007	0.2827	0.1475	0.1141

t- statistics	-2.789	0.6429	-4.800	7.493	0.6571
P-value	0.0054***	0.5204	0.000***	0.000**	0.5113

*** Shows the Significance at 1%, ** Shows level of significance at 5%, R-squared: 0.7414, Adjusted R²: 0.6980, F-statistics: 32.2435 with p-value 0.000; Note: TQ- Tobin's Q, APP- Accounts payable period, LEV- Financial leverage, SIZE- Firm's size, GRO- Firm's growth rate.

All three models namely Pooled OLS, the Random Effect Model (REM), and the Fixed Effect Model (FEM) were checked to analyse the second appropriate regression model of the study using the F-test, Breusch and Pagan Lagrangian Multiplier, and Hausman Fixed test. It was determined that the FEM is the most appropriate for the equation. At the 1% level of significance, the regression result (Shown in Table 3) indicates that the APP has a positive coefficient but a negligible effect on the financial performance of firms as measured by TQ. At the 1% level of significance, size has a positive and significant impact on TQ, whereas LEV has a negative and significant effect

on the value of the firm as measured by TQ. Financial performance is not impacted by the growth rate of firms as measured by GRO for firms with a positive coefficient. The model's adjusted R² value of 0.698 indicates that both the independent and control variables influence the financial performance of the firms by 70%.

(Model 3 (TQ) $i,t = \alpha + \beta_1 (ICP)_{i,t} + \beta_2 (LEV)_{i,t} + \beta_3 (SIZE)_{i,t} + \beta_4 (GRO)_{i,t} + \varepsilon_{i,t}$)

Fixed-effects, using 1010 occurrences

Comprised 101 Units of cross-section

Time-series length = 10

Dependent variable: TQ

Robust (HAC) standard errors

Table 4: Regression Table – Model 3

Variables	C	ICP	FL	SIZE	GRO
Coefficient	-1.8347	-0.0006	-1.3613	-1.0842	0.05737
Std. error	0.7377	0.0008	0.2827	0.1470	0.1153
t- statistics	-2.4870	-0.8022	-4.8147	7.3773	0.4976
P-value	.0131**	0.4226	.000***	.000**	0.6189

*** Shows the Significance at 1%, ** Shows level of significance at 5%, R-squared: 0.7634, Adjusted R²: 0.7034, F-statistics: 32.2893 with p-value 0.000; Note: TQ- Tobin's Q, ICP- Inventory conversion period, LEV- Financial leverage, SIZE- Firm's size, GRO- Firm's growth rate.

The third regression model applied in the study was assessed using all three models namely, Pooled OLS, the Fixed Effect Model (FEM), and the Random Effect Model (REM). Using the F-test, Breusch and Pagan Lagrangian Multiplier, and Hausman Fixed test to select the optimal model, it was determined that FEM is the most appropriate for this equation. The regression analysis (Table 4) indicates the non-significant inverse relationship between the ICP and the financial performance of firms as measured by TQ. At the 1% level of significance, GRO has a positive but insignificant effect on TQ, whereas LEV and Size have a negative effect on the firm's value. The model's adjusted R²

value of 0.7034% signifies almost 70% variation in the financial performance of firms, which can be attributed to the independent and control variables included in the model. The fitness of the model is demonstrated by the p-value (0.000) of the F-statistics (32.29) at a significance level of 1%.

(Model 4 (TQ) $i,t = \alpha + \beta_1 (CCC)_{i,t} + \beta_2 (LEV)_{i,t} + \beta_3 (SIZE)_{i,t} + \beta_4 (GRO)_{i,t} + \varepsilon_{i,t}$)

Fixed-effects, using 1010 occurrences

Comprised 101 Units of cross-sections

Time-series length = 10

Dependent variable: TQ

Robust (HAC) standard errors

Table 5: Regression Table – Model 4

Variables	C	CCC	FL	SIZE	GRO
Coefficient	-1.8023	-0.0010	-1.3447	1.1038	0.0612
Std. error	0.6943	0.0006	0.2824	0.1464	0.1232
t- statistics	-2.335	-1.674	-4.761	6.440	0.3982
P-value	0.0074***	0.0865*	0.000***	0.000**	0.5612

*** Shows the level of Significance at 1%, ** Shows level of significance at 5% and * Shows significant level at 10%, R-squared: 0.7919, Adjusted R²: 0.7211, F-statistics: 33.3482 with p-value 0.000; Note: TQ- Tobin's Q, CCC- Cash Conversion Cycle, LEV- Leverage, SIZE- Size of the Firm, GRO- Firm's growth rate

The regression models namely Pooled OLS model, Random Effect Model (REM), and Fixed Effect Model (FEM) have been used to choose the fourth model (Table 5). The FEM has been determined to be the best model for this equation with the use of the F-test, Breusch and Pagan Lagrangian Multiplier, and Hausman Fixed test. According to the regression's results, the CCC significantly affects firms' financial performance as determined by TQ at the 10% significance level, with a negative coefficient. At the 1% level of significance, size has a positive and substantial influence on TQ, but LEV has a negative and significant impact on the firm's value as determined by TQ. The financial performance of firms with a positive coefficient is not impacted by the growth rate of firms as assessed by GRO. The model's Adjusted-R² of .721 indicates almost 72% variation on the financial performance of the firms, which can be attributed to the model's independent and control variables. The model's fitness is shown by the significant p-value (0.000) of the F-statistics (33, 34) at the 1% level of significance.

Discussion

Using balanced panel data, the current study investigated the effect of working capital management on the financial performance of 210 manufacturing firms included in the S&P BSE-500 indices from April 2014 to March 2023 totalling 2100 observations. This study presents extensive empirical evidence regarding the correlation and regression between effective working capital management practices and profitability of manufacturing firms. Regression analysis is a statistical method utilized to ascertain the magnitude of the association between a single explained variable (represented by Y) and a sequence of other explanatory variables (represented by X) that are subject to change. As discussed previously, the study thus far has integrated an outline of pertinent literature and analysis to assess the correlation between working capital management components and the profitability of companies through the formulation of four regression models. Model 1 found a strong and statistically significant negative relationship between the accounts receivables period (ARP) and Tobin-Q, with a significance level of 5%. This finding aligns with the conducted earlier research which insinuates that implementing a stringent credit policy that restricts the amount of time

customers must make payments increases the firm's value in relation to its profitability (8, 12, 18, 25). Regarding financial performance as assessed by Tobin-Q, (APP) Accounts payable period continues to be negligible at every level of significance. This finding is consistent with earlier conducted research (7, 9, 16, 31). The firms' Inventory ICP is determined to be negatively insignificant. This indicates that the lengthier the inventory is held the lesser availability of working capital. Consequently, a sudden decline in sales coupled with inadequate inventory management will result in the immobilization of surplus capital, which will hinder the profitability of operations. Therefore, manufacturing firms should strive to achieve a speedier ICP to optimize their profitability. The models identify a negative and statistically significant CCC for the firms, with a significance level of 10%. This suggests that a reduction in the CCC is linked with enhanced profitability, which is consistent with previous conducted research, which concludes that a shorter CCC assists companies in preserving a favourable liquidity position ultimately improving profitability (22, 28). Findings of the regression analysis indicate that the coefficient of leverage is negative and highly significant at the 1% level of significance for all four models. This finding is in alignment with the earlier research suggesting that highly profitable organizations are more likely to depend on outside capital to fund their operations (2, 6, 11). Therefore, manufacturing firms that have greater leverage are more likely to experience an increase in profitability. The coefficient of the insignificance of company size across all models indicates that an increase in firm size does not have a significant impact on its profitability. The efficacy of Sales growth of companies is found to be negligible at all level of significance in all the models indicating that a rise in sales does not have any impact on the financial health of the business. The models' adjusted R² values of 67%, 70%, 70%, and 72%, respectively, indicate that nearly 70% of the variances in the companies' profitability can be accounted for by each model in isolation. The study's interpretation of the empirical data suggests that the financial performance (TQ) of manufacturing firms listed on the BSE 500 is significantly impacted by Receivables, Payables, ICP, and CCC. Moreover, Leverage and growth also have a favourable effect

on the firms' profitability. As a result, financial managers of manufacturing firms should concentrate more on enhancing the financial performance of their firms through efficient working capital management. Furthermore, the study suggests that working capital management, an essential component of finance, creates a smooth path to greatly enhancing any company's financial condition. In the decade to come, the only businesses that can stay ahead of the competition will be those who use sustainable methods to manage their working capital effectively (35-38).

Conclusion

The study examines the impact of working capital management on the financial performance of 210 manufacturing firms in India, using balanced panel data from April 2014 to March 2023. The analysis reveals a strong negative relationship between accounts receivables period (ARP) and Tobin-Q, suggesting that stringent credit policies can increase a firm's value. The study also found a negative relationship between accounts payable period (APP) and profitability, suggesting that firms should strive for faster inventory conversion period (ICP) to optimize profitability. A negative and statistically significant CCC was identified for firms, suggesting that a shorter CCC can enhance profitability. The coefficient of leverage was also found to be negative, suggesting that highly profitable organizations rely on outside capital to fund operations. The study suggests that financial managers should focus on enhancing the financial performance of their firms through efficient working capital management. Effective cash, accounts receivable, and inventory management can propel businesses to higher profitability. The study suggests that implementing efficient working capital management (WCM) can help align Indian manufacturing firms with the Sustainable Development Goals (SDGs) by reducing costs, improving liquidity, optimizing efficiency, and making better financial decisions. By implementing these methods, manufacturing firms can create a win-win scenario, improving their financial performance and aligning with the SDGs, contributing to a more sustainable and prosperous future.

Abbreviations

Nil.

Acknowledgment

The author Dr Syed Noorul Shajar thanks Vellore Institute of Technology, Vellore for providing 'VIT SEED Grant (Sanction Order No. SG20230150)' for carrying out this research work.

Author Contributions

The authors confirm sole responsibility for the entire study which consist of conception, design, data collection, analysis, interpretation of results, and manuscript preparation.

Conflict of Interest

Nil.

Ethics Approval

Not applicable.

Funding

Nil.

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