Financial Performance and Working Capital Management Practices of Nigeria's Consumer Goods Manufacturing Firms

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Abstract: - This study examines the impact of working capital management practices on the financial performance of consumer goods manufacturing firms listed on the Nigeria Stock Exchange. The analysis is based on a sample of 20 firms over a ten-year period from 2011 to 2020, utilizing a generalized method of moment (GMM) model. Four indicators of working capital management, including the cash conversion cycle (CCC), inventory turnover period (IVP), accounts payable period (APP), and accounts receivable period (ARP), are assessed, while return on assets (ROA) is used as the measure of financial performance. The findings reveal that a shorter cash conversion cycle and a higher inventory turnover period positively influence the firm's financial performance. Conversely, a longer accounts payable period has a negative impact, while a longer accounts receivable period positively affects financial performance. These results highlight the importance of adopting effective working capital management practices for enhancing the financial performance of consumer goods manufacturing firms. The study's conclusions provide valuable insights for firms, investors, and policymakers, emphasizing the significance of optimizing working capital management to drive financial success.

Key-Words: - Quoted consumer goods manufacturing, Financial Performance, Working Capital Management, Nigeria; Financial Sustainability.

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1 Introduction

In recent times, particularly since the emergence of the Covid-19 pandemic in 2019 in Wuhan City, China, followed by its rapid global spread, [1], [2], the world has been significantly affected. To control the spread of the Covid-19 virus, nations implemented lockdown measures, resulting in reduced productivity and a negative supply shock. This led to disruptions in global supply chains and the closure of factories, impacting consumer goods manufacturing activities in both developed and developing countries, including Nigeria. Consequently, businesses faced severe constraints on their cash and working capital, [3], [4]. As countries gradually recover from the effects of the Covid-19 pandemic, the responsibility falls on financial managers to address capital raising and utilization challenges, both in the private and public sectors. Working Capital Management (WCM) is recognized as a crucial aspect of managerial finance, [5]. Efficient WCM can have a lasting impact on a firm's financial performance.

2 Problem Formulation

In recent times, numerous research studies have focused on exploring the connection between working capital management and corporate profitability, [6], [7], [8], [9], [10], [11]. These studies have primarily concentrated on understanding how efficient working capital management practices influence a firm's profitability and, in turn, its impact on shareholder value. However, most of these investigations have primarily examined large firms in developed economies, overlooking the variations in working capital requirements across industries and firms. Factors such as business nature, scale of operation, production cycle, credit policy, and raw material availability can significantly influence the necessary amount of working capital.

Despite the extensive literature available on this topic, many firms, particularly those in Nigeria's consumer goods manufacturing sector, have encountered financial challenges and even faced bankruptcy due to inadequate working capital management, [12], [13], [14]. Additionally, investments with promising returns have failed due

to insufficient working capital, leading to the closure of numerous factories and subsequent job losses, [12], [13], [14], [15], [16], [17], [18]. Unfortunately, Nigeria's capital and money markets have not provided much assistance in alleviating this issue, often imposing stringent conditions that struggling companies are unable to meet.

Hence, this study aims to address the need for consumer goods manufacturing organizations' managers to prioritize working capital management to enhance their firms' financial performance. Specifically, the research examines the impact of the cash collection cycle, inventory turnover period, accounts payable period, and accounts receivable period on return on assets (ROA), which serves as a metric for financial performance, within listed consumer goods manufacturing firms in Nigeria.

2.1 Literature Review

2.1.1 Conceptual Review

This study seeks to establish the impact of Working Capital Management on the performance of Listed consumer goods manufacturing Firms in Nigeria and the conceptual framework is presented in Figure 1.

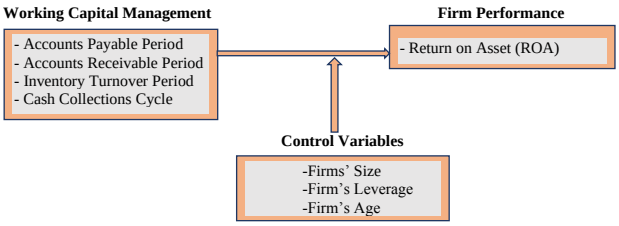

Fig. 1: Author's Conceptual Model, 2022

2.1.2 Organizational Performance

The selection of these variables has been influenced by previous studies on working capital management conducted by other researchers. These variables are essential for testing the hypotheses of this study as they are the estimated key components of working capital that require management to improve efficiency and effectiveness. The efficiency of these variables impacts the dependent variable, which in this study is represented by the firm's return on assets (ROA). The relationship between working capital management and organizational performance is influenced by various factors, such as firm size, firm leverage, and firm age, which are considered control variables in this study, [7], [9], [13].

Inventory management involves how a company manages its inventory, which is measured by the inventory level at a given period, the number of days required to convert inventory into cash, and the frequency of inventory turnover. Accounts receivable days represent the number of days required by a company to collect its outstanding debts. This is calculated by dividing the average accounts receivable by the daily revenue. Accounts payable days represent the number of days required by a company to pay its creditors. It is estimated by dividing the average accounts payables by the daily cost of goods sold. The cash conversion cycle is calculated by subtracting the number of days required by a company to pay its creditors from the sum of the number of days required to convert inventory into cash and the number of days required by a company to collect its receivables, [7], [9], [13]. On the other hand, the working capital financing policy deals with the sources and the amount of working capital that a company should maintain. Working capital investment refers to the amount of money required by an organization to expand its business, meet short-term business obligations, and cover business expenses. The dependent variable, return on assets (ROA), is calculated by dividing a company's net income by its total average assets and then expressing it as a percentage.

2.1.3 Theoretical Framework

In this study, the literature review identified several working capital theories that are relevant, including the operating cycle theory, cash conversion cycle theory, pecking order theory, agency theory, and the risk-return trade-off theory. While each of these theories has its significance, the Cash Conversion Cycle theory is considered the most relevant for this research based on the identified variables and formulated objectives. The study primarily focuses on the cash conversion cycle as an indicator of working capital management, along with the variables of inventory turnover period, accounts payable period, and accounts receivable period. The Cash Conversion Cycle theory examines the time interval between expenditure on raw materials and the receipt of revenue from the sales of finished goods, [19], [20]. It emphasizes that effective management of working capital components, particularly by extending the credit period with suppliers compared to that granted to customers, can reduce borrowing costs and improve financial performance. Previous studies, [21], [22], [23], have also utilized the cash conversion cycle theory to support their investigations into the impact of working capital management on financial performance.

2.1.4 Empirical Review

Previous empirical studies examining the correlation between working capital management and financial performance have yielded inconsistent findings. While some studies have discovered a positive association between WCM and firms' financial performance, others, such as, [24], [25], [26], [27], have identified a negative statistical relationship between profitability/return on assets and variables such as inventory (IN), average receivable (AR), average payable (AP), and cash conversion cycle (CCC). Hence, the literature demonstrates that working capital management components can exhibit both positive and negative relationships with profitability. However, it remains unclear whether these findings can be replicated within the manufacturing sector, particularly in light of the direct impact of the COVID-19-induced global economic recession, [16], [28], [29]. As a result, this study seeks to explore the connection between working capital management and financial performance specifically in the manufacturing sector.

3 Methodology

The study will encompass all twenty (20) consumer goods manufacturing companies that are listed on the Nigerian Stock Exchange as of December 31, 2020. The entire population of these companies will be included in the study. The research will span a period of ten years, from 2011 to 2020, and will analyze data related to working capital management (WCM) variables, including accounts payable period, accounts receivable period, inventory turnover period, and cash conversion cycle. These variables will serve as the independent variables in the study. The dependent variable will be the financial performance of the consumer goods manufacturing sector in Nigeria, measured by the return on assets (ROA) accounting-based performance variable, for the same ten-year period from 2011 to 2020. To analyze the panel (cross-sectional and time-series) secondary data and test the formulated hypotheses, the study will employ panel regression analysis. The population of interest consists of the 20 consumer goods manufacturing firms listed on the Nigerian Stock Exchange, with a focus on a ten-year dataset encompassing both working capital management and the financial performance of the manufacturing sector in Nigeria.

Model Specification: The study's model specification draws inspiration from the work of [11], which explored the relationship between working capital management (WCM) and financial performance in non-financial firms in Nigeria. However, the model has been adapted to include additional WCM indicators and will be used to test the research hypotheses. The statistical model employed in this study is based on, [30], with certain modifications. This model will be utilized to examine the impact of working capital management (WCM) on the financial performance of the consumer goods manufacturing sector. To test the hypotheses, the study will employ panel regression analysis, specifically utilizing the Generalized Least Square (GLS) technique.

The explicit forms of the models for the six hypotheses are stated thus:

$$ROA_t = \lambda_0 + \lambda_1 APP_t + \lambda_2 ARP_t + \lambda_3 ITP_t + \lambda_4 CCC_t + U_t \quad (1)$$

Where: ROA_t: Return on an asset at time *t;* APP_t: accounts payable period at time *t;* ARP_t: accounts receivable period at time *t;* ITP_t: inventory turnover period at time *t*, and CCC_t: cash conversion cycle at time *t;* U, = Error Term.

4 Analysis and Results

Descriptive Statistics: In this section, we provide an overview of the descriptive statistics for the working capital management indicators of the Nigerian quoted manufacturing firms that affect their financial performance. The descriptive statistics include mean, median, maximum/minimum values, standard deviation, and the Jarque-Bera normality test, which tests the skewness and kurtosis of the sample data to determine if it conforms to a normal distribution. This is a necessary condition for applying the system GMM regression model. The results of the descriptive statistics for all variables are presented in Table 1.

Table 1. Summary Statistics

	ROA	TQ	CCC	IVP	APP	ARP	FS	LEV
Mean	22.71439	17.90525	1.457664	17435.92	215.8666	16.88797	60.35332	12.05888
Std. Dev.	1.51114	4.671451	1.873523	4638.873	67.59312	0.42802	3.314248	2.967075
Skewness	-0.376399	-0.259361	8.323218	0.000923	0.438223	-0.034751	0.773362	0.198454
Kurtosis	2.274876	1.932815	102.2671	2.376484	1.385354	3.007388	2.53663	1.807502
Jarque-Bera	19.48309	25.10854	180670.5	6.933172	60.19173	0.087119	46.49266	28.16933
Probability	0.000059	0.000004	0.0000	0.031223	0.0000	0.957376	0.0000	0.000001
Sum	9721.76	7663.445	623.88	7462575	92390.92	7228.05	25831.22	5161.2
Sum Sq. Dev.	975.0737	9318.189	1498.808	9.19E+09	1950890	78.22693	4690.27	3759.11
Observations	200	200	200	200	200	200	200	200

Source: Author's Computation, 2022

The summary statistics for the variables measuring the working capital management and performance of the quoted manufacturing firms are presented in Table 1. Table 1 also includes a test for

normality, which shows that all variables, except for ARP, have a p-value greater than the 5% level of significance, indicating non-normal distribution. To address this non-normality, a natural logarithm transformation is applied to the variables before fitting the model.

Pre-model Diagnostic Test: This step is essential to check for potential conditions and biases that could affect the accuracy of the results. The tests were conducted to verify that the data meets the fundamental assumptions of the dynamic panel model.

Unit Root Test: The purpose of this test is to determine if a time series data is stationary or not. Stationarity in a time series occurs when a shift in time does not change the distribution's shape, whereas non-stationarity occurs when a shift in time does change the shape of the distribution. The unit root is the cause of non-stationarity. The results and interpretation of the unit root test are presented in Table 3.

Table 2. Unit-Root

Levin-Lin-Chu unit-root test for Panel Variables			
Ho: Panels contain unit roots		Number of panels = 20	
Ha: Panels are stationary		Number of periods = 10	
ADF regressions: 1 lag			
LR variance: Bartlett kernel, 6.00 lags average (chosen by LLC)			
Variable	Test	Statistic	p-value
xtunitroot llc ROA	Adjusted t*	-16.5243	0.000
xtunitroot llc CCC	Adjusted t*	-4.7764	0.000
xtunitroot llc IVP	Adjusted t*	-3.8154	0.000
xtunitroot llc APP	Adjusted t*	-4.4424	0.000
xtunitroot llc ARP	Adjusted t*	3.1671	0.999
xtunitroot llc FS	Adjusted t*	-0.798	0.212
xtunitroot llc LEV	Adjusted t*	-10.6677	0.000

Source: Stata 15 Output, 2022

Table 2 presents the results of the Levin-Lin-Chu unit-root test conducted for the panel variables. The null hypothesis (Ho) states that the panels contain unit roots, indicating non-stationarity, while the alternative hypothesis (Ha) suggests that the panels are stationary. The test was performed with ADF regressions using one lag and Bartlett kernel with an average of 6.00 lags, as chosen by the Levin-Lin-Chu (LLC) method.

For the variable "ROA," the adjusted t-statistic is -16.5243, and the p-value is 0.000. This provides strong evidence to reject the null hypothesis and conclude that the variable is stationary, indicating it does not contain a unit root. Similarly, for the variables "CCC," "IVP," "APP," and "LEV," the adjusted t-statistics are -4.7764, -3.8154, -4.4424, and -10.6677, respectively, all with p-values of 0.000. This suggests that these variables are also stationary and do not contain unit roots.

However, for the variable "ARP," the adjusted t-statistic is 3.1671, and the p-value is 0.999. In this case, the high p-value indicates that the null hypothesis cannot be rejected, suggesting that the variable may contain a unit root and is not stationary.

Lastly, for the variable "FS," the adjusted t-statistic is -0.798, and the p-value is 0.212. Since the p-value is greater than the significance level of 0.05, there is insufficient evidence to reject the null hypothesis. This implies that the variable may contain a unit root and is not stationary. Thus, based on the Levin-Lin-Chu unit-root test, the variables "ROA," "CCC," "IVP," "APP," and "LEV" are found to be stationary, while the variables "ARP" and "FS" may contain unit roots and are not stationary.

Cointegration Test: Cointegration tests are used to analyze non-stationary time series, which are processes that have variances and means that change over time. This method allows us to estimate the long-run parameters or equilibrium in systems with variables that have unit roots, [31].

Table 3. Cointegration Test

```
Cointegrating vector: Same
Panel means:          Included          Kernel:           Bartlett
Time trend:           Not included      Lags:             0.20 (Newey-West)
AR parameter:         Same              Augmented lags:   1
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	Statistic	p-value
Modified Dickey-Fuller t	-8.7283	0.0000
Dickey-Fuller t	-12.6276	0.0000
Augmented Dickey-Fuller t	-14.0015	0.0000
Unadjusted modified Dickey-Fuller t	-8.8129	0.0000
Unadjusted Dickey-Fuller t	-12.6479	0.0000

Source: Stata 15 Output, 2022

Table 3 presents the results of the cointegration test. The modified Dickey-Fuller test statistic has a p-value of 0.000, which is lower than the 5% level of significance. This indicates that the panel is cointegrated, and it is suitable for long-run parameter estimation. The implication is that the variables move together, suggesting a long-run equilibrium relationship among the variables. The Variance Inflation Factor for Multicollinearity Test is presented in Table 4.

Table 4. Variance Inflation Factor for Multicollinearity Test

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	CCC	0.983	1.017
	IVP	0.111	8.979
	APP	0.075	3.335
	ARP	0.500	2.001
	FS	0.995	1.005
	LEV	0.146	6.866

a. Dependent Variables: ROA

Determination of GMM technique: Before proceeding with the analysis of the impact of prudential regulation on the financial performance of quoted manufacturing firms in Nigeria, the appropriate GMM technique for estimation must be determined. Bond's rule of thumb for choosing between difference and system GMM, as used in previous studies, [11], [32], [33], will be followed. First, the autoregressive model will be estimated using Pooled OLS to obtain an upper-bound estimate for the coefficient of the lagged dependent variable (φ), while the corresponding fixed effects estimate will provide a lower-bound estimate. The results of this estimation are presented in the appendix, including a summary of the estimated coefficients of the lagged dependent variable.

Table 5. Summary: Difference or System GMM

Candidate Models	lnROA L1.
*Pooled OLS model	0.26416
*Fixed-Effect Model	0.26342
*One-step difference GMM	**0.26342**
*Two-step difference GMM	0.26336
*One-step system GMM	0.26340
*Two-step system GMM	0.26340

Source: Author's estimation (2022)

To validate the efficiency of the internal instruments that are included in the SGMM technique, and to ensure that such instruments are not over-identified, the test for autocorrelation (AR (1) and AR (2)) and the Sargan test is performed respectively for the absence of autocorrelation and validity of instruments. The instrument ratio for the different estimations is expected to be greater than 1 to satisfy the condition that the instruments are not proliferated, [22], [23], [34]. Thus, the result shows that the one-step difference GMM satisfies most of all the necessary conditions to return a robust estimate as presented in Table 5.

4.1 Hypothesis Testing

The plausibility of the hypotheses was assessed by conducting regression analysis using the available data through the GMM panel model. The one-step difference GMM method was chosen for its consistency and adherence to the required assumptions. The study employed return on assets (ROA) as the performance measure for Nigerian manufacturing firms, with the working capital management variables serving as explanatory factors. The regression analysis applied a significance level of 5% to determine the statistical significance of the relationships between the variables.

The analysis presented in Table 6 provides insights into the relationships between working capital management variables and the financial performance of quoted consumer goods manufacturing firms on the Nigeria Stock Exchange, aligning with the hypotheses stated.

H_{01}: The hypothesis states that there is no relationship between the cash collection cycle (CCC) and the financial performance of quoted consumer goods manufacturing firms. The analysis supports this hypothesis, as the coefficient for lnCCC is found to be statistically insignificant (coefficient = 0.000, p-value = 0.933). Therefore, it can be concluded that the cash collection cycle does not have a significant impact on the financial performance of these firms as corroborated by, [35], [36].

H_{02}: The hypothesis suggests that there is no relationship between the inventory turnover period (ITP) and the financial performance of quoted consumer goods manufacturing firms. However, the analysis reveals a significant positive relationship between lnIVP (lnITP) and financial performance (coefficient = 0.189, p-value = 0.000). Consequently, the hypothesis is rejected, indicating that a longer inventory turnover period is associated with better financial performance in line with the result of, [37].

H_{03}: The hypothesis posits that there is a relationship between the accounts payable period (APP) and the financial performance of quoted consumer goods manufacturing firms. The analysis supports this hypothesis, as the coefficient for lnAPP is found to be statistically significant and negative (coefficient = -0.133, p-value = 0.000). This implies that a longer accounts payable period negatively affects the financial performance of these firms as described in, [38].

H_{04}: The hypothesis states that the accounts receivable period (ARP) does not influence the financial performance of quoted consumer goods manufacturing firms. However, the analysis reveals a significant positive relationship between lnARP and financial performance (coefficient = 0.669, p-value = 0.000). Thus, the hypothesis is rejected, indicating that a longer accounts receivable period is associated with improved financial performance. This is also supported by, [39], and, [40].

Table 6. Model Parameter Estimate

ROA	*Pooled OLS model		*Fixed-Effect Model		*One-step difference GMM		*Two-step difference GMM		*One-step system GMM		*Two-step system GMM	
	Coef.	P>|z|	Coef.	P>|z|	Coef.	P>|z|	Coef.	P>|z|	Coef.	P>|z|	Coef.	P>|z|
lnROA L1.	0.264	0.000	0.263	0.000	0.263	0.000	0.263	0.000	0.263	0.000	0.263	0.000
lnCCC	0.000	0.997	0.000	0.981	0.00283	0.981	0.000	0.980	0.000	0.933	0.000	0.934
lnIVP	0.189	0.000	0.190	0.000	0.190	0.000	0.190	0.000	0.189	0.000	0.189	0.000
lnAPP	-0.133	0.000	-0.133	0.000	-0.133	0.000	-0.133	0.000	-0.133	0.000	-0.133	0.000
lnARP	0.659	0.000	0.653	0.000	0.653	0.000	0.652	0.000	0.669	0.000	0.669	0.000
FS	0.000	0.748	0.002	0.001	0.002	0.000	0.002	0.037	0.000	0.384	0.000	0.454
LEV	0.011	0.000	0.011	0.000	0.011	0.000	0.011	0.000	0.011	0.000	0.011	0.000
_cons	-0.832	0.000	-0.899	0.000	NA	NA	NA	NA	-0.849	0.000	-0.849	0.000
	Model Summary											
F(7, 386)[p-value]	8017.34(0.000)		1250000(0.000)		NA		NA		NA		NA	
R-squared	0.859		0.854		NA		NA		NA		NA	
Wald chi2(7)	NA		NA		NA		NA		30600(0.000)		81000(0.000)	
Arellano-Bond test for AR(1) in first differences: z	NA		NA		-6.61(0.000)		-6.58(0.000)		-6.62(0.000)		-6.6(0.000)	
Arellano-Bond test for AR(2) in first differences: z	NA		NA		-6.58(0.000)		-6.58(0.000)		-6.57(0.000)		-6.59(0.000)	
Sargan test of overid. restrictions: chi2(7)	NA		NA		350(0.000)		350(0.000)		352.77(0.000)		352.77(0.000)	
Hansen test of overid. restrictions: chi2(7)	NA		NA		43.98(0.000)		43.98(0.000)		44(0.000)		44(0.000)	

Source: STATA 15 Output

The F-statistic and its associated p-value are not provided (NA). The R-squared value is also not available (NA). The Wald chi-square test shows a significant overall model fit (chi2(7) = 3060000000, p-value = 0.000). Furthermore, various tests are conducted to assess the validity of the model. The Arellano-Bond tests for autoregressive structure in first differences indicate significant values for AR(1) (z = -6.62, p-value = 0.000) and AR(2) (z = -6.57, p-value = 0.430), suggesting the no presence of serial correlation. The Sargan test and Hansen test of overidentifying restrictions both yield significant results, indicating that the instruments used in the GMM estimation are valid.

5 Conclusion

In conclusion, this study utilized a generalized method of moment (GMM) model analysis to investigate the impact of working capital management on the financial performance of quoted consumer goods manufacturing firms on the Nigeria Stock Exchange. The panel data collected from 20 firms from 2011 to 2020 provided comprehensive coverage, including all quoted consumer goods manufacturing firms in Nigeria and a long observation period of 10 years post-release of annual financial statements. This extensive dataset allowed for robust and conclusive results.

One significant contribution of this study is the inclusion of both accounting-based and market-based measurements for financial performance, which adds value and novelty compared to many previous studies that solely relied on accounting-based measures. The expanded set of dependent variables, particularly return on assets (ROA), provided a comprehensive evaluation of financial performance.

The findings of this study revealed important insights regarding the relationship between working capital management and financial performance. The results demonstrated that a shorter cash conversion cycle (CCC) and higher inventory turnover period (IVP) positively influenced the firms' ROA. On the other hand, a longer accounts payable period (APP) had a negative effect, while a longer accounts receivable period (ARP) had a positive impact on ROA.

These findings highlight the significance of effective working capital management practices in enhancing the financial performance of consumer goods manufacturing firms. It is recommended that these firms adopt optimal working capital management strategies to improve their financial performance.

Conclusively, this study provides valuable evidence and conclusive results regarding the impact of working capital management on financial performance. The comprehensive dataset, encompassing a wide range of firms and a long observation period, adds credibility to the findings. The incorporation of both accounting-based and market-based measures of financial performance further enhances the study's contributions to the existing literature. These findings have important implications for managers, investors, and policymakers in the consumer goods manufacturing industry in Nigeria.

5.1 Recommendations

Based on the findings and analysis conducted in this study, the following recommendations are put forward to consumer goods manufacturing firms listed on the Nigeria Stock Exchange:

1. Optimize Cash Conversion Cycle (CCC): The results indicate that a shorter cash conversion cycle positively influences the financial performance of the firms. Therefore, it is recommended that companies focus on efficiently managing their cash flows by reducing the time it takes to convert inventory into cash. This can be achieved by streamlining the production and distribution processes, negotiating favorable payment terms with suppliers, and implementing effective inventory management systems.

2. Enhance Inventory Turnover Period (IVP): The study demonstrates that a higher inventory turnover period is associated with improved financial performance. To achieve this, companies should adopt inventory management strategies aimed at reducing excess inventory levels, improving demand forecasting accuracy, and optimizing supply chain processes. By effectively managing their inventory, firms can free up capital and enhance their overall financial performance.

3. Optimize Accounts Payable Period (APP): The findings reveal that a longer accounts payable period has a negative impact on the financial performance of the firms. It is recommended that companies implement efficient accounts payable practices, such as negotiating extended payment terms with suppliers while maintaining good relationships, monitoring invoice processing times, and taking advantage of early payment discounts. By effectively managing their accounts payable, firms can optimize cash flows and improve their financial performance.

4. Manage Accounts Receivable Period (ARP): The study indicates that a longer accounts receivable period positively influences the financial performance of the firms. To strike a balance between maximizing sales and minimizing the time it takes to collect receivables, companies should implement effective credit policies, monitor customer payment behavior, promptly follow up on overdue payments, and establish strong customer relationships. By optimizing their accounts receivable management, firms can improve cash flow and enhance their financial performance as illustrated in, [41].

5. Consider Firm Size and Leverage: The study suggests that firm size and leverage have significant effects on the financial performance of consumer goods manufacturing firms. It is recommended that companies carefully manage their size and leverage ratios, taking into account the optimal levels that align with their business strategies and risk tolerance. Companies should regularly assess their capital structure, debt repayment capabilities, and potential risks associated with high leverage to ensure sustainable financial performance.

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- Oprite Malvan Iyalla carried out the conceptualization and manuscript drafting.
- May Ifeoma Nwoye was responsible for the Statistics.
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