

**EFFECTS OF CURRENT ASSETS MANAGEMENT ON THE
PROFITABILITY OF LISTED MANUFACTURING FIRMS IN
NIGERIA (2015-2024)**

BY

OBINALI, ANNABEL KOSISOCHUKWU

GOU/U22/ACC/374

JULY, 2026

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GOU/U22/ACC/374**

**PROJECT SUBMITTED TO DEPARTMENT OF
ACCOUNTING AND FINANCE,
FACULTY OF MANAGEMENT AND SOCIAL
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**IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE AWARD OF BACHELOR
OF SCIENCE (B.Sc.) DEGREE IN ACCOUNTING**

SUPERVISOR: DR. OSMOND UGWU

JULY, 2026

DECLARATION

I, Obinali Annabel Kosisochukwu a bonafide student in the Department of Accounting and Finance under the faculty of Management and Social Sciences in Godfrey Okoye University. I hereby declare that the work entitled EFFECTS OF CURRENT ASSETS MANAGEMENT ON THE PROFIT OF LISTED MANUFACTURING FIRMS IN NIGERIA (2015-2024) submitted by me in partial fulfillment of the requirements for the award of Bachelor of Science (B.Sc.) degree in Accounting is my original work and has not been submitted either in part or full for any other degree or diploma either in this or any other tertiary institution.

.....
Obinali Annabel

.....
Date

CERTIFICATION

This is to certify that this research entitled “Effects of Current Assets Management On The Profit of Listed Manufacturing Firms in Nigeria (2015-2024)” written by Obinali Annabel Kosisochukwu with Registration Number GOU/U22/ACC/374 presented to the Department of Accounting and Finance of Godfrey Okoye University, Enugu has been assessed and approved for oral examination/defense by the Department of Accounting and Finance, Godfrey Okoye University, Enugu.

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Dedication

I Dedicate this work to God Almighty, who gave me strength, wisdom and grace to come this far.

Acknowledgement

I sincerely appreciate the Almighty God for His guidance, wisdom, and strength throughout the course of this research work.

My gratitude goes to my supervisor, Dr. Osmond Ugwu, for his patience, valuable guidance, and constructive criticisms that contributed greatly to the success of this work. I am grateful to the Vice Chancellor for his words of encouragement.

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Abstract

This research explores how current asset management influences the profitability of Nigerian manufacturing companies listed on the Nigerian Exchange Group from 2015-2024. The research focuses on current asset elements such as inventory turnover, receivable turnover and the cash conversion cycle, examining their effect on firm profitability, given the persistent difficulties experienced by Nigerian manufacturers, including: unstable economic conditions, escalating production expenses, inflation rates, credit accessibility, and fluctuating exchange rates. These challenges significantly affect the management of working capital and ultimately, the profitability of the enterprises. Using an ex-post facto study design and a sample population of 45 listed manufacturing companies on the Nigeria Stock Exchange, the study employed purposive sampling to select five companies. The methodology utilized was a quantitative research approach relying on secondary data, sourced from the financial statements of the selected manufacturing companies over a ten-year span (2015-2024). Return on assets (ROA) was utilized to determine profitability, and the Cash Conversion Cycle (CCC), Accounts Receivables Turnover (RTR) and Inventory Turnover (IT) ratios were used as indicators of current asset management. The research results indicate that ITR exhibits a positive, though insignificant, correlation with ROA in listed Nigerian manufacturing firms. The results also show a positive and statistically significant correlation between RTRon ROA for these firms. Finally, the CCC demonstrated a negative and significant association with ROA among the firms. This research contributes to the body of knowledge by underscoring the significance of current asset management as a key financial factor affecting company performance. Additionally, the research provides actionable insights for financial managers, policy makers and relevant parties in enhancing operational effectiveness and profitability in the Nigerian manufacturing sector.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

It's imperative for a business entity to manage resources efficiently. To guarantee the profitability and financial viability necessary to continue business operations on a daily basis, effective resource allocation is paramount. Current assets such as receivables, inventories and cash are crucial for day-to-day operations and for a firm's short-term viability.

The effective utilization and control of these short-term assets, to ensure meeting up with short-term liabilities whilst simultaneously generating profit, are integral to a company's growth and long-term survival.

Working capital management is essential for profitability as well as liquidity, and striking a balance between the acquisition of short-term assets and liabilities becomes significantly important. It hinges on efficiently handling its current assets, which consist of inventory, accounts receivables and cash, as well as short-term liabilities, which includes Accounts Payables, Short-term Debt etc. (Adeboyega et al., 2019) Managing these assets appropriately means that businesses maintain sufficient working capital by managing its cash, raw materials and finished product inventories and accounts receivable to satisfy short term obligations and produce profits. Effective utilization, however, can be difficult as over investment in short-term assets may lead to idle funds, whereas low levels may signal shortages, stock-outs and an unwillingness or an incapacity to fulfill client orders (Krueger, 2002).

In Nigeria manufacturing concerns with high level of imports, production cost is volatile due to fluctuation in the rate of foreign exchange (Olatunji & Adeniran, 2019). Fluctuations of raw and processing material, for example, due to exchange rates, import bans, shortage, will affect cost of production and then consequently, will negatively affect working capital. Fluctuations in exchange rates contribute to increases in inventory cost and lead to inventory obsolescence (Omari, 2020). The cost of investment in current asset tends to fall over time, but when cash increases, its opportunity costs rise.

There is generally a rise in investment in inventories and accounts receivable as a business expand its sales revenue or its output. Because inventory and accounts receivable account for substantial share in the total investment on assets in many manufacturing business, efficient management is expected to exert significant impact on return on asset. Proper inventory, Accounts receivable, Cash and other current assets are management key of managing financial risk.

Cash conversion cycle (CCC), Inventory Turnover (IT) and Account Receivables Turnover (ART) are the most crucial variables for managing the working capital.

(Sharif & Zaidi, 2010). In Nigeria over 2015-2024 period, there are some general macro-economic changes which influenced Nigerian economy to an extent such as recession periods, high inflation rate, fluctuating currency values of Nigerian currency, volatile foreign exchange rate among others. During this era the country Nigeria went through many rounds of severe macro-economic and policy shifts which caused negative impact to the country economy and her industrial sector especially manufacturers where it led to contraction of economic activities and economic recede. Economic recession and its subsequent consequences are not the exclusive

cause; the global impact of COVID-19 in 2020 amplified supply chain disruptions, reduced customer demand, and led to increased inventory costs. (National Bureau of Statistics, 2021; World Bank, 2023)

The effective current assets management, therefore, becomes a critical survival strategy in the current volatile operating environment and as such is viewed from this perspective in this study because effective current assets management ensures cash sufficiency for obligations, minimize operational expenditures, improve operational efficiency and enhance profitability in the midst of these challenges and instability. (Kaodui et al., 2020; Shin & Soenen, 1998; Lazaridis & Tryfonidis, 2006). The goal of effective working capital management practices for many businesses is to maximize profitability without sacrificing liquidity.

By managing inventories, accounts receivables and accounts payables efficiently, a company can manage its working capital and enhance its cash generation capability, resulting in better overall financial management performance. The use of ROA measures profitability which indicates how efficiently an entity utilizes the investment in its assets to generate profits (Brigham & Ehrhardt, 2014). In this study, Return on Assets (ROA) is utilized in measuring how efficiently a company can operate with respect to how to optimize assets utilizations

Based on this premise, this study investigates the effect of current assets management on profitability of listed manufacturing firms in Nigerian Stock Exchange from 2015 to 2024.

1.2 Statement of the Problem

Even as the manufacturing sector has played a prominent role in Nigeria's economic growth and development through its contribution to industrialization, creation of employment opportunities, economic development and value addition which reflects on Gross Domestic Product (GDP), manufacturing firms are persistently experiencing financial challenges. Following persistent macroeconomic instability witnessed in Nigeria between 2015 and 2024 such as recession, high inflation, increase in interest rates, fluctuations in exchange rates and rising production costs. The manufacturing industry experienced these adverse business conditions; particularly for firms reliant on importing most production raw materials and inputs (Central Bank of Nigeria [CBN], 2020; World Bank, 2023).

World Bank (2023) also pointed out how continuous inflationary pressure, increased exchange rate volatility raise cost of production and have affected firms' returns during this period, while such condition makes the access to external loans difficult thus increasing borrowing by firms from internal funds and using current assets.

One of the significant difficulties these firms encounter is ineffective management of their current assets. The failure in effective working capital management can lead to accumulation of excess inventory, poor management of cash, and collection of receivers' long over due account, this has negative impact on their earning capacity (Shin & Soenen, 1998; Lazaridis & Tryfonidis, 2006), nevertheless they have been able to convert their assets into cash and meet up for financial demand, for daily activities, and earn income if the current assets were handled managed and monitored perfectly. Another issue central for current assets management concerns the choice

between profitability and liquidity. To be able to meet current debts and the general functioning, a firm requires a higher level of current assets.

Therefore it's beneficial for an individual firm to retain excess amount in current assets; however this also leads to considerable unnecessary costs (holding, and inventory costs etc), a situation in which reduces their profitability.

For instance, if a firm would have too much cash, there would be some costs of lost income; conversely, if not enough current assets were held, it may impact in operational efficiency (Raheman & Nasr, 2007; Deloof, 2003). Some studies reported a positive significant impact between current assets management and the performance of firms. Other studies found the relation to be negative and insignificant impact; whereas another group of studies found an insignificant impact or even a positive effect between current assets and the profitability of firms.

There seem to be a knowledge gap in regards to the type of relation the current assets manage and firms' profitability; more particularly on how listed manufacturing firm in Nigeria responds in the period of economic instability. Thus, the research intends to identify impact of current asset management on Nigerian manufacturing firms.

1.3 Objectives of the Study

The research seeks to examine the impact of current assets management on profitability of the Nigerian listed manufacturing firms from 2015 to 2024.

The specific objectives of this study are:-

1. To assess the effect of inventory turnover ratio on the ROA of the listed Nigerian manufacturing firms in.
2. To examine the impact of trade receivables management on the ROA of the listed Nigerian manufacturing firms.
3. To analyze the impact of cash conversion cycle on the ROA of the listed Nigerian manufacturing firms in.

1.4 Research Questions

The following questions provide the frame-work of this research;

1. What is the impact of inventory turnover ratio on ROA of manufacturing firms listed on the Nigeria Stock Exchange in Nigeria between 2015 to 2024?
2. What is the extent of impact of trade receivables management on the ROA of manufacturing firms listed on the Nigeria Stock Exchange in Nigeria between 2015 to 2024?
3. What is the impact of cash ratio on ROA of listed manufacturing firms on the Nigeria Stock Exchange in Nigeria between 2015 to 2024?

1.5 Research Hypotheses

Based on the research objectives and research questions, the following hypothesis are formulated to guide this study:

H₀₁: Inventory turnover ratio has no significant effect on the ROA of listed manufacturing firms in Nigeria.

H₁₁: Inventory turnover ratio has a significant effect on the ROA of listed manufacturing firms in Nigeria.

H₀₂: Trade receivables management has no significant effect on the ROA of listed manufacturing firms in Nigeria.

H₁₂: Trade receivables management has a significant effect on the ROA of listed manufacturing firms in Nigeria.

H₀₃: Cash ratio has no significant effect on the ROA of listed manufacturing firms in Nigeria.

H₁₃: Cash ratio has a significant effect on the ROA of listed manufacturing firms in Nigeria.

1.6 Significance of the Study

The findings of this study are useful to the managers of manufacturing firms by given them the understanding of how effective the management of cash, inventory and receivable could bring about an increased in productivity and profitability.

The fundings is also beneficial to investors as they can obtained information as to how working capital management practice influenced financial performance and stability which could guide in making better investment decision.

The findings serve as good reference for financial analyst for determining liquidity position and overall performance. The results are useful to policymakers and regulatory authorities for the

purpose of formulating policies that will promote effective asset management practices in an organization and in building up the manufacturing sector.

The study provides an addition to academic knowledge through existing literature by a timely empirical evidence of the impact of current asset management on profitability of Nigerian manufacturing firms .

Lastly, the study of the Nigeria Economy through increased profitability within the manufacturing sector. The contribution of the manufacturing sector helps in economic growth, employment generation and in industrial growth.

1.7 Scope of the Study

The scope of this research work entails identifying the impacts of working capital management on the profitability of the quoted manufacturing firms in Nigeria. It embraces the analysis of components of current asset management such as turnover for raw material and work in progress, the sales outstanding period or average collection period, cash conversion cycle and turnover of raw materials, work in progress and finished.

ROA has been employed as a measure for profitability. It is limited to quoted manufacturing firms listed in the Nigeria Stock exchange (NGSE) for the years 2015 to 2024 based on availability of financial reports.

1.8 Operational Definition of Terms

Current Assets Management – The proper management & use of those assets held by a business that have an expected life-span of 1 year or less (i.e., inventory, cash and receivables) .

Inventory turnover ratio – ratio which show how many time a company has to sell & replace the inventory for a given period.

Receivables Management: The plans & strategies adopted for credit sale & collection from debtors to avoid collection losses and delay collections of sales receipts from customer.

Cash Ratio: The ratio indicating how the company's cash amount could cover its liabilities and current liabilities.

Profitability is a company's ability to earn revenue from the business activities related to the costs it incurs, usually measured by its rate of profit. In this study profitability will be measured by ROA.

Manufacturing Firm: An enterprise that deals with changing raw materials into finished goods, typically by production in a factory.

CHAPTER TWO

LITERATURE REVIEW

2.1 Conceptual Review

2.1.1 Current asset management

is also called the working capital management. In it there is optimum planning and control on current assets of the business. These assets such as the cash, receivables and inventories should be managed at a particular level for smooth running of business that increase the profitability and avoid the problem of the loss to the business, in the business flow.

According to Kajola et al., 2020) The management of current assets is concerned with keeping the short-term assets in its optimal level, while at the same time ensuring that current liabilities are kept in their minimum as possible level to maximization the profits and avoids's solvency problems. In its present case current asset management concerns with managing different element of working capital in such a manner to reduced the risks related to liquidity while managing the business more effectively.

Current asset management represents a systematical management of all liquid assets that leads to liquidity and profitability of firms in its business operations and in its working capital management.

2.1.2 Current Assets Management In Manufacturing Firms

Since manufacturing companies carry out various business, activities such as buying, storage of material, production, warehousing of finished product, sell of the product and receiving payment on their behalf and so on, they depend heavily on current asset especially in the purchase and inventory of raw material, stores, components, spare parts, and of goods in progress, finished product. According to Omari (2020), the receivables and inventory comprise the bulk of manufacturing firms' total assets and as a result managing the current asset properly is essential for the firm profitability. In manufacturing sector the firms need raw material, work in progresses and finished stock at the most optimal level to ensure continuous flow of goods, uninterrupted work and at last sales.

Failure to handle them in an effective way, leads to excessive storage, manufacturing bottleneck, working capital shortage that leads to loss of profit in the organization. Nigerian firms are faced with many obstacles including high cost of raw materials imported (MAN, 2022; Adegbite & Akinlo, 2019) fluctuating exchange rates, restrictions policies, infrastructural deficiency etc which have led to difficulty in the management of inventories and cash in particular.

2.1.3 Inventory management

Inventory management is the practice of purchasing, storing, moving and selling raw materials and components. According to Ikechi et al. (2023) Inventory management is described as management of level of stock, projection of demand, the timely placing of orders with suppliers so that excessive stock does not build up .

Inventories contribute significantly in working capital investment of Nigerian manufacturing firms which are having substantial percentage in total current assets of firms. Poorly managed inventories can result in production delay and shortage and affect the performance of manufacturing firms significantly. In studies carried out by several researchers for evaluating firm performance, inventories are commonly measured by Inventory Turn over Ratio (ITR). Inventory turnover ratio measures the times the enterprise has sold and replenished its inventory during a accounting period.

The ratio reveals the firm's capability in utilising inventories resources efficiently. The better an enterprise manages its inventories , the higher the inventory turnover ratio.

Inventory Turn Over Ratio (ITR) = Cost of goods sold / Average inventory

2.1.4 Accounts Receivables Management

Accounts receivables management comprises policies and procedures which are in place to assist in management of credit sales of the enterprise in an organization. Proper accounting receivable management is essential to reduce the incidence of bad debt and maintain liquidity to recover receivables .

The efficiency of firm's CCC and liquidity Position are mostly influenced by managing of the accounts receivables by management in the organisation ,Proper receivables managing techniques involves of the implementation of appropriate credit policies control over accounts receivables and recovery of the outstanding amounts in an efficient manner in the organization.

Failure to this will cause delay cash flows, increase bad debts, and working capital deficiency in organization which lead to reducing profit. Management of accounts payables and accounts receivables have a significant effect on return on assets, Bakare (2023). The better Nigeria companies manage their credit terms, the higher cash inflows would be generated.

2.1.5 Cash Conversion Cycle (CCC)

Cash Conversion Cycle is also a comprehensive indicator of the effectiveness of working capital management of firms.

It explains the duration of the time period taken by a business from when it invests its funds in inventories and stores related to business activities till when it's collected as accounts receivables from customers.

According to Stewart (1995), cash conversion cycle (CCC) of a company is the overall measure which encompasses the company's inventory management, receivables management and payables management. It shows the number of days a business incurs its payment till collected, while according to Gitman (1994), cash conversion cycle can be calculated through the sum of the inventory period and accounts receivables period minus account payable period.

$$CCC = \text{inventories days} + \text{receivable days} - \text{payable days}$$

Inventories Days: This shows the average time taken by the company in selling its inventory.

Receivable Days: Shows the average days which are taken by customers for their outstanding Payment.

Payable Days: This shows the number of days which is taken by business firms to pay their Payment.

The more efficient CCC is, the quicker recovery time and higher liquidity, productivity and profitability. Longer CCC means higher cost of working capital, inefficiency in inventory and accounts receivables management. A longer CCC has been observed to have negative influence on firm profitability, though sometimes inventory turn over periods and accounts payable periods have varying influences in some situations, depending on how efficient the firm manages its working capital [Aldubhani, 2022]. In Nigeria, high levels of inflation, economic volatility, and scarce access to credit make an effective cash conversion cycle management more essential for manufacturing firms.

2.1.6 Concept of Profitability

Profitability is defined as a company's ability to generate earnings through its operations with available assets. The extent to which management utilizes both equity and assets for the production of profit is displayed by profitability. Return on Assets (ROA) is used as the measure for profitability in this study.

ROA measures management's ability to employ total assets in generating profit. Many financial researches in manufacturing companies in Nigeria use the ROA ratio (Ogunleye & Adeyemi, 2018; Bakare, 2023). Return on Assets (ROA) is a financial performance ratio which measures the profit earned by a company from its investment in assets. It examines the effectiveness with which management deploys its assets, both its short-term or current assets (such as cash,

inventory, and receivables) and long-term, or non-current assets (such as property, plant and equipment), to create earnings for the firm.

In relation to profitability, Return on Assets are correlated with profitability due to the net profits derived by the numerator thus, the higher the return of asset, the better whereas, a low return implies the opposite.

$ROA = \text{Net Profit} / \text{Total Asset}$

A calculation is performed by dividing the company's net profit by total assets. This includes short term assets, as well as the company's long-term fixed asset as of the year ending period. Return on asset ratio represents the effectiveness with which management utilizes the firm's assets to produce revenue

2.2 Theoretical Framework

2.2.1 Cash Conversion Cycle Theory

For improving profitability and liquidity of the firm, the Cash Conversion Cycle Theory explains the importance of effective management of inventory, accounts payable and receivables.

The theory assumes that companies with lower cash conversion cycles have a better financial performance, because these companies can recover cash at a lower cost of funds (Gitman, 1994). This theory helps justify this current study as it offers explanation on how the effectiveness of management of the inventory, receivables, payables, and cash contributes to the profitability of the firm

. 2.2.2 Liquidity-Profitability Theory

The liquidity-profitability theory explains the trade-off between achieving higher profits and maintaining reasonable degree of liquidity.

According to the theory, higher levels of liquid assets will enhance the firm's ability to meet short-term obligations and reduce the cost of financing however, excessive liquid assets could leave resources idle which would have otherwise generated returns.

Conversely, a reduction in liquid assets to maximize profits can lead to a shortfall in liquidity which can cause major disruptions in its operation and escalate further financial distress.

Managers in firms producing physical goods with liquid assets accounts as major portion of overall asset which includes inventory, receivables and cash, should maintain sufficient liquidity and balance to reduce loss of investment which may result to higher return on investment.

This research adopts the liquidity-profitability theory in analyzing the effect of current assets on the profitability of listed manufacturing firms in Nigeria.

2.3 Empirical Review

The research investigated “Current Asset Management and Profitability of Nigerian Manufacturing Firms” by Kajola et al., (2020). This research employed the ex-post facto research design. The data was sourced via secondary method from the annual financial reports of chosen firms in the Nigerian manufacturing sector. The findings revealed that management of current asset significantly improves profitability through liquidity and efficiency.

Omari (2020) conducted a research titled “*Working Capital Management and Firm Profitability in Manufacturing Firms.*” The research made use of an ex-post facto study design, using secondary dataset obtained from financial statements of manufacturing firms. The researchers estimated the relationship using panel data techniques. The results indicated that management of working capital increases profit and decreases financial trouble.

Kaodui et al. (2020) undertook an investigation into “*Current Asset Management and Firm Performance in Manufacturing Companies.*” The research used an ex-post facto research approach, with data sourced from annual reports of selected manufacturing firms. The data were analyzed using multiple regression techniques. The analysis found that current assets management and firm’s performance are positively related.

Ukaegbu (2014) conducted a study titled “*The Impact of Working Capital Management on the Profitability of Nigerian Firms.*” The data used in the study were analyzed using panel regression analysis. The study found that components of working capital, severely impact profit.

Sunday and Eze (2018) conducted a research work titled “*Working Capital Management and Profitability of Listed Nigerian Firms.*” The research used secondary data from annual reports of listed firms. The study discovered that working capital management can boost profitability.

The research by Deloof (2003), which explored whether Working Capital Management impacts Belgian Firms’ Profitability, followed an ex-post facto design methodology and utilized data available from financial statements of Belgian non-financial companies, gathered from secondary data sources and analyzed by the regression analysis techniques. The study found that minimizing receivables and inventory yields higher profitability.

Lazaridis I N, Tryfonidis K (2006). “The relationship between working capital management and profitability” *Journal of finance, accounting and management* ,vol.9 no.2 pp264 -275 The researchers employed an ex-post facto study Design using historical data, as these are already existed from the financial statementsfor the selected sample Greek listed companies and used regressions for data analysis. The results shows that working capital influence the business and profitability.

“Efficiency of Working Capital Management and Corporate Profitability”by Shin and Soenen, 1998. The study used secondary data related to US based companies which have analyzed by means of the process of regression and correlation analysis. As a consequence of this analysis, the author of the article proves the concept that when working capital management conducted efficiently, they lead to increased profits growth.

In Ikechi et al. (2023), the study “Inventory Management and Financial Performance of Manufacturing Firms in Nigeria.” It relied on secondary data sources as the research data drawn from the annual financial report of manufacturing firms. From the results of the study, better inventory management practices can yield better financial performance.

Aldubhani(2022), studied "Cash Conversion Cycle and Firm Profitability under Different Economic Conditions". Ex post facto research design was employed. the analyses of the data was panel regression analysis. The result indicated that cash conversion cycle influence positively profitability depends on state.

Olowe(2018) study”inventory management and firm performance in Nigeria. Conducted an ex-post-facto research using secondary data for the Nigerian firm and the data were analyzed using regression analysis. The study found out inventory management influences positively on firm performance.

Emeni and Ogbulu (2015) conducted a study titled “*Cash Conversion Cycle and Firm Profitability in Nigeria.*” The study used an ex-post facto research design with secondary data from Nigerian firms’ financial reports. Data were examined using panel regression analysis. The study discovered that CCC affects profitability negatively.

Nwude et al. (2020) conducted a study titled “*Working Capital Management and Firm Performance: Evidence from Nigerian Firms.*” The study adopted an ex-post facto research design using secondary data from selected firms’ financial statements. Data were measured using regression analysis. The study found mixed effects depending on firm size. capital

Gill et al. (2010) conducted the analysis titled “*The Relationship between Working Capital Management and Profitability of Firms.*” The data used the ex-post facto research design The result was obtained using regression analysis. The study found that shorter CCC leads to higher profits. cycles

Dong and Su (2010) conducted a study titled “*Working Capital Management and Firm Profitability: Evidence from Chinese Firms.*” The study used an ex-post facto research approach with secondary data from Chinese listed firms’ financial statements. Data were evaluated using regression analysis. The study reported the significant effect on profitability.

According to a research conducted by Nwude, Et al. (2020), titled: “Working Capital Management and Firm Performance: Evidence from Nigerian Firms” the research employed ex-post facto research design method. Data was collected and analyzed with regression analysis method, on some selected firms in Nigerian stock market based on published annual reports of the companies. Findings of this work shows positive and negative effect which is influenced by size of firm: capital

Afza and Nazir (2009) conducted a study titled “*Aggressive Working Capital Policies and Firm Profitability.*” For this study ex-post facto design has used for secondary source of data from the companies of Pakistan. Data were examined using regression analysis. The study found that profitability can be increased with the help of aggressive policies.

Garcia-Teruel and Martinez-Solano (2007) conducted a study titled “*Effects of Working Capital Management on SME Profitability.*” Using ex post facto study design, the research relied on the use of secondary data from Spanish SMEs. Panel regression analysis was used to estimate the data. The study found that efficient working capital boosts SME’s profitability.

Enqobo and Okoye (2021) conducted a study titled “*Management and Profitability of Nigerian Manufacturing Firms.*” The research used secondary data from Nigerian manufacturing firms’ financial statements. The study found the impact of receivable management on profitability.

Olusanya et al. (2021) conducted a study titled “*Accounts Payable Management, Liquidity and Profitability of Firms.*” secondary data from selected firms’ financial reports were used. The data

were subjected to analysis using regression analysis. The study reported that payables improves liquidity and profitability.

Eneh and Obi (2022) conducted a study titled “*Cash Conversion Cycle and Profitability of Manufacturing Firms.*” The research adopted an ex-post facto research design using secondary data from Nigerian manufacturing firms. Statistical analysis was performed using regression analysis. The study found that CCC negatively affects profitability.

Ogunleye and Adeyemi (2018) conducted a study titled “*Working Capital Efficiency and Firm Financial Performance in Nigeria.*” The study used an ex-post facto research design.. The variables were examined using regression analysis. The study found that ROA and ROE are influenced by working capital efficiency.

Audu and Ezugwu (2022) conducted a study titled “*Inventory Turnover and Firm Profitability in Nigeria.*” The study adopted an ex-post facto research design using secondary data from listed Nigerian firms. The data set was subject to regression analysis. The study found that inventory turnover improves profitability.

Ibrahim et al. (2023) conducted a study titled “*Receivable Management, Liquidity and Profitability of Firms.*” The research design of this study is ex post facto research using secondary data from financial statements companies. Data analysis in this study was conducted using a regression analysis. The study found that receivables affect liquidity and profitability.

Abubakar and Musa (2021) conducted a study titled “*Inventory Management and Profitability of Nigerian Firms.*” The work used an ex-post facto research approach with secondary data from firm financial statements. The data set was assessed using regression analysis. The study found that inventory management significantly improves profitability.

A study titled Cash Conversion Cycle and Firm Performance in Nigeria by Chukwuma and Nwafor (2022) examined the relationship between CCC and firm performance using ex-post-facto design with secondary data from quoted firm and employing multiple regression analysis and concluded CCC negatively affects performance.

Idris et al. (2023) in their study, 'Accounts Payable Management and Firm Profitability', employed an ex-post facto research design by employing secondary data which were obtained from firm's financial statements and was analyzed via using regression analysis. It was found that payables has a positive impact on profit.

Working Capital Management And Financial Performance Of Manufacturing Firms in Nigeria was carried out by Aremu and Adeyemi (2020). The research applied ex-post factor study design. This research analysis was done through regression analysis and the researcher found that working capital management is significant to the performance of an organization.

Okafor and Uche (2021), in their work titled ”Receivable turnover and profitability of listed firms in Nigeria”, Secondary data from financial statements of listed firms to obtain data used for analysis through regression analysis to reveal that receivable turnover leads to enhanced profitability

Bello and Adebayo (2022) conducted a study titled “*Inventory Control and Firm Profitability in Nigeria.*” The study adopted an ex-post facto research design using secondary dataset from Nigerian firms. Data were analyzed using regression analysis. The study reported that profitability increases with better inventory control.

A work by Bakare (2023) studied working capital management and firm performance in Nigerian Firms which uses secondary data on corporate financial statement. Data were analyzed using regression analysis, and results indicate that, cash conversion cycle had non- significant negative impact on the profitability, where as accounts payable management had a significant positive impact on profitability.

2.1 Summary of Literature Review and Research Gap

Author	Year	Title	Research Design	Data Collection Method	Data Analysis Method	Findings
Kajola et al.	2020	Current Asset Management and Profitability of Nigerian Manufacturing Firms	Ex-post facto	Secondary data from annual reports	Panel regression	Management of Current asset significantly improves profitability through liquidity and efficiency

Omari 2020	Working Capital	Ex-post facto	Secondary financial statement data	Panel regression	Management of
	Management and Firm				working capital
	Profitability in				increases profits and
	Manufacturing Firms				decrease financial trouble
Kaodui et al.	Current Asset	Ex-post facto	Secondary data	Regression analysis	Current asset
	Management and Firm				management and firm
	2020 Performance in				performance are
	Manufacturing Companies				positively related
Ukaegbu 2014	Working Capital	Ex-post facto	Secondary data	Panel regression	Components of
	Management and				working capital
	Profitability of Nigerian				severely impact profit
	Firms				
Sunday & Eze 2018	Working Capital	Ex-post facto	Secondary data	Regression analysis	How working capital
	Management and				management can
	Profitability of Listed				boost profitability
	Nigerian Firms				
Deloof 2003	Does Working	Ex-post facto	Secondary data (Belgian firms)	Regression analysis	Minimizing receivable
	Capital Management				and inventory days
	Affect Profitability?				

					yields higher profitability
Lazaridis & Tryfonidis	Working Capital 2006 Management and Profitability	Ex- post facto	Secondary data (Greek firms)	Regression analysis	How working capital can impact the profitability of a business
Shin & Soenen	Efficiency of Working 1998 Capital Management and Corporate Profitability	Ex- post facto	Secondary data (US firms)	Correlation & regression	Proper working capital brings better profit and growth
Padachi	Working Capital 2006 Management and Firm Performance	Ex- post facto	Secondary data (SMEs)	Regression analysis	Working capital that's inefficient makes the firm less profitable
Bakare 2023	Working Capital Management and Firm Performance in Nigeria	Ex- post facto	Secondary data	Regression analysis	CCC have negative impact on ROE, Payable Management has positive effect on profit

Ikechi et al.	Inventory Management and Financial Performance	Ex- post facto	Secondary data	Regression analysis	Better Inventory management leads to better financial performance
Aldubhani 2022	Cash Conversion Cycle and Profitability	Ex-post facto	Secondary data	Panel regression	Effect of CCC on profitability depends on state
Akinlo 2019	Working Capital Management and Profitability	Ex- post facto	Secondary data	Regression analysis	Working capital management plays crucial role on profitability
Adegbite & Akinlo	Macroeconomic Instability and Working Capital Efficiency	Ex- post facto	Secondary + macro data	Regression analysis	Macroeconomic instability influences profitability as well as productivity
Olowe 2018	Inventory Management and Firm Performance	Ex- post facto	Secondary data	Regression analysis	Positive impact of inventory management on performance

Egbunike & Okerekeoti	Receivable 2018 Management and Profitability	Ex- post facto	Secondary data	Regression analysis	Receivable management is an important aspect influencing business profitability
Emeni & Ogbulu	Cash Conversion 2015 Cycle and Profitability	Ex-post facto	Secondary data	Panel regression	CCC affects profitability negatively
Nwude et al.	Working Capital 2020 Management and Firm Performance	Ex- post facto	Secondary data	Regression analysis	Mixed effects depending on firm size
Gill et al.	Working Capital 2010 Management and Profitability	Ex-post facto	Secondary data	Regression analysis	Shorter CCC leads to higher profits
Dong & Su	Working Capital 2010 Management and Profitability of Chinese Firms	Ex- post facto	Secondary data	Regression analysis	Significant effect on profitability
Raheman & Nasr	Working Capital 2007 Management and Profitability of Pakistani Firms	Ex- post facto	Secondary data	Regression analysis	Working Capital components have strong impact in Profitability

Afza & Nazir	Working Capital 2009 Policies and Profitability	Ex- post facto	Secondary data	Regression analysis	Profitability can be increased with the help of aggressive policies
Garcia-Teruel & Martinez- Solano	Working Capital 2007 Management and SME Profitability	Ex- post facto	Secondary data	Panel regression	Efficient working capital boost SME profitability
Mathuva	Working Capital 2010 Components and Profitability in Kenya	Ex- post facto	Secondary data	Regression analysis	Inventories and accounts receivable have an impact on profitability
Enqobo & Okoye	Receivable 2021 Management and Profitability	Ex- post facto	Secondary data	Regression analysis	Impact of Receivable management on profitability
Olusanya et al.	Accounts Payable 2021 Management and Profitability	Ex- post facto	Secondary data	Regression analysis	Payables improve liquidity and profitability
Eneh & Obi	Cash Conversion 2022 Cycle and Profitability	Ex-post facto	Secondary data	Regression analysis	CCC negatively affects profitability

Ogunleye & Adeyemi	2018	Working Capital Efficiency and Firm Performance	Ex-post facto	Secondary data	Regression analysis	ROA and ROE influenced by working capital efficiency
Audu & Ezugwu	2022	Inventory Turnover and Profitability	Ex-post facto	Secondary data	Regression analysis	Inventory turnover improves profitability
Ibrahim et al.	2023	Receivable Management and Firm Performance	Ex-post facto	Secondary data	Regression analysis	Receivables affect liquidity and profitability
Ojo & Akintoye	2024	Working Capital Efficiency and ROA	Ex-post facto	Secondary data	Panel regression	Working capital efficiency improves ROA
Abubakar & Musa	2021	Inventory Management and Profitability	Ex-post facto	Secondary data	Regression analysis	Inventory management improves profitability
Chukwuma & Nwafor	2022	CCC and Firm Performance	Ex-post facto	Secondary data	Regression analysis	CCC negatively affects performance
Idris et al.	2023	Accounts Payable Management and Profitability	Ex-post facto	Secondary data	Regression analysis	Payables have positive impact on profit

Aremu & Adeyemi	Working Capital	Ex-	Secondary data	Regression analysis	Effectiveness in
	2020 Management and	post			working capital
	Firm Performance	facto			management impacts performance
Okafor & Uche	Receivable Turnover	Ex-post	Secondary data	Regression analysis	Receivable turnover
	and Profitability	facto			boosts profitability
Bello & Adebayo	Inventory Control	Ex-	Secondary data	Regression analysis	Profitability Increases
	2022	post			with Better Inventory
	and Profitability	facto			Control

Source: Researchers Compilation (2026).

CHAPTER THREE

METHODOLOGY

3.1 Research Design

The ex-post facto study design was employed in this research. An ex-post facto study design is research that is conducted in the past without manipulation of variables. It was chosen in the research because the study used historical financial data collected from the published audited financial reports of selected listed manufacturing firms in Nigeria over the review period of 2015 to 2024.

It looked at the impact of current assets management on the profitability of listed manufacturing firms in Nigerian from 2015 to 2024, using secondary data. Other, variables looked at are also observed in its natural state without manipulation of any kind by the researcher.

3.2 Area of Study

The area of the study is Nigeria, the focus was on the selected manufacturing firms that are listed on the Nigerian Exchange Group (NGX), who are doing business within the Nigerian economy and the regulatory framework. It was considered a worthy topic for Nigeria since the manufacturing sector is key for economic growth, industrialization and provision of employment opportunities in Nigeria and Nigeria has been characterized with high inflation, high exchange rates, rising cost of production and other liquidity crises that can affect effective current asset management during the study period.

3.3 Sources of Data

The dataset used for the research was primarily a secondary source of data. This study's sources of data include the published annual financial records of some selected manufacturing listed firms in Nigerian for the period from 2015 – 2024. Data were also extracted from the following: Nigerian Exchange Group (NGX), Central Bank of Nigeria (CBN) Statistical Bulletin, National Bureau of Statistics (NBS), Journals, Textbooks and other relevant financial publications.

3.4 Tools of Data Collection

3.5 Method of Data Collection

Data were collected using the documentary method of data collection. The study's financial data for the ROA, CCC, Inventory Turnovers, Accounts Receivable Turnovers and Accounts Payable days for the period 2015-2024 was collected from the audited financial report and the financial statement of the sampled manufacturing firms for the stipulated periods. The technique of data collection was chosen based on the fact that the study uses documentary evidence in order to justify data collected from source.

3.6 Population of the Study

The population for this research work consisted of all manufacturing firms quoted on Nigerian Stock Exchange during the period 2015-2024.

As stated by the Nigerian Exchange Group Fact Book (2024), there are about 45 manufacturing companies listed on Nigerian Exchange group, ranging from various manufacturing sub sectors and is expected to issue audited annual financial statement annually for its shareholders.

3.7 Sample and sampling Technique

A sample of five (5) listed manufacturing firm was used for the research, obtained using purposive sampling. Purposive sampling technique was used since the objective was to choose firms with readily, accessible, consistent, complete and reliable financial data for the period 2015-2024.

3.8 Reliability of Test Instrument(s)

The reliability of test instruments was guaranteed using audited annual report and financial statement that were procured from reputable and credible sources. It was made so that the collected data are reliable and consistent since all the data used in the study are from listed manufacturing companies financial reports, hence they are audited and regulated.

3.9 Validity of Test Instrument(s)

The instruments for test in this study were valid due to the use of available financial information obtained from original and widely distributed reports for selected firms. All financial statement items used for financial ratios in this study are widely recognized in accounting and financial studies.

3.10 Data Analysis Techniques

Data Description. This research utilizes both descriptive and inferential statistics, the annual reports of manufacturing firms chosen for study have provided all data necessary for carrying out the analysis. Descriptive statistic, namely; the minimum value, maximum value, mean and the standard deviation were applied on to briefly present the nature of the variables.

Correlation analysis was performed so as to determine the strength of and relationship, between the variables in this study as well as check the likelihood of multicollinearity to occur between the explanatory variables.

In order to reconfirm on the extent of multicollinearity Variance Inflation Factor(VIF) analysis was also done. In view of the nature of panel data, panel regression techniques such as pooled ordinary least squares, random effect models and fixed effect model has been used. Redundant fixed effects test and Hausman specification tests have been adopted for the selection of an appropriate technique for estimating the appropriate estimation. Additional diagnostic testing was conducted on the overall reliability of the specified model such as, heteroscedasticity tests, serial correlation tests, cross sectional dependence, and normality tests.

The final specification was estimated by Two- Way Fixed Effects with Driscoll-Kraay standard errors due to cross sectional dependence.

The hypotheses of this study were tested at a 5 percent level of significance.

3.11 Model Specification

The following functional relationship were specified to study the impact of current asset management on the financial performance of selected manufacturing firms in Nigeria.

$$ROA = f(ITR, RTR, CCC)$$

The econometric model is expressed as:

$$ROA_{it} = \beta_0 + \beta_1 ITR_{it} + \beta_2 RTR_{it} + \beta_3 CCC_{it} + \varepsilon_{it}$$

Where:

- ROA = Return on Assets
- ITR = Inventory Turnover Ratio
- RTR = Trade Receivables Turnover Ratio
- CCC = Cash Conversion Cycle
- β_0 = Constant term (intercept)
- $\beta_1 - \beta_3$ = Regression coefficients of the explanatory variables
- ε_{it} = Error term
- i = Firm identifier
- t = Time period

A priori expectations of the coefficients are stated as follows:

$$\beta_1 > 0$$

$$\beta_2 > 0$$

$$\beta_3 < 0$$

The inventory turnover ratio and the trade receivables turnover ratio are hence predicted to have positive effect on profitability, while the cash conversion cycle is predicted to have negative effect on profitability.

3.12 Description and Measurement of Data

Variable	Description	Measurement
----------	-------------	-------------

ROA	Return on Assets	$\text{Net Profit after Tax} \div \text{Total Assets}$
ITR	Inventory Turnover Ratio	$\text{Cost of Sales} \div \text{Average Inventory}$
RTR	Trade Receivables Turnover Ratio	$\text{Revenue} \div \text{Average Accounts Receivable}$
CCC	Cash Conversion Cycle	$\text{Inventory Days} + \text{Receivables Days} - \text{Payables Days}$

Description of Variables

Return on Assets (ROA)

ROA is the acronym for "Return on Assets" and it measures a company's ability to generate earnings in relation to its total assets.

It is computed as:

$$\text{ROA} = \text{Net profit after tax} / \text{total assets}$$

Cash Conversion Cycle (CCC)

The Cash Conversion Cycle indicates how long it takes for a company to turn its investment in inventory and accounts receivable back into cash after paying out on accounts payable.

It is expressed as:

$$\text{CCC} = \text{Inventory Days} + \text{Receivables Days} - \text{Payables Days}$$

where:

$$\text{Inventory Days} = \text{Average Inventory} / \text{Cost of sales} * 365$$

$$\text{Receivables Days} = \text{Average Account Receivables} / \text{Revenue} * 365$$

$$\text{Payables Days} = \text{Average Account Payables} / \text{Cost of sales} * 365$$

Accounts Receivable Turnover (ART)

Accounts Receivable Turnover indicates the effectiveness of a company's debt collection from its clients

It is calculated as:

$$\text{Revenue} / \text{Average Accounts Receivables}$$

where:

$$\text{Average Accounts Receivable} = \text{Opening Receivables} + \text{Closing Receivables} / 2$$

Inventory Turnover (INV)

Inventory Turnover indicates how fast a company's inventory is converted to sales.

It is calculated as:

$$\text{INV} = \text{Cost of Sales} / \text{Average Inventory}$$

where:

$$\text{Average Inventory} = \text{Opening Inventory} + \text{Closing Inventory} / 2$$

3.13 Limitations of the Study

There were a number of limitations of the study experienced throughout the research. Some manufacturing firm financial information was difficult to access so, financial statements were not readily available and that therefore decreased our sample to companies whose financial statements are more consistent and obtainable. One limitation is that the study included only listed manufacturing companies in the Nigeria and did not cater for unlisted companies and other parts of the economy. Dataset was restricted to second hand data as the researcher was confined to already published financial information.

3.14 Decision Rule

If the value of the probability (p-value) is less than 0.05, then we will reject the null hypothesis and fail to reject the null hypothesis if it is greater than 0.05.

3.15 Ethical Consideration

All the information that has been given, for this piece of work has been taken from sources available in public places. To ensure no academic plagiarism has been involved, all sources have been stated and referenced to.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

This chapter provides and discuss the data obtained from the sampled manufacturing firms in Nigeria from 2015 to 2024. It aims to evaluate the impact of ITR, RTR and CCC on ROA. The chapter adopts descriptive statistics, exploratory data analysis, correlation analysis, panel data regression and its relevant diagnostic tests to meet up with the stated objectives of the research.

The firms used for this study consist of 5 listed manufacturing companies, selected using purposive sampling techniques are:

Nestle Nigeria Plc

Nigerian Breweries Plc

Cadbury Nigeria Plc

Flour Mills of Nigeria Plc

Dangote Sugar Refinery Plc

The study covered the period 2015-2024.

4.1 Presentation of Data

4.1.1 Return on Assets (ROA)

Table 4.1: Return on Assets of Selected Manufacturing Companies

Year	Nestle	Nigerian Breweries	Cadbury	Flour Mills	Dangote Sugar
2015	11.90%	10.70%	4.10%	1.00%	11.90%
2016	4.70%	7.80%	-1.00%	4.50%	8.10%
2017	23.00%	8.60%	1.10%	2.80%	19.30%
2018	26.50%	5.00%	3.00%	2.90%	14.50%
2019	23.60%	4.20%	3.72%	6.20%	7.40%
2020	15.90%	1.70%	2.90%	4.00%	12.10%
2021	12.90%	2.70%	1.02%	5.30%	6.50%
2022	11.80%	2.12%	1.00%	4.50%	11.10%

2023	-13.60%	-13.30%	-30.10%	2.00%	-12.00%
2024	19.20%	-12.80%	3.07%	1.60%	-18.70%

Interpretation:

Table 4.1 is an illustration of Return on assets of the sampled manufacturing companies for the period 2015-2024. From the result it shows that the companies' profitability level varied in various years during the study period. Nestle Nigeria Plc performed relatively higher in ROA in the various years, attaining the highest in 2018 as at 26.50% respectively. However, some other firms operated at negative profitability levels in particular year, such as Cadbury Nigeria Plc whose ROA in 2023 was at -30.10% while Dangote Sugar Refinery plc displayed a negative profitability of -18.70 in 2024 which suggests some fluctuations in the profitability level of some firms.

4.1.2 Cash Conversion Cycle (CCC)

Table 4.2: Cash Conversion Cycle of Selected Manufacturing Companies

Year	Nestle	Nigerian Breweries	Cadbury	Flour Mills	Dangote Sugar
2015	-53.42	-119.45	-109.43	154.15	-158.74
2016	-102.51	-128.67	-59.09	111.33	173.42
2017	-8.44	-135.65	16.83	87.37	62.58

2018	-31.45	-49.42	-3.88	84.56	157.16
2019	-21.16	-98.62	-17.86	51.65	156.83
2020	-89.49	-158.97	-30.33	19.49	-84.46
2021	-104.17	-192.04	98.95	15.32	-158.50
2022	-30.42	-167.68	-31.74	19.29	-170.84
2023	-109.88		-45.46	-3.94	80.46
2024	-27.14		-41.97	7.58	102.28

Interpretation:

The CCC figures have revealed variability in how efficient these companies manage working capital. The few with negative CCC values seem to be collecting payment from customers faster than paying to its suppliers. As Nigeria Breweries Plc has consistently posted negative CCC values this would mean Nigerian Breweries Plc appears to be managing working capital in an optimal way.

4.1.3 Receivables Days

Table 4.3: Receivables Days of Selected Manufacturing Companies

Year	Nestle	Nigerian Breweries	Cadbury	Flour Mills	Dangote Sugar

2015	58.99	20.51	67.67	116.87	178.99
2016	48.23	36.35	60.30	97.93	119.11
2017	46.99	20.34	53.96	78.62	130.61
2018	57.81	36.64	38.25	48.70	226.71
2019	84.58	23.63	42.04	49.61	247.05
2020	50.29	11.33	39.75	26.32	69.64
2021	44.20	20.63	34.91	15.78	61.22
2022	67.18	28.40	34.14	19.19	96.67
2023	11.24	29.88	33.24	38.68	108.78
2024	4.30	19.01	23.34	123.68	56.19

Interpretation:

Receivables day is the average number of days by firms to receive cash payment for a sales. It indicate variation of credit policies for the companies considered in the sample.

In Flour Mills of Nigeria Plc, receivables day was very high in certain years specifically in 2024, this mean that firm provide long duration to the customers before receipt of payments. Longer period of account receivable will lead to adverse impact of liquidity position and cash flow of the firm.

In Dangote Sugar Refinery Plc, receivables days remains significantly higher in a number of years. It implies the firm used ineffective debt recovery strategies and lax credit policy to enhance its sales.

Conversely, receivables days for Nigerian Breweries Plc were generally lower in almost all years, indicating its efficiency of credit management practices.

The study results suggest that companies with lower receivables periods are more liquid and with longer accounting periods face cash flow problem impacting their business operations and financial performance.

4.1.4 Inventory Days

Table 4.4: Inventory Days of Selected Manufacturing Companies

Year	Nestle	Nigerian Breweries	Cadbury	Flour Mills	Dangote Sugar
2015	47.03	69.25	37.41	76.12	66.31
2016	70.67	63.99	79.27	60.80	117.40
2017	60.91	77.58	88.99	71.44	112.27
2018	55.40	33.67	59.51	81.36	109.93
2019	77.83	73.27	53.33	73.88	93.58
2020	113.55	60.14	64.87	63.44	122.90
2021	97.83	81.82	82.37	58.76	87.52
2022	110.78	90.19	91.56	73.79	50.87
2023	97.12	114.93	69.12	69.72	48.37
2024	97.00	86.08	45.43	28.84	102.83

Inventory days is defined as the average number of days a company holds inventory before selling it. The output revealed considerable variation in the pattern of inventory day usage across the selected manufacturing companies.

Dangote sugar refinery Plc shows consistently high days in inventory in some years that stock stays long before sale, leading to increase in storage cost and decrease in efficiency.

Flour mill of Nigeria Plc showed steady Inventory Days in most of the year with no inconsistency in its operations, Nigerian Breweries Plc revealed inconsistency in its days in inventory with high figures recorded in some years, thereby possibly inefficiency in its Inventory turnover.

Lower average days in inventory generally signifies better inventory utilization and faster sale conversions while higher days in inventory suggest poor stock holding, overstocking and under-supply/ demand.

In general, a pattern in stock days used suggested varying efficiencies in the Inventory Day utilization by various firms during the period examined by the study.

We see wide variation across firms and across time for the level of ROA. Cadbury's large negative value for 2023 and Dangote's even larger negative values for 2023-24, assist in the large dispersion and thus assist the robustness check of Winsorising.

4.1.5 Data Audit and Variable Measurement

The dataset is an annual firm-level panel. Four firms have ten complete observations each, while Nigerian Breweries has eight complete observations. The resulting panel is therefore mildly unbalanced.

Table 4.5Panel Structure and Data Completeness

Firm	First	Last usable	Usable
	year	year	observations
Cadbury Nigeria Plc	2015	2024	10
Dangote Sugar Refinery Plc	2015	2024	10
Flour mills of Nigeria plc	2015	2024	10
Nestlé Nigeria Plc	2015	2024	10
Nigerian Breweries Plc	2015	2022	8

Note: Two additional rows following Nigerian Breweries 2022 contain ROA values (-0.133 and -0.128) but no firm, year or explanatory data. They were not assigned or imputed because doing so would create unsupported observations.

Table 4.6 Operational Definition of Variables

Variable	Symbol	Measurement	Unit	Expected direction
Return on assets	ROA	Profitability measure supplied in the workbook	Decimal ratio	Dependent variable
Inventory turnover ratio	ITR	Cost of Sales $\div$ Inventory	Times per year	Positive
Trade receivables turnover	RTR	Revenue $\div$ Trade Receivables	Times per year	Positive
Cash conversion cycle	CCC	Inventory Days + Receivable Days – Payable Days	Days	Negative

Note: Higher RTR indicates faster collection and is therefore interpreted as more effective trade receivables management. The derived turnover ratios are consistent with the day measures in the workbook: $ITR \approx 365/\text{Inventory Days}$ and $RTR \approx 365/\text{Receivable Days}$.

4.2 DATA ANALYSIS

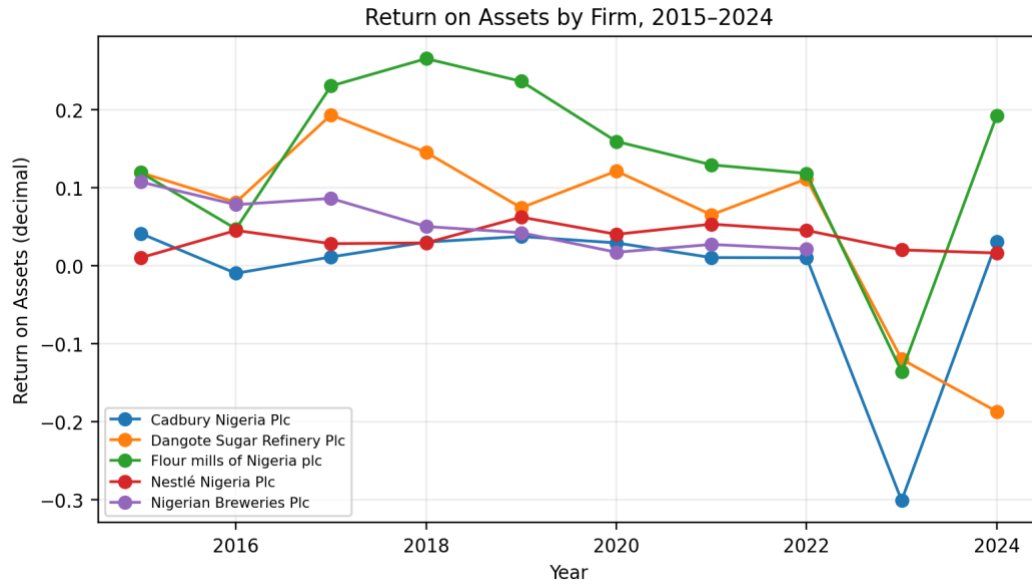


Figure 4.1 Firm-level trend in return on assets.

There was a substantial variation in the ROA for companies and across years. The very negative points on the Cadbury for 2023 and Dangote sugar for the 2023-24 explain the large variation and as such justifies the winsorized robustness test.

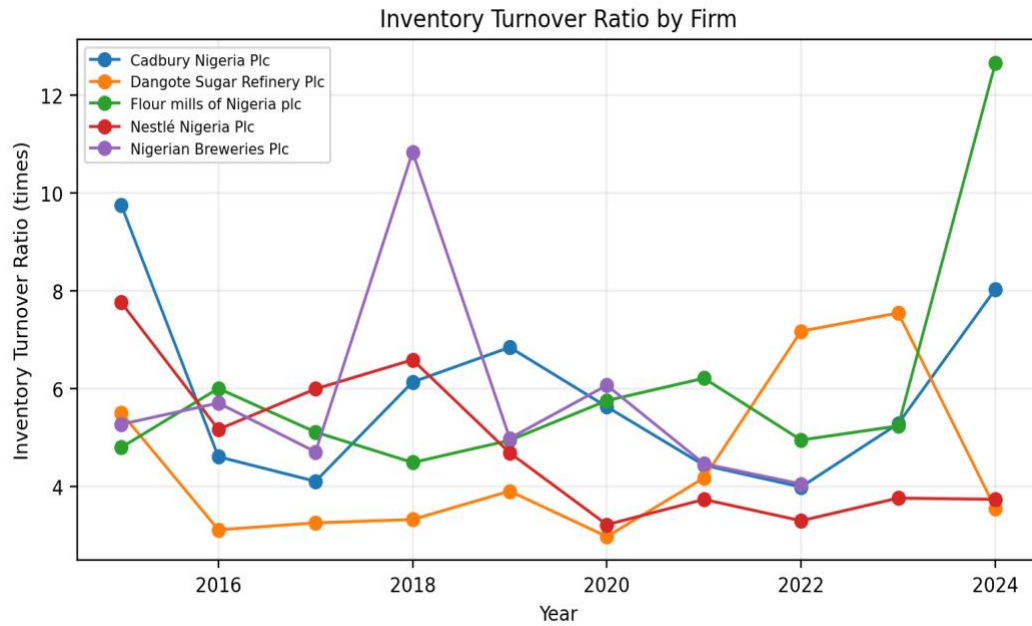


Figure 4.2 Firm-level inventory turnover ratio.

The inventory turnovers tend to be concentrated three to eight turns, with only a couple of higher turnover values present. The lack of an evident directional pattern is consistent with an insignificant coefficient on the regression variable.

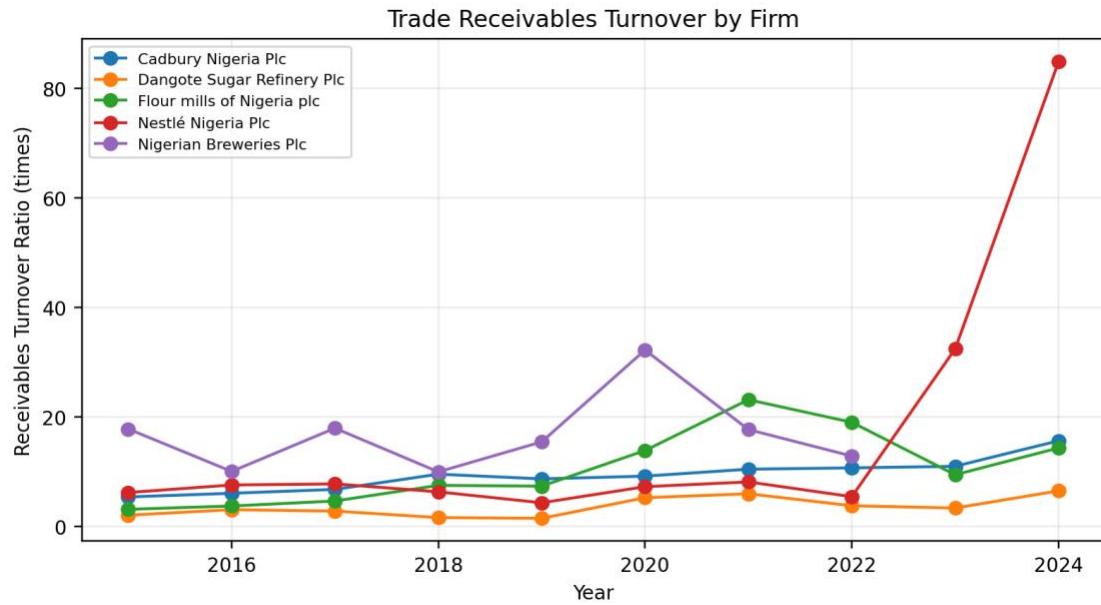


Figure 4.3. Firm-level receivables turnover ratio.

Receivables turnover varies considerably, more specifically the very high value of 2024 for Nestlé Nigeria, leading to increased skewness and explaining the reduction in the RTR result after the winsorisation and the log transformation of the variables.

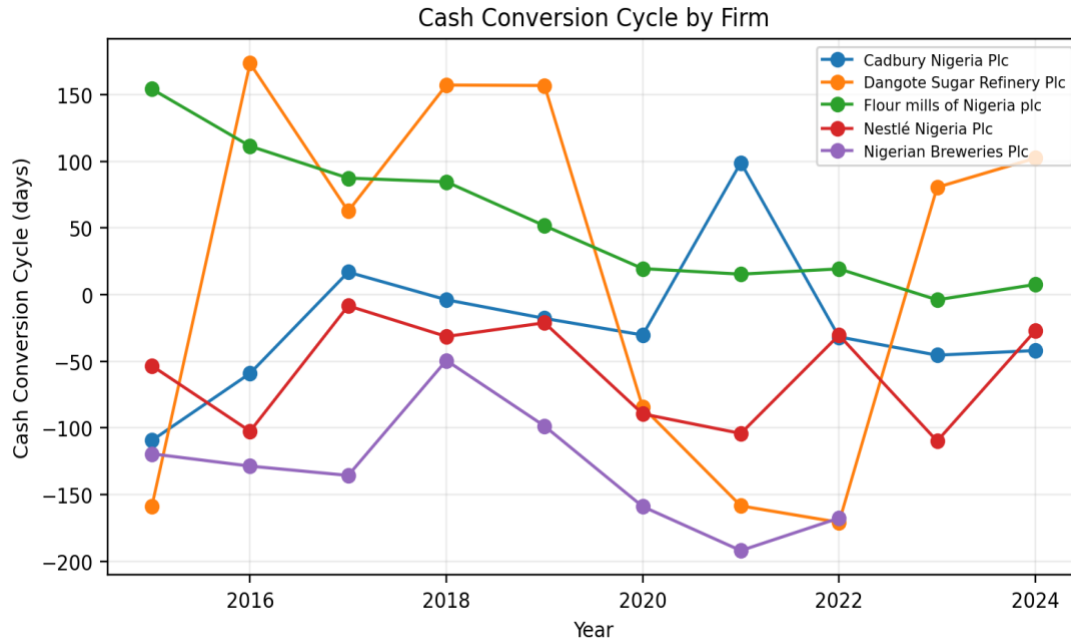


Figure 4.4 Firm-level cash conversion cycle.

CCC falls within the range of very negative to very positive values. A cycle is considered negative if the time funding a supplier are larger than the average inventory and receivables held. There seems to evidence from the regressions provided to suggest lower cycle length produces higher ROA.

4.2.1 Econometric Model and Estimation Strategy

The baseline panel relationship is modeled as;

$$ROA_{it} = \alpha + \beta_1 ITR_{it} + \beta_2 RTR_{it} + \beta_3 CCC_{it} + \mu_i + \lambda_t + \varepsilon_{it} \dots \dots \dots (1)$$

where μ_i captures time-invariant firm characteristics, λ_t captures common year shocks, and ε_{it} is the idiosyncratic error. The analysis estimated pooled ordinary least squares, one-way firm fixed effects, random effects, and two-way fixed effects. Model was selected among competing specifications on the basis of redundant fixed effects tests and the Hausman test. Driscoll-Kraal standard errors with a bandwidth of two years and a Bartlett kernel was used, given residual diagnostics indicating cross-sectional dependence. The model is specified as conditional associations, and since we have just five firms and no external instruments or a natural experiment, the estimates can be seen as suggestive only and not causal.

4.2.2 Preliminary Statistical Analysis

Table 4.7 Descriptive Statistics

Variable	N	Mean	Std. Dev.	Minimum	Median	Maximum
ROA	48	0.0547	0.1000	-0.3010	0.0450	0.2650
ITR	48	5.3632	1.9748	2.9699	4.9641	12.6569
RTR	48	11.2408	12.8766	1.4774	7.6682	84.8683
CCC	48	-23.87	97.30	-192.04	-30.38	173.42

Table 4.8 Correlation Matrix

Variable	ROA	ITR	RTR	CCC
ROA	1.000	0.029	-0.080	0.127

ITR	0.029	1.000	-0.046	-0.125
RTR	-0.080	-0.046	1.000	-0.225
CCC	0.127	-0.125	-0.225	1.000

Note: The explanatory variables are only weakly correlated with one another. The maximum absolute pairwise correlation among ITR, RTR and CCC is 0.225, suggesting that severe multicollinearity is unlikely.

Table 4.9 Variance Inflation Factors

Variable	VIF	Assessment
ITR	1.022	No multicollinearity concern
RTR	1.060	No multicollinearity concern
CCC	1.074	No multicollinearity concern

Note: All VIF values are close to one and far below commonly used warning thresholds.

4.2.3 Panel Model Selection and Diagnostic Tests

Table 4.10 Comparison of Pooled, One-Way Fixed-Effects and Random-Effects Estimates

Model	ITR coef.	ITR p	RTR coef.	RTR p	CCC coef.	CCC p
Pooled OLS	0.002111	0.7835	-0.000397	0.7407	0.000124	0.4391
Firm fixed effects	-0.000702	0.9258	-0.000644	0.5841	- 0.000066	0.7251

Random effects	-0.000228	0.9749	-0.000629	0.5791	-	0.8652
					0.000030	

Table 4.11 Model Selection Tests

Test	Statistic	Degrees of freedom	Prob
Redundant firm effects, one-way FE vs pooled	3.0450	F(4,40)	0.0278
Firm effects conditional on year effects	6.6443	F(4,31)	0.0006
Year effects conditional on firm effects	5.1348	F(9,31)	0.0003
Hausman: one-way FE vs RE	0.3131	$\chi^2(3)$	0.9576
Joint two-way pool ability test	5.3635	F(13,31)	0.0001

Note: Although the one-way Hausman test does not reject random effects, both firm and year effects are strongly significant. The two-way fixed-effects model is retained because it directly controls for common annual shocks and unobserved time-invariant firm heterogeneity.

Table 4.12 Residual Diagnostic Tests

Diagnostic	Statistic	Probability	Null hypothesis	Conclusion
Breusch–Pagan heteroskedasticity	2.2778	0.5168	Homoskedastic residuals	Do not reject
Wooldridge serial correlation	0.0000	0.9993	No first-order serial correlation	Do not reject
Pesaran cross-sectional dependence	-2.5739	0.0101	Cross-sections are independent	Reject
Jarque–Bera normality	1.5086	0.4703	Normally distributed residuals	Do not reject

Note: The significant Pesaran CD statistic motivates Driscoll–Kraay covariance estimation.

These standard errors are robust to general forms of cross-sectional dependence and are also tolerant of heteroskedasticity and serial correlation.

Table 4.13 Two-Way Fixed-Effects Regression with Driscoll–Kraay Standard Errors

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.013229	0.069153	0.1913	0.8495
ITR	0.003594	0.011923	0.3014	0.7651
RTR	0.001528	0.000694	2.2016	0.0353
CCC	-0.000210	0.000101	-2.0845	0.0454

R-squared (LSDV overall)	0.698587	Mean dependent var	0.054694
Adjusted R-squared	0.543019	S.D. dependent var	0.099995
S.E. of regression	0.067597	Durbin-Watson stat	2.010566
Sum squared resid	0.141651	Log likelihood	71.705139

Note: The robust Wald F-statistic for the three working-capital variables is 3.0244 ($p = 0.0443$).

The slope variables are jointly significant at the 5% level under the Driscoll–Kraay covariance estimator. The reported overall R^2 includes the firm and year dummy effects; the within slope R^2 is 0.1261.

Table 4.14 Research Objective and Hypothesis Decisions

Objective	Variable	Coefficient	Probability	Decision on null	Substantive conclusion
1	ITR	0.003594	0.7651	Fail to reject H_{01}	No statistically reliable inventory-turnover effect on ROA.
2	RTR	0.001528	0.0353	Reject H_{02}	More efficient receivables collection is associated with higher ROA.
3	CCC	-0.000210	0.0454	Reject H_{03}	A longer cash conversion cycle is associated with lower ROA.

4.3 Testing the Research Hypothesis

Hypothesis One

H₀₁: There is no significant effect of inventory turnover ratio on the ROA of listed manufacturing firms in Nigeria.

The coefficient of our dependent variable, Inventory turnover, is positive (0.003594) however, it is statistically insignificant, i.e. $P = 0.7651$ which is not at least below the 5% significance level. From the results, one increase in inventory turnover ratio would lead to an increase in ROA by 0.359% however, given that the coefficient falls within economically positive and negative range and given the fact that our p-value, $0.7651 > 0.05$, we fail to reject the null hypothesis and concluded that the ratio of inventory turnover did not have a statistically significant influence on the profitability (ROA) of quoted manufacturing firms in Nigerian.

Hypothesis Two

H₀₂: There is no significant effect of trade receivables management on the ROA of listed manufacturing firms in Nigeria.

RTR shows a positive and significant coefficient in the preferred model, implying a relationship that collecting receivables at higher rate would likely result in a better asset profitability.

Consistent with reduced idle fund being in use by customer on trade credits and higher rate of effective deployment of funds, p value is lesser than 0.05.

Hypothesis Three

H₀₃: There is no significant effect of cash conversion cycle on the ROA of listed manufacturing firms in Nigeria.

The sign on the coefficient is negative (-0.000210), and this is significant at the 5 percent level ($p = 0.0454$). The coefficient indicates that for each day the cycle is longer, ROA drops by 0.021

percent. An extension in the cycle length of 30 days would therefore lead to an estimated 0.630 percent increase in ROA. CCC is negative and also statistically significant, an increase in the operating cash cycle appears to have negative implications on profitability by prolonging funds to inventory and accounts receivable. We therefore reject null hypothesis since $p\text{-value} < 0.05$, therefore we conclude that there is a significant effect of cash conversion cycle on the ROA of listed manufacturing firms in Nigeria.

4.3.1 Robustness and Sensitivity Analysis

Four sensitivity specifications were estimated to identify whether the main results are overly sensitive to outliers, functional form, dating, or choice of proxy.

Table 4.15 Robustness Test Results

Specification	Inventory measure	p	Receivables measure	p	CCC	p
Main two-way FE, DK	0.003594	0.7651	0.001528	0.0353	- 0.000210	0.0454
5%–95% winsorised	-0.001699	0.8682	0.003203	0.2203	- 0.000211	0.0074
Log ITR and log RTR	-0.004489	0.9468	0.030158	0.1711	- 0.000204	0.0663
One-year lagged regressors	-0.013809	0.2403	-0.001710	0.4039	- 0.000153	0.4917
Day-based proxy model	0.000519	0.4268	0.000347	0.4809	- 0.000340	0.0651

Note: DK = Driscoll–Kraay standard errors. In the final row, Inventory Days and Receivable Days replace the turnover ratios; their signs are not directly comparable with turnover measures because higher days represent slower movement.

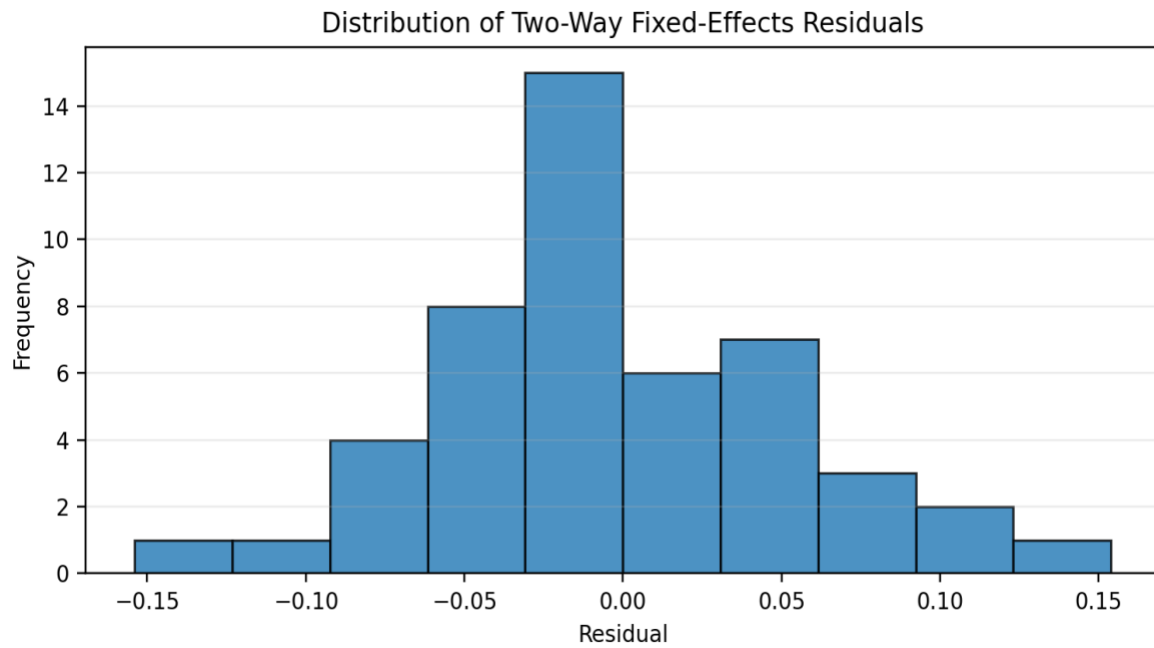


Figure 4.5 Distribution of fixed-effects residuals.

The residual distribution is reasonably symmetric; the Jarque–Bera test does not reject normality ($p = 0.4703$).

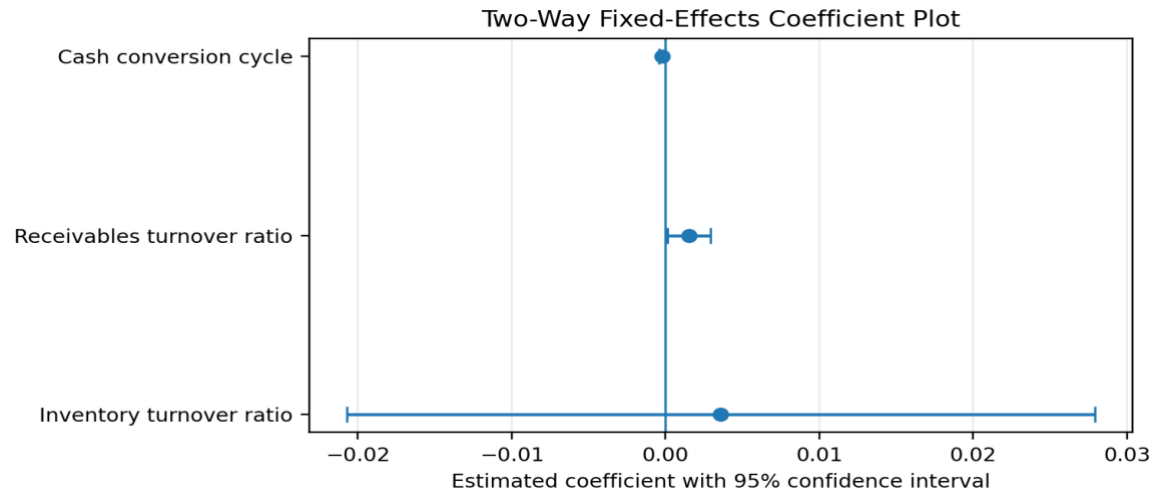


Figure 4.6 Main model coefficients and 95% confidence intervals.

The confidence interval for ITR widens into zero; the interval for RTR is barely positive while that for CCC is barely negative due corresponding 5% significance of their impact from the main model.

4.4 Discussion of findings

The research explored the impact of working capital management on the financial performance of some chosen manufacturing companies in Nigeria; financial performance measured by Return on Assets (ROA), while working capital management measured through proxies which included inventory turnover ratio (ITR), trade receivables turnover ratio (RTR) and cash conversion cycle (CCC). From analysis, inventory turnover ratio was found to be in positive and insignificant relation with ROA of companies; this indicates that there could be a contribution to profitability by enhancing the turnover ratio, but it was not substantial enough to be statistically significant within the time under consideration. Trade receivables turnover ratio was found to have positive and significant impact on ROA, this implies that efficiently performing the collecting receivables improve profitability of a firm, given efficient working capital, there could be less financial

resource tied down as trade credit and increased operational cash flow for other profitable activities, other things being equal. CCC has a negative and significant relation with ROA, indicating that longer period to convert cash leads to decrease in performance and short period of cash cycle to convert will improve performance, if all factors held constant .

The results of the study also indicate that the company efficient receivables conversion cycle leads to higher overall company profitability, hence more positive cash inflows for operational and profitable activities.

In the study sample as a whole, management of trade receivables and Cash Conversion Cycle appear to be the key drivers of corporate performance, than the management of Inventory in manufacturing sector of Nigerian Economy, and it is possible for the companies under this review enhance their operating profitability through proper and efficiently managed receivables and by reduce CCC in production processes of the economy.

4.10 Conclusion

This chapter presents and explains the descriptive analyses and the estimated models derived using correlation analysis and panel regression analyses, along with various diagnostic tests conducted. Empirical results revealed that, among the factors investigated, inventory turnover ratio impacts on return on assets but not significantly in a positive manner, trade receivables turnover has a positive and significant impact on firm's profitability. Conversely, cash conversion cycle impacts negatively and significantly on firms' profitability, suggesting that long operating cycle brings down the profitability of the firms. Generally, management of trade

receivables and shorter operating cash conversion cycles generally impact on manufacturing firms in Nigeria positively.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Findings

This study aimed at investigating the impact of working capital management on financial performance of selected manufacturing companies in Nigerian. The study used annual data collected from the financial statements of selected companies from 2015-2024. More so the study examined how inventory turnover ratio (ITR), Trade Receivables Turnover Ratio (RTR) and cash conversion cycle (CCC) can have an impact on return on assets of selected companies in Nigeria.

Descriptively statistics indicates large disparities in the firms' profitability and working capital management style within the study period.

On average return on asset (ROA) stood at about 5.47 percent while cash conversion cycle average was negative implying that for some of companies collected from customers before paying to suppliers. From correlation result of exploratory variables which appear small indicates

a low problem of multicollinearity. Further the Variance inflation factor (VIF) result showed there is no problem with multicollinearity in our study. Regression analysis indicates Inventory Turnover Ratio positively impacts Return on Assets insignificantly during the periods under study, which indicated that higher turnover implies a larger profit albeit the result is not statistically reliable in the given period of study.

Furthermore it was discovered that Trade Receivable Turnover positively impacting ROA statistically, means companies with an efficient strategy of collecting payments from debtors tend to perform better financially.

Conversely, the CCC showed a negative relationship on ROA at significant level, suggesting long days cash is blocked for working purpose reduce firm profitability where as the short CCC increases firms profitability. Our variables were also significant, jointly as shown by the strong result of Wald F-statistic with a probability of 0.0443 (value is less than 5%) thus have explain the profitability variations.

5.2 Implications of findings

The study therefore has managerial, investment and policy implications for manufacturing firms in Nigeria. The study reveals a negative and insignificant impact of inventory turnover ratio on firm performance, thus emphasizing that efficiency in inventory management may not solely result to enhancement in the performance of the firm. Manufacturing companies therefore must emphasize maintenance of optimum level of inventory with the view to neither pile up excessive inventories, nor stocking out.

The study shows a positive and significant impact of trade receivables turnover, signifying that the efficient management of the receivable improves firm performance, faster recovery of debt leads to enhance liquidity; frees out capital tied in the credit sales and enhances ability of funds to be channelize to productive activities and also increase cash available to the firm and negatively influences interest rate expenses which lead to gain firm profit through reduction in credit cost, The study shows negative and significant impacts of the cash conversion cycle on profitability.

The length of operating cycle appears to negatively influence firm performance and any firm aiming to shorten it, that is, shortening inventory and receivables cycles and managing cash efficiently should reap gains through better profit. Further, the study shows that even in the face of Nigerian tough economic environment characterized by soaring inflation, exchange rate fluctuation, rising cost of production and capital the management of working capital has remain a crucial factor for firm profitability of manufacturing sector in Nigeria.

5.3 Conclusion

The research work of this study was to analyze the impact of working capital management on financial performance of some selected manufacturing firms in Nigerian for the period 2015 to 2024. Inventory turnover ratio has positive but no statistically significance impact on return on asset, this implies that inventory turnover alone did not bring a significant profit to the companies during this periods. RTR has a statistically significance negative impact on profitability while CCC have a statistically significance positive impact on return on assets.

The result implies that better receivables and reduced cash cycle has contributed significantly to the success of manufacturing companies in Nigeria.

Working capital management thus is an important determinant for profitability, growth and sustainability of an operating organization.

5.4 Recommendations

Based on the result of the study, the following recommendations can be made: Manufacturing companies should always keep optimal level of inventory for their operation and implement efficient inventory management techniques so as to hold lower inventory. Management of all the manufacturing firms should ensure effective debt management policies and techniques.

Management of the firms should always find ways to reduce the length of cash conversion cycle by reducing its inventory components, accelerate the collection of their accounts receivables so as to improve their profitability.

Manufacturing firms should implement coordinated or integrated working capital management strategies for efficiency and optimum functioning of their operations.

These strategies, working capital management, must be implemented in conjunction with other functional management practices aimed at achieving high operational efficiency, product quality, cost management, operational leverage and productivity. Government, as one of the most vital stakeholders in any economy, is expected to create a sound macro-economic policy environment for sustainable and rapid growth of industrial enterprises through proper managing of inflation, controlling rate of interest and providing needed infrastructural facilities.

5.5 Areas for Further Studies

The scope of future studies should be widened by the incorporation of a large number of firms and study periods extending beyond 2024 to improve the generalization of the findings of the study.

Macroeconomic indicators such as inflation, exchange rate and interest rate and firm specific indicators such as size and leverage should also be incorporated into models to explain variation of profitability and ROA by working capital management. Also a comparative study across other sector of Nigeria Economy may be conducted to verify if relationship between working capital management and financial performance varies across industry. Further researches might apply alternative performance measurement methods like ROE, EPS or Tobin's Q for the study of financial performance.

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APPENDICES

Appendix A: List of Selected Manufacturing Companies

Company Period Covered Usable Observations

1 Cadbury Nigeria Plc 2015–2024 10

2 Nestlé Nigeria Plc 2015–2024 10

3 Nigerian Breweries Plc 2015–2024* 8

4 Flour Mills of Nigeria Plc 2015–2024 10

5 Dangote Sugar Refinery Plc 2015–2024 10

Appendix B: Formulae for Variables

Return on Assets (ROA)

Cash Conversion Cycle (CCC)

Inventory Turnover Ratio (ITR)

Trade Receivable Ratio (RTR)

Appendix C: Descriptive Statistics

Variable	N	Mean	Std. Dev.	Minimum	Median	Maximum
ROA	48	0.0547	0.1000	-0.3010	0.0450	0.2650
ITR	48	5.3632	1.9748	2.9699	4.9641	12.6569
RTR	48	11.2408	12.8766	1.4774	7.6682	84.8683

CCC 48-23.87 97.30 -192.04 -30.38 173.42

Appendix D: Correlation Matrix

Variable ROA ITR RTR CCC

ROA 1.000 0.029 -0.080 0.127

ITR 0.029 1.000 -0.046 -0.125

RTR -0.080 -0.046 1.000 -0.225

CCC 0.127 -0.125 -0.225 1.000

Appendix E: Multiple Regression Analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.013229	0.069153	0.1913	0.8495
ITR	0.003594	0.011923	0.3014	0.7651
RTR	0.001528	0.000694	2.2016	0.0353
CCC	-0.000210	0.000101	-2.0845	0.0454

R-squared (LSDV overall) 0.698587 Mean dependent var 0.054694

Adjusted R-squared 0.543019 S.D. dependent var 0.099995

S.E. of regression 0.067597 Durbin-Watson stat 2.010566

Sum squared resid 0.141651 Log likelihood 71.705139

Appendix F: Model Summary

Statistic Value

R² 0.698587

Adjusted R² 0.543019

Durbin-Watson Statistic 2.010566

Robust Wald Statistic 3.0244

Prob (Wald Statistic) 0.0443

Number of Observations 48

Appendix G: Software Used

Microsoft Excel was employed for computation of data and preliminary data ordering while econometric and panel data analyses which includes description statistic, correlation analysis, diagnostics test, and estimation of regression models were carried out using Eviews 13.0

Appendix H: Diagnostic Tests

Diagnostic	Statistic	Probability	Null hypothesis	Conclusion
Breusch–Pagan heteroskedasticity	2.2778	0.5168	Homoskedastic residuals	Do not reject
Wooldridge serial correlation	0.0000	0.9993	No first-order serial correlation	Do not reject
Pesaran cross-sectional dependence	-2.5739	0.0101	Cross-sections are independent	Reject
Jarque–Bera normality	1.5086	0.4703	Normally distributed residuals	Do not reject

Appendix I: Raw Data Tables

Flour mills of Nigeria plc

Year	Revenue	Inventory	Receivables	Payables	Cost of Sales	Inventory Days	Receivable Days	Payable Days	CCC
2015	229,777,869	47,921,280	73,571,648	24,452,751	229,777,869	76.12	116.87	38.84	154.15
2016	247,876,504	37,257,683	66,504,239	29,046,061	223,664,917	60.80	97.93	47.40	111.33

2017	375,225,284	63,597,671	80,823,655	55,801,512	324,918,838	71.44	78.62	62.69	87.37
2018	371,370,740	71,755,238	49,546,925	40,126,542	321,920,291	81.36	48.70	45.50	84.56
2019	370,205,529	68,230,014	50,322,189	66,343,291	337,073,874	73.88	49.61	71.84	51.65
2020	394,844,217	61,693,906	28,471,323	68,333,644	354,952,741	63.44	26.32	70.27	19.49
2021	535,881,585	76,980,128	23,160,406	77,584,189	478,166,108	58.76	15.78	59.22	15.32
2022	832,810,561	155,408,370	43,782,434	155,202,371	768,739,096	73.79	19.19	73.69	19.29
2023	923,015,713	151,925,626	97,817,112	244,339,315	795,330,687	69.72	38.68	112.34	-3.94
2024	1,346,992,354	93,982,258	93,982,258	456,409,839	1,189,527,205	28.84	123.68	144.94	7.58

Appendix J: Raw Data for Cadbury Nigeria Plc (2015–2024)

Year	Revenue	Inventory	Receivables	Payables	Cost of Sales	Inventory Days	Receivable Days	Payable Days	CCC
2015	27,825,194	1,936,455	5,166,194	11,104,368	18,894,967	37.41	67.67	214.51	-109.43
2016	29,979,410	5,020,938	4,952,653	12,582,771	23,119,007	79.27	60.30	198.66	-59.09
2017	33,079,446	6,252,367	4,890,318	8,860,338	25,644,312	88.99	53.96	126.12	16.83
2018	35,973,479	5,865,105	3,770,169	10,017,011	35,973,479	59.51	38.25	101.64	-3.88
2019	39,326,807	4,529,668	4,529,668	9,617,475	31,001,209	53.33	42.04	113.23	-17.86
2020	35,407,323	5,244,046	3,855,773	10,910,038	29,508,278	64.87	39.75	134.95	-30.33
2021	42,372,034	8,100,730	4,053,339	1,803,034	35,894,401	82.37	34.91	18.33	98.95
2022	55,212,617	11,913,166	5,164,146	20,484,918	47,489,806	91.56	34.14	157.44	-31.74
2023	80,378,955	11,938,959	7,320,449	25,530,503	63,041,628	69.12	33.24	147.82	-45.46
2024	129,165,095	13,807,769	8,259,709	33,657,477	110,937,326	45.43	23.34	110.74	-41.97

Appendix K: Raw Data for Dangote Sugar Refinery Plc(2015–2024)

Year	Revenue	Inventory	Receivables	Payables	Cost of Sales	Inventory Days	Receivable Days	Payable Days	CCC
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2015	100,092,221	14,035,388	49,064,149	85,521,443	77,257,074	66.31	178.99	404.04	-158.74
2016	167,409,161	45,648,975	54,628,911	24,531,108	141,924,887	117.40	119.11	63.09	173.42
2017	198,120,639	44,779,483	70,895,546	71,913,340	145,582,161	112.27	130.61	180.30	62.58
2018	146,549,176	31,499,654	91,025,731	51,428,633	104,589,978	109.93	226.71	179.48	157.16
2019	158,104,577	30,194,027	107,014,317	59,304,650	117,770,404	93.58	247.05	183.80	156.83
2020	206,360,656	51,568,627	39,371,894	116,227,957	153,153,524	122.90	69.64	277.00	-84.46
2021	276,054,781	54,153,133	46,302,270	190,108,668	225,846,208	87.52	61.22	307.24	-158.50
2022	403,245,988	43,387,050	106,797,356	271,527,073	311,282,950	50.87	96.67	318.38	-170.84
2023	441,452,953	47,061,249	131,569,672	74,617,806	355,149,111	48.37	108.78	76.69	80.46
2024	665,689,763	178,778,130	102,483,484	98,638,754	634,580,279	102.83	56.19	56.74	102.28

Appendix L: Raw Data for Nestlé Nigeria Plc (2015–2024)

Year	Revenue	Inventory	Receivables	Payables	Cost of Sales	Inventory Days	Receivable Days	Payable Days	CCC
2015	151,271,526	10,813,960	24,445,995	36,661,728	83,925,957	47.03	58.99	159.44	-53.42
2016	181,910,977	20,637,750	24,035,411	64,662,096	106,583,385	70.67	48.23	221.41	-102.51
2017	244,151,411	23,910,303	31,430,450	45,668,363	143,280,260	60.91	46.99	116.34	-8.44
2018	266,274,621	23,124,020	42,175,062	60,384,454	152,354,445	55.40	57.81	144.66	-31.45
2019	284,035,255	33,278,944	65,820,188	78,400,058	155,888,473	77.83	84.58	183.57	-21.16
2020	287,084,087	52,222,267	39,555,290	116,512,689	167,872,616	113.55	50.29	253.33	-89.49
2021	351,822,329	58,965,125	43,302,758	148,384,425	219,985,914	97.83	44.20	246.20	-104.17
2022	446,819,260	88,340,532	82,237,026	166,161,861	291,054,270	110.78	67.18	208.38	-30.42
2023	547,118,754	87,792,561	16,872,846	197,279,592	329,945,347	97.12	11.24	218.24	-109.88
2024	958,814,739	174,784,339	11,297,682	229,597,121	652,459,896	97.00	4.30	128.44	-27.14

Appendix M: Raw Data for Nigerian Breweries Plc(2015–2024)

Year	Revenue	Inventory	Receivables	Payables	Cost of Sales	Inventory Days	Receivable Days	Payable Days	CCC
2015	293,905,792	28,409,703	16,511,648	85,825,673	149,736,072	69.25	20.51	209.21	-119.45
2016	313,743,147	31,244,703	31,244,703	111,820,584	178,218,528	63.99	36.35	229.01	-128.67
2017	365,798,057	42,728,862	20,384,112	128,646,043	201,034,636	77.58	20.34	233.57	-135.65
2018	350,226,472	32,306,824	35,153,451	114,881,134	350,226,472	33.67	36.64	119.73	-49.42
2019	323,002,120	38,492,789	20,910,443	102,717,787	191,756,513	73.27	23.63	195.52	-98.62
2020	337,006,267	35,992,172	10,457,436	137,858,575	218,355,350	60.14	11.33	230.44	-158.97
2021	437,195,534	62,067,403	24,714,756	223,384,434	276,871,996	81.82	20.63	294.49	-192.04
2022	550,477,627	83,344,213	42,837,156	264,553,856	337,310,437	90.19	28.40	286.27	-167.68