Cash Conversion Cycle Management and Financial Performance of Listed Consumer Goods Manufacturing Firms in Nigeria

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Abstract

This study examined the nexus between cash conversion Cycle management and financial performance of consumer goods manufacturing firms in Nigeria. The study was anchored on the Pecking order theory. It specifically investigated the effect of the independent variable (Cash Conversion Cycle) on profitability (measured by Return on Assets (ROA) and Return on Equity (ROE)). It adopted the ex post facto research design. A sample of four firms were purposively selected and used for the study comprising of: Nestlé, Dangote Sugar, Bua Foods and Unilever. Data collected from their annual financial reports from the period of 2013 to 2023 were analyzed using descriptive statistics, correlation and panel multiple regression analysis. The findings indicate that there exist positive but insignificant effect of cash conversion cycle on both ROA and ROE. The study recommends that consumer goods manufacturing companies in Nigeria should prioritize and maintain a set of robust liquidity management strategies and not necessarily depend on management of cash conversion cycle; to ensure improved financial performance in their firms.

Keywords: Cash Conversion Cycle, Consumer Goods Manufacturing Firms, Financial Performance, Return on Assets, Return on Equity

1.0 INTRODUCTION

The economic development of Nigeria is largely dependent on the growth and contributions of the consumer goods manufacturing sector. The sector accounts for a significant number of employed youths of the country and also contributes significantly to the country's gross domestic product (GDP). However, sector is characterized by significant challenges, including fluctuating exchange rates, inflation, and inconsistent power supply, which affect production costs and profitability (Ademola & Adebayo, 2022). These, have also caused some of them serious liquidity challenges (and even liquidations) due to inability to meet their short term obligations as they fall due. Effective liquidity management (particularly the management of their cash and cash equivalents), therefore, becomes even more crucial in such an environment to ensure that firms can withstand financial pressures and maintain operational stability.

Arguably, the slow-paced growth experienced in the consumer goods sector could be traceable to the problem of poor management of cash and cash equivalents, among other factors (Nangih, Onuora & Ofor 2020). Accordingly, putting in place strategies to mitigate against that proper management of manufacturing firms' cash conversion circle is essentially crucial for their survival and growth. The cash conversion cycle measures the time span between a company's outlay of cash for raw materials and the inflow of cash from sales of finished goods. According to Adekoya and Oyewumi (2023) a shorter cash conversion cycle essentially indicates a more efficient liquidity management system, as it suggests quicker turnover of inventory into cash. Nangih, Onuorah and Ofor (2020) opined that cash flow information is necessary and even crucial to stakeholders in assessing the liquidity efficiency or performance of listed firms. They further stressed the importance of efficient cash management for the growth and long term survival of firms, particularly those in the manufacturing sector. Cash management is therefore essential; not just about survival or liquidity, but for the optimal effect it has on the firm.

Financial performance, on the other hand, is a term used to measure the extent to which an entity achieves its financial goals. It may also be described as a tool or parameter used to assess a firm's ability to utilize its assets in the generation of profits as well as wealth maximization. Examples of financial performance measures include return on assets, return on equity, gross margin, return on capital employed, return on turnover, and others.

Further, the way and manner cash is managed by consumer goods firms may affect their financial performance. It is believed that a good financial performance could be achieved when an efficient cash conversion cycle is put in place by an entity, arguably. Hence the reason for this study.

1.2 Statement of the Problem

The importance of Cash and cash equivalent for the smooth operations and continuous survival of every business entity, cannot be overemphasized. That is due to the fact that it is needed on a day to day basis to settle the entity's financial needs and other obligations as they fall due. However cash conversion cycle management can be quite challenging, particularly for manufacturing firms. This is not unconnected with their peculiar nature and mode of operations. Nangih, et al (2020) argued that the slow growth experience by some firms in the sector could be traceable to the problem of poor management of cash and cash equivalents, among others. On his part, Miles (2010) asserts that cash and cash equivalents is a very critical resource for the acquisition of assets and firm operations which is a priority for market returns and to cover interests of other key stakeholders. Understanding how effective liquidity management practices mitigate these challenges is crucial for firms seeking sustainable growth and resilience in a volatile economic environment.

Additionally, managing the cash conversion cycle effectively is particularly crucial because these firms often operate in highly competitive markets with thin profit margins and must balance inventory levels carefully to meet demand without overstocking. Hence the efficient management of their cash conversion cycle helps them maintain optimal inventory levels, expedite collections from customers, and strategically delay payments to suppliers, all of which enhance liquidity and profitability (Ademola & Adebayo, 2022).

Studies have confirmed that there exist some relationships between cash flow activities and entity's financial performance Akumu (2014), Amah, Micheal and Ihendinihu (2016), etc. However the study results were conflicting. Further, despite the critical importance of cash conversion cycle management in enhancing financial performance, studies targeted at listed consumer goods firms in Nigeria, are scanty. Accordingly, this study addresses that gap.

2.0 LITERATURE REVIEW

2.1.1 Concept of Cash Conversion Cycle - The cash conversion cycle is a vital metric in liquidity management, providing a comprehensive view of how efficiently a company manages its working capital. Simply, it measures the time taken for a company to convert its investments in inventory and other resources into cash flows from sales. Adekoya and Oyewumi (2023) argued that it encompasses the entire process from the outlay of cash to purchase inventory to the collection of cash from sales, reflecting the firm's efficiency in managing its short-term assets and liabilities.

The cash conversion cycle is composed of three main components: the inventory conversion period (ICP), the receivables conversion period (RCP), and the payables deferral period (PDP). The ICP measures the average time taken to sell inventory, the RCP indicates the average time required to collect receivables, and the PDP represents the average time taken to pay suppliers. The formula for calculating the cash conversion cycle is: CCC = ICP + RCP - PDP. A shorter CCC indicates a more efficient cycle, where the company quickly converts its inventory into cash, minimizes the time receivables are outstanding, and takes full advantage of the credit terms extended by suppliers (Duru & Nyseboame, 2022).

2.1.2 Concept of Financial Performance- Financial performance refers to the measure of how well a firm uses its assets to generate revenues and profits over a specific period. It encompasses various metrics that assess profitability, efficiency, and overall effectiveness in managing resources to achieve financial goals (Osagie & Omole, 2023). Key indicators of financial performance include return on assets (ROA) and return on equity (ROE). ROA measures the profitability of a company relative to its total assets, indicating how efficiently management utilizes assets to generate earnings. A higher ROA suggests better asset utilization and management efficiency (Ademola & Adebayo, 2022). On the other hand, ROE assesses the profitability of a company relative to shareholders' equity, reflecting how effectively the firm generates profits from shareholders' investments (Duru & Nyseboame, 2022).

1.2 Theoretical Underpin

This study is anchored on the Pecking Order Theory proposed by Myers and Majluf in 1984. The theory explains corporate financing decisions based on the preference for internal financing over external financing. According to this theory, firms prioritize financing sources in a hierarchical order: internal funds (retained earnings), followed by debt, and finally equity issuance. This theory is particularly relevant in understanding how consumer goods manufacturing firms manage liquidity and financial performance (Myers & Majluf, 1984). The theory suggests that firms prefer to use internal funds generated from operations to finance

short-term obligations and investments. This minimizes reliance on external financing, which can be costly and increase financial risk.

Moreover, the Pecking Order Theory guides financial decision-making regarding debt and equity issuance. Consumer goods manufacturing firms may choose debt financing over equity issuance to preserve ownership control and avoid shareholder dilution. This theory underscores the importance of maintaining a balanced approach to liquidity management that supports sustainable growth, profitability, and shareholder value creation in consumer goods manufacturing sectors (Myers, 1984).

2.3 Empirical Review

Research by Adekoya and Oyewumi (2023) investigated the impact of cash conversion cycle (CCC) on financial performance. The study was carried out in Nigeria. The study adopted the ex post facto research design and was anchored on the agency theory. Data were collected for the study from 2013 to 2021 and was analyzed using descriptive statistics and regression analysis. Findings revealed that a shorter cash conversion cycle significantly enhances ROA and ROE.

Osagie and Omole (2023) also explored the effect of liquidity management practices on ROA using West African consumer goods companies as the study population. They utilized survey data and financial ratios analysis. The result of their study showed that firms with efficient cash conversion cycle exhibited higher profitability.

Chukwuemeka and Chukwuma (2023) studied liquidity management during crises in African manufacturing firms. Mixed-methods approach using case studies and financial ratios indicated that firms with robust liquidity management strategies survived economic downturns better.

Ademola and Adebayo (2022) investigated the influence of cash conversion cycle on financial performance in Nigerian listed firms. They analyzed annual reports and employed correlation analysis. Found that firms with shorter cash conversion cycle had higher ROA and ROE.

Nangih, Onuorah and Ofor (2020) studied the effect of cash flow management on financial performance listed firms in Nigeria. The study population was oil and gas companies listed on the Exchange. The work was underpinned on the Stakeholders' Theory. Data were purposively collected from annual reports of five sampled firms and analyzed using correlation and regression statistics. The results showed that cash flows from operating and investing cash flows had negative and insignificant relationship with profitability whereas cash flow from financing activities had positive and significant influence on firm performance in the oil and gas sector.

Nangih and Ofor (2019) investigated the effect Liquidity on Firm Investments. The population was the Oil and Gas Sector firms listed on the Nigerian Exchange Group. The study adopted the ex post facto design and used convenience sampling technique to selected nine firms from the sector. Data were sourced mainly from their published annual reports and was analyzed using Least Square Regression. Results showed that current ratio had positive effect on investment but the effect was insignificant. It was also found that cash and acid test ratios had negative but insignificant effects on firm investments.

2.4 Development of Hypotheses

Based on the Objectives of the study as well as the literature reviewed above, the study hypothesized thus;

H0₁: cash conversion cycle does not have significant effect on return on assets of consumer goods firms in Nigeria

H0₂: cash conversion cycle does not have significant effect on return on assets of consumer goods firms in Nigeria

These were tested in section 4.3 below. The decision rule was to reject the null hypothesis if the p-value is less than 0.05, indicating a statistically significant effect of the independent variable on the dependent variable.

3.0 METHODOLOGY

The research design for this study is the expost facto research design. The population of this study comprises all consumer goods manufacturing firms listed on the Nigeria Exchange Group (NGX) during the specified period. This includes companies involved in the production of goods intended for consumer use, providing a comprehensive scope for analyzing liquidity management strategies and financial outcomes within the sector. The purposive sampling technique was employed to select a representative sample of consumer goods manufacturing firms from the population. Consequently, four companies, which include: Dangote sugar, Nigeria Breweries, Guinness Nigeria and Flour mill Plc, were selected for the study. Data used for the study was sourced from the annual financial reports the sampled companies from 2016 to 2023 financial years. Ordinary least square (OLS) regression was employed in carrying out the analysis using the Econometric views (E-view) software.

3.1 Variables Measurement

Cash Conversion Cycle (CCC): It is calculated as the sum of day's inventory outstanding, day's sales outstanding, and days payables outstanding.

Return on Assets (ROA): Is calculated as net income divided by average total assets.

Return on Equity (ROE): Is calculated as net income divided by average shareholders' equity.

3.2 Model Specification

The study adopted the model thus: $fp = \beta 0 + \beta 1(CR) + \beta 2(CCC) + \epsilon$ $ROA=\beta 0+\beta 1$ (Cash Conversion Cycle) + ϵ $ROE = \beta 0 + \beta 1 (Cash Conversion Cycle) + \epsilon$ Where; Fp= Financial performance ROA= Return on asset **ROE**= Return on Equity $\epsilon = error$

4.0 ANALYSIS AND INTERPRETATION OF RESULT

This section outlines the analytical methods employed to interpret the data, focusing on statistical techniques used to evaluate the relationships between variables.

4.1.1 Descriptive Statistics

The table below presents the results of the descriptive statistics, detailing the means, standard deviations, and other relevant statistics for each variable in the study.

Table 4.1.1 Descriptive Statistics

	CCC	ROA	ROE
Mean	-31.16100	0.046858	0.128544
Median	-17.57352	0.044718	0.115530
Maximum	152.3540	0.192909	1.628152
Minimum	-244.0420	-0.119791	-0.880082

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Std. Dev.	98.05617	0.064473	0.349708	
Skewness	-0.066402	-0.409000	1.721277	
Kurtosis	2.133031	3.895904	13.68943	
Jarque-Bera	1.025697	1.962359	168.1536	
Probability	0.598788	0.374869	0.000000	
Sum	_007 1521	1 /00/61	1 113/20	
Sum Ca Dav	-397.1321	0.120050	4.113420	
Sum Sq. Dev.	298063.4	0.128839	5./91105	
Observations	32	32	32	
Source: Researcher's Computation using Eviews.				

The descriptive statistics reveal key financial metrics for the firms studied. The mean Return on Assets (ROA) is approximately 0.047 or 4.7%, while the mean Return on Equity (ROE) is 0.129 or 12.9%. The Cash Conversion Cycle (CCC) average is -31.16. The standard deviations indicate a higher spread in the variables, indicating significant variability in these metrics. Further, the standard deviations, particularly in ROA and ROE, suggesting diverse financial performance among firms. The Jarque-Bera statistics suggest that all the variables except ROE are normally distributed, given that their probabilities are all greater than 0.05.

4.2. Correlation Statistics

Correlation analysis enables the researcher to ascertain the nature of the relationship between any two variables. The result of the correlation statistics is shown in table 4.3.

Table 4.2.1 Correlation Statistics

	CCC	ROA	ROE
CCC	1.000000		
ROA	0.295002	1.000000	
ROE	0.144998	0.715146	1.000000
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Source: Researcher's Computation using Eviews.

The correlation analysis shows significant relationships among the variables. The Cash Conversion Cycle (CCC) shows a weak but positive correlations with both ROA (0.2950) and ROE (0.1450), suggesting that cash management practices may weakly influence profitability. Overall, the findings highlight the importance of cash conversion cycle management in enhancing financial performance.

4.3 Regression Analysis

Ordinary least square (OLS) was employed in determining the functional relationship existing between the variables in order to have more comprehensive information on the study variables to aid logical conclusions thus;

Table 4.3.2: Multiple Regression TestDependent Variable: ROAMethod: Panel Least SquaresDate: 09/02/25Time: 16:05Sample: 2016 2023

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Periods included: 8 Cross-sections included: 4 Total panel (balanced) observations: 32 White cross-section standard errors & covariance (d.f. corrected)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CCC C	0.000165 -0.031019	0.000319 0.042161	0.517256 -0.735708	0.6094 0.4685
R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood F-statistic Prob(F-statistic)	$\begin{array}{c} 0.531761\\ 0.441715\\ 0.048173\\ 0.060337\\ 54.97074\\ 5.905435\\ 0.000895\end{array}$	Mean depe S.D. depen Akaike info Schwarz cr Hannan-Qu Durbin-Wa	ndent var dent var o criterion iterion inn criter. itson stat	0.046858 0.064473 -3.060672 -2.785846 -2.969575 2.298478

Source: Researcher's Computation using E-views

The multiple regression analysis indicates that 44.17% of the variations in ROA is determined by the variations in the explanatory variables, given the adjusted R^2 of 0.441715. The F-statistic of 5.905, which has a probability value of 0.0009 also indicate that the model has a good fit. On the other hand, the t-statistics indicate that the cash conversion cycle has a positive but insignificant influence on the ROA, at 5% level of significance. Lastly, the Durbin Watson statistic of 2.298 suggests absence of serial correlation in the model estimate.

Table 4.3.2: Multiple Regression Test

Dependent Variable: ROE Method: Panel EGLS (Cross-section weights) Date: 09/02/25 Time: 16:07 Sample: 2016 2023 Periods included: 8 Cross-sections included: 4 Total panel (balanced) observations: 32 Linear estimation after one-step weighting matrix White cross-section standard errors & covariance (d.f. corrected)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CCC	0.000362	0.000907	0.399449	0.6928
C	-0.160973	0.112098	-1.436009	0.1629
R-squared	0.307332	Mean depe	ndent var	0.142024
Adjusted R-squared	0.174127	S.D. depen	dent var	0.318746
S.E. of regression	0.290306	Sum square	ed resid	2.191215
F-statistic	2.307207	Durbin-Wa	itson stat	1.756930

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Prob(F-statistic) 0.073286

Source: Researcher's Computation using E-views

The multiple regression analysis indicates that 17.41% of the variations in ROE is determined by the variations in the explanatory variables, given the adjusted R^2 of 0.174127. The F-statistic of 2.307, which has a probability value of 0.0733 also indicate that the model has a weak fit. On the other hand, the t-statistics indicate that the cash conversion cycle also has a positive but insignificant influence on the ROA, at 5% level of significance. Lastly, the Durbin Watson statistic of 1.757 suggests absence of serial correlation in the model estimate.

4.3 Discussion of Findings

In contrast, the study found an insignificant positive relationship between the Cash Conversion Cycle (CCC) and ROA, implying that the duration of converting investments into cash does not strongly impact on asset utilization efficiency. This findings challenged the apriori assumptions. Likewise, the cash conversion cycle showed an insignificant positive effect on ROE, indicating that effective cash management practices may weakly translate into improved shareholder returns. This implies that consumer goods manufacturing firms should focus on liquidity rather than just cash conversion efficiency. The above findings are at variance with the study by Adekoya and Oyewumi (2023). It also deviates from the conclusions by Ademola and Adebayo (2022)

5.0 FINDINGS AND RECOMMENDATIONS

The study investigates the nexus between cash conversion cycle management and financial performance of consumer goods firms in Nigeria. The result of the analysis revealed that the Cash Conversion Cycle did not show a significant impact on either ROA or ROE.

It was concluded that liquidity management enhances financial performance. Based on the findings, the following recommendations are proposed:

- i. Although the Cash Conversion Cycle did not show a significant relationship with ROA, firms should still strive to optimize their cycles through receivables collection to enhance cash flow.
- **ii.** Firms should adopt a comprehensive approach to financial performance evaluation, incorporating various performance indicators to ensure that liquidity management

5.1 Limitations of the Study

The study was limited in a way. Its narrow focus on consumer goods manufacturing firms within a specific geographical context, limits the generalizability of the findings. Additionally, the reliance on secondary data from financial statements for a specific period (2013 to 2023) and for a sample of four out of the entire population of consumer goods firms introduced biases and forms a major limiting factor of the study. Consequently, it is suggested that future research could expand the scope to include firms from other sectors and even beyond the Nigerian jurisdiction to enhance the generalizability of the findings.

REFERENCES

- Adekoya, O., & Oyewumi, A. (2023). The role of cash conversion cycle in liquidity management. *Nigerian Journal of Financial Studies*, 52(1), 67-80.
- Ademola, A., & Adebayo, B. (2022). Impact of cash conversion cycle on financial performance in Nigerian listed firms. *African Journal of Accounting, Auditing and Finance*, 10(3), 290-305.
- Amah, K. O., Michael, C. E. & Ihendinihu, J. U. (2016). Relationship of cash flow and financial performance of listed Banks in Nigeria. *European Journal of Accounting, Auditing and Finance Research.* 4(4), 89-87
- Chukwuemeka, C., & Chukwuma, M. (2023). Liquidity management during crises in African manufacturing firms: Case studies and financial ratios analysis. *International Journal of Emerging Markets*, 18(2), 245-259.
- Duru, A., & Nyseboame, B. (2022). Current ratio and its impact on liquidity management. *International Journal of Financial Management*, 40(4), 201-215.
- Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, 13(2), 187-221.
- Nangih, E. & Ofor, T. N (2019), Nexus between Liquidity and Assets Investment of Oil and Gas Firms in Nigeria. University of Port Harcourt Journal of Accounting and Business, 6(2)
- Nangih, E., Onuorah, J.K.J & Ofor, T. N (2020). Cash Flow Management and Financial Performance of Quoted Oil and Gas Firms in Nigeria. *Journal of Accounting and Financial Management* 6 (4), 1-11
- Osagie, P., & Omole, O. (2023). Financial performance metrics in emerging markets. *International Journal of Emerging Markets*, 18(2), 245-259.