Cash Management Strategies and Financial Performance of Selected Quoted Industrial Goods Companies in Nigeria

STELLA PETER ESSIEN[1], USEN PAUL UMO[2]
[1, 2] *Department of Accounting, Faculty of Management Sciences, Akwa Ibom State University, Obio-Akpa Campus, Nigeria.*

Abstract- ***Owing to seasonality and uncertainty, managers of industrial goods companies focus on core business issues and overlook some potentially serious and costly issues relating to poor cash management strategies (skills) and poor understanding of the cash flow cycle. This dissertation work examined cash management strategies and financial performance of manufacturing companies, using ten (10) quoted industrial goods companies listed in Nigeria Exchange Group from 2017-2021. In this study, cash balances, cash conversion cycle, and cash turnover are the cash management strategies proxies employed to examine their effect on financial performance. Financial performance is measured in terms of return on assets. The data was analysed using Ordinary Least Square (OLS) regression. It used ex post facto research design. The major findings of this study showed that cash balances strategy had a beta coefficient of 0.124.Highlight of the dissertation work revealed that the cash balances strategy insignificantly affects financial performance in the industrial goods companies in Nigeria. The result of the analysis revealed that cash conversion strategy had a beta coefficient of 0.118. This implies that the cash conversion strategy insignificantly affects financial performance in the industrial goods companies in Nigeria. From the result of the analysis also cash turnover strategy had a beta coefficient of 0.707. Accordingly, cash turnover strategy significantly affects financial performance of industrial goods companies in Nigeria. It was therefore concluded that cash management strategies jointly influence financial performance of industrial goods companies in Nigeria. Secondly, the cash balances and cash conversion strategies have insignificant influence on financial performance of industrial goods firms in Nigeria. Thirdly, cash turnover has significant positive influence on financial performance of industrial goods firms in Nigeria. It was recommended that the management of the industrial firms should reduce their cash balances as it insignificantly affects financial performance. More so the management of the industrial goods firms should improve on their cash conversion cycle as this affects financial performance and accept to increase their cash turnover as this will positively affect financial performance.***

Indexed Terms- ***Cash Management Strategies, Financial Performance, Quoted Industrial Goods Companies, Nigeria.***

I. INTRODUCTION

Cash management strategies refer to the processes involved in skilfully minimizing the operating cash balance requirements of the firm (Umo, 2021). The strategies help in reducing the cash cycle and increasing the cash turnover. According to Abioro, (2013) and Olowe, (2020), the term ‘cash’ is the most vital liquid asset required for the day to day operations of businesses. It is seen as the most basic liquid input required for keeping the business in its day to day activities and it doubles as the ultimate output expected to be realized by selling the services or products manufactured by the firm (Pandey, 2021). Therefore, the management of cash is imperative in the life of every business enterprise. This is why cash is otherwise described as the life blood of any business (Umo, 2021).

Generally, cash management strategies are based on cash conversion cycle, cash balances and cash

holding. They constitute an important factor in enhancing the performance of companies. Cash management strategies show how efficient a firm is in its payment of bills, collection of payments and selling of inventories (Muscettola, 2010). The cash conversion cycle is a very powerful tool for examining how well an industrial goods company's working capital is being managed. In order to run the industrial goods companies for longer periods, management accountants make decisions to manage working capital by creating a balance between the available current assets and current liabilities (Umo, 2021).

Basically today, proper cash management is significantly justified by the growing development in the business world over the years (Kesseven, 2006). These developmental strides include; changes in the corporate relationship from buyer's to a seller's market, globalization of businesses which saw the creation of the Economic Monetary Union (EMU) in Europe, the proposed adoption of a single currency in the West Africa region, the emphasis on new treasury structures to better manage resources on a worldwide basis; the developing interest in e-commerce for business-to-business transactions which changes how data and funds flow greatly reduces working capital cycle time; the emergence of the "new economy" with its orientation to information and cash, coupled with driving finance into every area of a company (Abioro, 2013 & Marsh, 2020). Based on these developmental efforts, it has become imperative for firms to design effective cash management strategies to enhance business survival, growth and overall success vis-a-vis improved financial performance.

Effective cash management involves better timing of expenditure decisions, earlier collection and banking of revenue, and more accurate forecasts of cash flows. This helps minimize the cost of any borrowing that is necessary and also facilitates the investment of surplus fund in order to achieve high returns. Cash management is a key component of efficient working capital management and is essential for the success of industrial goods firms. Particularly for the industrial good enterprises, the highest proportion of investments is in the inventory; hence they depend more on sales for revenue. Industrial goods companies incur expenses in acquisition of goods before corresponding payments is received from the customers. However, sales vary due to seasonality and uncertainty. Therefore, cash from operations will determine the business financial power and the ability to run its activities successfully. As a result the business has to pay more attention to the timing of inflows and outflows to avoid running out of cash. This is achieved through proper cash management strategies (Pandey, 2021).

Financial performance is a subjective measure of how well a firm can use its assets from the primary mode of business and generate revenues. The term is also used as a general measure of a firm's overall financial health over a given period. Analysts and investors use financial performance to compare similar firms across the same industry or to compare industries or sectors in aggregate. This refers to the business success in the market, which may have different outcomes (Hassan, 2017). It is assessed by measuring the success or failure of an organization in achieving its goals. Financial performance measurement is of significance to industrial goods companies as most of them operate with uncertainty. It plays a link role because it provides feedback into the business strategic operations for necessary refinements (Akpan & Uford, 2023). The financial performance measure for this proposed study is the Return on Assets (ROA). It is on the strength of the said background that the researcher reached a decision to study the impact of cash management strategies on the financial performance of quoted manufacturing firms using selected industrial goods companies in Nigeria as the organisations of study.

1.2 Statement of the problem

Unfortunately, due to seasonality and uncertainty, managers of industrial goods companies focus on core business issues and undermine some potentially serious and costly issues associated with poor cash management strategies/skills and poor understanding of the cash flow cycle. However, if managers of industrial goods companies focus on cash management strategies/skills, this will lead to a sustainable development in business organizations. But these days proper attention is not given to the timing of cash inflows and outflows operations; for example, when to pay for accounts payable and

purchase inventory. During rapid growth, a company can end up running out of money because of over-purchasing of inventory, yet not receiving payment for it. This is because managers do not acquire the necessary skills. Some industrial goods companies are yet to develop strategies to optimize and manage the working capital. Industrial goods companies do not design and put in place proper frameworks to ensure that receivables are collected in time and payables are not paid more quickly than is needed. Managers in firms are yet to acquire the necessary skills. Thus they lack the ability to optimize and manage the working capital

In the literature of management accountants, much effort has been on long term investment and financing decisions. However, short term investment assets, has attracted less attention in both academics and professional researches Umo (2021). These practices have paid less attention to cash (liquidity) management and its significance to business management practices. Whereas, researchers in finance have concentrated much on the relationship between firm value and capital structure, management accountants have not given serious concern to cash management and its role in business operations. Of specific concern is the severe dearth of research on cash management strategies in Nigeria. Studies have shown that although working capital has been considerably researched, very few studies have been conducted on cash management strategies which constitute an integral component of working capital management in firms (Nigerian business organisations inclusive).

Previous academic studies have been largely focused on the manufacturing sector with very few study variables of interest. But the question is whether cash management improves or worsens the financial performance of selected industrial goods companies in Nigeria. Hence there is need for further research and this form the basis for this study. More-also, despite the fact that many researches have been conducted, to the best of my knowledge not much attention has been given to the industrial goods sector in Nigeria. Accordingly, there is a significant gap that calls for a study on cash management strategies relative to financial performance in the industrial goods sector of Nigeria.

1.3 Objectives of the study

The main objective of this study was to examine the relationship between cash management strategies and financial performance of selected quoted industrial goods companies in Nigeria. Specifically, the study sought:

1. to determine the relationship between cash balance strategy and return on asset of industrial goods companies in Nigeria.
2 to assess the relationship between cash conversion cycle strategy and return on assets of industrial goods companies in Nigeria.
3. to find out whether there is significant relationship between cash turnover strategy and return on assets of industrial goods companies in Nigeria.
4. to examine if cash balance strategy, relative to cash conversion cycle and cash turnover significantly influence return on assets of industrial goods companies in Nigeria

1.4 Research hypotheses

The following hypotheses were formulated for the study;

H_{01}: Cash balance strategy does not have any significant relationship with return on assets of industrial goods companies.

H_{02}: Cash conversion cycle strategy does not have any significant relationship with return on assets of industrial goods companies.

H_{03}: Cash turnover strategy does not have any significant relationship with return on assets of industrial goods companies.

H_{04}: Cash balance strategy, relative to cash conversion cycle and cash turnover strategy, does not relate with return on assets of industrial goods companies.

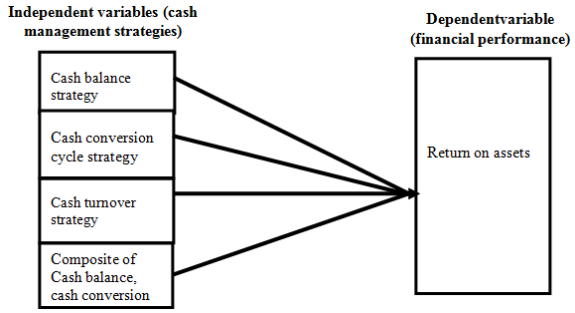
II. REVIEW OF RELATED LITERATURE

This chapter present the review of related literature to this study. Specifically, the chapter provides the theories of cash management, the various cash management strategies, empirical review, the conceptual framework and the operational framework of the study.

2.1 Conceptual framework

Figure 2.1 Diagrammatical representations of cash management and financial performance variables

The conceptual framework of this study is presented in the diagram below;



Source: Researcher's design (2023)

2.1.1 Cash and cash management

Cash is any medium of exchange, which is immediately negotiable. It must be free of restriction for any business purpose. Cash has to meet the prime requirements of general acceptability and availability for instant use in purchasing and payment of debt. Acceptability to a bank for deposit is a common test applied to cash items. This is a process of Planning, controlling, and accounting for cash transactions and cash balances. It is channelling available cash into expenditures that enhance productivity, directly or indirectly. In addition, Cash is ready money in the bank or in the business. It is not inventory, it is not accounts receivable (what you are owed), and it is not property. These might be converted to cash at some point in time, but it takes cash on hand or in the bank to pay suppliers, to pay the rent, and to meet the payroll. Profit growth does not necessarily mean more cash.

Cash is the important current asset for the operations of the business. Cash is the basic input needed to keep the business running on a continuous basis: it is also the ultimate output expected to be realized by selling the service or product manufactured by the firm. The firm should keep sufficient cash, neither more nor less. Cash shortage will disrupt the firm's manufacturing operations while excessive cash will simply remain idle, without contributing anything towards the tint's profitability. Thus, a major function of the financial manager is to maintain a sound cash position. (Pandey, 2007).Cash is the money which a firm can disburse immediately without any restriction. The term cash includes coins, currency and cheques held by the firm, and balances in its bank accounts. Sometimes near-cash items, such as marketable securities or bank time's deposits, are also included in cash. The basic characteristic of near-cash assets is that they can readily be converted into cash. Generally, when a firm has excess cash, it invests it in marketable securities. This kind of investment contributes some profit to the firm.

Cash management as the concept is concerned with optimizing the amount of cash available, maximizing the interest earned by spare funds not required immediately and reducing losses caused by delays in the transmission of funds (Pandey, 2021). It is the process of forecasting, collecting, disbursing, investing, and planning for cash a company needs to operate smoothly. Cash management is a vital task because it is the most important yet least productive asset that a small business owns. A business must have enough cash to meet its obligations or it will be declared bankrupt. Creditors, employees and lenders expect to be paid on time and cash is the required medium of exchange. However, some firm retain an excessive amount of cash to meet any unexpected circumstances that might arise. These dormant cash have an income-earning potential that owners are ignoring and this restricts a firm's growth and lowers its profitability. Investing cash, even for a short time, can add to company's earning. Proper cash management permits the owner to adequately meet cash demands of the business, avoid retaining unnecessarily large cash balances and stretch the profit generating power of each dollar the business owns

Cash management is particularly important for new and growing businesses. Jeffrey, (1992) indicated in his book that cash flow can be a problem even when a small business has numerous clients, offers a superior product to its customers, and enjoys a sterling reputation in its industry. Companies suffering from cash flow problems have no margin of safety in case of unanticipated expenses. They also may experience trouble in finding the funds for innovation or expansion. Finally, poor cash flow makes it difficult to hire and retain good employees. It is important to distinguish between true cash

management and a more general subject of liquidity management. The distinction is a source of confusion because the word cash is used in practice in two different ways.

Cash management is much more closely related to optimizing mechanisms for collecting and disbursing cash. Cash management has four major functions; determination of minimum cash balances, effective borrowing, advantageous investment of excess cash, and acceleration of cash flow.

2.1.2 Cash management strategies

The cash management strategies is a process of minimizing the operating cash balance requirements of the firm. Thus the strategies help in reducing the cash cycle and increasing the cash turnover. Cash management practices refers to the management of an entity's cash to ensure that sufficient cash are sustained for entity's daily operations, finance opportunities and payments of unexpected services (Samuel & Peter, 2016). Cash management strategies are the adequate processes of collection, management, and usage of cash flows for the purpose of maintaining a decent level of liquidity, and it involves financial instruments such as treasury bills, certificate of deposit, and money market funds making the same substance for not just individuals but organizations too.

Cash management strategies helps in maximizing profitability by optimizing cash utilization. It also helps in creating provisions for future contingencies such as economic slowdown, bad debts. Cash management practices involve the collection, handling, and usage of cash in effective and efficient manner. It involves assessing market liquidity, cash flow, and investments. Njeru, Agnes, Florence and Ondadu, (2015) defined Cash management practices as a financial discipline that adopts some principles, regardless of the type of business, size or age of an enterprise.

Major and Major (2020) defined it as the efficient collection, disbursement and investment of the organization's cash while meeting the firm's liquidity requirements. Cash management is concerned with the managing of cash flows into and out of the firm; cash flows within the firm; and cash balances held by the firm at a point of time by financing deficit or investing surplus cash (Yahaya, 2017). Juan, Teruel and Solano (2007) cash management refers to the step by step procedure of managing liquidity and cash flow of a firm as well as managing risks and processes related to capital optimization and cash flow. (Soaga, 2012) points out that the aim of managing cash is to find optimal cash level for creating the highest level of performance for an entity. Management of cash covers many activities and has its major purpose as controlling the company's cash flow and efficiently managing its funds. Efficient management of cash flow is vital for all companies. Soet, Muturi and Oluchi, (2018) points out that the aim of managing cash is to find optimal cash level for creating the highest level of performance for an entity.

The major components of cash management lie in the two aspects; financial reporting and financial management. Under financial reporting the cash management tools include the cash flow statement, cash and bank reconciliation and the cash book. In financial management the components of cash management are credit control, cash position, cash planning and cash flow projection (Katz and Green, 2009). Kaketo, Timbirimu, Kiizah and Olutayo (2017) observed that management and finance team need to enforce adherence to cash policy put in place to guide and control cash management. Murkor, Muturi and Oluoch (2018) observed that finance managers should come up with a compulsory cash flow policies to enable the organization come up with clear policies for cash flow management including the investment of surplus funds if need arise. (Liman and Aminatu, 2018) noted that firms should set a policy to keep bankruptcy cost at a lower level and also management efficiency is required in managing costs, increasing efficiency and financial performance.

2.1.3 Cash balances

Cash is used in starting a business as well as in liquidating the same for its breakup value. It is made up of cash on hand and demand supplies while bank balance are short term highly liquid investment that are readily convertible to known amount of cash although subject to insignificant risks of changes in value (Onyeka, Nnado & Iroegbu, 2018). Cash and

bank balances refer to the line item on the balance sheet that reports the value of a company's assets that are cash bank balances in CBN in the case of deposit money banks regulation. According to Charles and Fortune, (2019), cash and cash balances are assets saved in CBN for purpose of customers' savings protection. For simplicity, the total value of cash on hand includes items with a similar nature to cash.

According to Umo, (2022), the minimum cash balance is established by taking into consideration the basic safety cushion needed, minimum bank balance requirements, and the rate of daily cash collections and disbursements. Cash balances should be maintained at the lowest practical minimum because excess cash earns nothing and loses purchasing power in period of rising prices.

The minimum cash balance should be the basic liquidity cushion needed taking into consideration the rate of daily cash collections and disbursements. The average cash balance (size of demand deposit) tentatively determined can be tested against industry standard by use of the ration of the average cash balance to total operating expenditures for the year. If the company's business is seasonal, the desirable cash balance will vary with peaks and valleys of enterprise activities. Such companies will find the ratio of average cash balance for each month to total expenditures for the moth at a better standard.

2.1.4 Cash conversion cycle

Cash conversion cycle (CCC) means the whole yardstick of assessing the level of utilization of working capital in an organization. It can be described as the total number of days of sales outstanding (which is also termed average collection period) and the period of sales in days of inventory (also called inventory less period of payable in days outstanding (termed average payable period). Cash conversion cycle is a vital tool of cash management that requires huge funds to be afloat and the means of maintaining the good financial condition to repay the fund utilized (Elizalde, 2003). Chuke, Elias and Ibe lambert (2018) consider CCC as the calculation of the period it will take between payment and collection of cash. They maintained that CCC is the period of time, in days, that it takes for the cash to be collected after sales, determined from the time the firm finally made payment for goods. Farris and Nassem (2013) opine that even though a firm can make loss within different accounting periods, it cannot continue to persistently operate with inefficient CCC management. Similarly, ICAN (2014) describe the cycle as the average period between payment to creditors in exchange for inventories and services delivered and cash receipt from customers for resale of the supplies or services. ICAN (2014) also enumerated the three main elements in the cash conversion cycle as: The mean period that inventory is held before it is used or sold; the average credit period taken from creditors and the mean length of credit time taken by (or given to) account receivables.

Cash conversion cycle is a very important component of working capital management and financial management because it directly affects the liquidity and profitability of the company. It deals with current assets and current liabilities. The traditional link between the cash conversion cycle and the firm's profitability is that shortening the cash conversion cycle increases firm's profitability (Mose, 2016).

Cash conversation cycle is more favorable if it is negative because more the period of CCC is shorter more the company's working capital is manage efficiently. Positive CCC means that the company has to pay to its supplier for the purchase of inventory but the company is not received cash from its customers. This situation is not favorable for the company survival and company may have to borrow funds to pays its supplier. Similarly the negative CCC means that the company received cash from the customers before its pay to its suppliers. This situation is favorable for any firms. So the goals of any firm is to have low CCC and if possible negative. Because firms can manage its cash flow effectively if they have shorter CCC (Hassan, 2017).

2.1.5 Cash turnover

The cash turnover is used to determine the proportion of cash required to generate sale. The ratio is typically compared to the same result for other businesses in the same industry to estimate the efficiency with which an organization uses its available cash to conduct operations and generate sales (Adebayo, David and Samuel, 2011). Cash

turnover is a comparison between sales and the average cash amount. Cash turnover rate is a measure of the efficiency of cash used to carried out by the company's operation. The efficient use of cash means companies have the opportunity to make greater investment in fixed investment that can be made in income (Onyekwelu, Chukwuaniand Onyeka (2018). Cash turnover is a measure of the efficiency of cash used by companies because the cash turnover rate describes the speed of return of cash invested in working capital.

Cash Turnover is the amount of times a company has spent through its cash during the reporting period. Cash turnover is calculated based on a company's revenues over the average cash balance during that period. The cash turnover ratio (CTR) is profitability and efficiency ratio that measures how many times a company uses its cash to generate revenues. It measures the efficiency of a company to turn over its cash balance into sales revenue in an accounting period.

A high cash turnover ratio, means that the company is turning over its cash quickly, resulting in very efficient cash management. A low cash turnover ratio means that the company is not efficient, and it takes too long before it makes a complete cycle of cash flow in the economy. A high cash turnover ratio is a justification that there is an efficient cash flow through the business, turning a stronger profit. So obviously this would be preferred over a low cash turnover ratio. This ratio is especially useful when the sales are not made on credit. Companies that make most of their sales on credit will always have a high cash turnover ratio compared with those dealing in cash, so before you draw a general conclusion, it is necessary to find out if the sales are on credit or cash. Comparisons using this ratio are only valid for companies in the same industry with an almost similar capital requirement. Consider the variation in cash balances and mode of sales to avoid a skewed cash turnover ratio.

The revenue is the company sales and can be found on the company's income statement, while cash and cash equivalents will be listed at the top of a company's balance sheet. When calculating the cash turnover revenue, you would generally want to average the cash and cash equivalents over the current accounting period and the last accounting period by summing up the two and then dividing them by two.

2.1.6 Financial performance

Financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. The term is also used as a general measure of a firm's overall financial health over a given period, and investors use financial performance to compare similar firms across the same industry or to compare industries or sectors in aggregate (Umo, 2022)

Financial performance is the measurement of the results of a company's policies wealth maximization and operations in monetary terms. Financial performance is mainly reflected in the computation of accounting ratios that suggested the relationship between numbers in the financial statement. They further stated that corporate financial performance can be reflected in market-based (investor returns) and accounting-based (accounting returns) measures. Nwanyanwu (2015) stated that financial performance is used to evaluate the level at which an organization has succeeded in its line of business. Similarly, Charles and Uford (2023) mentioned that financial performance of an entity relates to the entity's ability and focus on economic resources available in a profitable manner and how well entity managed to generate considerable cash flows by consuming such resources. This information is presented in statement of comprehensive income, known as income statement and lastly, changes in financial position, means how business activities have affected the investor's stake in the entity (Oyadonghan, 2017). Rajkumar and Hanitha, (2015) stated that financial performance is a firm's ability to generate new resources from day-to-day operations over a given period of time, and it is measured as net income and cash from operation. For the purpose of this study financial performance is measured by return on asset.

2.1.7 Profitability

Profitability is the primary goal of all business ventures (Umo, 2022) Without profitability the business will not survive in the long run. So measuring current and past profitability and

projecting future profitability is very important. Profitability is measured with income and expenses. Income is money generated from the activities of the business. For example, if crops and livestock are produced and sold, income is generated. However, money coming into the business from activities like borrowing money does not create income. This is simply a cash transaction between the business and the lender to generate cash for operating the business or buying assets. Profitability may be regarded as a relative term measurable in terms of profit and its relation with other elements that can directly influence the profit. Profitability is the relationship of income to some balance sheet measure which indicates the relative ability to earn income on assets. Irrespective of the fact that profitability is an important aspect of business, it may be faced with some weakness such as window dressing of the financial transactions and the use of different accounting principles.

Profitability is important and necessary for a company to survive and remain attractive to investors and analysts. According to Sartono, (2010), profitability is a company's ability to make profit related to sales, total assets, and capital. High profitability will support company's operational activities. It is impossible for a business to survive for a significant amount of time without making profit, therefore, measuring a company's profitability, both current and future, is critical in evaluating the company (Inseng & Uford, 2019). There are several measures of profitability, such as Return on Investment (ROI), Return on Asset (ROA), and Return on Equity (ROE). Profitability in this study is measured using Return on Assets (ROA). According to Harggave (2019), return on assets (ROA) is an indicator of how a company generates profit is relative to its total assets. ROA gives a manager, investor, or analyst an idea as to how efficient a company's management is at using its assets to generate earnings. Return on assets is used to see the extent to which the investment invested is able to provide a return on profits follows what is expected based on assets owned

2.1.8 Return on assets

The return on assets ratio measures how effectively a company can earn a return on its investment in assets. In other words, ROA shows how efficiently a company can convert the money used to purchase assets into net income or profits. Since all assets are either funded by equity or debt, some investors try to disregard the costs of acquiring the assets in the return calculation by adding back interest expense in the formula.

It only makes sense that a higher ratio is more favorable to investors because it shows that the company is more effectively managing its assets to produce greater amounts of net income. A positive ROA ratio usually indicates an upward profit trend as well. ROA is most useful for comparing companies in the same industry as different industries use assets differently (Uford, 2017). For instance, construction companies use large, expensive equipment while software companies use computers and servers.

Kasmir (2016) says ROA is a ratio that states the return on the number of assets utilized in the company. ROA serves to know the level of effectiveness of the company's overall operations. The larger the ratio, the better the company’s profitability chances, because the company can use its assets effectively in bringing profit. Return On Assets (ROA) is a ratio that shows how much an asset plays in creating a net profit (Hery, 2015).

2.1.9 Relationship between cash management strategies (cash balance, cash conversion cycle and cash turnover) and financial performance

According to Juan and Martinez-Solano, (2007), cash is a vital element of a corporation’s working capital as it forms the engine of the company. It is actually the aspect around which all matters financial centre. Therefore, cash management is most vital for any enterprise’s financial success. Katz and Green (2009) state that availability of current assets, especially cash determines whether 3 a business will survive or wind up. Cash is very important for business operations as a current asset. In fact it is the most basic input required to make the business a going concern (Weda, 2015).

A business might make profits but without sufficient cash to meet operational obligations it may be forced to close shop. Katz and Green (2009) identified that

the cash management approach to managing liquidity has been prominently used for a long time as a tool to control and plan liquidity. More generally, many financiers have looked at the working capital management, yet the major aspect has always been cash control, cash being one of the current assets items in the balance sheet. This measure is being considered an important tool in ensuring that funds are available to meet recurrent expenditure. Many analysts advocate using cash and current ratios to measure liquidity and business performance rather than having a view of the financial management as a whole which entails many general factors. This measure also has the advantage of being able to carry out a cross section comparison as well as time comparison (Katz and Green, 2009). However, the ultimate gauge of cash management is its effect on an entity's financial performance.

Empirical studies on cash management strategies and financial performance showed mix results based on various sectors, variable used, environment and context. For instance Ndirangu, (2017) conducted a study on the effect of cash management and performance of companies listed in Nairobi Security Exchange. Company sale was found to have a negative and insignificant effect on financial performance. Abioro (2013) established that a mere availability of cash (liquidity) without proper management does not necessarily translate into favorable financial performance. Kinyanjui, Kiragu and Kamau (2017) stated that, cash balances practices and use of technology in cash management has a relevant effect on financial performance of SMEs in Mogadishu. Mohamed and Omar (2016) cash management was found to have a high effect on financial performance of private secondary schools. Similarly, (Murkor, Muturi and Oluochi, (2018) found that operating cash flow management had significant and positive effect on return on assets and insignificant and positive effect on return on equity. A related study conducted in manufacturing firms in Srilanka found an insignificant relationship between cash ratio and financial performance and cash turnover ratio and financial performance (Janaki, 2016). Yousef (2016) also found that 67% of SMEs in Jordan had no knowledge about cash control procedures.

Cash turnover compares net sales and the average amount of cash. Rustina (2018) states that cash turnover show the ability of cash to generate income, so it can be seen how many times cash turn around in a given period. The higher the cash turnover, this means the higher the efficiency of the use of cash and the greater the finance obtained. The larger the amount of cash indicates the lower the rate of cash turnover. A safer cash turnover cycle will be detrimental to the company's profitability. Cash in a company does not have to be large, because a large amount of cash owned by a company can be said that a lot of cash is unemployed so that it can reduce profitability (Riyanto, 2016). According to Hadinata (2016) the rate of cash turnover has a positive and significant effect on profitability. The same research results were also obtained by Indrayani (2016) and Andriani (2017). A one -way relationship is shown from the regression coefficient that the value of cash turnover increases then profitability will also increase, because with a high rate of cash turnover has shown that a high transaction volume, with a higher level of income will provide a large profit as long as operating costs are not increased. The increase in profit received will make the level of profitability increase. A one -way relationship is shown from the regression coefficient that the value of cash turnover increases then profitability will also increase, because with a high rate of cash turnover has shown that a high transaction volume, with a higher level of income will provide a large profit as long as operating costs are not increased. The increase in profit received will make the level of profitability increase. A one -way relationship is shown from the regression coefficient that the value of cash turnover increases then profitability will also increase, because with a high rate of cash turnover has shown that a high transaction volume, with a higher level of income will provide a large profit as long as operating costs are not increased. The increase in profit received will make the level of profitability increase.

Summary of Empirical Review
Table 2.1

S/no	Author	Title	Methodology	Findings	Gap
1	Danyadado & Jinjiri (2022)	To ascertain the effect of Cash Conversion Cycle on consumer goods companies' firms in Nigeria.	Ex-post facto research design, correlation and panel data regression analysis was used to analysed data.	The study results showed that inventory turnover period had a negative significant effect; secondly, average collection period had a non-significant negative effect.	The study was conducted in consumer goods companies while this study is conducted in industrial goods companies.
2	Major & Azali (2022)	Cash Management Practices and financial performance of listed deposit money banks in Nigeria	Ex-post research design, purposive sampling technique and secondary data was used. Descriptive statistics, Pearson correlation analysis and multiple linear regression were used to analysed the data.	The study found that, there is a positive and significant relationship between cash and banks balance on return on equity, and it concludes that there is a positive and significant relationship between cash management practices financial performance of listed deposit money banks in Nigeria.	The study was conducted in deposit money banks in Nigeria and the current study is in industrial goods company.
3	Debie R. (2022)	Cash management and financial performance of listed manufacturing firms in Nigeria	ex-post facto research design was adopted, secondary data was used, Arellano and Bond dynamic panel data estimation	The findings reveal that cash conversion cycle has a positive and significant impact on financial performance; creditors' payment period (CPP) has a positive impact on the firm financial performance, which is significant at 5%.	The current study was specifically conducted in industrial goods companies.
4	Okeyo and Kaplelach (2022).	Financial management practices and financial performance of selected small and medium enterprises in Mombasa County, Kenya.	Descriptive research, stratified sampling method, primary data was used and multiple regression model was used to analyze the study using SPSS	All SMEs were found to have incorporated financial management practices in their operation.	The study was conducted in Kenya and primary data was used and this current study used secondary data and was conducted in Nigeria.
5	Mrefu and Gichure (2022)	Effect of cash management practices on performance of manufacturing firms listed at the Nairobi Securities Exchange, Kenya.	A correlational research design, multiple regression model and Pearson's correlation was used in the data	The study findings revealed the existence of a statistically significant effect for independent variables on performance of the listed firms.	The study was conducted in Kenya and this current study is in Nigeria.

			analysis		
7	Sankar , Keerthana, Mathew, and Nimalathasan (2021)	Effective cash management system performance in Abc Techno Labs India private limited	Analytical research design and secondary data was used, trend analysis was employed	The company's liquidity and profitability position are not satisfactory; the overall financial performance is not satisfied. The company has a fluctuation more ups and downs	The study was conducted in India and the current study is in Nigeria.
8	Khalil, Abu and Emad (2020)	An investigation on whether cash flow has an impact on profit quality from 2014 to 2018.	Cross sectional data was employed and secondary data.	The results indicated that there is a strong inverse relationship between (index of operational activity, index of return on assets from operating cash flow) respectively, and (profit quality), at the same time the study found that there is an inverse relationship that is not statistically significant between (index of operating cash flow) and (profit quality).	The study was conducted in 9 Jordanian hotels while the current study is in industrial goods company in Nigeria.
9	Nangih, Ofor and Onuorah (2020)	The relationship between cash management and the financial performance of some selected oil and gas firms listed on the Nigeria Stock Exchange.	Judgemental research design, secondary data was employed and analysed using correlation and multiple regression techniques.	The results obtained established that cash flows from operating and investing cash flows had negative and insignificant relationship with profitability whereas cash flow from financing activities had positive and significant influence on firm performance in the oil and gas sector.	Oil and gas firms listed in NSE were used and this study was conducted in industrial goods company.
10	Mustapher (2020)	Cash management strategies and firm financial performance.	Comprehensive analysis of existing literature	The study suggests that a sound financial performance can be achieved through a hybrid approach and through adaptation and embracing innovations in cash management systems.	The study was conducted in Istanbul Turkey and this study was conducted in Nigeria.
11	Marus, Gilbert, Fabian, Bernard and Dennis (2019)	Cash management and financial performance of business entities in Lira District.	Cross sectional study design was adopted, purposive and stratified random samplings were used, both correlation and regression analysis was used.	The study found that the aforementioned practice were not sustainable with time due to incompetence in forecasting receipts and payments. The led to a conclusion that cash management has an insignificant effect on financial performance.	The study was conducted in business entities in Lira District, while the current study is in IGC in Nigeria.
12	Soenen and Aggarwal. (1989)	Cash and foreign exchange management practices in large	The study employed ratios of financial statement	It was concluded that if a firm carries too little cash, the costs of cash management will have	The study was conducted at large companies United

		companies located in the United Kingdom, the Netherlands, and Belgium.	analysis	higher expected value and, because they are uncertain, they may add to the firm's systematic risk.	kingdom, the Netherlands, and Belgium while the current study is in Nigeria.

Researcher compilation (2022)

2.4 Gap in the literature:

Based on the summary of empirical review above, previous studies in different countries focused on organizations such as; manufacturing firms, small and medium scale enterprises, banks, information and communication technology firms and insurance firms, but none of the empirical studies reviewed industrial goods companies in Nigeria.

Although studies have been done in related area, there are few that have addressed cash management strategies. It is for this reason that the researcher decided to undertake the research on cash management strategies and financial performance on quoted manufacturing firms using selected industrial goods companies in Nigeria as organisations of study.

III. METHODOLOGY

3.1 Research Design

The study adopts *ex post facto* research design based on the fact that the study relies on historical accounting data obtained from annual reports and accounts of the selected firms and it is conducted over five-year (2017-2021) period.

3.2 Population of the study

The target population used for this study consists of 13 quoted industrial goods companies that are listed on the floor of the Nigerian Exchange Group between 2017 and 2021, which are BUA Cement, Dangote Cement PLC, Lafarge Africa PLC, First Aluminium Plc, Austine Laz & Company Plc, Triple G & Company Plc, Notre Chemical Indus. Plc, Berger Paints PLC, Portland Paints, Premier Paints, CutixPlc, CAP Plc, and BETA Glass Plc.

3.3 Sample size and sampling technique

The sampling technique for this study is purposive sampling technique. The technique enhances selection of industrial goods firms that disclosed cash management strategies related information. The sample companies are: BUA Cement, Dangote Cement PLC, Lafarge Africa PLC, First Aluminium Plc, Berger Paints PLC, Portland Paints, Premier Paints, CutixPlc, CAP Plc, and BETA Glass Plc. This selection is based on the nature in which companies report on the cash management strategies and most importantly availability of the annual reports on the web over the period under study. The following include companies that met these criteria: *Berger Paints Nigeria Plc., BUA Cement Pl., Dangote Cement, Lafarge Africa Plc., Premier Paints Plc., First Aluminium, Portland Paints Plc, CutixPlc., Chemical & Allied Products(CAP), and BETA Glass Plc.*

3.4 Sources and method of data collection

The researcher used secondary data as the main sources of data for the study. The data is obtained from audited and published financial statements of sample companies selected for the study. The other relevant information for this study was drawn from various books, journals, magazines, and websites.

3.5 Identification and measurement of the variable

Identification and measurement of the variable consists of dependent variable and independent variable.

3.5.1 Dependent variable

The dependent variable in this study is financial performance (FP) measured using return on assets (ROA).The return on asset (ROA) as it relates to financial performance (FP) is given in the following model.

$FP_{kt} = ROA_{kt},$ ---------- (1)

Where:

FP_{kt} = The financial performance characteristics of financial reports for

industrial goods firm k in year t

ROA_{kt} = Return on assets for industrial goods firm k in year t

3.5.2 Independent variable

Cash management strategies form the independent variable and is measured using its components; cash balances strategies (CBS), cash conversion cycle strategies (CCC) and cash turnover strategies (CTS).Thus, the functional equation is stated as follows:

ROA_{kt} = $f(CBS_{kt}, CCC_{kt}, CTS_{kt},)$ ---------- (2)

= The return on asset of financial reports for industrial good firm k in year t

CBS_{kt} = Cash balances strategy for industrial good firm k in year t

CCC_{kt} = Cash conversion cycle strategy for industrial good firm k in year t

CTS_{kt} = Cash turnover strategy for industrial good firm k in year t

e_t = Error term in year t.

3.6 Model specification

Multiple Linear Regressions

The linear model for multiple-regression is expressed as follows:

ROA_{kt} = $\beta_o + \beta_1 CBS_{kt} + \beta_2 CCC_{kt} + \beta_3 CTS_{kt} + e_t$

Where:

$\beta_1, \beta_2, \beta_{3,,}$ = coefficients

β_o= Constant

ROA_{kt}= Return on assets for industrial good firm k in year t

CBS_{kt} = Cash balances strategy for industrial good firm k in year t

CCC_{kt} = Cash conversion cycle strategy for industrial good firm k in year t

CTS_{kt} = Cash turnover strategy for industrial good firm k in year t

e_t = Error term in year t.

3.7 Method of data analysis

Descriptive and inferential statistical methods were used to analyse the data in the study. The descriptive statistics is used to evaluate the characteristics of the data: mean, maximum, minimum and standard deviation and also check for normality of the data. Multiple regressions technique is adopted as inferential statistics, to determine whether a relationship exists between the cash management strategies and financial performance of industrial goods companies in Nigeria. The data for the dependent and independent variables is extracted from the financial reports with the aid of Microsoft Excel software.

3.8 Operationalization of the variables

Table 3.1

Measures	Category	Abbreviation	Formula adopted for the study	Apriori Sign
Cash and bank balances	Independent variable	CBS	Cash and bank balances / Current liability	+-
Cash conversion cycle	Independent variable	CCC	Inventory conversion period + debtors conversion period – payables conversion period	+-
Cash turnover	Independent variable	CTS	Net revenue / Cash and cash equivalent	+-
Return on assets	Dependent	ROA	Net profit/total assets	

Source: Researcher's compilation 202)

3.9 Decision rule

The decision rule for this study is based on the sign and significance of the computed *t-statistic* from the regression output. If the p value of the *t statistic < .05* (the chosen alpha level) the null hypothesis is rejected; alternate hypothesis accepted and, the variable is postulated to have a significant impact.

3.10 Limitations of the study

This study which used *ex post facto* research design was stark with limitation especially population which was subject to those that were listed on the floor of Nigerian Exchange Group and their financial report were published within the period under review.

IV. DATA PRESENTATION, ANALYSIS AND FINDINGS

4.1 Data Presentation

The data required for this study were; cash balance, profit for the year, inventory, cost of goods sold, sales, receivables, payables, and total assets. The data set were extracted from the annual reports of ten (10) listed manufacturing companies in Nigeria. The ten companies selected are firms belonging to block (group) of industrial goods companies listed on the Nigeria Exchange Group. These data were used to compute the variables of the study. The variables were cash balances strategy measured as cash and cash equivalent, cash conversion strategy measured as cash conversion cycle and cash turnover (independent variables) and financial performance measured as return on assets (dependent variable). The data computed variables are shown in (Appendix I).

4.1.1 Descriptive statistics of the variables

The descriptive statistics of the variables are presented in Table 4.1. The descriptive statistics were mean, median, maximum, minimum and standard deviation.

Table 4.1 Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
CASH BALANCE(N'000)	50	94.0	168387000.0	22051111.100	46218344.3536
CASH CONVERSION CYCLE (Days)	50	-2081.6773	230.9986	-73.851610	383.6703808
CASH TURNOVER (Times)	50	.5023	977.7660	43.734968	142.5815782
ROA (%)	50	-139.4609	45.6314	8.711179	26.0979594
Valid N (listwise)	50				

Source: Researcher's Computation (2023).

The minimum cash balance of the selected quoted industrial goods companies for the period 2017-2021 was ₦94,000 while the maximum value was ₦168,387,000,000. The average cash at bank of the selected quoted industrial goods companies for the period was ₦22,051,111,100. The standard deviation of cash at hand which shows the degree of dispersion was ₦462,183,443,536.

The minimum cash conversion cycle of the selected quoted industrial goods companies for the period 2017-2021 was -2,081.67days while the maximum value was 230.99 days. The average cash conversion cycle of the selected companies for the period was -73.85 days. The standard deviation of cash conversion cycle which shows the degree of dispersion was 383.67 days.

The minimum cash turnover of the selected quoted industrial goods companies for the period 2017-2021 was 0.50 times while the maximum value was 977.76 times. The average cash turnover of the selected quoted industrial goods companies for the period was 8.71 times. The standard deviation of cash turnover which shows the degree of dispersion was 26.09 times.

The minimum return on assets of the selected quoted industrial goods companies for the period 2017-2021 was -139.46 % while the maximum value was

45.63%. The average return on assets of the selected companies for the period was 8.711%. The standard deviation of return on assets which shows the degree of dispersion was 26.09%.

4.2 Data analysis

4.2.1 Test for assumptions of the least square regression model (OLS)

The various tests and analysis were carried out using a statistical package (SPSS) at 5% level of significance.

1. Test for Linearity

Table 4.2 represents the result of the test.

Table 4.2: LINEARITY TEST

			Sum of Squares	df	Mean Square	F	Sig.
RESPONSE* FACTOR	Between Groups	(Combined)	18234445017274708	3	6078148339091569	11.382	.000
		Linearity	10940610142493126	1	10940610142493126	20.487	.000
		Deviation from Linearity	7293834874781582	2	3646917437390791	6.829	.000
	Within Groups		104670632392756352	196	534033838738552.8		
	Total		122905077410031056	199			

Source: Researcher's Computation (2022).

This revealed that there exist a linear relationship between the dependent and the independent variables. This is true since the p- value of 0.000 was less than the significance level of 0.05 used in the test.

2. Test for Homogeneity of Variance

Table 4.3presents the result of the test.

Table 4.3: Test of Homogeneity of Variances

Levene Statistic	df1	df2	Sig.
41.965	3	196	.000

Source: Researcher's Computation (2022).

The table above showed that the variances are equal. The validity of the assumption holds because the Levene statistic of 41.965 was significant at 5% level of significance (p-value 0f 0.000<0.05).

3. Test for Normality

The result of the test is presented in Table 4.4 below.

Table 4.4: Test of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Stati stic	D f		Stati stic	df	
RESPONSE	.451	200		.230	200	.000

Source: Researcher's Computation (2022).

The two test statistic; Kolmogorov-Smirnov and Shapiro-Wilk were significant at 5% level of significance since the p-values for both statistic were less than 0.05 hence, the error terms associated with the variables were normally distributed.

4. Test for Autocorrelation

The result of the test is presented in Table 4.5 below.

Table 4.5: Model Summary and Autocorrelation[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.832[a]	.692	.672	14.94336	1.844

a. Predictors: (Constant), CTS, CBS, CCC

b. Dependent Variable: ROA

Source: Researcher's Computation (2022).

From the table above, the Durbin-Watson statistic of 1.844 was observed. It is necessary to note that the Durbin-Watson statistic of below 2.00, 2.00 and above 2.00 signifies the presence of positive autocorrelation, no auto correlation and negative autocorrelation. Hence, 1.844 by approximation means that there exists no serious autocorrelation,

5. Test for Multicollinearity

The result of the collinearity test is as captured in Table 4.6 below.

Table 4.6: Regression Coefficients and Collinearity Statistics[a]

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	CBS	.855	1.170
	CCC	.688	1.454
	CTS	.725	1.380

Source: Researcher's Computation (2022).

Using the Variance Inflation Factor (VIF), it noticed that the VIF values were all less than 5 which is the accepted region for the absence of collinearity. Values above 10 implies a stronger degree of collinearity among the independent variables which means the variables are dependent. Hence, the independent variables used in this work are truly independent in relation to the dependent variable.

The research hypotheses were tested in this section of the study. The test was carried out using Ordinary least square regression with the model specification shown below using SPSS software.

Table 4.7 Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.838[a]	.703	.683	14.691 1481	.917

a. Predictors: (Constant), CASH BALANCE, CASH CONVERSION CYCLE, CASH TURNOVER

b. Dependent Variable: ROA

Source: Researcher's Computation (2022).

Table 4.8 ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	23445.898	3	7815.299	36.210	.000[b]
	Residual	9928.172	46	215.830		
	Total	33374.071	49			

a. Dependent Variable: ROA

b. Predictors: (Constant), CASH BALANCE, CASH CONVERSION CYCLE, CASH TURNOVER

Source: Researcher's Computation (2022)

4.2.2 Test of Hypotheses

Table 4.9Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.280	11.271		0.114	0.910		
	CASH BALANCE	2.261	1.761	0.124	1.284	0.206	0.693	1.442
	CASH CONVERSION CYCLE	0.008	0.006	0.118	1.301	0.200	0.786	1.272
	CASH TURNOVER	0.129	0.020	0.707	6.615	0.000	0.567	1.765

a. Dependent Variable: ROA

Source: Researcher's computation (2022)

Hypothesis One

H_{01}: *Cash balance strategy does not have any significant relationship with return on assets of industrial goods companies.*

H_{11}: *Cash balance strategy has significant relationship with return on assets of industrial goods companies.*

The null hypothesis one states that cash balance strategy does not have any significant relationship with return on assets of selected industrial goods companies in Nigeria. Based on the decision rule of the study, the null hypothesis one of the study is accepted and the alternative rejected because the p-value of 0.206 shown in Table 4.9 is greater than 0.05. The null hypothesis is further accepted because the t-cal value of 1.284 is less than the critical value of t which was 2.000. Therefore, cash balance strategy does not have any significant relationship on return on assets of selected industrial goods companies in Nigeria.

Hypothesis Two

H_{02}: *Cash conversion cycle strategy does not have any significant relationship on return on assets of industrial goods companies.*

H_{12}: *Cash conversion cycle strategy has significant relationship with return on assets of industrial goods companies.*

The null hypothesis two states that cash conversion cycle strategy does not have any significant relationship on return on assets of selected industrial goods companies in Nigeria. Based on the decision rule of the study, the null hypothesis two of the study is accepted and the alternative rejected because the p-value of 0.200 shown in Table 4.9 is greater than 0.05. The null hypothesis is further accepted because the t-cal value of 1.301 is less than the critical value of t which was 2.000. Therefore, Cash conversion cycle strategy does not have any significant relationship on return on assets of selected industrial goods companies in Nigeria.

Hypothesis Three

H_{03}: *Cash turnover strategy does not have any significant relationship with return on assets of industrial goods companies.*

H_{13}: *Cash turnover strategy has significant relationship with return on assets of industrial goods companies.*

The null hypothesis three states that cash turnover strategy does not have any significant relationship with return on assets of selected industrial goods companies in Nigeria. Based on the decision rule of the study, the null hypothesis three of the study is rejected and the alternative accepted because the p-value of 0.000 shown in Table 4.9 is less than 0.05. The null hypothesis is further rejected because the t-cal value of 6.615 is greater than the critical value of t which was 2.000. The alternative hypothesis H_{13} is accepted. Therefore cash turnover strategy significantly influence return on assets of selected industrial goods companies in Nigeria.

Hypothesis Four

H_{04}: *Cash balance strategy, relative to cash conversion cycle and cash turnover strategy, does not relate with return on assets of industrial goods companies.*

H_{14}: *Cash balance strategy, relative to cash conversion cycle and cash turnover strategy, relate with return on assets of industrial goods companies.*

The null hypothesis four states that cash balance strategy, relative to cash conversion cycle and cash turnover strategy, does not relate with return on assets of industrial goods companies. Based on the decision rule of the study, the null hypothesis four of the study is rejected and the alternate accepted because the p-value of 0.000 shown in Table 4.8 is less than 0.05. The null hypothesis is further rejected because the F-cal value of 36.21 is greater than the critical value of F which was 2.80. Therefore, cash balance strategies, relative to cash conversion cycle and cash turnover strategy significantly relates with return on assets of selected industrial goods companies in Nigeria.

4.3 Discussion of Findings

The result of the analysis of hypothesis one indicates that cash balances strategy does not have any significant relationship with return on assets of selected industrial goods companies in Nigeria. The result of the analysis showed a beta coefficient for

cash balance of 0.124 which implies that 12.4% of the variation in financial performance is accounted for by cash balance strategy. The positive influence shows that the larger the volume of cash kept, the more likely for the firm to make profit. This finding suggests 12.4% of times that an industrial goods firm in Nigeria makes profit, the profit can be attributed to cash balances strategy.

The result of the analysis of hypothesis two indicates that cash conversion cycle strategy does not have any significant impact on return on assets of selected industrial goods companies in Nigeria. The result of the analysis showed a beta coefficient for cash conversion cycle of 0.118 which implies that 11.8 % of the variation in financial performance is accounted for by cash conversion cycle the positive influence shows that the larger the cash conversion cycle, the more likely for the firm to make loss. This finding suggests 11.8% of times that an industrial goods firm in Nigeria makes profit, the profit can be attributed to cash conversion cycle.

The result of the analysis of hypothesis three indicates that cash turnover strategy have significant impact on return on assets of quoted industrial goods companies in Nigeria. The result of the analysis showed a beta coefficient for cash turnover of 0.707 which implies that 70.7% of the variation in return on assets is accounted for by cash turnover strategy. The positive influence shows that the better the cash turnover strategy, the more likely for the firm to make profit. This finding suggests 70.7% of times that a industrial goods companies in Nigeria makes profit, the profit is attributed to cash turnover strategy. The finding is in line with the finding of Oladipupo and Okafor (2013) examined the implications of a firm's working capital management practice on its profitability and dividend payout ratio. The study focused on the extent of effects of working capital management on Profitability and Dividend Payout Ratio. Financial data were obtained from 12 manufacturing companies quoted on the Nigeria Stock Exchange over a 5 year period (2002 and 2006). Using both the Pearson product moment correlation technique and ordinary least square (OLS) regression technique, they observed that shorter net trade cycle and debt ratio promote high corporate profitability.

The result of the analysis showed an adjusted R-squared of 0.683for the analysis. This implies that 68.3% of the variation in return on assets is accounted for by cash balance strategy, cash conversion cycle and cash turnover strategies. This implies that the composite influence of cash management strategies on profitability is 68.3% in the industrial goods sector of Nigeria.

V. SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter focuses on the summary of findings, conclusion and recommendations. It also provides suggestions for further studies as well as the business implications of the findings.

5.1 Summary of findings

The following were the major findings of the study;

i. Based on the result of the analysis, cash balances strategy had a beta coefficient of -0.124. This implies that the cash balances strategy insignificantly affects financial performance in the manufacturing firms in Nigeria. This result is in contrast with Major and Azali (2022) their study found that, there is a positive and significant relationship between cash and bank balance and return on equity in deposit money banks in Nigeria.

ii. Based on the result of the analysis, cash conversion cycle strategy had a beta coefficient of 0.118. This implies that the cash conversion strategy insignificantly affects financial performance in the manufacturing firms in Nigeria which is in-line with Uwuigbe, Uwalomwa and Egbide (2011), The results of the empirical findings showed that there is a strong negative relationship between cash conversion cycle and profitability of the firms. In contrast with Kabiru, Aliyu and Usman (2019) Findings from the study revealed that cash conversion cycle has a negative significant relation with return on equity whereby positive significant relationship where found with return on Assets. The overall analysis indicates that cash conversion cycle (CCC) is positively and significantly related to the profitability of food and beverage companies in Nigeria. As CCC

reduces, ROA rises. Thus, CCC has a significant positive effect on ROA.

iii. Based on the result of the analysis, cash turnover had a beta coefficient of 0.707. This implies that the cash turnover strategy significantly influence financial performance in the manufacturing firms in Nigeria in effect of cash turnover ratio on return on assets (H1), the results showed that the cash turnover variable had a significant effect on ROA. In contrast with Eryatna, Nurafni and Handayawati (2021) the results showed that Cash turnover partially does not have significant effect on profitability:

iv. The result of the analysis showed an adjusted R-squared of 0.683 for the analysis. This implies that the composite influence of cash management strategies on profitability is 68.3% in the industrial goods sector of Nigeria.

5.2 Conclusion

Based on the result of the analysis it is concluded that cash balances strategy and cash conversion strategy relatively insignificant relationship on financial performance of industrial goods firms in Nigeria. But cash turnover strategies have positively and significant influence on financial performance of industrial goods firms in Nigeria. Based on the result of the analysis it can be concluded that cash management strategies jointly influence financial performance in manufacturing firms in Nigeria.

5.3 Recommendations

Based on the findings of the study, the following recommendations are considered worthwhile;

i. The management of the industrial goods firms should reduce their cash balances as this insignificantly affects financial performance.

ii. The management of the industrial goods firms should improve on their cash conversion cycle strategy as this will improve financial performance by reducing the time frame during which cash is tied down within the firms and also managers can create value by reducing the number of day's accounts receivables and inventory conversion ratio to a reasonable minimum.

iii. The management of the industrial firms should promote their cash turnover as this will significantly raise financial performance in Nigerian companies.

5.4 Contribution to Knowledge

The study has several academic contributions to the literature and more specifically to cash management. This study has extended prior research literature available on cash management strategies and financial performance of manufacturing companies in Nigeria.

It developed casual links between cash and cash equivalent with various categories of cash flow information which can be beneficial to managers in understanding actual effects of cash management on financial performance.

5.5 Suggestions for further study

Based on the results of this study, the researcher provides the following suggestions for further study

1. Further researchers are advised to increase the number of research samples so that more accurate and varied results can be obtained.
2. The object of research can be extended not only to industrial goods companies but to other types of companies in the manufacturing sector, real estate companies and property, banks, transportation industries and others.
3. The variables used in the study were limited to those peculiar in the area under study, also extant literature shows that other variables that affect the cash management strategies in the entire companies operating in an economy, further researchers are advised to add other independent variables that influence the value of return on asset (ROA) and Profitability.
4. Few findings seem to conflict with some earlier studies, this contradiction should therefore constitute an area for future research. Moreover, analysis of cash management strategies on financial performance of quoted manufacturing firms can be extended to neighbouring economies in African region.

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