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Transient Credit Facility and Returns on Assets and Equity of Corporate Organizations Quoted At the Exchange in Nigeria

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Abstract – Several articles attribute the inefficient financial performance of corporate organizations listed at the Exchange (NSE) in Nigeria to efficient long-term facilities. However, apart from the long-term facilities, most companies spend considerable time in decision-making regarding short-term and transient credit financing. Ineffective credit financing is instrumental to an unproductive operation of a company. Therefore, this study researched the impact of the credits on the returns on assets and equity of manufacturing firms quoted on the Stock Exchange in Nigeria. The study uses scientific materials from Google scholar and Scopus search mechanisms for qualitative framework development and secondary data from published financial statements of firms on the stock exchange. The research also captured the effects of financial leverage and opportunities on the connectivity between productivity and financing decisions of quoted companies, engaging explanatory research design and adopting an aggregate of 11 corporate organizations for evaluation. The study deployed data from online resources and company websites from 2015 and 2022. Recommendations included upgrading the accounts receivable and inventory holding period to a productive limit and keeping a sufficient cash ratio considering growth opportunities. It pointed to the leverage possibilities and the size structure in financing decisions, as credit financing decisions influence organizational performance.

Keywords – Short-Term Financing, Transient Credit Financing, Roa, Roe, Financial Efficiency, Nigeria Stock Exchange, Quoted Companies, Financial Decisions

1. Introduction

1.1 Study background

The lending initiative dates to 2000 BC in Mesopotamia, and about 3000 years ago, the system evolved when barter services existed. The popular pawnbrokers involving exchanges and financial credit services based on the worth of goods pledged erupted (Hudson, 2020, p. 46). By accepting some goods as collateral, lenders can minimize their risk and ancient time witnessed more lending to agricultural productions, especially in fertile territories. Further, the advent of confidentiality in the system, increasing transactions, and the concept of diversification and communication championed by Mayer Rothschild in Europe in the 18th century (Kaplan, 2006) launched the international banking system that the global marketplace is benefiting currently.

Today, multifaceted banking structures are empowering foreign exchange diversifications, loan procurement, and the selling of gold and other precious metals. Among the banking services are internet banking, ATM services, forex transaction, loan advancement, wealth management, and accounts for savings and check (Haralayya, 2021, p. 7). Under loan advancement, the banks offer different facilities ranging from personal to cooperate loans, which generally categorize into short and long-term credits.

Short-term banking credits tend to serve situations of poor cash turnover and offer a one-year or less loan repayment period. Long-term financial instruments like bonds, bank loans, and debt financing provide a minimum of 3 years and up 30 years of repayment period (Jayaratne and Wolken, 1999, p. 430). Apart from the fewer months required in repaying short-term/transient loans, which can significantly enhance credit scores, short-term credits can help solve the operational needs of a business. The facility can also streamline business growth processes and boost corporate financial performance.

The financial performance of corporate establishments reflects how organizational policy impacts company productivity and is crucial in stock/shares appreciation and value creation which ultimately influences the efficient economic performances of nations by extensions (Zattoni and Minichilli, 2009, p. 226). The challenge is that many corporate organizations listed on the Nigeria Stock Exchange have been underperforming lately (NSE, 2020). While the NSE records over 166 listed companies, a significant portion of the listed companies operate in poor financial conditions, and some facing the challenges of delisting from the stock exchange over the years.

Most issues the underperforming listed firms experienced were increasing poor funding facilities (Chebii, Kipchumba & Wasike, 2011, p. 327). However, efforts seem to focus on decisions regarding long-term financing. For example, there are more issues on capital restructuring than initiatives for short-term credit decisions among these listed companies.

Company financial capacity is crucial in funds sourcing, and short and long-term capital is no less invaluable. However, many factors interplay for the efficiency of fund-drive processes, and the capability of repaying credit centers on the financial and operational stability of the company (Erdogan, 2018, p. 25). The issues of placing collateral, management productivity, credit history, and interest rate are not behind in company decision-making processes at micro and macro levels. Just like credit capacity and worthiness and company condition are critical indicators for lenders to determine the reliability and ability of a company to repay loans. For example, small-scale enterprises often face these challenges when sourcing funds from micro-finance companies and increased interest rates influence the decision on internal sources of funds.

Working on factors affecting the credit liquidation trend in Tanzania, Makorere (2014) expounds on financial experiences with loan recovery. The study engages data from 100 sample firms and descriptive statistical analysis demonstrating the impact of a stable economy and interest rate on credit repayment attitude and the role of government intervention. The output indicates the need for financial companies to effectively deploy risk management strategies and the possibilities of using parameters such as collateral and character to control the degree of delinquency. Whether the firms are looking for short-term or long-term borrowing is just an issue, the business character and organizational behavior can enhance credit facilities availability. Makerere (2014) shows the significance of this character both on the side of the borrower and the lender.

Wanambisi and Bwisa (2013) share research results on the effects of microfinance (MF) credits on company productivity. Using small enterprises in the municipality of Kitale in Kenya, the study validates the role of credit facilities in economic development. It also explains the inability of low-income individuals and small enterprises to access funds from micro-finance institutions, the alternative to conventional banking facilities designed for grassroots economy stimulation. Indications include increasing loan facilities to small-scale businesses to boost business performances to medium and large-scale enterprises and extension of the loan repayment period. That is because when the grace period for loan repayment is longer, the borrowing firms can find leverage in generating more revenue to liquidate interest and principal while growing the investment.

Another highlighted issue is the lower percentage of lending rate (about 41.7%) in the study, which reflects intricacies and restrictions plus fears of loan application rejection. The study establishes MF credits as a preferred loan source for commercial banking credit facilities and that many medium-scale enterprises (MSEs) recorded increased income using the credit facility. That reflected a positive relationship between financial credit and MSEs performance in Kitale location in Kenya.

Ekwere and Edem (2014) evaluate loan facilities in agricultural business and the development of the rural economy and demonstrate insufficient capital acquisition as a challenge facing farmers. The study investigates the impact of capital on farm size while examining the amount of input and production from farmers with small-scale businesses. It uses regression analysis and Cobb-Douglas production function analysis to test the effects of a socioeconomic factor on the number of farmers' loans for farming businesses and the relationships between variables. The output shows that credit facilities enhanced farm input utilization with increasing income in return, implying productivity enhancement and poverty eradication among small-scale farmers. The recommendation for government to fund institutions providing credits to farmers goes to validating the increasing need for short-term and transient loans to support business activities in the economy.

In analyzing factors influencing credit accessibility by women operating businesses in Kenya, Karanja, Mwangi, and Nyakarimi (2014) hold the importance of entrepreneurship in achieving poverty alleviation and national economic growth. The study conducts a census utilizing women entrepreneurs and data from managers of financial institutions, testing the hypothesis with a chi-square statistical tool for analysis. The inability of women business owners to present collateral for loan applications appears to be a challenge to securing credit facilities, and the recommendation goes to providing efficient lending processes to attract entrepreneurs. The involvement of collateral usually relates to long-term facilities, and short-term credit with a lifespan of a year comes with lower interest payment providing quick cash in a dwindling cash flow scenario (Jimenez, Salas, and Saurina, 2006, p. 60). Hence, short-term credits are attractive to small enterprises and mega firms and an alternative loan with minimal accessibility procedures.

While many scientific investigations reveal that about 40% of the current asset makes total asset for firms, managers often commit more time to short-term financial facilities (Chang, Dandapani, and Prakash, 1995, p. 110). Short-term finance forms operational capital, which has a direct impact on the liquidity and performance of firms. The concept also refers to the working capital (WC) supporting a free cash flow which empowers a firm towards value creation for investors.

WC is a sustaining component fundamental to ensuring productivity and liquidity in the company (Khan, Akash, Hamid, and Hussain, 2011, p. 149). However, it is pertinent that maintaining a significant amount of liquid assets such as inventory or account receivables causes inefficiency in meeting the demands of short-term facilities obtained. Beyond the inefficiency in repaying short-term loans, keeping a high volume of short-term liabilities can lead a firm to indebtedness. Notwithstanding, good use of a WC can enhance the possibility of taking advantage of possible growth opportunities (Khan et al., 2011, p. 147) because a company can effectively organize and plan with a sufficient WC.

Essentially, every short-term financing decision has a transferable impact on other productive components, which firms consider in planning and organization (Almeida, Ersahin, Fos, Irani, and Kronlund, 2020). It is critical to evaluate the profitability regarding any decision for short-term financing. The literature review in this research has presented a good amount of information showing the effect of decision-making on short-term financing on financial performance. But there are no implied components of the short-term that can equally impact organizational performance. Therefore, it is pertinent to know the effect of cash holdings considering corporate financial health and short-term financing decisions.

Short-term and transient credit financing decisions

Short-term financing covers many dimensions of critical decisions, including cash conversion management, accounts payable, and receivables not left out. Short-term financing deals with decision evaluation covering current assets and liabilities (Khan et al., 2011, p. 147). Part of the WC usage is short-term financing of current liabilities and assets. By extension, a WC is more or less short-term financing. Therefore, the efficiency of a WC shows how well a firm is performing, and with a minimal dependency on external debts, effective utilization of a WC is possible.

Companies deploying good use of cash flow for investment expansion can, at the same time, reduce demands for external credit facilities (Autukaite & Molay, 2013, p. 2). Firms need to keep networking capital to access credit from lending institutions, indicating the need for effective cash management. To that end, companies seek to maintain reasonable finances as WC irrespective of operational capacity.

The working capital of a business holds two-fold manifestations; the side costs and benefits. Firms with poor inventory records can head to sales losses and interruptions in production (Salempour & Vaez, 2015, p. 1763). That is to say that where there is high inventory holding, the elimination of situations where there is no available stock is visible, although with extra costs.

For receivables, however, receiving credits calls for the relaxation of receivables to boost sales (Naser & Mokhtar, 2004). But reducing receivables, on the other hand, brings in losses from inefficient debt and sales losses. Besides, accounts payable can deliver discounts to firms for the early liquidation of business credits (Lessambo, 2022, p. 85). Therefore, where the accounts payable is cost-effective, firms can deploy the same to maximize the financing benefits.

Imperatively, efficient utilization of inventories is necessary as companies spend due on inventory maintenance (Salempour & Vaez, 2015, p. 1768). Inventory records form a significant percentage of most current assets in companies. For example, some organizations keep as much as 44% of the total current (Mathuva, 2013) assets as inventories. Therefore, enhancing higher returns is what an average company seeks to achieve, although too much inventory investment can be a result of poor inventory management at the same time.

In financial management, accounts receivable influence the management decisions and risk performance of firms, impacting value, especially in the dimension of risk and financial management, and constitute an essential component of short-term financing (Chen and Chen, 2012, p. 230). The concept deal with important decisions and transactions in the total company assets. Taking some European countries like Finland and Spain, for example, the amount of account receivables at some points hits as high as 19% and 39%, respectively (Pedro & Martínez, 2010, p. 25). Account receivables form a significant percentage of the total assets of most companies operating in Nigeria.

On the other hand, accounts payable makes a resourceful avenue for raising finances for firms and can provide better alternative funding either in the short or long term (Mathuva, 2010). In nations like the United States, the average trade-credit range is between 30% and 45% (Long, Malitz, and Ravid, 1993, p. 21) of the total debts of companies. Engaging trade credit as a form of short-term financing brings benefits to firms. For example, cash constraints can reduce where firms can access short-term financing without limitations.

Another critical concept is the cash conversion cycle (CCC), which helps to identify accounts payable, accounts receivables, and inventories (Sami & Jamalludin, 2014). CCC forms a better way of managing working capital for companies, involving raw materials purchase periods and collecting debts associated with product sales. Although there is profitability to applying a short period of CCC in business, there may be an alarming negative effect on final output when exceeding resources engaged for the CCC time frame expansion (Mathura, 2010).

Characteristics of firms

The characteristics of firms revolving around growth opportunities, size, and financial leverage can bring about many strategic developments in working capital management. Every company characteristic impacts the cost of asymmetric information problems at various levels (Barako, Hancock, & Izan, 2006). For example, firms with extensive structures manifest higher sales and can easily play around with policies concerning account receivables and inventories. Besides, the companies can access external facilities more than smaller businesses.

Financial leverage shows the ability to deploy debts in assets acquisition instead of using direct equity with anticipation of future liquidation with profits. Often, the mobility cost of the external facility is always more than the internal funding (Bastos & Pindado, 2012, p. 617). Managing the working capital goes a long way to reducing debt ratios. Also, it may not be a good investment decision to allocate too many funds for working capital as returns on working capital may not be significant (Barako, Hancock, & Izan, 2006). However, a higher level of cash flow can mediate debt servicing or renewal.

Interestingly, firms with potential future growth need extra accessible facilities for value creation which can also be sourced internally (Bastos & Pindado, 2012, p. 618). With this expectation, companies cannot possibly do without cash holdings and investments in the short term. For that reason, confirming the coordinating effect of the characteristics on the connection between financial performance and short-term financing decisions gets pertinent.

Cash holdings

Cash holdings are the available cash and convertible assets and constitute security dimensions helping companies to overcome the cost of external mobilization of finance or disposal of assets to advance growth opportunities (Sami & Jamalludin, 2014, p. 899). The cash convertible assets can include securities with maturities within three months and financial receivables. Cash holdings help firms to advance growth prospects and take advantage of investment opportunities without capital constraints.

Cash holdings are influenced by working capital engagement. The variations in working capital components impact the degree of cash holding of a company (Sami & Jamalludin, 2014, p. 901). Therefore, efficient working capital can minimize borrowing while improving the company's financial performance.

Although the quantity of cash that a company holds affects the level of liquid assets of such a company, it can be profitable to replace cash-holding with non-cash assets such as net working capital (Autukatie & Molay, 2013). That is apart from resources from marketable securities and cash. To that effect, this investigation examines the impact of cash holding on the correlation between financial performance and short-term financing of a selected company listed at the NSE in Nigeria.

Financial efficiency

Financial efficiency is a degree of better deployment of resources by companies to enhance cash flow. Indicators reveal the efficiency of any firm in the outcome of market and asset value, accounting, and investment profits (Stancu, Obrejabraşoveanu, Ciobanu, and Stancu, 2017). However, indicators of financial performance combine to enhance business growth and development. For example, when management is efficient and effective in delivering growth in sales and enhancement in stock value, the reflection will manifest in high financial performance.

Maintaining efficient and effective asset management is critical in realizing a higher stock value and profitability. Profitability is the extent to which income surpasses expenses in business (Naser & Mokhtar, 2004). Profitability and liquidity are part of the determinants in the financial performance of firms contributing to the financial sector development.

Growth and development in any economy work together with the performance indices linking the financial sector of any economy. That is why an effective capital market influences economic efficiency and growth development (Stancu et al. 2017). The implication is that both the economy and the stock market derive strength from the financial performances of listed companies in the stock market. Revealingly, the stock market information in Nigeria shows that many listed companies impact the economy (Odutola, 2019). As a result, this investigation examines a few listed firms on the NSE with financial struggles or in a state of receivership.

Financial performance and transient credit financing decisions

The solvency and liquidity state of companies are important indicators in determining how the daily operations of a company go. When companies hold better liquidity and profitability, operation management seems effective (Zaitoun and Alqudah, 2020, p. 31). In other words, good utilization of liquidity reflects the effective management of resources for daily operations. Therefore, the lack of good deployment of short-term credit poses financial inefficiency, and growth-thinking companies try to avoid such a pitfall.

There are so many impacts that liquidity management can transfer on the financial performance of any company. Indicators show that working capital influences liquidity and financial performance (Bagh, Nazir, Khan, and Razzaq, 2016, p. 1089). When firms apportion many resources to working capital and fewer resources into a long-term investment, profit generation is bound to decline. Again, some companies widen capital holding longer than necessary, accumulating much more expenses that are not generally healthy for the financial performance of firms.

Nigeria Stock Exchange

The financial industry and capital market are critical components that can bring economic growth and development to any nation. The corporate financial position is no less invaluable to the effectiveness of any capital market and the overall economy, and the linkage of bank finance to stock markets is undeniable (Levine & Zervos,1998, p. 541). That implies that a capital market is instrumental to investment growth and economic growth advancement.

In Nigeria, the Nigeria Stock Exchange was formed in 1960 and licensed to commence operation with 19 companies listed firms (NSE, 2020). The Exchange has grown significantly to the extent of listing 161 companies as of November 2019 (NSE, 2020). Among the services at the Exchange are market data solutions, listing, and trading services, licensing services, and ancillary technology services. Further, the Exchange also classifies listings into 11 sectors.

For growth and advancement, corporate firms need to maintain efficient financial status. Quoted companies on the NSE require sound financial performance to avoid the closure of the business (Azeem & Marsap, 2015, p. 288). Of all the listed companies, it appears that firms are performing financially well, although the enterprises may not all be doing well when initially enlisted.

Over time, the direction of the business can change positively or negatively, and the impact shows in the financial statements. These positive or negative changes can be of managerial transition or adjustment in risk profile and governance (Maina & Sakwa, 2012). The resultant effect goes on the financial status, and companies are negatively affected by changes in business direction and find it challenging to reward investors or create better shareholder value.

Information from the NSE reveals that about 45 firms between 2013 and 2019 were delisted voluntarily and for non-performance-related issues (NSE, 2020). Companies like Premier Breweries Plc, LASACO Insurance Plc, Livestock Feeds Plc, and John Holt Plc have consistently manifested unproductivity and a lack of strength to deliver rewards for years (Odutola, 2019). This situation has not only affected confidence among customers but has significantly reduced the level of cash flow of these companies. Therefore, it becomes pertinent to research the impact of short-term financing on the financial efficiency of a set of corporate organizations quoted on the stock exchange in Nigeria.

Statement of the problem

The capital market has always been an environment that individuals and corporate bodies utilize for sourcing and supplying investment funds. Lenders and borrowers interplay to influence the supply and demand of financial resources creating an enabling platform for business development (Poppe, Lavik, and Borgeraas, 2016, p. 24). While some investments in some of the listed companies at NSE yield profit, others have recorded losses against anticipation for wealth. As a result, the NSE, over time, has delisted some corporate organizations for poor financial performance.

For a better understanding, companies such as Dumez Nigeria Plc and MNET/Supersport got delisted in 2002 and 2015 due to non-compliance with NSE rules (NSE, 2020). While ATLAS Plc, Ceramic Manufacturing Company, Amicable Insurance, BICO Insurance, Beverages (WA) Nigeria Plc, and Maureen Lab Plc got delisted in 2008, Sky Bank Plc and Fortis Micro-Finance Bank, among others, were taken down in 2019 (NSE, 2020). The reason is not far-fetched, as the inability of operations to meet the standard of the NSE due to corporate lapses witnessed in companies poses a challenge.

Managers sometimes ignore the importance of working capital when it is a critical resource for keeping a business running. Ray (2012) explains and draws attention to the criticality of working capital in managing financial decisions. Working capital revolves around investments, and short-term financing plays an essential role in financing decisions.

However, available investigations on the impact of short-term financing target the influence of short-term credit on financing decisions and display diverse outcomes (Falope & Ajilore, 2009, p. 78). To this end, the drive for more studies emerges. The current investigation seeks to research the intermediary influences that equally affect the financing performances of corporate listed companies apart from the short-term financing decisions. Deploying data from the NSE from the period between 2012 and 2019, the study investigates the connecting impact between different dimensions of short-term financing decisions on the financing efficiency of corporate companies listed at the NSE in Nigeria.

1.2 Study objectives

The study sets out to ascertain the impact of short-term financing on the financing efficiency of companies quoted at NSE. The main objectives include:

(i) To ascertain the impact of cash holding on the financial efficiency of quoted companies at the Exchange in Nigeria.

(ii) To establish the impact of accounts receivable period extension on the financial productivity of quoted companies at the NSE.

(iii) To measure the Cash Conversion Cycle effects on the financial efficiency of companies quoted at the Exchange in Nigeria.

(iv) To determine the relationship between Short-Term Financing and the impact of company characteristics on the financial efficiency of companies quoted at the Exchange in Nigeria.

1.3 Hypotheses

The research explores to test the following substantive hypotheses:

H1 - Cash holding affects the profit maximization of quoted companies listed at the Exchange in Nigeria (Bibow (1998) explains the vulnerability of firms running short of cash inflow, and that invariably connects to company productivity).

H2- Account receivable period extension impacts the financial turnover of public firms in Nigeria (the proposition of Enqvist et al., 2014 indicates economic benefit to supplying companies which may influence the general financial productivity of a company).

H3 - lowered cash conversion cycle (CCC) has a significant effect on the financial health of quoted firms in Nigeria (Falope and Ajiore (2009) reveal the advantage of the CCC working metric of boosting liquidity if reduced to the minimum and that correlates with business productivity).

H4 - Short-term credit impacts the financial efficiency of companies quoted at the Exchange (Takon and Atseve (2015) reveal how companies leverage and the associated benefits capable of influencing productivity)

1.4 Significance of the investigation

The investigation has revealed information necessary for achieving efficient short-term financing decisions. The study manifests different measures that the authorities can deploy to enhance business performances in Nigeria, aside from also displaying strategic dimensions to enhance financing decisions of the management of corporate companies listed at NSE in Nigeria. By expanding the knowledge in finance, the study significantly contributes to achieving efficient financial management and testing the impact of cash holdings on the financial performance of companies and financing decisions.

1.5 Scope of the investigation

The research investigates the impact of short-term credit facilities on the financial efficiency of corporate companies, employing data from 2013 to 2019 and engaging in financial performance analysis of sample corporate companies listed at the Exchange in Nigeria. The focus is on the manufacturing firms in Nigeria and the impact of cash holding concerning short-term financing. There is also the involvement of regression analysis on the accounts receivable and payable parameters.

2. Review of literature

2.1 Liquidity theory

The liquidity theory proposes that firms with downward cash flow are vulnerable to seeking trade credit. When there is a decline in cash flow, companies are likely to go for trade credit (Bibow, 2013). In business, some companies have more access to capital than others. Trade credit assists firms in augmenting shortages of credit that ordinarily are scarce with banking institutions.

The unique thing about the liquidity theory is the connection explanation between profitability and accounts payable turnover in the company. In most cases, companies with liquidity challenges always face the problems of untimely payments to suppliers (Bibow, 1998, p. 240). That may be due to the issue of allocating resources to meet other expenditures, and sourcing trade credit becomes an alternative to handling financing difficulties to enhance profitability.

Again, considering the situation, some companies that do not seem to have financial issues may be more inclined to give trade credit. The resultant effect may raise a problem of imbalances in trade credit and funding utilization. At this point, a negative interaction can occur between accessing funding and deploying trade credit (Abuhommous and Almanaseer, 2021, p. 1242).

Therefore, a thorough evaluation is necessary to determine which option is profitable. However, the liquidity theory generally recommends a better correlation between financial efficiency and accounts payable. This investigation explores to ascertain the impact of accounts payable on the income growth of the corporate organization listed on the floor of NSE in Nigeria.

2.2 Financing advantage theory

The theory of financing advantage proposes a better oversight function on the suppliers over creditworthiness than the financial institutions. Suppliers always have more cost advantage over conventional financing institutions in lending trade credit to a buyer (Wagner, S. M. (2006, p. 688). That implies that the suppliers have efficient faculty to monitor customers and enforce repayments of loans where necessary. The theory anticipates an increasing relationship between financial efficiency and accounts receivables due to the offering of credit sales by the suppliers.

The cost advantage holds multi-dimensional assumptions regarding the experience of suppliers and the possibility for the supplier to have a better cost advantage over banking institutions (Petersen and Rajan, 1997, p. 670). The suggestion concerns the disposition and the efficiency suppliers have in managing data. The suppliers can effectively manage information to minimize default in repayment, aside from having the impetus to assess the reliability and ability of clients to repay credit. Also, the constant trading connection with the customers gives the suppliers the advantage of efficient follow-up on customers than the institutional lenders like the banks will do.

Another argument of the financing advantage theory is that when the accounts receivable period extends, it gives more controlling power to the supplier over the customers. The longer the accounts-receivable time lag, the more influential the supplier gets over the customers (Enqvist, Graham, and Nikkinen, 2014, p. 38). That means a supplier can take advantage of pressurizing customers to repay a credit or attempt to discontinue service, unlike the banking institutions that may have some restrictions on posing threats to customers.

Another schools-of-thought maintains that suppliers are more effective in selling retrieved assets of defaulting customers. However, where the supplied goods have a longer life span, the transaction comes with a better security option (Tu, Huong, and Beason, 2019, p. 470). That is because it is not difficult to retrieve and sell the supplies when there is a default. The financial advantage of accounts receivable can empower the profitability of businesses and link to enhance customer-supplier relationships. Hence, this study examines the influence of accounts receivable on the productivity of listed firms at the NSE in Nigeria.

2.3 Precautionary motive theory

The precautionary motive theory supports maintaining excessive stocks to prevent situations like running out of stock (Tsiang, 1969). The essence is to safeguard a decline in sales and increase the profitability of businesses. In cases where a firm runs out of stock, sales and profitability are likely to be affected. Retaining existing and future customers may be challenging.

Proactively, firms attempt to create alternatives to handle the challenge.

The precautionary theory proposes that companies may achieve better performance when inventories are maintained. Keeping stocks helps tackle unnecessary delays in supplying goods to customers (Baiardi, Magnani, and Menegatti, 2020). The implication is that firms can enhance the supply chain even in unforeseen circumstances, which is healthy in maintaining customers and increasing sales.

Generally, a break in the supply chain of goods can be costly as it can lead to losses of future and current customers. Hence, holding a large inventory can assist in reducing the gaps between receiving and placing an order (Tsiang, 1969). To an extent, the theory is productive and connects financial performance with the inventory holding period. As a result of this argument, the study explores the possibility of establishing the effect of the inventory holding period on the productivity efficiency of corporate organizations listed at the NSE in Nigeria.

2.4 Empirical literature review

Transient credit financing decisions and financial efficiency

The investigation of Falope and Ajiore (2009) on the connection between the working capital elements and the profitability of 50 publicly-quoted firms in Nigeria from 1996 to 2005 brings critical knowledge. With the ROA variables, the research reveals that the accounts receivable period, cash conversion cycle, and inventory holding period have an overwhelmingly negative impact on profitability. While the study shows that initiating a limiting policy can change the position of the accounts receivable period for companies, the research shows that stopping the inflow in the working capital does not mean well for a growing company.

Falope and Ajiore (2009) also explain that the adverse position of the cash conversion cycle demonstrates that successful companies do their best to lower the cash conversion cycle. The study unveils the positive effect of the account payable period, which means productivity and profitability. Notwithstanding, the research does not indicate any influence on company attributes.

Another investigation carried out on public-quoted companies in Nigeria is the study of Takon and Atseve (2015). The researchers examine the relationship between working capital and company productivity by employing data from firms listed at the NSE in Nigeria. Data ranges from 2000 to 2009, and the research adopts the OLS regression model, fixed effects, and panel data. The outcome reveals that Account Receivables impact ROA negatively and that the Cash Conversion Cycle emits limited effects on financial efficiency.

Takon and Atseve (2015) further unveil that factors including leverage, size of firms, and growth opportunities have an overwhelming influence on productivity, and inventory has a negative value to the ROA. The study only uses the ROA as a parameter to determine productivity. However, using a single financial indicator for productivity interpretation cannot manifest accuracy in the dynamics of the variables involved (Syverson, 2011). Consequently, this current investigation only attempts to deploy the measures of market valuation and accounting profit in determining the effectiveness of companies.

The assertion from Salempour and Vaer (2015) shows the importance of working capital to business growth. Taking a cross-examination of the Tehran Stock Exchange in Iran and deploying data from 471 firms, Salempour and Vaer (2015) engaged the fixed-effect regression models and correlation analysis for research outcome interpretation. The study, however, reveals that the Accounts Receivable, Account Payables Period, and Inventory Holding period have an increasingly negative effect on the profitability of companies when determined by the ROA. Therefore, it becomes essential to verify the efficacy of this outcome in the Nigerian economy since the research utilized a different economic setting in the Middle East.

The Asian stock market also gets attention in the study, as there are extensive resources for working capital management. The investigation of Khan, Rasheed, Ahmed, and Rizwan (2016) evaluates the effects of working capital on the financial productivity of 38 quoted companies in Pakistan. The research utilizes data from the companies from 2011 to 2015 to measure efficiencies based using ROA, ROE, and gross profit margin (GPM). The outcome manifests a significant average collection period effect on the ROA and GPM than the impact on the ROE.

However, the research methodology concentrating on the OLS regression model alone can exhibit serial correlations and panel unit errors during investigation processes (Baum, 2006). Where a study uses pooled OLS regression model, errors like heteroscedasticity are bound to occur across the investigation panel units. Therefore, this current research has resorted to avoiding the OLS regression model and engaging the fixed and random effect models.

Interestingly, Bagh et al. (2016) also examine the role of working capital on the efficiency of 50 quoted companies at the Karachi Stock Exchange (KSE) in Pakistan. The study deployed data from companies between 2005 to 2014 and investigated productivity following the yield on the earning per share (EPS), ROA, and ROE variables. The investigation output shows a favorable effect of an average collection period on the ROA while indicating the negative part of the cash conversion cycle and period of payment on the ROA.

The study also indicates the increasing impact of the average payment period on the ROA and the positive influence of the average collection period on the ROA (Bagh et al., 2016). Apart from showing that the average collection period affects the ROA, the study suggests that Inventory Turnover has an unfavorable effect on EPS. However, the research considered environmental factors quite different from what is obtainable in Nigeria.

Still, in Pakistan, Hassan, Imran, Amjad, and Hussain (2014) researched working capital management as it impacts organizational financial performance using data from 2007 to 2010 from the quoted companies listed at Exchange in Pakistan. Engaging ROE, GPM, and ROA as determinants of performance, the research manifests an increased average collection period on the gross profit margin and a negative influence on the return on assets. While the study indicates a significant impact of the average payment period on equity, the investigation has not manifested short-term financing effects on financial efficiency.

Advancing on working capital elements and company efficiency, Mathuva (2010) investigates 30 publicly quoted companies using 15 years of financial data. The research unveils a relationship between organizational productivity and the period of inventory conversion. The study deploys fixed-effect regression models and the OLS to display an unfavorable connection between the time of revenue collection and company productivity. Additionally, the research held positive linkages between financial efficiency and the size of a company. Apart from recognizing the moderating impact of features within firms, the investigation efficiently deploys financial performance determinants, including the ROE, the Tobin-Q (TQ), and the ROA.

The investigation of Gachira, Chiwanza, Nkomo, and Chikore (2014) is another milestone in determining the effect of working capital and the relationship on the financial performance of enterprises. Gachira et al. (2014) utilize data from 39 companies listed on the Zimbabwe Stock Exchange from a period ranging from 2009 to 2013. The outcome of the investigation reveals the downside of credit length on company productivity, besides showing the relevance of inventory turnover and the natural logarithm of sales vis-a-vis productivity. However, the economic terrain of Zimbabwe is not the same as that of Nigeria.

In Vietnam, Hoang (2015) researches the role of working capital on business productivity. The study uses data from 2009 to 2014 from selected firms -o test productivity through fixed effects multiple regression analysis. The outcome shows that the average payment period reduces the return on assets and the average inventory.

It also impacts the average collection period and the net trade cycle, showing an unproductive influence on ROA. This study engaged a short period but revealed the relevancy of leverage, liquidity, organizational growth, and size in achieving profit in business. However, Nigeria and Vietnam operate on different macroeconomic levels, and generalizing results may not have rational, hence validating the need for this current study.

Sharma and Kumar (2011) turn in the opposite of other investigations reviewed in this study. Sharma and Kumar (2011) work on efficient deployment of working capital and the productivity of companies in India. Obtaining data from 263 publicly quoted companies in India from 2000 to 2008, the research examines the profitability within firms using the OLS regression model.

The result manifests the negative impact of inventory of days and accounts payable on company efficiency. Measured by the ROA, the study shows that the cash conversion period and the duration of accounts-receivables do have an increasingly enhancing effect on the productivity of companies (Sharma and Kumar, 2011) which is contrary to some of the reviewed work. Therefore, it achieves a different outcome for an investigation on a similar topic has created interest in this study, which evaluates short-term financing decisions and the financial efficiency of corporate companies listed at the NSE in Nigeria.

Empirical literature summary

Extensive literature exists on short-term and transient loan facilities, but the rolling effects on the ROA and ROE of firms in the Nigerian market are absent. The impact on company financial efficiency on moderating options is also lacking. Brambor, Clark, and Golder (2005) reveal that an interactive model can deliver precise information on a given date and practically oriented outcome in research investigation. This study attempts to bridge information lapses and considers the effects of account payable turnover down to the mediating role of the state and features of companies within the Nigerian economy.

Besides offering information on the moderating influence of cash holdings on the link between the financial efficiency and short-term financial options of firms at the NSE in Nigeria, the present study gives an explicit degree of relationship between short-term and transient financing decisions and company productivity. The work is in the opposite direction to available research that focuses more on investigations of long-term financial decisions (Autukaite & Molay, 2013). While the past studies never presented the dynamics of short-term financing options and the efficiency of corporate firms listed on the floor of NSE in Nigeria, this study brings evidence of the dynamics of variables into consideration. Past studies show the role of financing decisions on financial productivity. However, this investigation seeks to demonstrate the combined impact of cash holding and company capacity on productivity vis-à-vis financing decisions of quoted firms at the Exchange.

3. Research methodology

3.1 Research design

The study utilizes an explanatory research design to evaluate short-term financing decision impact on the financial growth of corporate companies listed on the Exchange in Nigeria. This research design examines cause-and-effect relationships of variables (Frees, 2004), and it is relevant where the objective is to show the interactions of variables without exploiting any component of the variables. It also involves a systematic empirical investigation that does not allow complete control of the explanatory variables.

The research draws data from eleven industries listed at the Exchange in Nigeria from 2015 to 2022 via the annual company financial reports from a population of 35 firms. The data population is a set that produces the research sample (Berndt, 2020, p. 225). The study chooses these companies because of their financial report dependability and availability to the Exchange. The Exchange has grown significantly, displaying a current listing of 163 companies as of November 2019 (NSE, 2020). The current services at the Exchange offers are market data solutions, listing, and trading services, licensing services, and ancillary technology services.

3.2 Empirical model

In tangent with the investigation of Mathuva (2010), the study evaluates short-term credit decisions of corporate companies listed at the Exchange in Nigeria with a modified regression equation. The modified regression model enhances data validity due to the involvement of time lapses in the collected data. The model can only excel in engaging linear panel regression where there are cross-sectional involvements in statistical data (Bajpai, 2011). Therefore, the model deploys panel data of companies quoted at the Exchange to evaluate the impact of short-term financing on financial efficiency.

Using data to conduct the investigation is best because it unveils variations displayed at different levels of growth that the companies experience. Data manifest the individual dimension of firms and establish a sequence of variables and how they interplay (Frees, 2004). Panel data is vital in displaying multiple pieces of information received over time for a particular company. Therefore, in implementing a ranking regression analysis, the inclusion of direct effects comes first and, subsequently, the mediating influence and ending with the interaction effect to establish the moderating impact. To this end, the study utilizes the model:

$Yit = \alpha + X'it\ \beta + \varepsilon it$. While the financial productivity of the firm is *i*, the dependent variable is Yit, and time (t) represents the observations. β stands for the estimated coefficients, and $X'it$ and α are for independent variables and constants, respectively.

3.3 Target population

The target population is corporate companies from eleven industries (table 1) listed at the Exchange in Nigeria. The data considered from 2013 to 2019 of the financial report of the companies through the NSE in Nigeria and the sample size drawn depended on the company financial statements' dependability and availability to the Exchange.

The Exchange has grown significantly, having 163 companies listed as of November 2019 (NSE, 2020). Among the services that the Exchange offers are market data solutions, listing, and trading services, licensing services, and ancillary technology services. The Exchange classifies listings into 11 sectors, as indicated above.

Table 1: Sample

Sector	Quoted Firms	Percentages
Agriculture	5	3.06
Conglomerate	5	3.06
Construction/Real Estate	8	4.91
Consumer goods	20	12.27
Financial services	52	31.90
Healthcare	10	6.13
ICT	9	5.52
Industrial Goods	13	7.95
Natural Resources	4	2.45
Oil & Gas	12	7.35
Services	25	15.34
Total	**163**	**100**

(NSE, 2022)

3.4 Ethical considerations

With due consideration to accuracy, the research deploys data only from the annual financial reports of the companies listed at the Exchange in Nigeria. Ethical consideration is a vital research component, ensuring the dignity of the study and the transparency and honesty in all communications relating to the investigation (Saunders et al., 2012). Apart from utilizing data from the NSE in Nigeria, the work also uses information from textbooks, journals, and articles with full referencing in APA styles to the relevant authors.

4. Analysis and summary of hypotheses tested

Hypothesis testing brings out apple information necessary to aid the acceptance or rejection of a null hypothesis. However, the position here is testing to confirm the support or non-support of the alternative hypothesis, as indicated in the Table 2.

Table 2: Hypotheses overview

H_x	Hypothesis	Supported / not supported
H_1	Cash holding affects the profit maximization of quoted companies listed at the Exchange in Nigeria	supported
H_2	Account receivable period extension impacts the financial turnover of public firms in Nigeria	supported
H_3	lowered cash conversion cycle (CCC) has a significant effect on the financial health of quoted firms in Nigeria	supported
H_4	Short-term credit impacts the financial efficiency of non-financial companies quoted at the Exchange	supported

The test reveals critical information necessary in achieving efficient short-term financing decisions relevant to enhancing business performances in Nigeria, aside from manifesting strategic dimensions boosting financing decisions of the management of corporate companies listed at NSE in Nigeria. Inputs on achieving efficient financial management are eminent, specifically by testing the impact of cash holdings on profit maximization and short-term financing decisions. A brief data analysis is shown in Table 3.

Table 3: Data analysis

No.	Objective	Methodology
1.	To determine the impact of cash holding on financial productivity of quoted companies listed at the Exchange in Nigeria	Multiple regression
2.	To ascertain the effect of Account receivable period extension on the financial turnover of public firms in Nigeria	Multiple regression
3.	To confirm the impact of lowered cash conversion cycle (CCC) on the financial health of quoted firms in Nigeria.	Multiple Regression
4.	To determine the impact of Short-term credit on financial efficiency of companies quoted at the Exchange	Multiple regressions

The choice of multiple regression analysis (MRA) becomes imperative as it enables the prediction of the dependent variable (ROA) as the financial performance indicator using the independent variables, CCC, Cash holding account, account receivable period, and short-term credits. MRA is a statistical methodology that examines the dependent variable relationship with many predictor variables allowing the determination of variance and the contribution of each explanatory variable to the overall variations (Henderson and Velleman, 1981, p. 400). The continuous-scaling factor of the dependent output and the independent variables, which are testable with Durbin-Watson statistics, and the linear relationship of each predictor with the dependent variable count for the suitability of this model. Again, the absence of significant influencing points and multi-collinearity and the presence of data homoscedasticity and normally distributed error term informed the fitness of the model engaging the IBM-SPSS statistics analysis presented in Table 4, Table 5 and Table 6.

Table 4: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.802a	.643	.548	2.43113

Predictors: (Constant), ACCT00003, CASH00001, STC00004, CCC00002
ACCT00003 – Account receivable period
CASH00001 – Cash holding
STC00004 - Short-term credit
CCC00002 – Cash conversion cycle
ROA00005 – Return on Asset

Table 5: ANOVA

Model	Sum of squares	df	Mean square	F	Sig.
1 Regression	159.894	4	39.974	6.763	.003b
Residual	88.656	15	5.910		
Total	248.550	19			

a. Dependent Variable: ROA00005
b. Predictors: (Constant), ACCT00003, CASH00001, STC00004, CCC00002

Table 6: Coefficients

	Unstandardized coefficients		Standardized coefficient	t	Sig.	95% confidence interval for B	
Model	B	Sta. error	Beta	6.763	.003b	Lower bound	Upper bound
1 (Constant)	6.655	5.060		1.315	.208	-4.130	17.439
CCC00002	.278	.091	.754	3.064	.008	.084	.471
STC00004	.097	.072	.318	1.357	.195	-.055	.250
CASH00001	.067	.041	.304	1.630	.124	-.021	.154
ACCT00003	-.121	.089	-.365	-1.372	.190	-.310	.067

a. Dependent Variable: ROA00005

A value of 0.802 of the multiple correlation coefficient (R) indicates a quality prediction capacity of the dependent variable, ROA, in the model. A strong relationship between variables exists where the R-value exceeds 0.7 and +1 (Kelley and Bolin, 2013, p. 75), and the R square of 0.643 explaining variance proportion indicates the capacity of 64.3% of independent variables explanation of the dependent variable in the regression model. Adjusted R-square (*R2*) can hold a value up to 1, and values closer to 1 also indicate a better fit for outcome prediction (Kelley and Bolin, 2013, p. 75). Here the value of 0.548 serves better.

The ANOVA table tests the overall fitness of the regression model with the variables involved. The output F (4, 15) equaled 6.763, and a P <.005 reflects a statistically significant prediction with the independent variables. The multiple regression testing the impact of CCC, accounts receivable period extension, cash holding, and short-term credit on the return on asset manifests statistically significant outcomes with the CCC variable standing at a P<.05 and other variables at a marginally significant level. That enhances the alternative hypothesis as supported in the study. The outcome of the regression models deployed testing the hypothesis together with the explanations by assessing the research outcome against the existing findings and theoretical background on short-term financing decisions. Also, the non-financial efficiency of the publicly quoted non-financial corporate companies was examined in the literature review, focusing on the interaction effects.

5. Conclusion

Statistically, cash conversion cycle (CCC) decisions impact the financial productivity of listed companies at the Exchange in Nigeria. The productivity measurement took place through ROA of the selected publicly quoted companies from the Exchange. The outcome implication signifies that maintaining a significantly lowered CCC can boost the sales and financial performance of the companies. Where firms can retrieve outstanding payments efficiently and handle inventory demands or bill payments on time, the CCC period does not linger (Moss and Stine,1993, p. 29). A reduced CCC signifies a healthy situation on a performance scale because the company can channel extra resources into additional purchases or debt settlement.

The working element, CCC, measures the period of holding funds in the working-capital portfolio, the possible days a company converts outflow into cash inflow, and the required time to liquidate financial obligations and remain in business. That implies that business efficiency and productivity is possible with lowered CCC and significant time leverage of liquid funds from inventory and account receivable. As a critical component of working-capital metrics, shorter CCC with account receivable extension periods, cash holding, and short-term funding manifest reliable indicators of liquidity management, operational efficiency, and financial performance of firms.

The study also confirmed the moderate influence of account receivable turnover decisions on financial performance. Measurement of account receivable turnover decisions happened through the account receivable holding period and the parameters of the ROA (Ali, 2020) to determine the financial productivity. The result is that a decrease in the accounts receivable holding period can enhance account receivable turnover and financial performance.

The research outcome delivers significant insights that call for policy recommendations to maximize opportunities in the marketplace. A positive impact of a rise in inventory turnover decisions on the financial efficiency of corporate listed companies at the Exchange in Nigeria is a thing to note. The recommendation is that companies develop a strategic inventory management approach to maximize sales and increase revenue generation.

While there are no previous investigations on the interaction impact of short-term financing decisions on the financing efficiency of corporate listed companies in Nigeria, the study becomes relevant in delivering results on the interaction impact of short-term financing decisions. Furthermore, previous studies examined short-term financing effects on financial efficiency with a few literature reviews and limited sample data. This study examines various dimensions of influences of short-term financing decisions on the corporate efficiency of firms within the Nigerian market, contributing to the existing literature on business management.

6. Study Limitations / Delimitations

The limitation centers on selecting a few companies across different sectors apart from the financial sector listed at the Exchange in Nigeria. The exclusion of companies in the financial sector was because the working capital of firms in the financial industry includes loans and deposits from clients, and the companies seem to have an edge in terms of short-term financing. Therefore, a generalization of the investigation outcome may not accurately represent issues of the financial efficiency of all firms listed at the Exchange at any given time.

Although the researchers obtained information directly from the NSE, the Exchange, in Nigeria, chances are the possibility of incorrect data due to the possible internal influences of companies. Sometimes, company management can manipulate or doctor the annual reports to meet the regulatory standard. That can create some challenges. Therefore, the generalization of the study outcome on all the listed companies at the Exchange may not be efficient.

7. Further research areas

The research has opened a new vista in financial and business management where utilization of data and variables determine the impact of short-term financing strategies on the efficiency of corporate companies listed at the Exchange in Nigeria. Among the possible new dimensions of research following this study are conducting surveys across all the sectors at the Exchange on working capital functionalities and effects of short-term financing decisions of all listed companies and the corresponding impact on the company productivity. Profit retention and dividend payment may be critical to examine alternative sources to companies for increased cash holding. Overall, the study can open up more perspectives on working capital management and seeking measures for short-term financing.

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