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## THE NEXUS BETWEEN WORKING CAPITAL MANAGEMENT AND CORPORATE PERFORMANCE OF LISTED CONSUMER GOODS COMPANIES IN NIGERIA (2017 – 2021)

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### Abstract

*The general objective of this study was to examine the relationship between working capital management and corporate performance of listed consumer goods Companies in Nigeria. The study used panel data to conduct a cross-sectional study that covered the five years from 2017 to 2021. The population of the study comprised of twenty-one (21) consumer goods firms in Nigeria, listed in the Nigeria Stock Exchange. Secondary data which were sourced from annual reports and accounts of the studied companies in Nigeria were used for the study period, 2017- 2021. Data were analyzed with Pearson correlation model through the use of SPSS software version 25.0. Findings showed a positive and significant relationship was found between cash conversion cycle, inventory conversion period and return on assets (ROA) of listed consumer goods Companies in Nigeria. However, a negative but significant association was established between account receivable and return on assets (ROA). The study recommended that consumer goods companies in Nigeria should establish their credit policies in a way that will help them easily recover proceeds from receivables so as to effectively reduce the incidence of bad debts and to improve the pace of inventory conversion by removing delays in the conversion process, Doing so would raise profitability and also effectively decrease the occurrence of bad debts.*

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**Keywords:** Working Capital Management, Cash Conversion Cycle, Inventory Conversion Period, Account Receivable, Corporate Performance, Return on Asset (ROA).

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### INTRODUCTION

A firm is intended to function without the possibility of any externality restricting its operations. For this objective to be achievable, an effective working capital management system must be institutionalized as part of an organization's culture that places a high importance on maximizing shareholder value (Abdulai, Hakeem, Karimu, & Rasaq, 2019). Every organization is created with a certain goal in mind. These goals, however, differ between organizations and businesses. The goals of service organizations are very different from those of manufacturing and consumer goods companies. While services are often pre-paid for or paid immediately after service completion, manufacturing and distribution of good may not be paid for immediately by the consumers of such goods thereby creating a debtor-creditor relationship (Daniya, Baba, Fatima. & Abdulrahmand, 2018). As a result, the ability of manufacturing and consumer goods companies to responsibly handle credit is crucial to their ability to maintain liquidity and continuous operations.

Working capital is simply the difference between current assets and current liabilities. Ibrahim, Usaini, and Elijah (2021) defined working capital as a company's investment in short-term assets, such as cash and cash equivalents, accounts receivable, short-term or marketable securities, and inventory. The management of working capital

involves the management of current assets of the business which involves cash, stocks and the like. Management of current assets prevents the company from incurring debt when its current liabilities exceed its current assets (Umenzekwe, Okoye, & Aggreh, 2021).

This debt could arise if a company invests at a higher level of risk, but the risk and return theory shows that the higher the risk, the higher the return. This means that the company will benefit more if it invests in more risky ventures, but it will also be prudent to avoid getting into debt or having to borrow money to continue its daily operations, necessitating the need for working capital management (Umenzekwe, Okoye, & Aggreh, 2021). Ineffective working capital management could cause a liquidity problem and lower profitability (Raza & ul Haq, 2020). In a business perspective, working capital management's primary goal is to assist organizations in achieving a level of profitability that is both acceptable and sustainable and as much liquidity as possible (Ajayi & Adegoke, 2021).

Determining a suitable balance between the level of debt and credit within a manufacturing company is crucial because it prevents businesses from having extra idle cash or not having enough cash to cover daily operational expenses. Setting up certain measures to ensure a balance between short-term assets and short-term liabilities is necessary to achieve this (Daniya, Baba, Fatima. & Abdulrahamand, 2018). Working capital management best practices ensure that current asset holdings are expanded to the point where marginal returns on asset expansions only match the cost of the capital required to fund the increase, and current liabilities should be used to lower average capital costs rather than long-term debt. Finding the ideal working capital level to balance returns and risk is one of the most important management tasks. Businesses must strike a balance between paying liabilities and purchasing current assets in order to maintain adequate liquidity and generate excellent revenues (Okoror, Mainoma, Aruwa, & Uwaleke, 2022).

Corporate performance measures how well an organization performs in relation to key performance indicators, which are primarily financial, market, and shareholder performance. It is a branch of business analytics and business intelligence that is focused on the organization's health, which is typically determined by its financial performance (Unuigbokhai & Nmor, 2021). Nonetheless, the definition of corporate health has expanded in recent years. Two crucial and significant parts of corporate business activity are liquidity and profitability. The issue is that growing earnings at the expense of liquidity can cause the company major issues. As a result, there must be a trade-off between profitability and liquidity. Because both of them are important in their own right, one should not be sacrificed for the other (Unuigbokhai & Nmor, 2021).

Businesses cannot last longer if they are not concerned about making a profit. Also, businesses that do not worry about liquidity risk going bankrupt or being insolvent. Because working capital management ultimately affects a company's profitability, managers of businesses should give it their full attention. With the aid of proper working capital management, businesses can achieve maximum profitability and preserve enough liquidity (Unuigbokhai & Nmor, 2021). It may be challenging for a corporate organization to endure for a longer amount of time if it is indifferent to profitability and liquidity (Ashraf, 2012). Working capital management (WCM) is therefore a precursor to an organization's long-term success in addition to being as significant as profit.

Researchers have delved deeply into the relationship between working capital management and corporate performance (Adeyefa & Adeyefa, 2022; Okoror et al., 2022; Okphiabhele et al., 2022; Urhoghide & Korolo, 2022; Almomani et al., 2021; Kabir et al.,

2021; Fekadu, 2021; Ogunlade et al., 2021; Dayi & Olusoy, 2020; Khan et al., 2020; Frank, Joachim, Irene & Nicholas, 2019; Godswill et al., 2018; Mabandla, 2018). The majority of these and other studies find a strong connection between working capital management and business performance. While numerous studies - both domestically and abroad - have been thoroughly recorded in the fields of working capital management and business performance, there are relatively few of these in Nigeria's consumer goods industry. However, this has limited how broadly the results of comparable investigations in unclassified firms may be applied. Based on the aforementioned, this study looked at the relationship between working capital management and corporate performance of listed consumer goods companies in Nigeria over a five-year period (2017-2021).

### **Objective of the Study**

The general objective of this study was to examine the relationship between working capital management and corporate performance of listed consumer goods Companies in Nigeria.

The specific aims were to;

- i. Ascertain the relationship between cash conversion cycle and return on assets of listed consumer goods Companies in Nigeria;
- ii. Determine the relationship between inventory conversion periods and return on assets of listed consumer goods Companies in Nigeria;
- iii. Examine the relationship between account receivable and return on assets of listed consumer goods Companies in Nigeria.

### **Statement of Hypotheses**

The following null hypotheses were tested in the study

- HO<sub>1</sub>:** There is no significant relationship between cash conversion cycle and return on assets of listed consumer goods Companies in Nigeria;
- HO<sub>2</sub>:** There is no significant relationship between inventory conversion periods and return on assets of listed consumer goods Companies in Nigeria;
- HO<sub>3</sub>:** There is no significant relationship between account receivable and return on assets of listed consumer goods Companies in Nigeria.

## **REVIEW OF RELATED LITERATURE**

### **Conceptual Review**

#### **Working Capital Management**

The primary idea behind the notion of working capital management is the relationship between current assets and current liabilities. Working capital management was described by Qazi et al. (2011) as an accounting method that focuses on preserving optimal levels of current assets and current liabilities relative to one another. Working capital management, according to Napompech (2012), entails organizing and controlling current assets and liabilities in a way that both minimizes the risk of failing to satisfy short-term obligations and prevents overinvesting in current assets.

Working capital management therefore, is the routine task of management that entails organizing, planning, and maintaining the working capital's various elements, including cash, bank balance, inventories, receivables, payables, overdraft, and short-term loans (Iqbal & Zhuquan, 2015). This entails calculating the ideal level of working capital for

the company in order to prevent overcapitalization or overtrading. Overcapitalization occurs when inventories, accounts receivables, and numbered accounts payable are built up excessively. This results in an inefficient use of resources and lower profitability. On the other side, overtrading happens when a company uses insufficient long-term debt instead of sufficient domestically generated money to support a high amount of trading (Ibrahim & Isiaka, 2021). In the short term, this might result in a profit for the company, but in the long run, it might cause liquidity problems.

Studies on working capital management have shown that wise investments and good working capital management can increase profitability and boost business value (Le, 2019; Botoc & Anton, 2017). According to Banos-Caballero et al. (2020), working capital protects the firm's liquidity position. Effective working capital management enhances and protects a firm's competitive edge (Boisjoly et al., 2020; Deloof, 2003). Working capital management is crucial as a result of the strain from increasing competition (Banos-Caballero et al., 2012). During a period of economic unrest, working capital plays a significant role (Enqvist et al., 2014). According to Irene and Ondigo (2018), an investment strategy reveals how much a company has put into present assets. The elements of working capital are briefly explained below in relation to this study;

### **Cash Conversion Cycle**

Cash conversion cycle (CCC) is a metric for assessing a company's management efficiency and, consequently, its general state of health. The time period between a firm's cash outlay for the acquisition of productive resources and the final recovery of cash earnings from product sales is represented by the cash conversion cycle (CCC) (Ibrahim & Denge, 2022). Similarly, Kipkemoi et al. (2018), defined cash conversion cycle as the period from the time that raw materials are purchased to the time that finished goods are received. According to this, the time between purchasing production inputs and realizing revenue from the sales of the finished product is known as the cash conversion cycle.

The cash conversion cycle is the amount of time that passes between when cash is first used to purchase items and when it is collected from customers (Ibrahim & Isiaka, 2021). Cash conversion management is an important financial measure of a company's health and performance. According to Dong and Su (2010), effective cash conversion cycle management is related to the overall measure of working capital management efficiency. The cash conversion cycle can be used to demonstrate how working capital management policies and cash flow are related. Tobias et al. (2020), further sees it as the time it takes an entity to turn its investment in inventories and other productive resources into cash.

It is often believed that the cash conversion cycle is a better indicator of an entity's working capital. This is due to the fact that it includes information on how long inventory is held on hand, how long it takes the company to collect receivables, and how long it takes the company to pay its current obligations. According to Elizalde (2003), cash conversion cycle is a crucial part of working capital management since businesses need money to function in a market that is competitive. Thus, efficient cash conversion cycle management is essential for a firm to survive. According to Adeyefa and Adeyefa (2022), the cash conversion cycle (CCC) gauges how long it takes a business to sell off its stock, convert its unpaid accounts receivable balance into cash, and determine how far the due date for suppliers' goods and services can be postponed.

The cash conversion cycle uses typical timelines to pay suppliers, put together inventory, sell products, and collect payments from clients. If the timescale is brief, it has a

beneficial impact on the company's profitability. A prolonged cash conversion cycle will be detrimental to a company's financial performance.

### ***Inventory Conversion Period***

Inventory conversion period is the typical time it takes for a company to recover funds invested in inventory. It can also be defined as the amount of time needed to obtain raw materials, process them, and then market the finished goods. According to Pandey (2005), a key element of any organization's working capital structure is the effective management of inventories. An optimal inventory conversion period, according to Filbeck, Kruege, and Preece (2007), will lessen excessive or insufficient stocks. Maintaining ideal inventory levels supports effective capital allocation, which in turn improves business success. Inventory conversion phase according to Losbichler and Mahmood (2012) is one of the most potent and poorly understood reasons for managers to increase a company's cash flow and profitability.

Inventory turnover is the primary indicator of the Inventory Conversion Period (ICP). According to research done by Padachi (2006), inventory turnover accounts for around 67% of the period between cash outflow from purchases of items and cash inflow from sales of those same commodities. Brigham and Houston (2012) identified the inventory conversion period as a method for quantifying the number of days it takes for a company to sell a product from the time it first enters production or is purchased. According to Sitienei and Memba (2015), a company's capacity to quickly turn its inventory into revenues improves its financial success. They added that when sales are increasing and profits are trending upward, a company's ideal inventory level is attained. By dividing the firm's inventory on the balance sheet by the average sales for a specific financial quarter, inventory turnover ratio was used to calculate inventory conversion time.

Scholars such as Ali (2011), Gill, Biger & Mathur (2010), Padachi (2006), Rimo & Panbunyuen (2010), Soekhoe (2012), and Warnes (2013) attest to a strong association between inventory conversion and firm return on net assets (ROA). In other words, an increase in inventory days will boost a company's profitability. Although researchers like Alipour (2011), Deloof (2003), Lee, Song, and Lee (2009), Panigrahi (2013), and Usama (2012) contend that the inventory turnover and return on net assets are inversely correlated,

### ***Accounts Receivables***

Accounts receivable, according to Mukhoma (2014), is an enforceable claim for payment for products delivered or services performed on credit. According to Munene (2018), the word "accounts receivable" refers to money owed to a company in exchange for goods or services that have already been supplied or provided. Accounts receivable, according to Adenuba, Adekoya, and Kesinro (2019), is a credit for the provision of products or services to a business under mutually agreed-upon terms and conditions, with payments due at a later time without interest. It is typically recorded as a current asset and is important to a company's working capital. Businesses generally offer goods on credit to generate revenue rather than expecting upfront payment (Shehzad & Smith, 1992). This results in accounts receivable. It is a non-interest credit extended to a customer with a later payment due date based on predetermined terms and conditions.

According to Adenugba, et al. (2019), accounts receivable is an enforceable claim for payment from a company to its customers for items sold or services given in satisfying the customer's order. When a huge amount of current assets are invested in accounts

receivable, the danger of default can jeopardize a company's ability to remain solvent. Making the company competitive is vital in order to boost sales and profitability. Profitability, liquidity, and liquidity must be traded off. According to Ezejiofor et al. (2015), if accounts receivable is not correctly handled, they will accumulate to excessive levels and cause deteriorating cash flows. If this leads to bad debts, profitability will also suffer. Several benefits, including accessibility, adaptability, and convenience, are offered by accounts receivable. Furthermore, guarantees are typically not needed; they are easily obtained as a routine element of business operations; they are a reasonably inexpensive source of finance for present activity; and they boost the profit of the supplier for goods sold (Bărbuță-Mișu, 2018).

The performance of a company depends heavily on the efficient management of accounts receivable. By improving cash flows, it increases liquidity and contributes to the firm's strong financial health. Effective accounts receivable management, according to Adenuba et al. (2019), Nwude and Agbo (2018), is important since it influences the company's worth. They added that good receivables management increases business activity, revenue, and consequently operating income. Accounts receivable must be tracked using a system (Mukhoma, 2014). This contains a list of all outstanding invoices, the creation of monthly client statements, and the aging of receivables.

### **Corporate Performance**

According to Gartenberg, Prat, and Serafeim's (2019) corporate performance is a measure of how well an organization performs financially and how well-equipped it is to continue operating. It is described as a measure of how much a company uses its resources to operate its operations and generate money (Urhoghide & Korolo, 2022). The analysis of an organization's financial accounts and records for a specific time period is used to determine corporate performance. In order to fulfill the organization's fundamental goals, a well-developed financial management plan is necessary.

Scholars have focused their research in the various fields of strategic management and business on the conventional measures of corporate performance. Nduta (2015) asserted that corporate performance generates income for business owners using those companies' assets. Management of businesses uses corporate performance to assess the organization's profitability and financial standing. The financial statements are the primary source of information for analyzing corporate performance, particularly financial performance. They include the statement of financial position, which displays the assets, liabilities, and equity of a company, the income statement, which documents revenues, expenses, and profits in a specific period, the cash flow statement, which shows the sources and uses of cash in a period, and the statement of changes in owners' equity, which represents the change in equity over time (Urhoghide & Korolo, 2022).

The numerous financial matrices and indicators have frequently been used to measure the traditional indication of organizational success (Bulle, 2017). One should conduct this test by proxy performance using return on asset (ROA), return on equity (ROE), and return on capital employed (ROCE), in order to clearly demonstrate some performance indicators of a firm, so as to properly assess the impact of working capital management on corporate performance (Haruna, 2016). Bulle (2017) noted that the trade-off between profitability, liquidity, and solvency was the enduring conundrum in establishing effective financial management. Return on assets (ROA) was employed as a metric for corporate performance in this study.

**Return On Asset (ROA)**

Return on Asset (ROA) is a measure of profitability that examines the return on a company's assets (Okphiabhele, Ibitomi, Dada & Micah, 2022). As a result, the more profitable a company is, the higher its value will be. As a profitability ratio, it assesses a company's general ability to generate profits from its resources, which is equivalent to return on investment (ROI), though operating profit divided by total assets is the best way to assess a company's operational effectiveness (Sharaf & Haddad, 2015).

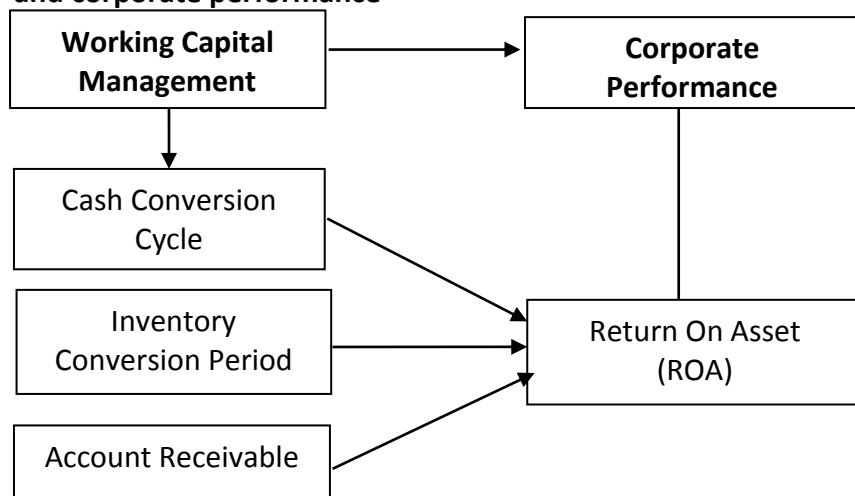
Return on Asset (ROA) expresses a company's net income as a percentage of all assets available for use by a certain company or organization. Return on Asset (ROA) examines management's ability to generate a return on the firm's assets and argues that businesses with large quantities of assets should be able to generate large amounts of income (Akindele & Odusina, 2015). Also, it is used to assess business performance in terms of shareholder spending in relation to the firm's acquired assets (Konak & Guner, 2016).

**Working Capital Management and Corporate Performance**

Working capital management practices have a substantial impact on a company's corporate performance (Deloof, 2003). This suggests that a certain amount of working capital is necessary in order to potentially maximize returns. When compared to the total assets engaged, the quantity of money committed as working capital is frequently enormous, making it imperative that the money be used properly and efficiently to produce acceptable returns. Even if a company may be very profitable, if this profit is not converted into operating cash flow throughout the same operating cycle, the company is forced to turn to borrowing to cover its operational expenses.

On an individual basis, the impact of this financial method on business performance has been discussed in several research. Many findings from these studies have been presented, although more studies have shown good outcomes than unfavourable ones (Hayajneh & Yassine, 2011; Ogundipe et al., 2012; Sankay et al., 2013). Nobanee (2009) came to the conclusion that while the average payment period has a major negative impact on corporate performance, the cash conversion cycle, average collection time, and inventory turnover period all have a positive link with corporate success.

**Figure 1: Conceptual framework of the relationship between working capital management and corporate performance**



Source: The researchers, (2023)

## **Theoretical Framework**

### ***Risk and Return Theory***

One of the most significant theories in the area of portfolio management is the risk and return theory. Researchers in business, economics, and finance have paid close attention to the risk-return relationship (Mukherji, Desai & Wright, 2008). Also, the link between risk and return informs every investing decision (Richard, Stewart & Franklin, 2008). In relation to that, the risk is always accompanied by two opposing mindsets; risk aversion and risk-seeking behaviour. Risk takers always choose decisions with a higher chance of losing money or a higher likelihood of losing money, and they naturally have a strong tendency to overestimate their chances of winning. Risk-takers are primarily concerned with the prospects for profit. Risk avoiders, on the other hand, are the exact opposite of risk takers in that they overestimate losses and undervalue benefits (Unuigbokhai & Nmor, 2021).

Yet, it is crucial to emphasize that one of the key choices in working capital management is the trade-off between liquidity and profitability in order to incorporate the risk and return theory. If a company decides to be liquid, the profit should suffer, and vice versa. Any of these two contradictory choices could lead to an excess or a deficiency of a company's current assets and working capital (Unuigbokhai & Nmor, 2021).

### ***Trade - Off Theory***

According to the trade-off theory, organizations choose the mixes of debt financing and an equality fund to deploy by weighing the pros and negatives of each option. The traditional interpretation of the theory dates back to Kraus and Lichtenberger (1973), who weighed the actions equally, bankruptcy's costs as well as debt's benefits.

This theory's main goal is to spread knowledge that corporations are typically financed partially with liabilities and partially with shares. It stated that while financing using debt has expenses associated with financing problems, such as staff turnover, creditors demanding unfavourable payment terms, internal dispute among bondholders and stockholders, etc. There is an advantage to doing so because of the tax benefits. When choosing how much liability and equity to utilize for financing, the company that is boosting its overall value will focus on this trade-off because the marginal advantages of additional increases in debt decline as debt accumulates while the marginal costs rise.

This liquidity/profitability trade-off theory has some support in the literature (Sunny, 2013; Welch 2012; Bhunia & Brahma, 2011; Ehiedu, 2014; Ravivathani, 2015). The results of these studies showed a markedly inverse relationship between profitability and liquidity management.

### **The Theory of Working Capital Management**

This hypothesis came from Sagan (1955), and it served as the foundation for studies on working capital management. The working capital account needs to be managed carefully, according to this idea, which also forewarns that doing so could negatively impact the company's ability to grow.

According to Sagan (1955), the financial manager's activities are primarily focused on the funds produced during routine corporate operations. Because all of these accounts have an impact on cash situations, the managers in this situation need to be familiar with developments in the management of inventory, receivables, and payables. Because of this, Sagan (1955) advocated that managing accounts receivable, payable, inventories, and cash



is crucial for the efficient operation of any organization. Also, according to the theory of working capital management, a financial manager's primary responsibility is to supply money for temporary investments of surplus funds in order to satisfy lucrative investment needs while also meeting liquidity commitments when they fall due (Ibrahim & Abdullah, 2016).

### **Empirical Review**

Adeyefa and Adeyefa (2022) investigated the effect of working capital management on the financial performance of listed manufacturing firms in Nigeria. Data was taken from the Nigerian companies Audited Annual Report between 2015–2020. Eight listed manufacturing enterprises were chosen at random. With the use of the panel unit root test, Kao residual panel co-integration, and Ordinary Least Square (OLS) panel data regression, the proposed hypotheses were put to the test. The study's conclusions showed that current ratio, loan payback time, accounts receivable days, and cash conversion period all had a negative and significant impact on the financial performance of listed manufacturing enterprises.

The study suggested that finance managers appropriately evaluate working capital components and that any following strategies should ensure that the cash conversion cycle is significantly shortened to boost profitability. The amount of time it takes a customer to pay a company for the goods or services they purchased should not be excessively long, and accounts receivable days should not be as well. Additionally, the debt repayment period should be extended to allow for a longer period of repayment, higher amount of loans, and low interest. Okoror et al. (2022) used publicly traded manufacturing and industrial companies in Nigeria to study the effect of working capital policy on company profitability. Creditor payment period, debtor collection period, and cash conversion cycle were the working capital policy indicators that were carefully examined in the study. The Arellano and Bond dynamic panel data estimate methods were employed in the research to address the potential impacts of endogeneity in the connection.

The results revealed that the cash conversion cycle has a positive and significant effect on financial performance, the creditors payment period (CPP) has a positive effect on firm financial performance that is significant at 5%, the debtor's collection period has the anticipated negative sign, and the longer allowable time for debtors' receivables negatively affects profitability, according to statistics. Moreover, cash holding has a negative influence on financial performance that is likewise considerable at 5%, while cash flow margin (CFM) has a positive impact that is also significant at 5%. The report advised businesses to lessen their reliance on debt, particularly in light of rate volatility and macroeconomic unpredictability, and instead think about how to come up with solutions to shorten their cash conversion cycles. Second, the report recommended that companies look for long-term financing agreements with longer repayment periods because they will enable them to use the funds properly and more conveniently time their investments. Finally, the study recommended that businesses ensure a quicker debtors' collection time in order to maintain a cash flow system and liquidity.

Okphiabhele et al. (2022) investigated the relationship between working capital management and profitability of industrial goods sector in Nigeria. Specifically, the variables of working capital management namely: Cash Conversion Cycle (CCC), Current Ratio (CR), Quick Ratio (QR) and Working Capital Turnover ratio (WCTR) and Return On Assets (ROA) were examined. Seventy (70) observations were gathered by choosing companies in the

industrial goods industry and gathering their data from the Nigerian Stock Exchange Factbook (2011-2020). The results of the study's regression analysis showed a positive linear link between working capital management variables (CCC, CR, QR, and WCTR) and ROA. Whereas CCC and QR were positively but insignificantly associated to ROA, CR was adversely and significantly related to ROA. When examined at the 0.05 level of significance, WCTR exhibits a detrimental and negligible connection with ROA. The management of their short-term financial strength should be adopted by listed industrial products enterprises in order to increase profitability, according to the findings.

Urhoghide and Korolo (2022) examined working capital management and corporate performance of quoted Nigerian Companies. Specifically, the study examined the relationship between average collection period, inventory conversion period, average payment period, cash conversion cycle, net trading cycle and corporate performance. Using certain pertinent NSE fact books, secondary data were gathered for the study from the annual reports and accounts of the sampled Nigerian companies. The study examined a sample of 56 non-financial listed companies. A longitudinal research design, spanning the years 2016 to 2020, was used in the study. It was determined how the variables related to one another using generalized least squares regression analysis. In order to precisely evaluate the variations in working capital management among the various sectors in Nigeria, analysis of variance (ANOVA) was also used.

According to the study, there are no appreciable variations in working capital management practices among the sectors represented on the Nigerian Stock Exchange. The study also revealed that Average Collection Period (ACP) has a significant negative relationship with corporate performance, as determined by profit after tax, and that Inventory Conversion Period (ICP) has a significant negative relationship with profitability. It also revealed that Cash Conversion Cycle (CCC) is negatively and significantly correlated with corporate performance, while Net Trading Cycle (NTC) and Average Payment Period (APP) have negligible but insignificant correlations. Based on the research, it was advised that businesses create their credit policies in a way that will make it simple for them to collect receivables proceeds, effectively reducing the incidence of bad debts. It was also advised that businesses improve the rate of inventory conversion by removing conversion process delays in order to increase profitability.

Almomani et al. (2021) looked into the relationship between the efficiency of working capital management and the financial performance of industrial firms listed on the Amman Stock Exchange. This study uses information from 2010 to 2018 to accomplish its objective. 42 manufacturing companies that are listed on the ASE were used as a sample for the study and hypothesis testing. The effectiveness of working capital management is assessed using inventory turnover, receivables turnover, current asset turnover, working capital turnover, and inventory-to-sales ratio, whilst financial success is assessed using return on assets. According to the study, inventory turnover, receivables turnover, current asset turnover, and working capital turnover all have an effect on the financial performance of manufacturing businesses.

Kabir et al. (2021) investigated the impact of working capital management on firm performance. The study used a qualitative research design, and the secondary method was used to collect data from the corpus of prior empirical investigations. The empirical research under review's regression findings were utilized to examine the study's data. The study found that the longer the debtors' collection period and cash conversion cycle, the

lower the business performance. This suggests that these factors are significant in determining business performance because they can affect a company's profitability. On the other side, the study comes to the conclusion that a longer grace period for creditors leads to greater corporate performance since it increases profitability.

Fekadu (2021) examined the fundamental influence of working capital management on the success of export enterprises using a total of 164 Ethiopian exporters. The findings demonstrate a statistically significant and positive correlation between working capital management, as measured by account receivables period, cash conversion cycle, and accounts payable period, and the performance of Ethiopian exporting firms, as measured by both return on assets and return on investment. The performance of Ethiopian export firms as measured by return on assets is unaffected by the inventory conversion period, despite the fact that it has a statistically significant and positive influence on return on investment.

Ogunlade et al. (2021) looked into the effect of working capital management on financial performance with a focus on Larfage Africa-Cement Plc. The secondary data was obtained from the audited financial statements for the years 2011 through 2020 of Larfage Africa Plc-Cement. The analysis used the mean standard deviation and the ordinary least squares method of estimation. The study comes to the conclusion that working capital management factors simultaneously affect financial performance. Additionally, it was found that while the debtor conversion period (DCP) has a negative but insignificant relationship with financial performance and the creditors' conversion period (CCP) has no relationship with financial performance, the inventory conversion period (ICP) and cash conversion cycle (CCC) have a positive but insignificant impact on financial performance.

Unuigbokhai & Nmor (2021) examined the working capital management and firm performance in Nigeria. Random sampling technique was employed in determining the sample size, furthermore the research design adopted is survey research design which involves comparative analysis of the variables which are working capital management and firm performance and were represented with proxies such as return on asset, return on equity, and net profit margin, The research instrument was processed manually through coding and run electronically using regression method of Statistical Package for Social Sciences (SPSS) to analyse the information from the financial statement. Result from the study indicated a positive relationship between ICP and ROA, which is significant ( $p < .05$ ). Also, cash conversion cycle (CCC) has significant but negative impact on firm Performance. The study recommended that managers should create value for their shareholders by reducing the number of day's account receivable and increasing the accounts payment period and inventories to a reasonable maximum.

Ajayi and Adegoke (2021) studied working capital management and the operating profit of listed cement manufacturing companies in Nigeria. The analysis is performed for the 2010 to 2019 period using Pooled Least Square (PLS), fixed- and random1effect model together with a panel data of 3 cement manufacturing companies listed on the Nigerian Stock Exchange (NSE). The results of the fixed-effect model analysis showed that the cash conversion period and two other indicators of working capital management (account receivable days and inventory days) had a negative and significant effect at 5% level on the operating profits of the sampled cement firms. In contrast, the account payable days had a positive and significant effect on the operating profits of the sampled cement firms. Based on these findings, the finance managers should improve on managing the account receivable days and inventory days in their working capital management properly. The

paper recommended that emphases should be put on shortening the cash conversion period, reducing accounts receivable days and inventory days, and extend their payable days.

Dayi and Olusoy (2020) looked into how operating ratio affected firm value for European airlines between 2010 and 2016. The top ten sampled European companies' annual reports were the source of the data. Share price (SP) served as the study's dependent variable, whereas financial leverage, assets turnover, account receivable turnover, and inventory turnover served as its independent factors. The data were analyzed using descriptive statistics, fixed effect regression, and random effect regression. The study discovered that while inventory turnover had a negative impact on SP, asset turnover and accounts receivable turnover had a good impact.

From 2006 to 2011, Khan et al. (2020) evaluated the impact of WC on corporate performance and share price (SP) in Pakistan. The data was taken directly from the websites of the sampled manufacturing companies' annual reports and accounts. The data were analyzed using univariate regression and Pearson correlation. In contrast, the current ratio, inventory turnover in days, and average collection time have a large positive impact on SP, according to the study. Average payment period and CCC have a considerable negative impact on SP. Frank, Joachim, Irene, and Nicholas (2009) looked at how working capital management and internal control systems affected the financial performance of supermarkets. Cross-sectional and co-relational analysis were utilized. data at the company level that were gathered from a sample of 110 supermarkets in Uganda using a questionnaire survey. According to the study's findings, working capital management significantly predicts financial performance.

The effect of working capital management on bank performance was studied by Godswill et al. (2018). Panel fixed effect, Panel random effect, and the Pooled OLS for the two models were used as stand-ins for bank profitability. Panel data of ten (10) deposit money banks in Nigeria were used for seven years (2010-2016). Indicators of working capital such as net interest income, current ratio, profit after tax, and monetary policy rate were used along with return on asset (ROA) and return on equity (ROE) to assess the profitability of banks. The study's findings demonstrated that return on assets was a more accurate indicator of bank profitability and that working capital management had a substantial impact on the profitability of the chosen banks.

Mabandla (2018) looked at the connection between South African listed food and beverage firms' financial performance and working capital management. From 2007 to 2016, information from a sample of 12 food and beverage companies listed on the JSE was gathered from iress McGregor databases. The strength of the correlations between working capital components and these organizations' financial performance was then assessed using econometric regression analysis of the data. They discovered that implementing an aggressive working capital management plan helps to increase shareholder wealth by improving the company's financial performance. The shorter the cash conversion cycle, the more profitable the firm.

## **METHODOLOGY**

The study used panel data to conduct a cross-sectional study that covered the five years from 2017 to 2021. In this study, the descriptive research design was used. Because of the design, the researcher was able to clearly identify the relationship between the independent and dependent variables. In the study, the dependent variable was Return On

Asset (ROA), and the independent variables were the cash conversion cycle, inventory conversion period, and accounts receivable.

The population of this study comprised of twenty-one (21) consumer goods firms in Nigeria, listed in the Nigeria Stock Exchange. Secondary data which were sourced from annual reports and accounts of the studied companies in Nigeria were used for the study period, 2017- 2021. This method of data collection was adopted because it befits the research design which requires the use of past and documented facts as basis for performance evaluation. Data were analyzed with Pearson correlation model. All analyses were done electronically using the SPSS software version 25.0. The results of the correlation analysis were also used to test the formulated hypotheses.

**Model Specification**

i. The correlation coefficient model used in the analysis is implicitly stated as follows:

$$r = \frac{N(\sum xy) - (\sum x)(\sum y)}{\sqrt{[N\sum x^2 - (\sum x)^2][N\sum y^2 - (\sum y)^2]}} \dots\dots\dots(i)$$

Where r = correlation coefficient

x variables = cash conversion cycle, inventory conversion periods, account receivable

y = Return On Asset (ROA)

**RESULTS AND DISCUSSION**

**Relationship between cash conversion cycle and return on assets of listed consumer goods Companies in Nigeria**

**Table 1: Correlation coefficient showing the relationship between cash conversion cycle and return on assets of listed consumer goods Companies in Nigeria**

		<b>Correlations</b>	
		Cash Conversion Cycle	Return On Asset (ROA)
<b>Cash Conversion Cycle</b>	Pearson Correlation	1	.938**
	Sig. (2-tailed)		.000
<b>Return On Asset (ROA)</b>	Pearson Correlation	.938**	1
	Sig. (2-tailed)	.000	

*Source: Survey data, 2023*

*\*\* Correlation is significant at the 0.01 level (2-tailed).*

The result of Pearson correlation analysis in Table 4.1 shows that cash conversion cycle (CCC) has a positive and direct relationship with return on assets (ROA) of listed consumer goods Companies in Nigeria (r = .938) with the P-value of 0.000 and highly significant at 1% probability level. This implies that return on assets (ROA) of listed consumer goods Companies in Nigeria and cash conversion cycle are closely related. This further shows that an increase in cash conversion cycle will lead to a corresponding increase in return on assets (ROA) of listed consumer goods Companies in Nigeria. This assertion is at the 99% confidence level. Thus, the null hypothesis that states that there is no significant relationship between cash conversion cycle and return on assets of listed consumer goods Companies in Nigeria is rejected and the alternative hypothesis accepted. It can therefore be concluded that, there is significant and positive relationship between cash conversion cycle and return on assets of listed consumer goods Companies in Nigeria.

**Relationship between inventory conversion periods and return on assets of listed consumer goods Companies in Nigeria**

**Table 2: Correlation coefficient showing the relationship between inventory conversion periods and return on assets of listed consumer goods Companies in Nigeria**

<b>Correlations</b>			
		<b>Inventory Conversion Period</b>	<b>Return On Asset (ROA)</b>
<b>Inventory Conversion Period</b>	Pearson Correlation	1	.882**
	Sig. (2-tailed)		.000
<b>Return On Asset (ROA)</b>	Pearson Correlation	.882**	1
	Sig. (2-tailed)	.000	

*Source: Survey data, 2023*

*\*\* Correlation is significant at the 0.01 level (2-tailed).*

Table 4.2 shows the correlation between inventory conversion period and Return On Assets (ROA) of listed consumer goods Companies in Nigeria. The value of Pearson correlation between inventory conversion period and Return On Assets (ROA) of listed consumer goods Companies in Nigeria is 0.882 to which it can be said that these two variables have a strong and positive relationship and also highly statistically significant at 1% probability level. This means that inventory conversion period and Return On Assets (ROA) of listed consumer goods Companies in Nigeria have a strong, positive and direct relationship. Thus, a consistent rise in inventory conversion period can bring about a corresponding rise in Return On Assets (ROA) of listed consumer goods Companies in Nigeria. This assertion is at the 99% confidence level. With this result, the null hypothesis which states that, there is no significant relationship between inventory conversion periods and return on assets of listed consumer goods Companies in Nigeria is rejected and the alternative hypothesis accepted. It can be concluded that there is significant and positive relationship between inventory conversion periods and return on assets of listed consumer goods Companies in Nigeria.

**Relationship between account receivable and return on assets of listed consumer goods Companies in Nigeria**

**Table 3: Correlation coefficient showing the relationship between account receivable and return on assets of listed consumer goods Companies in Nigeria**

<b>Correlations</b>			
		<b>Account Receivable</b>	<b>Return On Asset (ROA)</b>
<b>Account Receivable</b>	Pearson Correlation	1	-.911**
	Sig. (2-tailed)		.000
<b>Return On Asset (ROA)</b>	Pearson Correlation	-.911**	1
	Sig. (2-tailed)	.000	

*Source: Survey data, 2023*

*\*\* Correlation is significant at the 0.01 level (2-tailed).*

Table 4.3 shows the correlation between account receivable and Return On Assets (ROA) of listed consumer goods Companies in Nigeria. The value of Pearson correlation between account receivable and Return On Assets (ROA) of listed consumer goods Companies in Nigeria is 0.911 to which it can be said that these two variables have a strong, negative and direct relationship and also highly statistically significant at 1% probability level. This means that account receivable and Return On Assets (ROA) of listed consumer

goods Companies in Nigeria have a strong, negative and direct relationship. Thus, a consistent rise in account receivable can bring about a corresponding decline in Return On Assets (ROA) of listed consumer goods Companies in Nigeria. This assertion is at the 99% confidence level. Following this result, the null hypothesis which states that, there is no significant relationship between account receivable and return on assets of listed consumer goods Companies in Nigeria is rejected and the alternative hypothesis accepted. Thus, it can be said that there is significant and negative relationship between account receivable and return on assets of listed consumer goods Companies in Nigeria.

### **Discussion of Findings**

This study has examined the relationship between working capital management and corporate performance of listed consumer goods Companies in Nigeria. Different scholars have produced varying empirical results. While some have found positive relationships, others produced negative relationships between the variables of working capital management and corporate performance. In this study, a positive and significant relationship was found between cash conversion cycle and return on assets (ROA) of listed consumer goods Companies in Nigeria. A positive relationship between cash conversion cycle and return on assets (ROA) was established by Okoror et al. (2022), Okphiabhele et al. (2022), Fekadu (2021), Ogunlade et al. (2021), and Godswill et al. (2018). Thus, the cash conversion cycle is important when evaluating business performance, because it has the potential to improve or hinder corporate performance,

Similarly, a positive and significant relationship between inventory conversion periods and return on assets (ROA) of listed consumer goods Companies in Nigeria. This is consistent with results of Ogunlade et al. (2021), Khan et al. (2020), and Unuigbokhai and Nmor (2021). This implies that an optimal inventory conversion period will lessen excessive or insufficient stocks. Also, the maintenance of ideal inventory levels supports effective capital allocation, which in turn improves corporate performance.

On the relationship between account receivable and return on assets of listed consumer goods Companies in Nigeria, a negative but significant association was revealed. This is consistent with previous studies (Okoror et al., 2022; Ajayi & Adegoke, 2021; Adeyefa & Adeyefa 2022). Ajayi and Adegoke (2021) showed that account receivable had a negative and significant effect at 5% level on the operating profits of the sampled cement firms. Similarly, Adeyefa and Adeyefa (2022) revealed that accounts receivable has negative and significant relationship with the financial performance of listed manufacturing firms.

### **CONCLUSION AND POLICY IMPLICATION**

This study examined the relationship between working capital management and corporate performance of listed consumer goods Companies in Nigeria. From correlation results, a positive and significant relationship was found between cash conversion cycle and return on assets (ROA) of listed consumer goods Companies in Nigeria. Similarly, a positive and significant relationship between inventory conversion periods and return on assets of listed consumer goods Companies in Nigeria, while a negative but significant association was established between account receivable and return on assets of listed consumer goods Companies in Nigeria. Thus, it can be concluded that working capital management significantly impacts on corporate performance of listed consumer goods Companies in Nigeria.

Based on the findings of the study, finance managers of consumer Goods companies in Nigeria should appropriately examine the working capital components, and any effective

steps should ensure that the cash conversion cycle is significantly shortened to boost profitability. In order to effectively reduce the incidence of bad debts and to improve the pace of inventory conversion by removing delays in the conversion process, consumer goods companies in Nigeria should establish their credit policies in a way that will help them easily recover proceeds from receivables. Doing so would raise profitability and also effectively decrease the occurrence of bad debts.

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