



## Review Article

Volume-04|Issue-01-2024

## Debt Financing and Return on Assets of Quoted Firms in Nigeria

Dr. Henry Waleru Akani

Department of Finance, Rivers State University, Nkpolu - Port Harcourt, Rivers State, Nigeria

## Article History

Received: 30.12.2023

Accepted: 20.01.2024

Published: 22.01.2024

## Citation

Akani, H. W. (2024). Debt Financing and Return on Assets of Quoted Firms in Nigeria. *Indiana Journal of Economics and Business Management*, 4(1),1-14.

**Abstract:** This study analyzed the effect of debt financing on return on assets of quoted consumer goods firms in Nigeria. Return on assets was proxy for dependent variable while debt financing was proxied by long-term debt ratio, short-term debt ratio and total-debt ratio by long-term debt ratio, short-term debt ratio and total-debt ratio. The study was anchored on Miller and Modigliani Theory, Pecking Order Theory, Trade-Off Theory, Trade-Off Theory, and Agency Cost Theory. The study adopted both deductive and inductive methods while ex-post facto research design was adopted. The population of this study consisted of all the twenty consumer goods firms quoted on the Nigerian Exchange Group as at December 31st, 2022. The study adopted convenience sampling while the sample size consisted of ten (10) consumer goods firms in Nigeria. Panel data were used and these data were sourced from Nigerian Exchange Group. The data were subsequently analyzed using panel least squares regression technique while p-value was used to test the hypotheses formulated at 5% level of significance. The findings obtained in the study showed that long-term debt ratio has a positive and significant effect on return on asset of quoted consumer good firms in Nigeria, short-term debt ratio has a positive and significant effect on return on asset of quoted consumer good firms in Nigeria while total debt ratio has a positive and significant effect on return on asset of quoted consumer good firms in Nigeria. The study concluded that debt financing contributes positively and significantly to the profitability of quoted consumer goods firms in Nigeria. The study recommended among others that consumer goods firms should implement strong risk management practices to ensure that debt obligations can be met comfortably.

**Keywords:** Debt Financing, Return on Assets, Long-Term Debt Ratio, Short-Term Debt Ratio And Total-Debt Ratio By Long-Term Debt Ratio, Short-Term Debt Ratio And Total-Debt Ratio

Copyright © 2024 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0).

## INTRODUCTION

Many consumer goods firms in Nigeria are faced with a lot of challenges that significantly affect their financial performance in a negative way. However, these lingering problems in many consumer goods firms in Nigeria are not unconnected to the inability of their management to decide on the appropriate finance mix that can gear the desired performance. Many managers of consumer goods firms in Nigeria are said to be facing a lot of challenges relative to debt financing. One of these challenges relates to how to determine the best way to choose combination of debt and equity to achieve optimal capital structure that would minimize the cost of capital of the firms, and improves return to shareholders and corporate performance. Sadly, many managers of consumer goods firms in Nigeria do not have a clear-cut guideline that they can consult when taking decision in connection with debt financing. As a result, achieving the best mix of debt and equity financing that will maximize their firms' market value while minimizing cost is a puzzle to most managers and board of directors. The failure to achieve this best mix could lead to low profitability, bankruptcy, and decrease in the value and shareholders wealth.

In furtherance, governance and regulatory issues pose challenges to the profitability of many consumer goods firms in Nigeria in Nigeria. Weak corporate governance practices, inadequate regulatory

frameworks, and enforcement mechanisms can undermine the transparency and accountability of consumer goods firms in Nigeria, leading to increased agency costs and risk perception by lenders. The lack of trust and confidence in the business environment can limit their access to debt financing which could in turn negatively impact their performance. Another challenge associated with the performance of many consumer goods firms in Nigeria with respect to debt financing is limited access to credit. Many consumer goods firms in Nigeria face difficulties in obtaining loans from financial institutions due to stringent lending criteria, lack of collateral and limited credit history. The lack of access to credit constrains the growth and investment opportunities for these firms, limiting their ability to leverage debt for enhancing performance. Consequently, many consumer goods firms in Nigeria often resort to short-term debt to meet their financing needs due to limited long-term financing options. This overreliance on short-term debt exposes firms to refinancing risk, as they may struggle to repay or renew their debt obligations when they mature. The inability to manage short-term debt effectively can lead to financial instability, reduced investment, and hampered their performance.

Consequently, many studies have empirically determined the effects of debt financing on profitability of firms globally (Suleiman, Popoola and Yahaya, Akani and Uzah, 2015,2022; Owa, Ifurueze and Emeka-

Nwokeji, 2022; Arumona, Lambe and Idogho, 2022; Aamir, Muhammad and Muhammed, 2021; Akani and Lucky, 2014, Akani and Lucky, 2020, Rahji and Kamaldeen, 2020; Akani and Lucky, 2015, Ahmed, 2020; Uzokwe, 2019; Chuke and Kenneth, 2018). To the best of the researcher's knowledge, some gaps in knowledge have been identified and this study aims to fill this gap in knowledge. The first issue is the lack of consensus in the literature regarding the effect of debt financing on profitability in Nigeria. Some of these studies argued that debt financing has a positive impact on firm performance by providing tax advantages, disciplining managerial behavior, and signaling firm value to external stakeholders. Conversely, other studies suggested that excessive debt levels can lead to financial distress, reduced profitability, and increased agency costs, thereby negatively affecting profitability. The absence of a clear consensus necessitates further investigation to understand the specific dynamics of debt financing and firm performance in the Nigerian context. Also, very few studies are available on the effect of debt financing on profitability of quoted consumer goods firms in Nigeria. In addition, most of the previous related studies reviewed made use of one measure of performance. Lastly, most of these studies are not current or up-to-date as they failed to make use of most recent data. In a bid to fill this gap, this study intends to empirically analyze the effects of debt financing on return on assets of quoted consumer goods firms in Nigeria.

## LITERATURE REVIEW

### Concept of Debt Financing

According to Akindele, Asri and Adedeji (2020) debt finance is when an organization borrows money with interest attached to it which will be paid back at a future determinable period. The core feature of debt financing is that the amount borrowed, plus interest, must be paid back to the providers of debt over a given period. Meanwhile, debt financing can be classified into two namely the short-term debt financing and the long-term debt financing. The short-term debt financing is the type of financing where the repayment period is less than a year and is mostly associated with operation of the business such as payroll, inventory and purchasing and supply while in the long-term debt financing, the schedule of debt payment is expanded for more than a year example of such is land and building, equipment and large machinery. Debt financing is a means of financing business enterprise by selling the bonds, mortgages, or loan of the business. These types of instruments are used by large firms to raise capital for their operation or projects. Debenture financing are means by which a firm raise capital without making use of their own assets or give up ownership in their firms. Another characteristic of debt financing is that it frees the other assets of the business to engage in other business activities which will generate capital for the company (Akani and Akani, 2019, Akani, 2019, Akindele, Asri and Adedeji, 2020).

### Proxies of Debt Financing

The proxies of debt financing adopted in this study include long-term debt ratio, short-term debt ratio and total debt ratio. These proxies are discussed below:

**Long-Term Debt Ratio:** Long-term debt consists of debts and financial obligations lasting over one year. Long-term debt for a company would include any financing or leasing obligations that are to come due after a 12-month period. Long-term debt also applies to governments as nations can also have long-term debt. Financial and leasing obligations, also called long-term liabilities, or fixed liabilities, would include company bond issues or long-term leases that have been capitalized on a firm's balance sheet. Often, a portion of these long-term liabilities must be paid within the year; these are categorized as current liabilities, and are also documented on the balance sheet. The balance sheet can be used to track a company's debt and profitability (Akani and Lucky, 2019, Ishaya & Abduljeleel, 2014). Long-term debts show the percentage of assets financed with debt which is payable after more than one year. It includes bonds and long-term loans. Generally, these bonds and loans carry a higher interest rate, as lenders demand a higher return in exchange for taking on the greater risk of loaning money over a long period of time. In reality, long-term debt limits managerial discretion by making access to new funds and over-investment less likely (Hart and Moore, 2005).

**Short-Term Debt Ratio:** Short-term debt, also called current liabilities, is a firm's financial obligations that are expected to be paid off within a year. It is listed under the current liabilities portion of the total liabilities section of a company's statement of financial position. There are usually two types of debt or liabilities that a company accrues; financing and operating. The former is the result of actions undertaken to generate funding to grow the business, while the latter is the by-product of obligations arising from normal business operations (Arumona, Lambe and Idogho, 2022). Short-term debt is used to finance current assets that can be quickly turned back into cash; examples of this type of debt are accounts receivable and inventories. Non-current liabilities in the form of long-term debt, or debts, are used to finance long-term assets, such as the purchase of land and the construction of a building or ship simplest version of the matching principle of finance, short-term assets should be financed with short-term liabilities and long-term assets should be financed with long-term liabilities. Short-term assets and liabilities are generally defined to be those items that will be used, liquidated, mature or paid off within one year.

**Total Debt Ratio:** The debt ratio is defined as the ratio of total debt to total assets, expressed as a decimal or percentage. In other words, the company has more liabilities than assets. A high ratio also indicates that a company may be putting itself at a risk of default on its loans if interest rates were to rise suddenly. This ratio

measures the amount of a firm's total debt (long-term and short-term debts) to the total capital (total debt plus equity). Nwude (2013) contends that total debt ratio measures the portion of a firm's assets financed by creditors. As the total debt ratio increases, so do a firm's fixed interest charges. If the total debt ratio becomes too high, the cash flow the firm generates during economic recession may not be enough to meet interest payment. In terms of its significance to a firm, theoretical literature predicts that debt is positively correlated with the level of investment. This ratio remained most notable measure of leverage ratio of a firm as adopted in many studies (Onaolapo and Kajola, 2010).

**Return on Assets (ROA):** According to Emekekwe (2008), return on assets (ROA) is a ratio which seeks to measure the amount of profit generated from the entire assets of the firm. It is expressed as Profit before tax Total Assets. Akani and Anyamaobi, 2021 and Ekwe and Duru (2012) opines that return on assets (ROA) was used as dependent variables, because it is an indicator of managerial efficacy. Return on asset is an indicator of how profitable a company is relative to its total assets. It gives an idea as to how efficient management is at using its assets to generate earnings, that is, it measures efficiency of the business in using its assets to generate net income. It is a profitability ratio. Calculated by dividing a company's annual earnings by its total assets, ROA is displayed as a percentage. Sometimes this is referred to as "return on investment". Return on assets is the ratio of annual net income to average total assets of a business during a financial year. Net income is the after tax income. It can be found on income statement. Average total assets are calculated by dividing the sum of total assets at the beginning and at the end of the financial year by 2. Total assets at the beginning and at the end of the year can be obtained from year ending balance sheets of two consecutive financial years (Adekunle and Aghedo, 2014). The formula to calculate return on assets is:

$$\text{ROA} = \frac{\text{Annual net income}}{\text{Average Total Asset}}$$

#### Miller and Modigliani (M-M) Theory

This theory was propounded by Modigliani and Miller in 1958. Modigliani and Miller (M-M) theory illustrates that under certain key assumptions, firm's value is unaffected by its capital structure. Capital market is assumed to be perfect in Modigliani and Miller's world, where insiders and outsiders have free access to information; no transaction cost, bankruptcy cost and no taxation exist; equity and debt choice become irrelevant and internal and external funds can be perfectly substituted. The M-M theory argued that the value of a firm should not depend on its capital structure.

The theory argued further that a firm should have the same market value and the same weighted average cost of capital at all capital structure levels

because the value of a company should depend on the return and risks of its operation and not on the way it finances those operations. If these key assumptions are relaxed, capital structure may become relevant to the firm's value.

#### Pecking Order Theory

Pecking Order theory can be traced to Donaldson (1961) when he conducted an interview survey of twenty-five (25) large United States (US) firms, and found that management of firms strongly prefers to use internal financing sources over external sources, unless internal sources of funds are not within reach. Akani and Momodu, 2016, Akani and Uzah, 2018, Abubakar (2017) asserted that Myers and Majluf (1984) were among the first to use the term Pecking Order to refer to the kind of financing behaviour exhibited by firms sampled by Donaldson (1961). Myers (1984) and Myers and Majluf (1984) argued that information plays an integral role in financing decision of managers and investors. They maintained that managers will be reluctant to issue equity if they feel it is undervalued by the market. Also, investors too are aware that managers will be reluctant to issue new equity when it is underpriced.

#### Trade-Off Theory

Myers (1984) proposed the Trade-off theory that supports the relevance of capital structure. The theory can be traced to the debate over M-M theory (Akani, Okonkwo and Ibenta, 2016, Akani, Nwanna and Mbachu, 2016 and Ajibola, Wisdom and Qudus, 2018). This theory suggests that firms have optimal capital structure and they move towards the target. It further emphasized that when debt is employed in capital structure, firms are faced with the challenges of tax benefit and bankruptcy cost, thus the need for trade-off between the two. Trade off theory has to do with cost-benefit analysis performed in business operations. The theory states that the trade-off between the benefits the debts cost is the optimal capital structure. According to Graham and Harvey (2001) the trade-off theory connotes firms' choice of leverage between the benefits and cost of debt and the trade-off of costs and benefits of borrowing while holding firms' asset constant as a determinant of a firms' optimal debt ratio. The trade-off theory summarized the balance of diverse benefits and cost as it concerns debt for optimal capital structure.

#### Empirical Review

Akani and Chukwuemeka (2021) examined the relationship between capital structure decision and performance of quoted small and medium scale enterprise in Nigeria. The objective was to investigate how various components of capital structure affects return on equity. Ten small and medium enterprises were selected from the population. Panel time series data were sourced from audited financial statement of the sampled small and medium enterprises. Return on equity was modeled as the function of debt capital equity capital and

retained earnings. Fixed effect model was adopted after a cross examination of the validity of the models. It was found that 89.6 percent of the total variations in the return on equity is accounted for, by the explanatory variables. The findings proved that short term debt ratio have positive but no significant effect, retained earnings have positive but no significant effect, debt to total assets ratio have positive but no significant effect while ordinary share capital and debt equity ratio have negative and no significant effect on return on equity of the quoted small and medium scale enterprise. The study recommended that Small and medium scale enterprises should finance projects with retained earnings, debt capital and equity capital; this is in agreement with the pecking order theory. The quoted small and medium enterprise firms have to pay attention to financing aspects represented by differentiation between different financing sources, and in particular investment debt funds in are turn exceeds capital cost, which affects profitability growth and sales volume. The quoted small and medium enterprise firms should be aware of the relationship between capital structure decisions and profitability taking into accounts the conditions of external environment as an important factor in the analysis of their strategies.

Ahmadu (2021) assessed the effect of financial leverage on the financial performance, using data from the annual reports of 7 quoted oil and gas firms in Nigeria, as well as from the Nigerian Stock Exchange (NSE) daily official lists over the period 2005- 2018. Descriptive statistics were used in data presentation, while random effects panel estimator was applied in determining the effect of financial leverage variables as short-term debt ratio (STDR), long-term debt ratio (LTDR) and total debt equity ratio (TDER) on the financial performance, measured by the return on equity (ROE). The regression results from the random effects model (REM) indicated that STDR and LTDR have no significant effect on the financial performance, and TDER has a negative but significant effect on the financial performance denoted by ROE. The study concluded that higher financial leverage of quoted oil and gas companies in Nigeria attenuates shareholders' wealth. The investment implication of this conclusion is that oil and gas companies should look more carefully at the utility maximization value of debt vis-à-vis equity in their capital structure.

Aamir, Muhammad and Muhammed (2021) investigated the relationship between the debt level and performance of listed firms on the Pakistan Stock Exchange (PSX) during a five-year period. The study used pooled ordinary least squares regression and fixed-and-random-effects models to analyse a cross-sectional sample of 30 Pakistani companies operating in the automobile, cement and sugar sectors during 2013–2017 (N 5 150). The results showed that both short- and long-term debt have negative and significant impacts on firm performance. This indicated that agency issues may lead to a high-debt policy, resulting in lower performance.

However, both sales growth and firm size have positive effects on the profitability of nonfinancial sector companies. This study suggested that when debt financing significantly and negatively influences firm profitability, company owners and managers should focus on finding a satisfactory debt level. However, this study was limited to the automobile, cement and sugar sectors of Pakistan. Future studies could address other sectors, such as textiles, fertilizers and pharmaceuticals. This study focuses on enhancing the existing empirical knowledge of debt financing's influence on the PSX's major sectors' profitability.

Ofulue, Ezeagba, Amahalu and Obi (2021) examined the relationship between financial leverage and financial performance of quoted industrial goods firms in Nigeria for a thirteen (13) year period covering from 2008-2020. Specifically, this study ascertained the relationship between debt-to-equity ratio, short term debt ratio, long term debt ratio and cash value added. Panel data were used in this study, which were obtained from the annual reports and accounts of fourteen (14) sampled quoted industrial goods firms for the periods 2008-2020. Ex-Post Facto research design was employed. Inferential statistics using Pearson correlation coefficient, Multicollinearity test and Panel Least Square (PLS) regression analysis were applied to test the hypotheses of the study. The results revealed that debt-to-equity ratio and long term debt ratio have a significant negative relationship with cash value added, while short term debt ratio significantly and positively relates with cash value added of quoted industrial goods firms in Nigeria at 5% level of significance. The study recommended amongst others that firms need to look more closely at the company's ability to pay its debt obligations, by managing the use of assets and cash flows to reduce the firm's risk of loss from not paying a liability on time. Well-managed assets and liabilities involve a process of matching offsetting items that can increase business profits.

Akaji, Nwadiolor and Agubata (2021) examined the effect of debt-equity financing on performance of firms in Nigeria. The study measured debt-equity financing using the variables of equity financing (EF) and debt financing (DEF) while performance of firms on the other hand was measured using Return on equity (ROE). Two hypotheses were formulated to guide the investigation and the statistical test of parameter estimates was conducted using OLS Regression Model. The research design used is Ex-post Facto design and data for the study were obtained from the NSE Factbook, Annual Reports and Accounts. The findings of the study showed that debt-equity financing has significant and positive effect on firm performance in Nigeria at 5% level of significance. The study concludes that debt-equity financing improves firm's performance over the years. Based on the findings of the study, it was recommended that Firms should try to finance their investment activities with debts and equity

and consider either debt or equity as a last option. The study strongly recommended that corporate firms in Nigeria should use more of debt equity capital than either debt or equity capital in financing their business activities.

Kolapo, Dada and Mokuolu (2021) examined the influence of capital structure on firm performance with evidence from selected quoted firms in the pharmaceutical industry in Nigeria over the period of 2009 to 2017. The study adopted the panel regression analysis with dependent variables proxied financial performance as return on asset (ROA) and return on equity (ROE), while independent variables are debt to equity ratio (DER), long term debt ratio (LDR), short term debt ratio (SDR), total asset (SIZE) and inflation rate (INF). The fixed effect results in the two models indicate that only firm size was significant and negatively connected to pharmaceutical firms' performance using return on asset. From the outcomes, there is evidence of no significant rapport between capital structure and performance of firms in the pharmaceutical industry in Nigeria. However, the significance of the two models adopted connotes that there are other variables outside the models that predict performance in the pharmaceutical industry, these variables can further be explored by other researchers. However, based on the findings from the study, it was recommended that pharmaceutical firms should be cautious with their funding mix.

Chika and Afamefuna (2021) presented an analysis of the effect of capital structure on the corporate performance of agricultural firms quoted on the Nigeria Stock Exchange (NSE). Specifically, the effect of total debt to total assets, total debt to total equity, short-term debt to total assets respectively on return on assets, return on equity and net profit margin were ascertained. Secondary data for the period 2007 to 2018 were sourced from the annual reports of all the firms quoted on the Nigerian Stock Exchange (NSE). The Panel Ordinary Least Square (POLS) and the Granger Causality test were the techniques employed in estimating the models. The results of the analysis revealed that total debt to total assets, total debt to total equity, short-term debt to total assets have a significant effect on return on assets, return on equity, and net profit margin of agricultural firms in Nigeria. Firms in the agricultural sector are encouraged to fund their operations with more equity capital as debt financing negatively influences shareholder wealth. Also, management of agricultural firms should consider the use of more short-term debt relative to equity capital in preference to long-term debt in their financing mix.

Olufemi, Adebola, Oluayinka and Adeleke (2021) empirically assessed the effect of equity financing options on financial performance of listed manufacturing firms in Nigeria. Secondary data were obtained from purposively selected 60 out of the 70 listed manufacturing firms. Return on assets (ROA) was used

to measure performance while the equity finance options used in the study are; retained earnings, ordinary share capital and preference shares. The overall effects of all the independent variables are statistically significant in explaining the variation in return on assets as their individual probability values are less than 0.05 level of significant. The individual effect of each of the explanatory variables reveals that retained earnings and preference shares significantly influence performance listed manufacturing firms in Nigeria given its probability value of 0.000 which is less than 5%. Although, the effect of ordinary share capital on performance of listed manufacturing firms in Nigeria was positive but statistically insignificant with a probability value of 5%. The study thus concluded that equity financing option composition significantly affect financial performance of listed manufacturing firms in Nigeria.

Omotola, Phillips and Nuga (2021) examined the impact of capital structure on firm performance of some selected telecommunication firms in Nigeria. The annual financial statements of five telecommunication firms listed on the Nigerian stock exchange ranging from 2016-2020 were used for this study. The study used fixed effect regression model to test the significant impact of capital structure on firm's performance, Hence, return on asset (ROA), return on equity (ROE) and earnings per share (EPS) were used as proxies for firms performance while equity ratio and debt ratio were used as indicators for capital structure. The finding revealed that capital structure has positive significant effect on corporate performance of selected telecommunication firms in Nigeria. The study recommended that the telecomm companies should implement policies that will encourage increase in their profit after tax, dividends and turnover as these variables can lead to a positive significant change in the company's performance as well as the market capitalization value.

Oke and Fadaka (2021) examined the capital structure and firm performance of Nigerian consumer goods manufacturing firms listed on the Nigerian Stock Exchange. Inconsistencies in the results on the relationship between capital structure and firm performance necessitated this study. Secondary data were collected from consumer goods manufacturing companies listed on the Nigerian stock exchange. Eighteen companies were used in this study, and panel data method was used in sampling the 18 listed manufacturing firms from 2008-2018. The study adopted the popular accounting and financial measures used in the vast literature on the subject matter namely, return on equity, return on asset, Tobin's Q and earning per share) as the dependent variable. In measuring the independent variable of the study, which is capital structure, long term debt, short term debt, total debt ratios, and growth were adopted. The study also included size as a control variable. The results from the regression analysis carried out in this study showed that firm performance has a

negative relationship with the capital structure in listed Nigerian manufacturing firms. Additionally, growth and performance had a positive correlation for the 18 consumer goods manufacturing companies.

Owolabi, Kolawole, Ogungbade and Adekoya (2021) empirically assessed the effect of equity financing options on financial performance of listed manufacturing firms in Nigeria. Secondary data were obtained from purposively selected 60 out of the 70 listed manufacturing firms. Return on assets (ROA) was used to measure performance while the equity finance options used in the study are; retained earnings, ordinary share capital and preference shares. The overall effects of all the independent variables are statistically significant in explaining the variation in return on assets as their individual probability values are less than 0.05 level of significant. The individual effect of each of the explanatory variables reveals that retained earnings and preference shares significantly influence performance listed manufacturing firms in Nigeria given its probability value of 0.000 which is less than 5%. Although, the effect of ordinary share capital on performance of listed manufacturing firms in Nigeria was positive but statistically insignificant with a probability value of 5%. The study thus concluded that equity financing option composition significantly affect financial performance of listed manufacturing firms in Nigeria.

### Literature Gap

Having reviewed different literature in this chapter, there is obviously a gap and the researcher is optimistic that this present study fits in to fill such gap. To start with, conflicting results emanated from the empirical studies reviewed; while some found a negative relation running from debt financing to profitability, some found a positive relation running from debt financing to financial performance. Also, very few studies are available on the effect of debt financing on profitability of quoted consumer goods firms in Nigeria. In addition, none of the studies reviewed made use of both net profit margin and return on asset as the measures of financial performance. Lastly, most of these studies are not current or up-to-date as they failed to make use of most recent data. In a bid to fill this gap, this study intends to empirically analyze “the effects of debt financing on profitability of quoted consumer goods firms in Nigeria”. Also, the study will make use of both net profit margin and return on asset as the measures of profitability. Lastly, the study will be more current or up-to-date than previous related studies as it will make use of most recent data that covered up to 2022.

## METHODOLOGY

The research design adopted in this study is ex-post facto research design. An ex-post-facto research design is a systematic empirical inquiry that requires the use of variables which the researcher does not have the capacity to change its state or direction in the course of

the study (Akani and Kenn-Ndubisi, 2017, Akani Tony-Obiosa, 2019 and Onwumere, 2009). In ex-post facto research design also, elements in the study are not under the control of the researcher since the events being investigated had already taken place and the researcher has no control over it. Thus, the research design is perfect for this research because the time scope (2012 – 2022) being considered in this study showed that the events had already taken place and as such, the researcher is only trying to analyze it. The population of study consisted of all twenty consumer goods firms quoted on the Nigerian Exchange Group as at December 31<sup>st</sup>, 2022. Sample of ten (10) consumer goods firms were selected from the population using simple random sampling technique. Simple random sampling is one of the most straightforward and unbiased methods for selecting a sample from a population. In this method, each of the 20 quoted consumer goods firms has an equal and independent chance of being selected in the sample of 10. Annual secondary data were used and these data were sourced from the annual reports and financial statements of sampled consumer goods firms for various years as quoted on the Nigerian Exchange Group (NEG).

### Model Specification

$$ROA = f(LTDR, STDR, TDR) \quad (1)$$

Transforming equations 3.1 into mathematical models gives:

### Pooled Regression Model Specification

$$ROA_{it} = \delta_0 + \delta_1 LTDR_{it} + \delta_2 STDR_{it} + \delta_3 TDR_{it} + U_{it} \quad (2)$$

### Fixed Effect Model Specification

$$ROA_{it} = \delta_0 + \delta_1 LTDR_{it} + \delta_2 STDR_{it} + \delta_3 TDR_{it} + \sum_i^9 = 1 \alpha_i idum \varepsilon 1_{it} \quad (3)$$

### Random Effect Model Specification

$$ROA_{it} = \delta_0 + \delta_1 LTDR_{it} + \delta_2 STDR_{it} + \delta_3 TDR_{it} \mu_i + \varepsilon 1_{it} \quad (4)$$

Where:

$f$  = function of

$\delta_0$  &  $\alpha_0$  = constant variables in the models.

ROA = Return on Assets

LTDR = long-term debt ratio

STDR = short-term debt ratio

TDR = total-debt ratio

$\alpha_1 - \alpha_3$  = coefficients of independent variables in ROA model

$U_i$  = error term

$\varepsilon 1_{it}$  = Stochastic or disturbance/error term.

## RESULTS AND DISCUSSION

### Descriptive Statistical Analysis

The result of the descriptive statistical analysis of return on asset (ROA), long-term debt ratio (LTDR), short-term debt ratio (STDR) and total-debt ratio (TDR) of quoted consumer good firms in Nigeria from 2012 to 2022 are presented in table 4.1 below:

**Table 1: Descriptive Data Analysis**

	ROA	LTDR	STDR	TDR
Mean	1.819724	0.116972	0.688716	1.130367
Median	1.340000	0.120000	0.720000	0.900000
Maximum	5.980000	0.240000	1.260000	4.420000
Minimum	0.371546	0.020000	0.210000	0.290000
Std. Dev.	1.265258	0.049972	0.233536	0.661464
Skewness	1.493457	0.056233	-0.261872	2.313866
Kurtosis	4.682123	2.200801	2.207947	9.310394
Jarque-Bera	53.37002	2.958295	4.095019	278.1179
Probability	0.000000	0.227832	0.129056	0.000000
Sum	198.3499	12.75000	75.07000	123.2100
Sum Sq. Dev.	172.8949	0.269701	5.890220	47.25379
<b>Observations</b>	<b>110</b>	<b>110</b>	<b>110</b>	<b>110</b>

Source: Author's Computation, 2023.

The descriptive statistics of the research variables (net profit margin, return on asset, long-term debt ratio, short-term debt ratio and total-debt ratio) are shown in the Table 1 above. The net profit margin has a mean of 2.58%, which can be attributed to the positive net profit margin computed in the selected consumer good firms in Nigeria during the specified years (2012 - 2022). Also, Table 1 shows that the return on asset (ROA) has a mean of 1.82%. The minimum return on asset (ROA) in the observations is 0.37% and the maximum return on asset (ROA) is 5.98%. The standard deviation of 1.27% shows the level at which the return on asset (ROA) deviates from the mean. Also, return on asset (ROA) is positively skewed at 1.49%. The positive value of skewness shows that the coefficient of the variable is positive and its means is greater than the median value. Lastly, the Jarque-Bera statistic, a goodness-of-fit test of whether sample data have the skewness and kurtosis matching a normal distribution, shows that the statistic is 53.37%.

Furthermore, Table 1 shows that the long-term debt ratio (LTDR) has a mean of 0.12%. The minimum long-term debt ratio (LTDR) in the observations is 0.02% and the maximum long-term debt ratio (LTDR) is 0.24%. The standard deviation of 0.05% shows the level at which the long-term debt ratio (LTDR) deviates from the mean. Also, long-term debt ratio (LTDR) is positively skewed at 0.056%. The positive value of skewness shows that the coefficient of the variable is positive and its means is greater than the median value. Lastly, the Jarque-Bera statistic, a goodness-of-fit test of whether sample data have the skewness and kurtosis matching a normal distribution, shows that the statistic is 2.96%.

In addition, Table 1 shows that the short-term debt ratio (STDR) has a mean of 0.68%. The minimum short-term debt ratio (STDR) in the observations is 0.21% and the maximum short-term debt ratio (STDR) is 1.26%. The standard deviation of 0.23% shows the level at which the short-term debt ratio (STDR) deviates from the mean. Also, short-term debt ratio (STDR) is negatively skewed at 0.26%. The negative value of skewness shows that the coefficient of the variable is negative and its means is less than the median value. Lastly, the Jarque-Bera statistic, a goodness-of-fit test of whether sample data have the skewness and kurtosis matching a normal distribution, shows that the statistic is 4.095%.

Lastly, Table 1 shows that the total-debt ratio (TDR) has a mean of 1.13%. The minimum total-debt ratio (TDR) in the observations is 0.29% and the maximum total-debt ratio (TDR) is 4.42. The standard deviation of 0.66% shows the level at which the total-debt ratio (TDR) deviate from the mean. Also, total-debt ratio (TDR) is positively skewed at 2.31. The positive value of skewness shows that the coefficient of the variable is positive and its means is greater than the median value. Lastly, the Jarque-Bera statistic, a goodness-of-fit test of whether sample data have the skewness and kurtosis matching a normal distribution, shows that the statistic is 278.12%.

**Table 2: Levin, Lin & Chu test Results**

Series: EVA					
Method Levin. Lin Chu t					
Variables	Statistics	Prob.**	Cross-sections	Obs	Order of Integration
ROA	-17.1727	0.0000	10	90	I (0)
LTDR	-2.56818	0.0051	10	90	I (0)
STDR	-2.88604	0.0020	10	90	I (0)
TDR	-7.28507	0.0000	10	90	I (0)

Source: Author's Computation, 2023.

After comparing the test statistic value against the Levin, Lin & Chu critical value at 5% level of significance, it was observed that return on asset (ROA), long-term debt ratio (LTDR), short-term debt ratio (STDR) and total-debt ratio (TDR) in the test employed (that is, ADF) were integrated at order 1(0) and were as a result stationary at levels and are significance 5%. However, since all the variables are stationary at levels, there is sufficient statistical evidence to proceed to estimate the panel regression model specified.

**Table 3: Pooled Regression Analysis Results**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.860102	0.469004	1.833891	0.0695
LTDR	3.144425	2.415072	1.302001	0.1957
STDR	0.360148	0.518627	0.694426	0.4889
TDR	0.309046	0.182388	1.694445	0.0931
Root MSE	1.221039	R-squared		0.053073
Mean dependent var	1.824727	Adjusted R-squared		0.026273
S.D. dependent var	1.260533	S.E. of regression		1.243864
Akaike info criterion	3.310008	Sum squared resid		164.0029
Schwarz criterion	3.408208	Log likelihood		-178.0505
Hannan-Quinn criter.	3.349838	F-statistic		1.980348
Durbin-Watson stat	0.995898	Prob(F-statistic)		0.121358

Source: *Author's Computation, 2023.*

#### Long-Term Debt Ratio (LTDR) and Return on Asset (ROA)

There is a positive relationship between long-term debt ratio and return on asset. This is because the coefficient of long-term debt ratio is positively signed (3.144425). This means that a percentage increase long-term debt ratio will lead to 314.4% increase in return on asset while a percentage decrease in long-term debt ratio will lead to 314.4% decrease in return on asset.

#### Short-Term Debt Ratio (STDR) and Return on Asset (ROA)

There is a positive relationship between short-term debt ratio and return on asset. This is because the coefficient of short-term debt ratio is positively signed (0.360148). This means that a percentage increase in short-term debt ratio will lead to 36% increase in return on asset while a percentage decrease in short-term debt ratio will lead to 36% decrease in return on asset.

#### Total-Debt Ratio (TDR) and Return on Asset (ROA)

There is a positive relationship between total-debt ratio and return on asset. This is because the coefficient of total-debt ratio is positively signed with 0.309046. This means that a percentage increase in total-debt ratio will lead to 30.9% increase in return on asset while a percentage decrease in total-debt ratio will lead to 30.9% decrease in return on asset.

**The R-Squared ( $R^2$ ) and the Adjusted R-squared ( $R^2$ ):** The R-squared value (coefficient of multiple determinations) from the regression results in table 4.7 is 0.053073 (5.3073%). This implies that approximately 5 percent changes in the return on asset are explained by

long-term debt ratio, short-term debt ratio and total-debt ratio. However, the remaining 95 percent change is explained by other variables not found in the equation but indicated by the error term. Furthermore, the result of R-squared also shows that the regression line has no goodness of fit. Similarly, the Adjusted R-squared (the adjusted coefficient of determination) is unreliable as it is pegged at 0.026273 (2.6273%). The result also implies that, if the coefficient of determination is adjusted, 3% of the changes in return on asset are attributable to changes in long-term debt ratio, short-term debt ratio and total-debt ratio. However, the remaining 97 percent change is explained by other variables not found in the equation but indicated by the error term.

**Test of Significance of Individual Parameter:** The p-value for long-term debt ratio which is 0.1957 is greater than 0.05 indicates that long-term debt ratio is not statistically significant. Also, the p-value for short-term debt which is 0.4889 is greater than 0.05 indicates that short-term debt ratio is not statistically significant. In addition, the p-value for total-debt ratio which is 0.0931 is greater than 0.05 indicates that total-debt ratio is not statistically significant.

**Significance of Overall Parameter (Estimated Pooled Model):** The prob(F-statistic) value of 0.121358 which is greater than indicates that the pooled regression model estimated is not statistically significant. The implication of this is that long-term debt ratio, short-term debt ratio and total-debt ratio have no joint significant effects on return on asset of quoted consumer goods firms in Nigeria.



**Table 4: Fixed Effect Regression Analysis Results**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.568392	0.695556	0.817176	0.4158
LTDR	2.128868	0.811467	2.623482	0.0101
STDR	0.797252	0.263999	3.019905	0.0032
TDR	0.638235	0.229420	2.781952	0.0064
Effects Specification				
Cross-section fixed (dummy variables)				
Root MSE	0.797061	R-squared		0.596503
Mean dependent var	1.824727	Adjusted R-squared		0.546585
S.D. dependent var	1.260533	S.E. of regression		0.848794
Akaike info criterion	2.620593	Sum squared resid		69.88371
Schwarz criterion	2.939741	Log likelihood		-131.1326
Hannan-Quinn criter.	2.750041	F-statistic		11.94984
Durbin-Watson stat	2.238057	Prob(F-statistic)		0.000000

**Source:** *Author's Computation, 2023.*

#### **Long-Term Debt Ratio (LTDR) and Return on Asset (ROA)**

There is a positive relationship between long-term debt ratio and return on asset. This is because the coefficient of long-term debt ratio is positively signed (2.128868). This means that a percentage increase long-term debt ratio will lead to 212.9% increase in return on asset while a percentage decrease in long-term debt ratio will lead to 212.9% decrease in return on asset.

#### **Short-Term Debt Ratio (STDR) and Return on Asset (ROA)**

There is a positive relationship between short-term debt ratio and return on asset. This is because the coefficient of short-term debt ratio is positively signed (0.797252). This means that a percentage increase in short-term debt ratio will lead to 79.8% increase in return on asset while a percentage decrease in short-term debt ratio will lead to 79.8% decrease in return on asset.

#### **Total-Debt Ratio (TDR) and Return on Asset (ROA)**

There is a positive relationship between total-debt ratio and return on asset. This is because the coefficient of total-debt ratio is positively signed with 0.638235. This means that a percentage increase in total-debt ratio will lead to 63.8% increase in return on asset while a percentage decrease in total-debt ratio will lead to 63.8% decrease in return on asset.

**The R-Squared ( $R^2$ ) and the Adjusted R-squared ( $R^2$ ):** The R-squared value (coefficient of multiple determinations) from the fixed effect regression results in table 4.8 is 0.596503 (59.6503%). This implies that approximately 60 percent changes in the return on asset

are explained by long-term debt ratio, short-term debt ratio and total-debt ratio. However, the remaining 40 percent change is explained by other variables not found in the equation but indicated by the error term. Furthermore, the result of R-squared also shows that the regression line has goodness of fit. Similarly, the Adjusted R-squared (the adjusted coefficient of determination) is very reliable as it is pegged at 0.546585 (54,6585%). The result also implies that, if the coefficient of determination is adjusted, 55% of the changes in return on asset are attributable to changes in long-term debt ratio, short-term debt ratio and total-debt ratio. However, the remaining 45 percent change is explained by other variables not found in the equation but indicated by the error term.

**Test of Significance of Individual Parameter:** The p-value for long-term debt ratio which is 0.0101 is less than 0.05 indicates that long-term debt ratio is statistically significant. Also, the p-value for short-term debt which is 0.0032 is less than 0.05 indicates that short-term debt ratio is statistically significant. In addition, the p-value for total-debt ratio which is 0.0064 is less than 0.05 indicates that total-debt ratio is statistically significant.

**Significance of Overall Parameter (Estimated Fixed Effect Model):** The prob(F-statistic) value of 0.000000 which is less than indicates that the fixed effect regression model estimated is statistically significant. The implication of this is that long-term debt ratio, short-term debt ratio and total-debt ratio have joint significant effects on return on asset of quoted consumer goods firms in Nigeria.

**Table 5: Random Effect Regression Analysis Results**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.713813	0.712940	1.001224	0.3190
LTDR	1.524405	2.787883	0.546797	0.5857
STDR	1.765366	0.729336	2.420512	0.0172
TDR	0.064892	0.152124	0.426574	0.6706
Effects Specification				
			S.D.	Rho
Cross-section random			1.071901	0.6146
Idiosyncratic random			0.848794	0.3854
Weighted Statistics				
Root MSE	0.831823	R-squared		0.059258
Mean dependent var	0.423751	Adjusted R-squared		0.032633
S.D. dependent var	0.861547	S.E. of regression		0.847373
Sum squared resid	76.11232	F-statistic		2.225662
Durbin-Watson stat	2.061404	Prob(F-statistic)		0.089450
Unweighted Statistics				
R-squared	-0.049602	Mean dependent var		1.824727
Sum squared resid	181.7858	Durbin-Watson stat		0.863094

Source: Author's Computation, 2023.

#### Long-Term Debt Ratio (LTDR) and Return on Asset (ROA)

There is a positive relationship between long-term debt ratio and return on asset. This is because the coefficient of long-term debt ratio is positively signed (1.524405). This means that a percentage increase long-term debt ratio will lead to 152.4% increase in return on asset while a percentage decrease in long-term debt ratio will lead to 152.4% decrease in return on asset.

#### Short-Term Debt Ratio (STDR) and Return on Asset (ROA)

There is a positive relationship between short-term debt ratio and return on asset. This is because the coefficient of short-term debt ratio is positively signed (1.765366). This means that a percentage increase in short-term debt ratio will lead to 176.5% increase in return on asset while a percentage decrease in short-term debt ratio will lead to 176.5% decrease in return on asset.

#### Total-Debt Ratio (TDR) and Return on Asset (ROA)

There is a positive relationship between total-debt ratio and return on asset. This is because the coefficient of total-debt ratio is positively signed with 0.064892. This means that a percentage increase in total-debt ratio will lead to 6.4% increase in return on asset while a percentage decrease in total-debt ratio will lead to 6.4% decrease in return on asset.

**The R-Squared ( $R^2$ ) and the Adjusted R-squared ( $R^2$ ):** The R-squared value (coefficient of multiple determinations) from the random effect regression results in table 4.9 is 0.059258 (5.9258%). This implies that approximately 6 percent changes in return on asset are explained by long-term debt ratio, short-term debt ratio and total-debt ratio. However, the remaining 94 percent change is explained by other variables not found in the equation but indicated by the error term.

Furthermore, the result of R-squared also shows that the regression line has no goodness of fit. Similarly, the Adjusted R-squared (the adjusted coefficient of determination) is not reliable as it is pegged at 0.032633 (3.2633%). The result also implies that, if the coefficient of determination is adjusted, 3% of the changes in return on asset are attributable to changes in long-term debt ratio, short-term debt ratio and total-debt ratio. However, the remaining 97 percent change is explained by other variables not found in the equation but indicated by the error term.

**Test of Significance of Individual Parameter:** The p-value for long-term debt ratio which is 0.5857 is greater than 0.05 indicates that long-term debt ratio is not statistically significant. Also, the p-value for short-term debt which is 0.0172 is less than 0.05 indicates that short-term debt ratio is statistically significant. In addition, the p-value for total-debt ratio which is 0.6706 is greater than 0.05 indicates that total-debt ratio is not statistically significant.

**Significance of Overall Parameter (Estimated Random Effect Model):** The prob(F-statistic) value of 0.089450 which is greater than indicates that the random effect regression model estimated is statistically significant. The implication of this is that long-term debt ratio, short-term debt ratio and total-debt ratio have joint significant effects on return on asset of quoted consumer goods firms in Nigeria.

#### Long-Term Debt Ratio and Return on Asset of Quoted Consumer Good Firms in Nigeria

The result of this study showed that long-term debt ratio has a positive relationship with return on asset of quoted consumer good firms in Nigeria. This was confirmed by the positive coefficient of long-term debt ratio. Also, from the testing of the fourth hypothesis,

long-term debt ratio is found to have a significant relationship with return on asset of quoted consumer good firms in Nigeria. The implication of this is that long-term debt ratio has a positive and significant effect on the profitability of quoted consumer good firms in Nigeria. Hence, increase in long-term debt ratio will lead to significant increase in return on asset of quoted consumer good firms in Nigeria while decrease in long-term debt ratio will lead to significant decrease in return on asset of quoted consumer good firms in Nigeria. This finding is related to the finding of Anafo, Amponteng, and Yin (2015) who established that long-term debt to total asset (LTDTA) demonstrated a positive and substantial link with return on assets and return on equity of listed banks on the Ghana Stock Exchange from 2007 to 2013.

#### **Short-Term Debt Ratio and Return on Asset of Quoted Consumer Good Firms in Nigeria**

The result of this study showed that short-term debt ratio has a positive relationship with return on asset of quoted consumer good firms in Nigeria. This was confirmed by the positive coefficient of short-term debt ratio. Also, from the testing of the fifth hypothesis, short-term debt ratio is found to have a significant relationship with return on asset of quoted consumer good firms in Nigeria. The implication of this is that short-term debt ratio has a positive and significant effect on profitability of quoted consumer good firms in Nigeria. Hence, increase in short-term debt ratio will lead to significant increase in return on asset of quoted consumer good firms in Nigeria while decrease in short-term debt ratio will lead to significant decrease in return on asset of quoted consumer good firms in Nigeria. This finding is related to the finding of Aniefor and Onatuyeh (2019), who established that short term debt ratio has a positive effect on return on asset (ROA) of the selected consumer goods firms quoted on the Nigerian Stock Exchange during 2006-2017.

#### **Total Debt Ratio and Return on Asset of Quoted Consumer Good Firms in Nigeria**

Lastly, the result of this study showed that total debt ratio has a positive relationship with return on asset of quoted consumer good firms in Nigeria. This was confirmed by the positive coefficient of total debt ratio. Also, from the testing of the sixth hypothesis, total debt ratio is found to have a significant relationship with return on asset of quoted consumer good firms in Nigeria. The implication of this is that total debt ratio has a positive and significant effect on profitability of quoted consumer good firms in Nigeria. Hence, increase in total debt ratio will lead to significant increase in return on asset of quoted consumer good firms in Nigeria while decrease in total debt ratio will lead to significant decrease in return on asset of quoted consumer good firms in Nigeria. This finding relates to the finding of Asian and Diette-Abayeh (2019) which revealed that total debt ratio had a significant positive effect on return on asset of food and beverage firms.

## **CONCLUSION**

This study examined the effect of debt financing on return on assets of quoted consumer goods firms in Nigeria. The data analysis and discussion of the findings were also highlighted in chapter four while chapter five presented the summary, conclusion, recommendations, contribution to knowledge and suggestions for further studies. Specifically, the study was anchored on Miller and Modigliani (M-M) Theory, Pecking Order Theory, Trade-Off Theory, Trade-Off Theory, and Agency Cost Theory. The study adopted both deductive and inductive methods while ex-post facto research design was adopted. Findings emanating from the study indicate that Long-term debt ratio has a positive and significant effect on return on asset of quoted consumer good firms in Nigeria. Short-term debt ratio has a positive and significant effect on return on asset of quoted consumer good firms in Nigeria. Total debt ratio a positive and significant effect on return on asset of quoted consumer good firms in Nigeria.

## **RECOMMENDATIONS**

- Government should liaise with the stakeholders in the consumer goods subsector in order to develop financial market to enables consumer goods firms to raise long-term debt so as to avoid over-reliance of short-term debt which is associated with high cost.
- Consumer goods firms should use debt financing for investments that enhance productivity and efficiency, thereby positively impacting profitability. This could include investing in modernizing production facilities, adopting advanced technology, optimizing the supply chain, and reducing operational costs.
- Consumer goods firms should implement strong risk management practices to ensure that debt obligations can be met comfortably. They should also have robust cash flow management strategies in place. Having a clear policy on managing debt service capacity, such as maintaining a certain interest coverage ratio, can help safeguard profitability.

## **REFERENCES**

1. Aamir, N., Muhammad, A. & Muhammed, U. K. (2021). Debt financing and firm performance: empirical evidence from the Pakistan Stock Exchange. *Asian Journal of Accounting Research*, 6(3), 324-334.
2. Adera, W. O., Anyango, W. & Rotich, G. (2015). Capital structure and corporate performance of manufacturing companies listed in Nairobi Securities Exchange. *International Academic Journal of Economics and Finance*, 1 (5), 1-9.
3. Ahmadu, A., Malami, M. M., Musa, Y. A. & Haruna, M. A. (2018). Financial leverage and financial performance of quoted conglomerates

- firms in Nigeria. *Sokoto Journal of Management Studies*, 14(1), 51-67.
4. Ahmed, F. (2020). Impact of debt financing on performance: Evidence from textile sector of Pakistan. *Journal of Business Management*, 4(4), 67-76.
  5. Ajayi, L. B. & Obisesan, O. G. (2020). Impact of capital structure on firm performance in Nigeria. *International Journal of Economics, Commerce and Management*, 8(3), 414- 428.
  6. Akaji, O., O., Nwadiolor, E. O. & Agubata, N. (2021). Effect of debt-equity financing on firms performance in Nigeria. *Journal of Accounting and Financial Management*, 7(3), 73-81.
  7. Akani, H. W. & Chukwuemeka, A. (2021). Capital structure and financial performance of small and medium enterprises in Nigeria. *European Journal of Accounting, Finance and Investment*, 7(8), 1-22.
  8. Akani, H. W. & Kenn-Ndubuisi, L. (2017). Effects of capital structure and board structure on corporate performance of selected firms in Nigeria 2008 – 2016. *World Journal of Finance and Investment Research*, 2(1), 50-66.
  9. Akani, H. W. & Anyamaobi, C. (2021). Capital structure and financial performance of small and medium enterprises in Nigeria. *European Journal of Accounting, Finance and Investment*, 7(8), 1-22.
  10. Akani, H. W. & Kenn-Ndubuisi, L. (2017). Effects of capital structure and board structure on corporate performance of selected firms in Nigeria 2008 – 2016. *World Journal of Finance and Investment Research*, 2(1), 50-66.
  11. Akani, H. W., & Lucky, A. L., (2015). Econometric analysis of capital adequacy ratios and the impact on profitability of commercial banks in Nigeria. *IOSR Journal of Economics and Finance*, 6 (6), 11 – 24.
  12. Akani H.W.,Nwanna,I. & Mbachu, A. (2016) Effect of selected macroeconomic variable on commercial banks performance in Nigeria. *Ilard International Journal of Banking and Finance Research* 2(3), 34-75.
  13. Akani, H. W., Okonkwo V. I.& Ibenta, S. N. (2016). Empirical analysis of monetary policy on capital market activities: Evidence from Nigeria economy. *International Journal of Accounting and Financial Management*. 2(3), 82-111.
  14. Akani, H.W. & Momodu A.A. (2016). Empirical analyses of financial sector development and national savings: Evidence from Nigeria economy *International Journal of Financial Economics*, 5(1), 46-60
  15. Akani, H. W. & Uzah, C. K (2018). Determinants of bank distress in Nigeria commercial banks: A Multi-dimensional study. *International Journal of Innovative Finance and Economic Research*, 6(4), 67-87.
  16. Akani, H. W., & Lucky, A. L. (2018). Electronic payment system and commercial banks dynamics: Evidence from Nigeria. *Journal of Strategic and Internet Business*, 3(1), 131-147.
  17. Akani, H.W., & Lucky, A. L. (2019). Financial discipline and performance of deposit money banks: empirical evidence from Nigeria economy. *European Journal of Accounting, Finance and Investment*, 5(2), 100-123.
  18. Akani, H.W. (2019). Effect of cross border banking on growth of deposit money banks in Nigeria. *International Journal of Interdisciplinary Research Methods*. 6(5), 1-26.
  19. Akani, H.W. (2019). Credit expansion and commercial banks soundness in Nigeria: An application of multi-dimensional analysis. *European Journal of Business and Innovation Research*. 7(1), 12-40.
  20. Akani, H.W., & Tony-Obiosa, R. L. (2019). Effect of financial innovations on the profitability of deposit money banks in Nigeria. *European Journal of Accounting, Auditing and Finance Research*, 8(1), 52-73.
  21. Akani, H.W., & Tony-Obiosa, R.L. (2019). Financial intermediation and capital formation: A time variant study from Nigeria. *International Journal of Innovation Finance and Economic Research*, 8(1), 64-84.
  22. Akani, H.W. & Akani, V. C. (2019). Theoretical perspectives of earnings, profitability and asset quality in banking: Descriptive evidence from Nigeria economy. *World Journal of Finance and Investment Research* 8(1), 1-24.
  23. Akani, H.W., & Lucky, A. L. (2020). Financial deficiency syndrome and behaviour of low income Earners in rural communities of Rivers State, Nigeria. *International Journal of Small Business and Entrepreneurship Research*, 8 (1), 14-3
  24. Akani, H.W & Lucky, A.L. (2014), Money supply and stock prices in Nigeria: An analysis of co-interpretation and causality tests. *Research Journal's of Finance*, 2 (10), 1- 24.
  25. Akani, H.W. & Uzobor, C.C.( 2015), Empirical analysis of the effects on aggregate stock prices in Nigeria. *European Journal of Accounting, Auditing and Finance Research*, 3(9), 31-51.
  26. Akani, H.W.& Uzobor, C.C. (2015). Empirical analysis of effect inflation on aggregate stock prices in Nigeria, 1980-2012. *European Journal of Accounting, Auditing and Finance Research*, 3(9), 3-51.
  27. Aniefor, S. J. & Onatuyeh, A. E. (2019). Effect of debt financing on the corporate performance: A study of listed consumer goods firms in Nigeria. *International Journal of Academic Accounting, Finance & Management Research (IAAFMR)*, 3(5), 26-34.
  28. Anis, A. & Abdul, R. S. (2022). Effect of debt financing on firm performance: A study on energy sector of Saudi Arabia. *International Journal of Energy Economics and Policy*, 12(6), 10-15.
  29. Arumona, A., Lambe, I. & Idogho, A. M. (2022). Effects of debt financing on financial performance

- of listed consumer goods firms in Nigeria. *Bingham International Journal of Accounting and Finance (BIJAF)*, 2(1), 394-406.
30. Asen, A., Nwude, C. E., Idamoyibo, H. R., Ufodiama, C. N. & Udo, E. S. (2021). Effect of capital structure on firms performance in Nigeria. *Universal Journal of Accounting and Finance*, 9(1), 15-23.
31. Chika, G. A. & Afamefuna, J. N. (2021). Effect of capital structure on corporate performance: Evidence from agricultural firms quoted on the Nigeria Stock Exchange (2007 – 2018). *JETMASE*, 3(1), 68-78.
32. Chinaemerem, O. C. & Anthony, O. (2012). Impact of capital structure on the financial performance of Nigerian firms. *Arabian Journal of Business and Management Review*, 1(12), 43-61.
33. Chinedu, E. S. (2022). Capital structure and financial performance of listed pharmaceutical companies in Nigeria. *African Journal of Accounting and Financial Research*, 5(2), 1-12.
34. Chuke, E. N. & Kenneth, C. A. (2018). Impact of capital structure on performance of commercial banks in Nigeria. *International Journal of Economics and Financial Issues*, 8(2), 298-303.
35. Doku, J., Kpekpena, F. & Boateng, P. (2019). Capital structure and bank performance: empirical evidence from Ghana. *African Development Review*, 3(1), 111-124.
36. Edore, J. O. & Ujuju, L. E. (2020). Effect of financial leverage on the value of firms in Nigeria. *International Journal of Management Sciences*, 8(2), 22–45.
37. Eleje, J., Okechukwu, K. & Chikanele, H. (2020). Debt Finance and Corporate Performance: Firm Level Empirical Evaluation. *Archives of Business Research*, 8(1), 78-89.
38. Emekekwe, P. E. (2008). *Corporate financial management*. 5th Revised Ed; Kinshasha: African Bureau of Educational Sciences.
39. Evbayiro-Osagie, E. I., & Enadeghe, I. B. (2022). Capital structure and performance of nonfinancial firms in Sub-Sahara Africa. *International Journal of Finance Research*, 3(1). 49 – 62.
40. Ihejirika, P., Ndugbu, M., Mbagwu, I. G. & Ojiegb, J. (2020). Capital structure decisions and financial viability of firms quoted on the premium board segment of the Nigeria Stock Exchange. *Journal of Asian Business Strategy*, 10(2), 192-203.
41. Ikponmwosa, N. (2017). Capital structure and bank profitability in Nigeria. *Management Sciences Review*, 8(1), 25-41.
42. Ishola, A. R. & Yusuf, A. B. (2020). Equity financing decisions and performance of selected quoted pharmaceutical firms in Nigeria. *Journal of Economics and Finance (IOSR-JEF)*, 11(6), 6-12.
43. Karuma, M. N., Ndambiri, A. N. & Oluoch, J. O. (2018). Effect of debt financing on financial performance of manufacturing firms in Nairobi securities exchange. *The Strategic Journal of Business & Change Management*, 5(2), 1674 – 1691.
44. Kenn-Ndubuisi, J. I. & Nweke, C. J. (2019). Financial leverage and firm financial performance in Nigeria: A panel data analysis approach. *Global Journal of Management and Business Research: C Finance*, 19(4), 13-19.
45. Miller, T. (2019). Debt financing: Definition and examples. Available @ <https://www.thestreet.com/personal-finance/debtfinancing-14913324>
46. Modigliani, F. & Miller, M. (1958). The cost of capital, corporation and theory of investment. *American Economic Review*, 18, 261 - 361.
47. Mohammad, M. R., Umme, K. K., Shahnaz, P. & Ayrin, S. (2020). Debt financing and firm performance: Evidence from an emerging South-Asian country. *Business and Economic Research*, 10(1), 40-54.
48. Ndubuisi, K., Ifechi, J., & Nweke, C. J. (2019). financial leverage and firm financial performance in Nigeria: A panel data analysis approach. *Global Journal of Management and Business Research: Finance*, 19 (4) 12-19.
49. Nelson, J. & Peter, E.A. (2019). An empirical analysis of effect of financing structure on firm performance: evidence from microfinance banks in Nigeria, *European Journal of Accounting, Auditing and Finance Research*, 7(9), 30-44.
50. Ojonugwa U., Ihedioha O. U. & Joseph, O. O. (2015). *Debt financing and post-privatization performance of firms: The case of Nigerian listed firms*. Munich Personal RePEc Archive (MPRA) Paper No. 74921.
51. Oke, M. O. & Fadaka, B. F. (2021). Capital structure and firm performance: evidence from Nigerian consumer goods manufacturing firms. *Academy of Accounting and Financial Studies Journal*, 25(2), 1-10.
52. Okolo, M. N., Okwu, P. I., Ugwuoke, C. J. & Kornom-Gbaraba, M. E. (2019). Implications of equity capital financing on corporate financial performance of deposit money banks in Nigeria. *Research Journal of Finance and Accounting*, 10(12), 86-93.
53. Okpala, K. & Osundina, K. A. (2019). Debt financing and firm performance in Nigeria: An empirical investigation. *International Journal of Development and Management Review*, 14(1), 34-45.
54. Omotola, A. A., Phillips, S. A. & Nuga, K. A. (2021). Capital structure and corporate performance: An empirical study of selected telecommunication firms in Nigeria. *International Journal of Economics, Finance and Entrepreneurship (NIRA IJEFE)*, 6(3), 49-67.
55. Owa, F., Ifurueze, M. S. & Emeka-Nwokeji, N. A. (2022). Financing mix and profitability of listed non-financial firms in Nigeria. *International Journal*

- of Management Studies and Social Science Research*, 4(3), 134-142.
56. Owolabi, A. O., Kolawole, O. K., Ogungbade, I. O. & Adekoya, C. A. (2021). Equity financing options and financial performance of listed manufacturing firms in Nigeria. *Palarch's Journal of Archaeology of Egypt/Egyptology*, 18(7), 1730-1741.
57. Oyedokun, G. E. Job-Olatuji, K. A. & Sanyaolu, W. A. (2018). *Capital structure and firm financial performance*. *Accounting & Taxation Review*, 2(1), 56-71.
58. Osazee, F. O. & Aigbedo, O. O. (2019). Capital structure and firm performance in Nigeria: is pecking order theory valid? *Amity Journal of Corporate Governance*, 4(2), 13-26.
59. Osirim, M., Wadike, C. G., and Idatoru, A. R. (2020). Corporate financing choice and financial performance of banks in Nigeria: Return on assets measurement approach. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 10(3), 309-324.
60. Prempeh, K. B., Sekyere, A. M. & Asare, E. N. (2016). The effect of debt policy on firms' performance: Empirical evidence from listed manufacturing companies on the Ghana Stock Exchange. *Journal Financial Management*, 7(6), 70-77.
61. Rahji, O. I. and Kamaldeen, I. N. (2020) examined the effect of debt financing on firm performance. *Journal of Management, Economics, and Industrial Organization*, 4(3), 75-88.
62. Suleiman, U., Popoola, A. & Yahaya, A. O. (2022). Equity financing and financial performance of listed deposit money banks in Nigeria. *International Journal of Research and Innovation in Social Science (IJRISS)*, 6(12), 619-626.
63. Uzokwe G. O. (2019). Debt financing and corporate finance performance: A dynamic investigation from Nigeria Quoted Firms. *American International Journal of Business and Management Studies*, 1(1), 48-59.