Moderating Role of Managerial Ownership on the Effect of Cash Conversion Cycle and Receivable to Payable ratio on Firm Performance in Listed Industrial and Consumer Goods Companies in Nigeria

LAMBE, Isaac, Ph.D[1], ORBUNDE, Bemshima, Ph.D[2], TION, Williams A.[3], HARUNA, Dzugwahi[4]

[1,2,3,4]*Department of Accounting, Bingham University, Karu, Nasarawa State, Nigeria*

Abstract: **Cash management is an essential requirement for an organization to stay afloat. The liquidity position of such business entity can determine how it is being treated in the marketplace. Therefore, ensuring a shorter time lag between when credits are given and when they are converted back to cash is very important in working capital management. Receivable to payable ratio addresses the number of days a company will allow its money with customers in relation to what is allowed by the supplier. The purpose of this research was to investigate the relevance of accounts receivable and accounts payable management in publicly traded Nigerian firms engaged in manufacturing and retailing consumer and industrial goods. The sample of 26 listed Nigerian industrial and consumer goods businesses is from the Nigerian Exchange Group (NGX), and the data spans the years 2011 to 2021. The study utilized a correlation review and a multiple regression model to analyze the study's variables and their relationships post hoc. Researchers found that the correlation between the accounts receivable to accounts payable ratio and ROA was significantly tempered by the degree of ownership concentration. This suggests that the beneficial effect of the receivables-to-payments ratio on financial performance is mitigated by the degree to which ownership is concentrated. Instead, a slowed cash conversion cycle due to high ownership concentration has a favourable and negligible impact on financial results. The report suggests, among other things, that the management of listed consumer and industrial products firms in Nigeria cultivate a long-term connection with their suppliers to gain access to trade finance in a more convenient, swift manner, which would improve the companies' performance. The management should further put in place a very vibrant credit policy to help avoid any occurrence of poor account receivables.**

Keywords**: Cash Conversion Cycle, Receivable to payable ratio, Ownership Concentration, Return on Assets, Firm size.**

I. INTRODUCTION

Failure of businesses in times past has resulted from the inability of business managers to adopt effective management system that can enhance working capital. In fact, this practice is still prevalent among modern day managers which have placed their various organizations on the brink of bankruptcy. According to Egbide (2009), failure to institute control is still very much prevalent among managers in many organizations which results in high bad debts, which will negatively influence operating performance. Profitability of a company may not be a true reflection of working capital management. This will result in shortage of cash for operational activities. It then becomes difficult for the organization to meet its maturing obligations which may bring such organization to a sudden liquidation. (Eljelly, 2004). This possibility calls for management to employ a system of cash management that will put resources to the best use for positive firm performance.

Poor working capital management is a phenomena manager of businesses must be conscious of because it can lead to depletion of short-term assets which in turn can pose liquidity risk for the company (Rahman, 2019). In essence, decision on how much to be given out in credit and how long it takes to recover such amount should preoccupy the minds of managers. Excessive credit policy has the potential to reduce the firm's profitability. The longer the cash stays with debtors, the more difficult it becomes for creditors to get their fund. This may have a reputational effect on the credit rating of the company (Haruna, 2019). As a result, the company has to keep its working capital level at a healthy level to cover its day-to-day operating costs and its short-term obligations if it wants to remain profitable and grow.

Organizations are only assured of perpetual existence in the marketplace if they institute strategy that will ensure continuous profitability. Profitability hinges on optimal management of short-term assets (Aripin & Ishak, 2014). Management must therefore ensure that the organization stays relevant with their creditors and other investors through business image protection that is an offshoot of sound working capital management decisions (Gill & Bigger, 2013). Outcome of strategy will differ across different organizations even if the strategy is the same. Different business models subsist and can be responsible for these differences. Whatever strategy an organization intends to adopt, the aim must be to keep the organization in a comfortable zone in terms of liquidity and

profitability in the long run. Corporate finance concept focuses on using working capital management as a strategy to meet owners' value creation. Hence, short-term investment of organization should be matched with short-term financing (Rahman, 2019). Simply put, maximum returns to an organization are assured when current assets and current liabilities are efficiently managed (Filbeck & Krueger, 2005). The ability of a company to access free funds hinges on sustained efficiency (Gill and Bigger, 2013). Each component of working capital which includes strategy on credit management, cash conversion cycle etc., and their interrelationship must therefore be engaged optimally. (Abuzayed, 2012).

Ownership structure is a concept of interest in working capital management. According to Mandal and Goswami (2014), working capital varies from one firm to another in terms of size and nature, operating cycle, credit policy, production level etc. Owners must be aware of the status of the organization and properly create a structure that will allow the firm run systematically without an untamed altering by managers. Managers like every human have their personal interest and may at some point want to pursue them at the expense of the owners' value. Continuous engaging with the managers will serve a control on their activities and it will stimulate efforts towards achieving shareholders' wealth maximization. This study examines the role of owners in ensuring that credits and cash are efficiently managed to achieve improved performance for the organization.

Jensen and Meckling (1976) asserted that ownership structure is measured by the amount of capital contribution by investors in a company. Ownership structure has been taken from the angles of institutional, managerial, governmental etc., and the level of concentration. Ownership structure is the bedrock for this study and the area of interest is the ownership concentration. Could the result be different if there are more owners controlling the affairs of the organization? Number regardless, what does experience of owners count for in improving the firm's performance. In his study, Olanisebe (2019), averred that having institutional ownership structure can downplay the possible costs of agency and selfish goal pursuit by managers. However, Yarram (2013) suggested that managerial ownership should provide a better option for the management of working capital since the managers see themselves as part owners of the business.

This study aims to investigate the moderating influence of ownership concentration on the effect of cash conversion cycle and receivable-to-payable ratio in listed Industrial and Consumer Goods companies in Nigeria. The following hypothesis were developed in order to solve this issue:

H_{01}: Cash conversion cycle has no significant effect on firm performance when it is moderated by managerial ownership in listed industrial and consumer goods companies in Nigeria.

H_{02}: Receivable to payable ratio has no significant effect on firm performance when it is moderated by managerial ownership in listed industrial and consumer goods companies in Nigeria.

II. LITERATURE REVIEW

Conceptual Framework

Cash Conversion Cycle (CCC)

The term "Cash Management" refers to the process of planning and regulating a company's incoming and outgoing cash flows, as well as the company's internal cash flows and its current cash balances (Nyabwanga et al., 2012). Maintaining an optimal cash flow is the process of efficiently collecting, distributing, and investing an organization's funds (Parang, 2009). The term "cash" is used to describe the most liquid assets, such as currency on hand, money market accounts, and demand deposits (Mshelia 2016). To thrive and persist, a company needs access to cash. According to Mshelia (2016), the goal of cash management is to have an optimal cash balance in order to facilitate timely cash disbursements, timely cash collections, and the minimum possible locking up of money as cash balance. Atrill (2006) emphasised the need of forethought in cash flow planning and ongoing monitoring to establish the best cash to retain.

The efficiency with which working capital is managed may be quantified by tracking the cash conversion cycle. It's the period that passes between when money is spent on raw materials and when money is made from selling the final product (Mshelia, 2016). The longer it takes to collect payments from debtors, the greater the outlay of working capital must be. However, if the costs of increased investment in working capital rise faster than the benefits of granting more trade credit to customers, the longer the cash conversion cycle, the lower the corporate profitability. This is because the longer the cash conversion cycle, the greater the likelihood that sales will be paid for in cash (Lakshan, 2009).

Receivable to payable ratio

Activity ratios like the accounts receivable/payable ratio are used to get a general idea of how well a firm is managing its assets. The correlation between sales and a certain asset is quantified by these ratios. They reveal the relationship between a company's investment in a certain class of assets and the income those assets provide. The efficiency and productivity of your investments may be gauged by looking at your "activity ratio."

Because of their significance in the company's cash cycle, trade receivables and payables receive a lot of attention. In the same way that not all expenses are paid in the same period in which they are spent, not all income made in a particular time is collected in the same period. To put it simply, trade receivables are the cash sums owed to a business by its customers for products and services provided. Contrarily, trade payables are due monetary sums to other parties like vendors or clients. Profitability relies on a company's ability to effectively manage its day-to-day operating cash cycle. When the accounts receivable days are less than the accounts payable days, cash is

coming into the firm more quickly from clients, and vice versa. Short-term working capital limitations arise when a company must pay its debts before it is paid by those debtors.

Turnover in accounts receivable measures how often debts are collected annually. It is calculated as the sum of all receivables divided by the total sales (Nweze, 2011). A high turnover rate in accounts receivable is indicative of effective debt management due to timely client collection. An organization's accounts receivable turnover may slow down in several situations. This suggests there has been a snafu in the way debt has been handled. This calls for an examination of the company's present credit policy. In contrast, the average collection time measures how long it takes for debtors to pay back what they owe. The turnover ratio for accounts receivable provides insight into the speed with which customers are making payments and should roughly reflect the terms of credit extended by the company (Adeniyi, 2008). As a percentage, it measures how many times accounts receivable are turned over in a year. The longer the interval until payments must be collected, the greater the risk of default if no action is done. Credit control rules, credit collection techniques, and sales strategies may all need to be evaluated in light of these warning flags (Enekwe, 2015). Managers of commercial enterprises need to be concerned with whether or not they are selling to financially stable clients.

The turnover ratio for Payable is the annualised rate at which the company's annualised revenue is paid out (Okwuosa, 2005). An increase in the payable turnover ratio, as stated by Enekwe (2015), indicates that the firm is not making use of the credit facility, which might lead to a loss of earnings due to interest on borrowed money. Once again, a low ratio of payables turned over to total sales indicates that the firm is not taking full advantage of the discounts available for quick payment, which might result in a rise in the cost of sales and a corresponding decline in profit. Managers should aim for a neutral appropriable turnover ratio in their working capital management strategies. The speed at which Accounts Payable is turned over is indicative of a company's bargaining power in the purchasing market (Leahy, 2012). How this factor affects profit margins is conditional on the kind of the company's funding. Profitability decreases when the ratio rises when accounts payable are funded by borrowing money, whereas it grows when the money comes from the company's own retained earnings.

Managerial Ownership

Conflict of interest between managers and owners of business has been a recurring event that has given rise to the concept of agency theory (Jensen & Mecking, 1976). The percentage of stock held by management, including executive and non-executive directors, who actively engage in business decisions, is known as managerial ownership. According to Nugraha et al. (2021), managerial ownership, where the manager also serves as a shareholder, allows managers to control the company and determine what strategies and policies the company will adopt. Managers are now co-owners of the business hence the conflict between managers and owners will be reduced. It is also imperative to note that managers have dual interest in the business which will have the tendency of impacting financial performance (Kumar et al., 2021). Research on the impact of managerial ownership is necessary for validating or generating new questions about the impact of working capital management on business performance.

Firm Performance

According to Omar and Zineb (2019), thriving businesses are essential to the progress of underdeveloped nations. To many economists, they function similarly to an engine in shaping a country's economic, social, and political trajectory. Every company needs to be performance-based to make it in today's business world. Strategic management studies increasingly employ business performance as a dependent variable because of its growing importance. Despite being widely discussed in the academic world, scholars disagree on how to define and measure it. Since there is no agreed-upon operational definition of business performance among academics, many individuals will provide their own interpretations. Siminica (2008) argues that a successful business is one that is both efficient and effective. As a result, effectiveness and efficiency are two covariables that influence output. According to Colase (2009), "performance" is a "bag-word" since it encompasses a wide range of concepts beyond just "performance," including "growth," "profitability," "return," "productivity," and "efficiency." According to Bartoli and Blatrix (2015), defining performance should involve things like piloting, evaluating, being efficient, being successful, and having high quality. Ittner and Larcker (2003) highlight common blunders made by businesses when attempting to quantify intangible aspects of performance, such as: 1) Misalignment of Measurements and Strategy: Determining which non-financial measures are necessary is a significant difficulty for businesses. Companies often fail to verify the model, which results in the measurement of many items, the vast majority of which are unnecessary. Thirdly, inadequate goal-setting and evaluation methods. Fourthly, inaccurate measurements are widely used by businesses, even if they have been shown to be inaccurate. According to Tangen (2004), many businesses are still using obsolete quantitative financial performance measuring methods. The performance indicators are classified by Man (2006) into four groups: monetary, non-monetary, tangible, and intangible. A performance measurement system, as described by Gimbert et al. (2010), is "a clear and specified collection of measures (financial or non-financial) that supports the decision-making process of an organization by collecting, processing, and evaluating quantified data of performance information." Organizational and financial success can be gauged by metrics including growth, profitability, and customer satisfaction (Nnubia, et al. 2017). Profitability is not the same thing as profit in terms of a company's performance. To put it simply, a company's profitability is the extent to which it is able to turn a profit during a specific time period, usually a calendar year (Huynh, 2011). According to Bodie, Kane, and Marcus (2004), there are five types of profits that are useful for

different situations: gross profit, operational profit, profit before interest and tax (PBIT), profit before tax (PBT), and profit after tax (PAT). According to Idiko and Tamas (2009), a company's profitability may be described as a ratio reflecting the rate of certain profit relative to other variables (such as total assets, equity, non-financial assets, gross profit, investment, net capital utilized, and so on). Because of this, Profitability is expressed as a percentage equal to one hundred (100%) times the ratio of profit to the base measurement. Profitability, growth, market value, customer satisfaction, employee satisfaction, environmental audit, corporate governance, and social performance are the nine determinants or dimensions of a performance model developed by Selvam, Gayathri, Vinayagamoorthi, and Kasilingam (2016). As they each measure distinct aspects of a company's performance and are weighted differently by various interested parties, these factors or dimensions cannot be seen as synonyms. We utilised ROA as a proxy for the profitability of an enterprise relative to its total asset investment (Babalola, 2013). A company's profitability is quantified by calculating its Return on Assets (ROA) ratio, which is calculated as its profit divided by its total asset value. It is typically determined by dividing the net income of a corporation by its total assets. A company's return on its assets (ROA) may be calculated by dividing its net profit after taxes by its total assets, as explained by Babalola (2013).

Return on Assets

A company's profitability is measured in relation to its total assets by a performance indicator called return on assets. It is a measure of a company's efficiency that compares its operating profit to its total capital expenditures. Raising the ROI shows management is making good use of the company's assets.

Businesses use ROA when making multi-period comparisons of performance or when looking at similar firms in the same industry (Marshall et al., 2022). It is common practice for financial analysts to use ROA as a benchmark for organizational effectiveness. For investors, the statistic is significant since it provides a yardstick by which to evaluate competing businesses. The ratio of a company's profit to the amount it spent on its assets is known as its return on assets. As a corollary, this suggests that a company's success and efficiency are directly tied to its return on assets. The ratio of net income to total assets (ROA) serves as the dependent variable in our research.

Firm size

The size of a company is a key indicator of its features in corporate finance. We lack a definitive guideline for sizing. The impact of scale on profitability has yielded conflicting findings. Different samples, industries studied, time periods covered, and the state of the economy at any given point in history all contributed to these diverse findings. Therefore, both theoretical and empirical explanations are required. Chongyu et al. (2017) use Bauman and Kaen's (2003) The Rise and Fall of Great American Cities for explaining how technical, organizational, and institutional theories may assist clarify the idea of company scale. Organizational theory associates firm size with things like transaction costs, agency fees, and spans of control; institutional theory attributes it to things like laws, antitrust policies, patent protection, market size, and the growth of financial markets; and finally, technological theory frames firm size in terms of the production process, placing an emphasis on physical capital and economies of scale and scope. Various theories provide different insights based on this variable, therefore it's impossible to say if the size of a company has a positive, negative, or nil effect on its profitability (Chongyu et al, 2017).

III. EMPIRICAL REVIEW

Accounts receivable and accounts payable may have a significant effect on a company's bottom line, as Saageeta and Monika (2021) explained. The researchers looked at 193 Indian small-cap manufacturing firms listed on the Bombay Stock Exchange (BSE) between 2011 and 2019 to determine how much issuing and receiving trade credit affected the firms' financial performance. Statistical methods including regression and correlation as well as the Granger causality test and the Levin, Lin, and Chu Unit root test have been employed to analyze the data. This result backed the hypothesis that AR had an impact on AP. Accounts payables were shown to have a negative and considerable impact on profitability while having a negligible impact on the value of the organization. According to the findings, improving a company's profitability and value may be accomplished through the strategic use of accounts payable that is informed by the efficient administration of accounts receivable. There is a geographical chasm between the research and the Nigerian economy because it was done in India.

Olanisebe studied the practises of downstream oil and gas firms in Nigeria that are publicly traded with regards to their working capital management (2019). Using a panel data technique, this study looked at eight (8) separate Nigerian enterprises between the years 2005 and 2017. The study stands out because it investigates a little-studied area: the overlap between high levels of concentration of ownership, high levels of managerial shareholding, and institutional ownership. The tenets of corporate finance served as a foundation for this exploratory research. Based on the Cash Conversion Cycle, an indicator of effective working capital management, the study demonstrated an inverse relationship between high levels of ownership concentration and effective working capital utilisation. The researchers argued that enterprises should uphold and promote the owner's equity code if they want to last for the long haul. They contend that this is the case because owners' financial interests may serve as a check and balance to enhance corporate governance, which in turn improves the management of working capital.

Working capital has been shown to have a significant impact on a company's bottom line, but Shams et al. (2019) sought to determine the function of management and institutional ownership in mitigating this relationship. Research focused on the years 2011-2015 and included a random sample of 77

businesses. By using a fixed effect model, we found that leverage, average collection period, and quick ratio all have a negative impact on firm performance, whereas current ratio, account payable, and inventory turnover all had a favorable impact. Although the author makes an effort to explain the function of ownership structure in regulating managers' behaviors, their focus is narrowed to just two aspects of ownership structure—management and institutional ownership—and these are examined separately. Institutional ownership was found to improve the impact of working capital on business performance, while management ownership had the opposite effect. Therefore, it was suggested that proprietors participate in the prudent administration of scarce assets in order to maximize profits.

Work by Zalaghi et al. (2019) examined the impact of moderating business variables on the correlation between effective working capital management and financial success. They utilized a convenience sample of 65 businesses to look at trends from 2011-2015. Leverage, average collection period, and quick ratio were shown to have a negative association with firm performance using the fixed effect model, whereas current ratio, account payable, and inventory turnover were shown to have a positive, significant influence on firm performance. Furthermore, institutional ownership favorably influenced working capital management and company performance, whereas managerial ownership negatively influenced performance. The study concluded that managers should take greater responsibility for allocating scarce resources in order to boost profits. Having a healthy balance between the amount of ownership held by managers and the rest of the company's employees is also encouraged. The effects of Working Capital Management on Firm Performance across a Variety of Organizational Life Cycles were studied by Mohammed et al. (2016). This study uses data from the Pakistan Stock Exchange and looks at 45 non-financial companies from 2006 to 2015. Cash conversion cycle is utilized as an independent variable to evaluate working capital management, whereas return on assets is used to evaluate the firm's performance. In the study's rapid development and early maturity phases, the cash conversion cycle was shown to have a negative correlation with performance, whereas it was found to have a favorable association with late maturity and revival. Therefore, it was suggested that, to boost performance, a company shouldn't use the same strategy to manage its working capital across all phases of the organization's life cycle. However, each company will have its own unique set of policies and procedures for handling its working capital, and these will be developed in accordance with the specifics of the industry in which it works. The research also leaves a 7-year void, both institutionally and geographically, so future studies are planned.

The impact of accounts receivable management on the financial performance of Kenyan enterprises receiving government venture funding was investigated by Kilonzo et al. (2016). All 24 companies in Kenya that received funding from the government's venture capital program were included in the research. Due to the low population density, a census method was utilized to select this sample. Both theoretical and empirical works on AR management were reviewed. Questionnaires were utilized to get primary data for the independent variables, while record survey sheets were employed to gather secondary data for the dependent variable. It was analyzed in both a descriptive and inferential fashion. The research was analyzed using SPSS 20.0, a statistical program designed for the social sciences. Hypothesis testing was performed using analysis of variance (ANOVA) and regression analysis. From what was able to be gleaned from the data, it seems that organizations' financial performance improves as their accounts receivables increase. The research concluded that if company managers used sound credit practices, it would help with the effective administration of accounts receivable and, in turn, the company's financial success. However, as primary sources were used, the findings should be interpreted with caution. Similarly, it spread beyond Nigeria.

In 2015, Ikechukwu and Duru looked at how the accounts payable ratio affected the profitability of Nigerian manufacturing companies. Records were examined during a 12-year span from 2000-2011 using an ex post facto research approach. Interest payable, accounts receivable, return on total assets, debt, and revenue are examples of such variables. The research used a multivariate regression analysis to deduce results. The information was collected from the firms' most recent annual reports. The results indicated a negative and statistically significant relationship between the accounts payable ratio and the profitability ratio. The findings of the study indicate that the counterfactual hypothesis be rejected, indicating that the accounts payable ratio has a negative but significant impact on profitability. It has been suggested that management concentrate their efforts on figuring out what it is that works in terms of controlling their net working capital. However, this research mainly included manufacturing companies, leaving a void in the institution. Moreover, given the 10-year time lag, the study's findings are irrelevant to the economy as it is now.

Working capital management (WCM), family ownership, and board size were all factors that Tsagem et al. (2015) investigated as they looked at the profitability of SMEs in Nigeria. The research looked at the financial statements of 47 SMEs between the years 2008 and 2012 using a panel data regression analysis. Profitability of small and medium-sized enterprises (SMEs), as measured by gross operating profits, was shown to be negatively correlated with account receivables and payables periods, cash conversion efficiency, and ownership structure. These findings are consistent with those of other studies which have found that the ownership structure of a company, as measured by its share of capital contributions, is a crucial factor in determining the company's success (Yusoff et al., 2013). However, the study's authors argued for a more authoritarian ownership structure with tight supervision over the executive team.

Soekhoe (2012) found a negative significant association between the cash conversion cycle and business profitability in

his investigation of the relationship between working capital management and firm performance in Dutch listed enterprises. Seventy businesses were chosen as a representative sample for the years 2006-2010. The cash conversion cycle stood in for the management of working capital, while return on assets stood in for profitability. This study, like others, found an inverse correlation between the two factors. In order to increase profits, it was suggested that management discover ways to stimulate demand, which would reduce the holding period.

Ogundipe et al. (2012) found a negative correlation between the cash conversion cycle and company success while studying the relationship between working capital management, firm performance, and market value in Nigeria. We analysed information from 54 distinct publicly listed Nigerian companies from 1995 to 1999. According to the research of Falope and Ajilore (2009), among Nigerian public firms, there is a statistically significant inverse connection between the length of a company's cash conversion cycle and its net operating profit. Fifty Nigerian enterprises served as the sample for this study, and data from all of them was evaluated using a multiple regression model.

There is a correlation between a company's working capital and its profitability, according to a study conducted by Ahmadi et al. (2011) on public firms in Tehran. He looked at information from 33 firms at random between 2006 and 2011. Using regression analysis and Pearson correlations, we discover that the cash conversion cycle is negatively related to net operating income. Similar conclusions were reached by Raheman et al. (2010) and Quayyum (2012) in their analyses of working capital management and company performance in Pakistan listed businesses; both reported a substantial inverse link between cash conversion cycle and firm profitability. According to the paper, in order to avoid wasting resources on stock, management should strive toward establishing a strong plan for the management of inventories.

Karaduman et al. (2011) examined the impact of efficient working capital management on the bottom line of many firms listed on the Istanbul Stock Exchange between 2005 and 2009. Using panel data, the authors of this study evaluated the correlations between variables. Profitability was measured using return on assets (ROA), while the cash conversion cycle was used to measure the efficiency of working capital management. According to the findings, lowering the CCC has a beneficial effect on profits. He concluded that the time it takes to convert inventory into cash may be reduced by adopting a more accurate pricing structure and guaranteeing high-quality product delivery.

IV. THEORETICAL REVIEW

Pecking Order Theory

Where it is not well handled, information asymmetry is a powerful instrument in the hands of management. The Pecking Order Theory describes how much knowledge managers have about a company. Myers Stewart and Nicolas Maljuf popularized the hypothesis in 1984. The notion of the pecking order is founded on the principle of asymmetric information. When one side to a transaction has more information than the other, a power imbalance known as asymmetric information or information failure exists. Corporate management may know less about the company's performance, prospects, risks, and future outlook than external users like creditors (debt holders) and investors. Due to the information gap, external customers want a higher rate of return to offset the risk they are taking. Due to the increased risk associated with the lack of insider knowledge, investors want a better return when using outside capital. Pecking Order Theory, as discovered by Padachi (2006), considers information asymmetry, which indicates that managers know more about the firm's worth than potential investors. This knowledge gap affects the choice between internal and external investment. Pecking Order Theory, as outlined by Kessevin (2006), suggests that businesses would rather raise money from their own resources than from outside investors, and if they must go to the market for capital, they would rather issue debt than shares.

According to Mshelia (2016), a company's ownership structure is set by the type of finance it uses. Since domestically generated resources incur no transaction costs, and since issuing new bonds tends to sign good information about the firm while issuing new stocks tends to indicate negative information, Mshelia (2016) cites the work of Nakamura et al., (2007). In fact, the submission provided support for the view of (Myers and Majluf (1984) that information asymmetry decreases the price of new bonds to be issued and, as a result, increases transaction costs in the capital markets. Graham and Harvey (2001), as cited in Haruna (2016), argued that companies will only seek external funds when internal funds are insufficient.

The Risk –Trade off Theory

A business management principle that connects risk with reward is the risk-return trade-off. Owners are unlikely to take high risk, they are more risk averse. The theory explains the benefits accruing to being a risk taker. The more risk taken, the higher the reward accumulated. In 1984, Myers Stewart employed it to describe the tax-bankruptcy perspective of investors. Risk-return trade-off is majorly influenced by the risk culture of investors, and future expectations which could include near-retirement syndrome. Having an appropriate risk and reward from combination of investments in a portfolio requires time; however, where investors are unwilling to take risk due to uncertainty, the result is low level reward.

In keeping with the hypothesis, Kamau and Ayuo (2014) argued that increasing a firm's net working capital reduces the chance of the company failing to satisfy its growing obligations. According to Ross (2009), this will result in a decrease in the firm's total profitability. Working capital management, according to them, is the heartbeat of a firm in operating its daily operations and boosting performance since it entails the conversion of current assets into cash for payment of operational costs. This may not provide as much profit in the near run, but it will assure the sustainability of corporate

operations, giving the organization a competitive advantage in the marketplace.

According to Nwidobie (2012), no firm will choose to take on greater risk unless it is paid with additional profits. The risk-return trade-off hypothesis agrees with the variables cash and creditor since the firm's capacity to pay off all creditors has a negative impact on the cash position and tends to diminish profit. As a result, managers must create a balance between these two perspectives. It is considered that managers make decisions in order to maximize shareholder wealth, which includes decisions about working capital. As a result, working capital choices are defined by a risk-return trade-off that takes liquidity risk and opportunity loss risk into account (Adamu, Onwe, and Caroline) (2008).

Agency Theory

Agency theory, a paradigm developed by Jensen and Meckling and widely used since 1976, is used to identify and manage difficulties in the relationship between corporate executives and their agents. Usually, the shareholders act as the principals, while the executives of the company act as the agents, under this arrangement. To satisfy their own desires, managers may act in ways that are harmful to the company and its stakeholders (Huang, 2011). He would deliberately withhold information that might be useful to investors in order to facilitate managers' pursuit of his own self-interest. Managers having more access to information than owners is an example of information asymmetry, as stated by Fields, Lys, and Vincent (2001). This happens when the agent has access to more information than the principal does (Jensen & Meckling, 1976). Such interactions give rise to the principal-agents problem, which is the focus of agency theory. It argues that managers often act in a self-interested and opportunistic manner (Davis, Schoorman & Donaldson, 2018).

This analysis is based on the agency hypothesis. The idea rests on the premise that the agent (expert administrators or board members) will act in the principal's best interests while handling the assets entrusted to them (the shareholders). Because managers and directors are trusted with the authority to make decisions on behalf of the corporation, this study is grounded in agency theory. Now, managers are in charge of this responsibility, which lines up with the claim made by Kamau and Ayou (2014) that businesses with a sizable amount of cash invested in working capital rely heavily on a diverse set of short-term payables. Delaying payments to vendors gives businesses an opportunity to assess the quality of the goods they've acquired while also providing a flexible and low-cost finance option. A company's ability to pay its suppliers late can be both a convenient and inexpensive source of financing, depending on the terms of the discount offered for prompt payment.

V. METHODOLOGY

Due to the immutability of the information found in the financial statements and annual reports, the researcher employs an ex-post facto research technique in conducting the study. This study analysed the relationship between cash conversion cycle length, receivable to payable ratio, and firm performance of publicly traded Nigerian manufacturers and retailers of industrial and consumer goods using a non-experimental research design, with the moderating effect of ownership structure. Positivist research theory was applied, which holds that both the world and the researcher may be considered objective (we should not go beyond d what we can observe). That is to say, in order to attain law-like generalisation, data was gathered, hypotheses were generated, and they were tested. The sample size is 26, and the time period covered by the data is from 2011 to 2021; these companies trade on the Nigeria Stock Exchange and produce Industrial and Consumer Goods. The research relied on information from the companies' publicly available annual reports. A multivariate correlation method was utilised to analyse the combined data, and the level of relationship was presented as a correlation coefficient.

Return on Assets is used as a surrogate for company performance. However, the time it takes for cash to change hands and the accounts receivable to accounts payable are the independent factors. The cash conversion cycle is the relevant variable here. What sets it apart is the fact that it provides a concrete indicator of how well a firm handles its working capital. The theoretical framework of the investigation is as follows:

Model Specification

In order to test the hypotheses formulated in this study and to achieve the objectives of the research, we followed the approach of Shams et al (2019), by adopting the following models;

Model 1

$ROA_{it} = \beta_0 + \beta_1 CCC_{it} + \beta_2 RTCC_{it} + \beta_3 FSIZ_{it} + \varepsilon_{it}$ equation (1)

Where,

ROA: Return on Assets

CCC: Cash Conversion Cycle

REPA: Receivable to Payable Ratio

FSIZ: Firm Size

β: Interception of the equations;

Ɛ: The error term.

Model 2

$ROA_{it} = \beta_0 + \beta_1 CCC*MO_{it} + \beta_2 REPA*MO_{it} + \beta_3 FSIZ_{it} + \varepsilon_{it}$ .....equation (2)

Where,

ROA: Return on Assets

CCC*MO: Cash Conversion Cycle *Managerial Ownership.

REPA*MO: Receivable to Payable ratio*Managerial Ownership

FSIZ: Firm Size

β: Interception of the equations;

Ɛ: The error term.

Table 1: Table showing measurement of variables

Variable	Nature	Measurement	Source
ROA	Dependent	Return on assets is a performance indicator identical to ROE, which is calculated by dividing profit after tax by total assets of the firm It measures how successfully the firm manages its available resources and assets to maximize profits.	Ararat 2003 and Bostanci 2010
CCC	Independent	Working capital management was evaluated using a metric called the cash cycle, often known as the cash conversion cycle (CCC). The amount of days a company must wait to collect on sales after receiving raw materials (number of days of inventory plus number of days of accounts receivable minus number of days of accounts payable). Numerous studies have employed the cash conversion cycle, which includes working capital components pertinent to operational processes such as purchasing, manufacturing, and sales.	Atrill 2006; Gilman, 2009; Parang 2009 and Nyabwanga et al., 2012
PAYD	Independent	This is the proportion of trade payables relative to cost of goods sold times 365 days.	Gitman, 2009; Birt et al. 2011 and Haruna 2016
RECD	Independent	This measures the trade receivables as a ratio of revenue multiply by 365 days.	Feletiliki 2011; Kulkanya 2012; Haruna, and Mshelia, 2016
FSIZ	Control	Log (Total Assets).	Gill, 2011; Salawu, 2014; Onalapo & Kajola, 2015 and Qurashi & Zahoor, 2017
MO	Moderator	Managerial Ownership in percentage is computed ad directors direct and indirect shares divided by outstanding shares.	Zalaghi et al. 2019 and Financial Regulations, 2019 (As amended)

Source: Researcher Compilation 2022

VI. RESULTS AND DISCUSSION

This section discusses the findings and the interpretation of the results.

Table2: DescriptiveStatistics

stats	roa	repa	cacc	fsiz
N	260	260	260	260
mean	142740.9	6.4004	194.572	7.2661
sd	2301936	17.4161	223.7991	.9876
variance	5.3012	303.3206	5008.601	.9754
min	-1923.49	-179.92	7.15	5.24
max	540.07	108.9	2070.08	9.31
skewness	16.0313	-3.9014	4.7633	-.1008
kurtosis	258.0039	56.9375	32.0207	2.0807

Source: STATA 14 Output Results based on study data

The average ROA of Nigerian consumer and industrial products companies listed on the Nigerian stock exchange was N142740.9 in Table2, with an SD of 2301936 and a variance of 5.3. As seen below, there is a large dispersion of the data around the mean, with a standard deviation of N2301936 for the ROA of the sampled enterprises. The lowest and maximum values for the ROA are N1923.49 and N504, respectively. A coefficient of 16.031 indicates that the bulk of the ROA data is to the right of the normal curve, indicating a positively skewed distribution. As the kurtosis coefficient of 258.0039 is beyond the expected range of 0 to 1, the -N1419.49 spread might be interpreted as evidence of an abnormal distribution. The table shows that the average REPA of listed Nigerian consumer and industrial goods enterprises was 6.4004, with an SD of 17.4161 and a variance of 303.32. That the sampled firms have a REPA that is N17.4161 standard deviations from the mean shows that the data is extremely dispersed around the mean. The range of REPA is -179 to 108, with a mean of 108 and a high of 288.82. There is a negative skewness (coefficient = -3.90148) in the REPA data, suggesting that the vast bulk of the values lie to the left of the mean. With a kurtosis of 56.9375 and a greater standard deviation of 288.82, we may infer that the data were distributed in an atypical fashion. Cash conversion cycle (CACC) averaged 194.57 days for the businesses under study throughout the study period, with a standard deviation of 223.79 days and a variance of 508.60 days. This implies that the data is very dispersed about the mean, with a CACC that is 223.57 standard deviations above and below the mean. The CACC has a range of 263 days, with a minimum of 7 days up to a maximum of 270 days. The coefficient of skewness for CACC data is 4.7633, which indicates that the data is more heavily concentrated in the right-hand tail of the distribution. As the kurtosis coefficient of 32.0207 shows, the data were abnormally spread out, which accounts for the large 263-day variation.

Furthermore, Table1 displays a mean FIRM SIZE of 7.2661 for the sampled enterprises, with an SD of 0.9876 and a VA of 0.9754.

This reveals that FIZE is 0.99 standard deviations off the mean, showing that the data is very dispersed around the mean. The smallest and largest possible FIZE values are 5.24 and 9.31, respectively, giving a sum of 4.07. The FIZE data was -1008154-coefficient negatively skewed, indicating that the vast bulk of the data is to the left of the normal distribution. The wide spread of 4.07 may be explained by the fact that the data were not normally distributed, as indicated by the kurtosis value of 2.0807. The kind and level of dispersion of the data used in this study indicate that it is neither normally distributed nor skewed. Therefore, diagnostic procedures were needed to establish whether or not the information was abnormal.

Table 3: Results of Shapiro-Wilk(W)Test for Data Normality

Variable |	Obs	W	V	z	Prob>z
roa	260	0.0358	181.010	12.118	0.00000
repa	260	0.6211	71.120	9.941	0.00000
cacc	260	0.5475	84.657	10.345	0.00000
fsiz	260	0.9743	4.834	3.673	0.00012

Source: STATA 14 Output Results based on study data

The Shapiro-Wilk (W) test was performed to determine whether or not the study's data follows a normal distribution. The test was performed on a normally distributed population variable. The goal of this experiment was to determine if data are distributed normally at the 0.05 level of significance. Table2 displays the findings of the tests.

According to Table3, ROA has a Z-value of 12.118, a P-value of 0.00000, and a W test coefficient of 0.03583. The degree of confidence in the test is 95%, while the level of significance is 5%. Thus, the research confirmed the absence of a normal distribution for ROA data and disproved the existence of a normal distribution for ROA data. As for the REPA data, the W test coefficient was 0.6211, the Z-Value was 71.120, and the P-Value was 0.00000, meaning the test was significant at the 5% level with a confidence level of higher than 95%. As a consequence, the study agreed with the null hypothesis that REPA data are not normally distributed, while disagreeing with the alternative hypothesis that they are. Furthermore, the Z-Value for CACC was 10.345, and the P-Value was 0.00000, therefore the W test coefficient of 0.5475 was also statistically significant (5% level).

Therefore, the study agreed with the null hypothesis that CACC data do not follow a normal distribution and disagreed with the alternative hypothesis that CACC data do follow a normal distribution. Thus, the study agreed with the null hypothesis that FIZE data is not normally distributed and disagreed with the alternative hypothesis that FIZE data is regularly distributed. It has been shown through testing that ordinary least squares (OLS) is inappropriate for use in regression analysis. Therefore, robust regression analysis is required in the models employed in this study.

Table 3 displays the results of the correlation between working capital proxy variables and pre- and post-moderation financial performance. There are Pearson's r values for every possible pair of variables. An illustration of the correlation matrix is shown in Table 3. Below:

Table 4: Correlation Matrix

	roa	repa	cacc	repamo	cccmo	fsiz
roa	1.0000 |					
repa	0.3664	1.0000				
	0.0000					
cacc	-0.6768	-0.2904	1.0000			
	0.0000	0.0000				
repamo	-0.1079	0.0296	-0.1495	1.0000		
	0.0824	0.6347	0.0160			
cccmo	-0.0577	-0.2397	0.9870	-0.1056	1.0000	
	0.3537	0.0001	0.0000	0.0894		
fsiz	-0.1107	0.1759	-0.0751	0.2278	0.0621	1.0000
	0.0748	0.0044	0.2284	0.0002	0.3186	

Source: STATA 14 Output Results based on study data

As can be seen in Table 4, there is a strong positive relationship between ROA and REPA. The value of the correlation between these two variables is 0.3664. The results showed a positive relationship between ROA and REPA, with a correlation coefficient of 0.3664, indicating that a one-unit increase in REPA increases ROA by 0.3664 units, and vice versa; the results also showed a negative relationship between ROA and CACC, with a correlation coefficient of -0.6768 indicating that a one-unit increase in CACC decreases ROA by 0.6768 units, and vice versa; this was statistically significant at the 5% level A substantial negative relationship of 0.1079 exists between ROA and the receivable payable ratio when REPAMO is used as a moderator; this means that a unit increase in REPAMO predicts a unit decrease in ROA, and vice versa. Additionally, the data illustrates that there is a negative correlation between return on investment (ROI) and cash conversion cycle (CACC), which is insignificant at 5% when tempered by management ownership (CACCMO). Throughout the study period, the correlation coefficient between CACCMO and ROA of Nigerian listed consumer and industrial products enterprises was -0.0577, showing a negative association between the two.

Table 3 also shows a small, insignificant negative association between ROA and FIZE of the analysed firms during the research period. A good example of this is the -0.1107 coefficient. Since a one-unit increase in FIZE results in a 0.1107-unit decrease in ROA, we may conclude that FIZE has a negative effect on ROA for Nigerian listed consumer and industrial companies during the time period.

Table5: Results of Multi collinearity/VIF Test

Model I			**MODEL II**		
Variable	VIF	1/VIF	Variable	VIF	1/VIF
repa	1.15	0.8704	repamo	1.07	0.9337
cacc	1.09	0.9156	caccmo	1.02	0.9810
fsiz	1.06	0.9451	fsiz	1.06	0.9406
Mean	VIF	1.10	Mean	VIF	1.05

Source: STATA 14 Output Results based on study data

Based on the data in Table 4, we can infer that ROA and REPA are positively correlated. The value of this correlation is 0.3664. Results also showed a negative relationship between ROA and CACC, with a correlation coefficient of -0.6768 indicating that if CACC increases by one unit, ROA decreases by 0.6768 units, and vice versa; this is significant at the 5% level of significance. A substantial negative relationship of 0.1079 exists between ROA and the receivable payable ratio when REPAMO is used

as a moderator; this means that a unit increase in REPAMO predicts a unit decrease in ROA, and vice versa. The chart also shows that there is a negative correlation between return on investment (ROI) and cash conversion cycle (CACC), which is insignificant at 5% when tempered by management ownership (CACCMO). Throughout the study period, the correlation coefficient between CACCMO and ROA of Nigerian listed consumer and industrial products enterprises was -0.0577, showing a negative association between the two.

Table 3 shows demonstrates a small, insignificant negative association between ROA and FIZE of the analysed enterprises during the research period. The value of -0.1107 for this coefficient provides proof of this. Over the period of analysis, a one-unit increase in FIZE had a negative effect on the Return on Assets (ROA) of Nigerian listed consumer and industrial companies by 0.1107 units.

Table 6: Results of Breusch-Pagan / Cook-Weisberg test for heteroskedasticity Test

	Model I		**Model II**	
	Chi^2	Prob > chi2	Chi^2	Prob > chi2
Hettest	41.17	0.000	753.21	0.0000

Source: STATA 14 Output Results based on study data

The Hettest Chi2 for the fitted values of ROA in Model I is 41.17, which is statistically significant at the 5% level of significance (P-Value=0.000) (see Table 6). This led the researchers to accept the null hypothesis that the data for the fitted values of ROA in model I is homoscedastic and accept the alternative hypothesis that the residuals are heteroskedastic. Moreover, the fitted ROA values in Model II have a Hettest Chi2 of 753.21, which is statistically significant at the 5% level of significance (P-Value=0.0000) (see Table 5). This means that the study rejected the null hypothesis in favour of the alternative hypothesis that ROA displays heteroskedasticity, requiring a powerful regression.

Pooled OLS regression and fixed effect regression were compared using the F test to establish the superior method. We will test the null hypothesis that the Pooled OLS Model is the best fit, and the alternative hypothesis that the fixed effect model is the best fit. If the P value is larger than 5% (0.05), then the null hypothesis is accepted; if the P value is less than 5%, then the alternative hypothesis is accepted (0.05).

Table7: Results of F test

Model I without Moderation			Model II with Moderation	
	F	Prob.> F	F	Prob.> F
F test	6.34	0.0000	0.85	0.6738

Source: STATA 14 Output Results based on study data

Table 7 shows that when comparing Models I and II, fixed effect regression is the most appropriate method for Model I (F = 6.34, P = 0.000). This means that the study rejects the null hypothesis and supports the alternative hypothesis. Model II passes the F test with a F value of 0.85 and a corresponding p value of 0.6738, which is more than 5%. Therefore, the analysis concludes that Pooled OLS regression is the best fit for Model II and rejects the alternative hypothesis.

Which of the pooled OLS regression and Random effect regression performed better was determined using the Breusch and Pagan LM test. Assuming that Pooled OLS provides the greatest fit, this test's null hypothesis, the alternative hypothesis being that random effect regression provides the best fit. If the PV is greater than 0.05 percent, then the null hypothesis is correct; otherwise, the alternative hypothesis is correct if the P value is less than 5 percent. (0.05).

Table8: Breusch and Pagan LM test

Model I without Moderation			Model II with Moderation	
	Chibar ^{2}	Prob.> chi^2	Chibar ^{2}	Prob.> chi^2
Breusch and Pagan LM test	118.65	0.0000	0.00	1.0000

Source: STATA 14 Output Results based on study data

Table 8 shows that the chi-squared value for model I is 118.65, which corresponds to a probability of 0.0000, or less than 0.05. Based on these results, the study indicates that model I benefits most from the random effect model, therefore rejecting the null hypothesis and accepting the alternative hypothesis. The second model has a chi2 bar of 0.00 and a p value of 1.000 (both shown in Table 7), meaning that it is statistically significant (p>0.05). The study finds that model II's pooled OLS model is more appropriate because the alternative hypothesis was rejected and the null hypothesis was accepted.

Whether random effect or fixed effect regression was more suited was determined using the Hausman test. A test with a null hypothesis of a best-fitting random effect model and an alternative hypothesis of a best-fitting fixed effect model is called a likelihood ratio test. The alternative hypothesis is accepted if and only if the P value is less than 0.05, whereas the null hypothesis is accepted otherwise. (0.05).

Table 9: Results of Hausman test

Model I without Moderation			Model II with Moderation	
	Chibar ^{2}	Prob.> chi^2	Chibar ^{2}	Prob.> chi^2
Hausman test	6.79	0.0789	0.53	0.9126

Source: STATA 14 Output Results based on study data

Table 9 shows that the Hausman test probability is more than 95% for both models I and II, with chi2 values of 6.79 and 0.53, respectively (0.05). As a result, the random effect regression model is the one best suited to both.

Using robust regression, we were able to correct the model's heteroskedasticity; the resulting table 10 displays the robust regression's findings. The results of the robust regression test are what decide whether or not the null hypothesis assumed in the investigation is correct.

Table 10 Robust regression

Robust regression		F (3, 255) = 3381.63 Prob > F = 0.0000			Number of obs = 259	
roa	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
repamo	0.1557	0.0065	23.84	0.000	0.1429	0.1686
cccmo	-0.1393	0.0015	-93.94	0.000	-0.1422	-0.1364
fsiz	7.6033	2.3102	3.29	0.001	3.0537	12.1529
_cons	-16.4032	16.5496	-0.99	0.323	-48.9945	16.1881

Source: STATA 14 Output Results based on study data

The model is statistically significant and provides an explanation for the observed correlation thanks to the Prob.>chi2 of 0.0000 and the F value of 3381.63. Using coefficients, t-values, and p-values, the following sections describe the strength and direction of the relationship between the dependent variable and each of the study's independent variables:

H_{01}: Receivable - Payable ratio have no significant effect on working capital management and firm performance when it is moderated by managerial ownership in listed industrial and consumer goods companies in Nigeria.

Table 9 shows that there is a significant positive link between the receivable-payable ratio and return on asset when management ownership is present at the 5% level of significance (t value 23.84, p=0.000). Statistical evidence suggests that H01, the first alternative to the null, is false. This indicates that management ownership has a statistically significant positive impact on the effect of the receivables-payables ratio on financial performance. This results is consistent with the research of Shams et al. (2019) and Zalaghi et al. (2019), who found that management ownership significantly moderates the association between payment days and return on asset. It runs counter to the research done by Samuel and Peter (2016), who found that management ownership had a negative and insignificant moderating impact on the correlation between payment days and return on asset.

H_{02}: Cash collection cycle have no significant effect on financial performance of listed industrial and consumer goods companies in Nigeria when it is moderated by managerial ownership. Table9 shows that after controlling for management ownership concentration, a negative and statistically significant effect of the cash collection cycle on financial performance was found at the 5% level (t value 93.94, p=0.000). The findings contradict the second null hypothesis. As a result, the cash conversion cycle, which is affected by management ownership, has a negative and sizeable effect on financial results. This finding is in agreement with that of Shams et al. (2019), who found that management ownership acts as a significant moderator between the cash collection cycle and financial success. But Zalaghi et al. (2019) found that when management ownership was in charge, the cash collection cycle had no appreciable positive effect on financial performance.

V. CONCLUSION AND RECOMMENDATIONS

According to the findings from the analyses, ownership concentration plays a significant moderating role in the effect of receivable to payables ratio on financial performance, whereas cash conversion cycle has a positive and insignificant effect on financial performance when moderated by ownership concentration. As a result, the study suggests that;

i. The management of listed consumer and industrial goods companies in Nigeria should establish a long-term relationship with their suppliers to access trade credit in a more easy and fast way.
ii. By establishing a long-term relationship with their suppliers, the management should increase the use of trade credit as this can enhance performance.
iii. The management should further put in place a very vibrant credit policy to help avoid any occurrence of poor account receivables.

REFERENCES

[1] Abel, E. E., & Okafor, F. (2010). Local Corporate Ownership and Capital Structure Decisions in Nigeria: A Developing Country Perspective. International Journal of Business in Society, 10(3), 249-260.
[2] Abuzayed, B. (2012). Working capital management and firms' performance in emerging markets: The case of Jordan. International Journal of Managerial Finance, 8(2), 155-179.
[3] Afrifa, G.,& Tingbani, I. (2018). Working capital management, cash flow and SMEs' performance. Int. J. Banking, Accounting and Finance, 9(1). http://dx.doi.org/10.1504/ IJBAAF.2018.10010466
[4] Ahmadi, M., Arasi, I. S., Garajafary, M., & Branch, A. (2012). Studying the relationship between working capital management and profitability at Tehran stock exchange: A case study of food industry. Research Journal of Applied Sciences, Engineering and Technology, 4(13), 1868-1874.
[5] Akinlo, O. O., & Olufisayo, O. (2011). The effect of working capital on profitability of firms in Nigeria: Evidence from general method of moments (GMM). Asian Journal of Business and Management Sciences,1(2), 130-135.
[6] Atrill, P. (2006). Financial Management for Decision Makers (4th ed.). Prentice Hall. Autumn, 50-55.
[7] Babalola, Y. A. (2013). The Effect of Firm Size on Firms Profitability in Nigeria. Journal of Economics and Sustainable Development. 4(5), 90-94.
[8] Bartoli, A. & Blatrix, C. (2015). Management dans les organizations publiques - 4ème édition. Dunod, Paris.
[9] Baveld, M. B. (2012). Relation of working capital management on the profitability of public listed firms in the netherlands during the financial crisis.
[10] Bodie, Z., Kane, A.,& Marcus, A. J. (2004).Essentials of Investments. McGraw-Hill/Irwin.
[11] Bodie, Z., Kane, A.,& Marcus, A. J. (2011).Essentials of Investments. 9th Edition, McGraw-Hill.
[12] Caroline, A. A., Adamu, L., & Onwe, O. (2008) Entrepreneurship Development Course Guide. National Open University of Nigeria. ISBN 978-058-111
[13] Chongyu D., Zhichuan L.,& Chen Y. (2017). Measuring firm size in empirical corporate finance.
[14] Daniya A.A., Alhaji B.K., &Ruth F.Y. (2018). Working Capital Management and Financial Performance of Listed Conglomerate Companies in Nigeria. Journal of Accounting, Finance and Auditing Studies 4(2), 49-66.
[15] Duru, A., &Okpe I. I.(2016).Management of Accounts Payable on the Financial Performance ofIndustrial/Domestic Manufacturing Companies in Nigeria. Journal of Humanities and Social Sciences (IOSR-JHSS) 21(7). 54-61.

[16] Eljelly, A. M. (2004). Liquidity-profitability tradeoff: An empirical investigation in an emerging market. International Journal of Commerce and Management, 14(2), 48-61.
[17] Falope, O. I., & Ajilore, O. T. (2009). Working capital management and corporate profitability: Evidence from panel data analysis of selected quoted companies in Nigeria. Research Journal of Business Management, 3(3), 74-84.
[18] Feletiliki, K.M.F., (2011). The impact of working capital management dynamics on the performance of Tongon Enteprises in New Zealand- A thesis for the award of degree in MBUS. Unitec Institute of Technolgy New Zealand.
[19] Filbeck, G., & Krueger, T. M. (2005). An analysis of working capital management results across industries. American Journal of Business, 20(2), 11-20.
[20] Gimbert, X., Bisbe, J., & Mendoza, X. (2010). The Role of Performance Measurement Systems in Strategy Formulation Processes. Long Range Planning,43(4) 477-497.
[21] Gill, A. S., & Biger, N. (2013). The impact of corporate governance on working capital management efficiency of American manufacturing firms. Managerial Finance, 39(2), 116-132.
[22] Gitman, L. J. (2009). Principles of Managerial Finance (12th ed.). Bostos, MA: Pearson Prentice
[23] Haruna A, Mshelia (2016), Effects of working capital management on the performance of small and medium enterprises in Nigeria.
[24] Hassan, Z., Maryam, G., & Kefsan, M. (2019). The Moderating Role of Firms Characteristics on the Relationship between Working Capital Management and Financial Performance.
[25] Huiskonen, J. (2001). Maintenance spare parts logistics: special characteristics and strategic choices. International Journal of Production Economics,71 (1/3):125-133.
[26] Idiko, O., & Tamas, D. (2013) Definition, questions, Vision of Applied Economics.
[27] Ittner, C. D., & Larcker, D. F. (2003). Coming up short on nonfinancial performance measurement. Harvard Business Review, 81(11), 88-95.
[28] Javadi E. & Nikoumaram H. (2017). The Effect of Ownership Structure on Cash Conversion Cycle in Listed Firms on Tehran Stock Exchange. International Journal of Economics and Financial Issues, 2017, 7(4), 453-458.
[29] Jensen, M.C., &Meckling, W. (1976), Theory of the firm: Managerial behaviour, agency costs and ownership structure. Journal of Financial Economics, 3(4), 305-360.
[30] Karaduman, H.A., Aknas, H.E., Caliskan, A.O.,& Durer, S. (2011). The relationship between working capital management and profitability. Evidence from an Emerging market, International research Journal of Finance and Economics, 62-67.
[31] Kamau, D., & Ayuo, A. (2014). The Effects of Working Capital Management on Organizational Performance – A Survey of Manufacturing Firms in Eldoret Municaipality. Research Journal of Finance and Accounting. 5(5), 72-80.
[32] Khaled A. & Omar, A. (2020). Days inventory outstanding and firm performance: Empirical investigation from manufacturers Accounting Department, College of Business Administration, Prince Sattam bin Abdulaziz University, Saudi Arabia. Received May 15 2020, Received in revised format May 16 2020, Accepted July 6 2020 Available online July 10 2020
[33] Kilonzo, J.M., Memba S.F.& Njeru, A. (2016). Effect of Accounts Receivable on Financial Performance of Firms Funded By Government Venture Capital in Kenya. Journal of Economics and Finance, 7(1), 62-69.
[34] Kumar, S. S., Narayanasamy, S., & Ayyalusamy, K. (2021). Working capital management, firm performance and nature of business: An empirical evidence from india. International Journal of Productivity and Performance Management, 70(1), 179-200. https://doi.org/10.1108/IJPPM-10-2019-0468
[35] Lakshan, A.M.I. (2009). Working capital management and performance of small and medium sized enterprises. Retrieved from http://www. ssrn.com.
[36] Lazaridis, I., & Tryfonidis, D. (2006). Relationship between working capital management and profitability of listed companies in the Athens stock exchange.
[37] Lyroadi, & Lazadis, (2000). Short term financial management of business increases and in Cyprus.Business and Economic society international.
[38] Malik, Z. U., & Iqbal, A. (2012). Effect of working capital management on firms profitability in sugar industry of Pakistan.
[39] Man, Y. S. (2006). Performance Measurement and Management of Third Party Logistics: An Organizational Theory Approach. Hong Kong Baptist University.
[40] Marshall H., Margaret J. & Ryan E., (2022), Return on Assets. Corporate Finance Journal. www.investopedia.com/terms/r/returnonassets.asp
[41] Muhammad, M. Tsagem, N. Aripin., &Ishak, R. (2014). Impact of working capital management, ownership structure and board size on the profitability of small and medium-sized entities in Nigeria. International Journal of Economics and FinancialIssues ISSN: 2146-4138
[42] Myers, Stewart C. & Majluf, Nicholas S. (1984). Corporate Financing and investment decisions when firms have information that investors do not have. Journal of Financial Economics, 13, 187-221.
[43] Nnubia, I. C., OmaIiko, E. 1., Ogechi, N. V. and Etuka, C. E. (2017).The Effect of Inventory Control on Profitability of Manufacturing Companies in Nigeria. Journal of Vocational and Technical Education, 10(1), 134-149.
[44] Ntoung A. T., Carlos F.S., &Ben C. O., (2016). Ownership structure and financial performance of small firms in Spain. Corporate Ownership & Control, 13(4).
[45] Nugraha, N. M., Nugraha, D. N. S., Fitria, B. T., Ayunitha, A., & Sulastri, H. W. (2021). The influence of institutional ownership, managerial ownership, and board of commissioners on agency costs. Turkish Journal of Computer and Mathematics Education, 12(8), 1381-1387. https://www.proquest.com/scholarly-journals/influence-institutional-ownership-managerial/docview/2623463824/se-2
[46] Nwidobie, M. B. (2012) Working Capital Management Efficiency and Corporate Profitability: Evidences from quoted firms in Nigeria. Journal of Applied Finance & Banking, Scienpress Ltd, 2(2), 1-8.
[47] Ogundipe, S. E., Idowu, A., & Ogundipe, L. O. (2012). Working capital management, firms' performance and market valuation in Nigeria. World Academy of Science, Engineering and Technology, 61, 1196-1200.
[48] Olanisebe, M. B. (2019). Effect of ownership structure on working capital management of listed downstream oil and gas companies in Nigeria. International Journal of Management, Accounting and Economics. 6(11), 2383-2126.
[49] Omar Taouab and Zineb Issor (2019). Firm Performance: Definition and Measurement Models European Scientific Journal January 2019 edition Vol.15, No.1 ISSN: 1857 – 7881 (Print) e - ISSN 1857-7431 Doi:10.19044/esj.2019.v15n1p93 Oracle E-Business Suite Manufacturing & Supply Chain Management By Bastin Gerald, Nigel King, Dan Natchek Purchasing and Supply Chain Management By Kenneth Lysons, Brian Farrington)
[50] Padachi, K. (2016). Trends in Working Capital Management and its effect on Firms' Performance: An analysis of Mauritian Small Manufacturing Firms. International Review of Business Resources. 2(2), 45-58.
[51] Quayyum, S. T. (2011). Relationship between working capital management and profitability in context of manufacturing industries in Bangladesh. International Journal of Business and Management,7(1), 58.
[52] Raheman, A., Afza, T., Qayyum, A., & Bodla, M. A. (2010). Working capital management and corporate performance of manufacturing sector in Pakistan. International Research Journal of Finance and Economics, 47(1), 156-169.
[53] Rahmani, A., Mashayekh, S., &Purazam,M.,(2019).Effects of ownership structure on firm performance, The Financial Accounting and Auditing Researches, 3(9), 1-22 (in Persian).
[54] Ross, D. (2009).Strategies for Improving Working Capital Management.

[55] Samuel, T. E., and Peter, K., (2016). The Accounts Payable Management Practices of Small, Medium and Micro Enterprises in the Cape Metropolis, South Africa. Investment Management and Financial Innovations, 13(1), 77.
[56] Sangeet, M. & Monika, B. (2021). Accounts receivable: payable impact on each other with special reference to financial performance – A study of Small Cap Companies. 47.(4). https://doi.org/10.1177/09708464211055532
[57] Selvam, M., Gayathri, J., Vinayagamoorthi, V. & Kasilingam, L. (2016). Determinants of Firm Performance: International Journal of Social Science Studies4(7) · https://doi.org/10.11114/ijsss.v4i7.1662
[58] Shams, R., Khurshed I. & Aamir, N. (2019). Effect of working capital management on firm performance: The role of ownership structure. Global Social Sciences Review, IV(I), 75 – 83.
[59] Siminica, M., Berceanu, D., & Circiumaru, D. (2008). The Performance of Industrial Firms from Romania. Correlation Dimension Indicators of Results. Theoretical and Applied Economics, Associatia Generela a Economistilor din Romania – AGER, 12(12), 71-78.
[60] Soekhoe, S. G. (2012). The relations of working capital management on the profitability of Dutch listed firms.
[61] Tangen, S. (2004). Performance Measurement: from Philosophy to Practice. International Journal of Productivity and Performance Management, 53(8), 726-737.
[62] Tsagem, M. M., Aripin, N., & Ishak, R. (2014). Impact of working capital management and corporate governance on the profitability of small and medium-sized entities in Nigeria: A proposed model. International Journal of Science Commerce and Humanities,2(5), 53-65.
[63] Ugwu I. V.,& Nwakoby, N. P. (2020). Impact of Inventory Management on Firm Performance in Nigeria: Using Grass Roots Opinion. International Journal of Engineering and Information Systems (IJEAIS), 4(11), 34-46.