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Effect of Capital Structure on Financial Performance of Listed Consumer Goods Companies in Nigeria

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Abstract
The broad objective of this study is to examine the effect of capital structure on financial performance of listed consumer goods companies in Nigeria. The study is anchored on the Pecking Order Theory. The study adopts the ex-post facto research design and draws on secondary data sourced from the annual reports and accounts for the period 2016-2025 of the fifteen (15) sampled firms out of the population of Nineteen (19) listed consumer goods companies in Nigeria. Data collected was analyzed using Multiple Panel regression model. Financial performance is measured using Return on Assets (ROA), while capital structure is proxied by equity ratio, short-term debt ratio, long-term debt ratio, and debt to total equity ratio. The findings showed that equity ratio has a positive and significant effect on return on assets, short term debt ratio has a negative and significant effect on return on asset, while both long-term debt ratio and debt to equity ratio has a negative and insignificant effect on return on asset of listed consumer goods companies in Nigeria. The study concludes amongst others that more use of equity positively impacts financial performance, which indicates its role in accelerating return on capital of consumer goods companies. The study recommends amongst others that companies should concentrate on maximizing their equity financing as this can go a long way in improving growth and financial steadiness through more investments in equity and improved retained earnings as it would lead to an upsurge in the financial performance of the listed consumer goods companies in Nigeria.

Keywords: Capital structure, Short term debt, Long term debt, Financial performance, Return on Asset

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1. Introduction

Financial decisions are vital to companies in contemporary financial assessment owing to their role in achieving the objectives of corporate financial management for profit maximization and valuing shareholder wealth, while maintaining objective of continuous growth of companies and survival that will affect the performance of the company. The funding decision is the application of funds when necessary in the organization (Atallah, 2017). Financing decisions are imperative decisions made by financial and non-financial institutions, which determine the optimal mix of areas in which firms seek to maximize shareholders wealth (Al-Nuaimi and Al-Tamimi, 2019). In the dynamic realm of corporate finance, the capital structure decisions of firms represent a cornerstone determinant of their financial health and operational performance. The configuration of capital comprising debt, equity, and other financial instruments affects not only the cost of capital but also the risk profile and growth prospects of companies (Luo & Jiang, 2022).

Capital structure theories were influenced by Modigliani and Miller (1958), who opined that in a perfect market, a firm's value is independent of its capital structure, or else investors would gainfully sell the shares of the firm with the higher value and buy similar shares in the firm with lower value and earn a riskless return. Capital structure refers to the mix of debt and equity used to finance a company's operations and growth. In Nigeria's consumer goods sector, firms operate in a highly competitive and dynamic environment, which demands careful capital management strategies. Listed consumer goods companies, face varying levels of capital intensity and operational risks that necessitate tailored financing strategies. According to recent reports by the Nigerian Exchange Group these firms contribute significantly to market capitalization and economic output, yet many grapples with macroeconomic challenges such as inflation, currency volatility, and regulatory constraints. Financial performance explains the ability of management of a company to use assets/capital to generate revenue which will be able to satisfy the running expenses to declare profits which is to be distributed to shareholders. Since the main objective of every firm is earning profits to the providers of capital for which management has invest and sacrifices certain portion of capital of the business provided by shareholders (Das & Swain, 2018). Erasmus (2008) contended that a valuable tool that aids stakeholders to evaluate the financial position of firm is financial performance. Financial performance explains the financial strengths of firm, financial weakness, opportunities as well as financial threats to the firm (Ibrahim et al., 2016). The performance of a firm is reflected in how effectively the resources of the company are managed by the firm. According to Julius et al. (2015), in order to improve earnings management of company's make use of equity and debt consistently to finance business operations. An important issue in economic entities is financial performance as such firms must pay attention to financial performance to get the best out of it. Profit is a measure of management performance and as such there are many ratios adopted to measure performance which includes; Return on asset (ROA), Return on equity (ROE), Net profit margin (NPM), Return on investment (ROI), Dividend per share (DPS), Earnings per share (EPS) among others. In this study Return on Assets (ROA) has been adopted as measure of performance which is the dependent variable because it is believed by several scholars such as Chowdhury and Chowdhury (2010) to be the most suitable measure of performance of a firm by management in terms of level of asset employed. The lack of a consensus about what would qualify as optimal capital structure in the service and manufacturing industries was motivation enough to conduct this research. A better understanding of the issues at hand requires a look at the concept of capital structure and its effect on the firm's financial performance. Considering the gap mentioned above, it is both valuable and desirable to conduct a new study that will examine the various types of financing mix and provide

answers to the remaining important concerns. This study aims to examine the effect of equity capital, the ratios of short-term and long-term debt to total assets, and debt to equity ratios on the performance of consumer goods companies in Nigeria. The study examined the effect of capital structure on financial performance of listed consumer goods companies in Nigeria, with a population that includes all Nineteen (19) listed consumer goods companies on the NGX. The study period spans from 2016 to 2025, providing a ten-year panel dataset that captures short-term trends, long-term trends, equity capital, total debts and accounts for structural shifts in the regulatory and macroeconomic environment.

The broad objective of this study is to examine the effect of capital structure on the financial performance of listed consumer goods companies in Nigeria. The specific objectives are to:

i. examine the effect of equity ratio on the financial performance of selected listed consumer goods companies in Nigeria;
ii. determine the effect of short-term debt ratio on the financial performance of listed consumer goods companies in Nigeria;
iii. assess the effect of long-term debt ratio on the financial performance of listed consumer goods companies in Nigeria.

The following hypotheses aimed at the study objectives were thus set in null forms and were tested:

H_{01}: Equity ratio has no significant effect on the financial performance of listed consumer goods companies in Nigeria.

H_{02}: Short-term debt ratio has no significant effect on the financial performance of listed consumer goods companies in Nigeria.

H_{03}: Long-term debt ratio has no significant effect on the financial performance of listed consumer goods companies in Nigeria.

2. LITERATURE REVIEW

2.1. Conceptual Framework

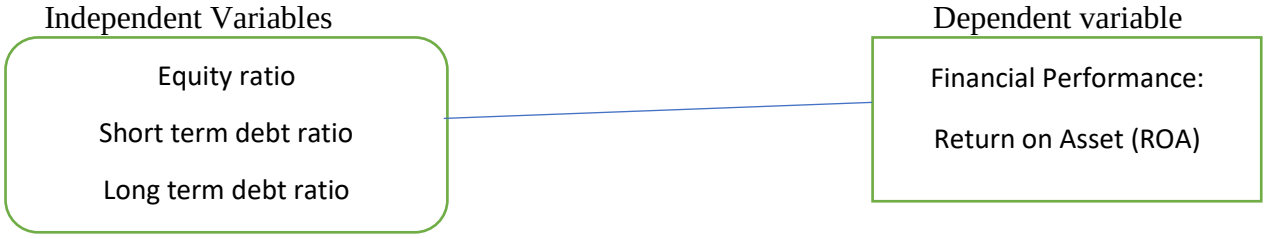


Figure 1: Conceptual framework of the study
Source: Researcher's compilation (2026)

2.1.1 Concept of Capital Structure

Capital structure refers to the financing methods used by a company to fund its operations and growth, which includes both equity and debt (Dada & Ghazali, 2016). Capital structure is an important dimension aspect of corporate finance that plays an essential role in determining a company's financial health and profitability (Adewoye et al., 2025). Capital structure is one of the most important decisions in the field of corporate finance and can be seen as the way an organization finances its assets by combining debts and equity, it is also the way an organization finances its operations through debts, equity and hybrid securities (Dinh & Pham, 2020). The arrangement of capital in a company is a mix of various securities issued by the company to fund its operations. It refers to the proportion of debt and equity that make up the liability and owners' equity side of the statement of financial position of the company

and frequently refers to the usage of debt in a firm's capital structure as leverage (Awunyo & Bandu, 2019). According to Aliu (2010), a firm's capital structure refers to the combination of its financial liabilities and its equities. It is the way a corporation finances its assets through some mix of equity and debt. In line with this, Ishaya and Abduljaleel (2014) referred to it as a mixture of different types of securities (long-term debt, common stock) which are issued by a firm to finance its assets. Capital structure involves the proportion of various long-term sources of financing, as it deals with making the collection of the sources of finance properly in relation to its size and proportion (Abdullahi et al., 2023). The key components of capital structure relevant to this study are:

Equity Capital

Equity capital, also known as shareholders' equity or owner's equity, represents the residual interest in the assets of a company after deducting its liabilities (Kumari, 2021). In other words, it is the amount of money that would be returned to a company's shareholders if all of the company's assets were liquidated and all of its debts were paid off. It refers to the ownership interest in a company represented by shares of stock. It comprises the funds contributed by shareholders (both common and preferred) and the retained earnings accumulated over time.Over time, as a company generates profits and retains some of them, its retained earnings will grow, increasing its equity capital (Singh et al., 2023).

Equity Ratio

The equity ratio also referred to as the equity to asset ratio is a financial metric that evaluates the proportion of a firm's asset that are funded by shareholder's equity instead of debt. It is derived by dividing Total Shareholders' Equity by Total Assets. A higher equity ratio usually suggests that a company has lesser financial risk and is financially stable because it relies more on equity than on debt (Ezeani & Enyi, 2021).

Short Term Debt to Total Assets

This measures how relative short-term debts to total asset of a firm are to be repaid within an accounting period. Some scholars argued that the shorter the debt the better the firm is in improving its performance. The short-term debt to total assets ratio is a measure of the financial leverage of the company. It tells what percentage of the assets is financed by short term debt. Short term debt is debt due for repayment within or less than 12 months and is not included in the long-term liabilities figure on the statement of financial position. It includes creditors and accruals (Akinyomi, 2013).

Long Term Debt to Total Assets

Long term debt to total assets ratio is the ratio that represents the financial position of the company's ability to meet its financial requirements. The long-term debt to total assets ratio is a measure of the financial leverage of a company. Long-term debt to total assets measures the relative weight of long-term debt to the capital structure (long-term financing) of a firm's long-term debt to- total assets. As this ratio is calculated yearly, decrease in the ratio would denote that the company is faring well, and is less dependent on debts for their business needs (Kurfi, 2003). The higher the level of long-term debt, the more important it is for a company to have positive revenue and steady cash flow. It is very helpful for management to check its debt structure and determine its debt capacity (Akinsulire, 2014). The long-term debt to total assets ratio is a measure of the financial leverage of a company.

Concept of Financial Performance

Firm's performance is the ability of a firm to achieve its objectives resources. Suleiman (2013) viewed a firm's performance as the result of a company's assessment or strategy on how well a company accomplished its goals and objectives. Financial performance provides a

deductive measure of how well a company can use assets from business operations to generate revenue. Van Horn (2005) defined financial performance as a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. This term according to Pandey (2001) is used as a general measure of the overall financial health of a business. The notion of financial performance is used to describe performance of an entity with the legal status of a company. Financial performance according to Gathara et al. (2019) is a general measure of a firm's overall financial health over a given period, and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation. The growth in firms' sales, the increase in profit margin, capital investment decisions and capital structure decisions mainly influence the shareholder's wealth.

Return on Assets (ROA)

ROA is a widely used metric for assessing a Firm growth represents the expansion of a firm's operations and resources over time, encompassing various dimensions such as sales, assets, and market share. Firm growth can be measured using quantitative indicators such as revenue growth, asset growth, and employment growth, as well as qualitative factors such as market position and innovation. A firm's growth strategy plays a crucial role in its long- term success and sustainability.

Capital Structure and Financial Performance

Numerous empirical studies have examined the relationship between capital structure and financial performance, yielding mixed results. While some scholars report a positive relationship, suggesting that leverage can enhance performance through tax shields and improved managerial discipline (Abor, 2005; San & Heng, 2011), others find a negative relationship, arguing that excessive debt increases financial risk and reduces profitability (Salawu & Agboola, 2008). In the Nigerian context, empirical findings are similarly mixed. Uwalomwa et al. (2021) reported a negative relationship between debt ratios and ROE among listed consumer goods firms, indicating that high leverage could be detrimental to financial health.

2.2 Theoretical Review

This section covers the theory that help explain the effect of capital structure on financial performance of firms.

Pecking Order Theory of Capital Structure

The Theory of Pecking Order for capital structure was first propounded by Donaldson (1961) and later improved upon by Myers and Majluf (1984). It is one out of the several prominent theories in corporate leverage. It suggests that firms have an order for sourcing for finances it uses in its operations. According to the theorists, there is asymmetric information between managers and investors. Thus, investors would want higher returns to compensate for the risk they are taking and the less information at their disposal (Olayemi & Fakayode, 2021). The theory proposes that a firm has three sources of finance, that is, internal finances, debt, and the issue of new shares. It is based on the pecking order theory that corporations rank their preferred source of funding with internal sources being the most preferred and therefore in circumstances where internal sources are not adequate, a firm will go for debt financing with issuing new shares being the last option which is least preferred (Ngatia et al., 2022).

This study is anchored on the pecking order theory because it provides a realistic framework for understanding firms' financing behavior, especially in contexts characterized by information asymmetry and market imperfections. It aims to offer an alternative view to the static trade-off theory, highlighting the dynamic nature of financing decisions and the importance of internal funds (Jibran et al., 2012).

2.3 Empirical Review

Equity Ratio to Total Assets and Financial Performance

Adewoye et al. (2025) investigated the effect of capital structure on financial performance of listed manufacturing companies in Nigeria. The study adopted ex-post facto research design using panel data extracted from the 26 selected listed manufacturing companies in Nigeria out of 52 listed manufacturing companies in NEG as at 31st December, 2023. Purposive and stratified sampling techniques were used to select 26 listed manufacturing companies. Panel data were extracted from the annual reports of the selected listed manufacturing companies in Nigeria from 2014 to 2023. Descriptive statistics, correlation, Variance Inflation factors and inferential statistics were used to analyze panel data. The study found that Debt-Equity Ratio, Debt Asset Ratio, Capital Gearing Ratio, Interest Coverage and Firm Size have insignificant influence on Asset Turnover ratio. DER, DAR and FS have significant impact on Earnings before Interest, Tax, Depreciation and Amortization while CGR and ICR have insignificant impact on EBITDA respectively. The study concluded that capital structure mix have significant influence on the financial performance of the selected listed manufacturing companies in Nigeria. The study therefore recommended that listed manufacturing firms should optimally utilize the capital structures mix in order to improve their financial performance.

Sajo and Uthman (2025) aims to understand how various elements of capital structure—short-term debt, long-term debt, equity ratio, and debt-to-equity ratio—influence key profitability indicators like Return on Assets (ROA), Return on Equity (ROE), and Return on Capital Employed (ROCE). The research focuses on listed industrial goods companies in Nigeria, a vital sector for the nation's economy, to gain insights into the financial factors driving their performance and inform optimal capital structure decisions. Using Ordinary Least Squares (OLS) regression, the study analyzed pooled panel data from 2012 to 2021 for five selected Nigerian industrial goods companies. The findings indicate that while short-term debt, long-term debt, and equity ratio have a positive but statistically insignificant impact on Return on Equity (ROE), the debt- to-equity ratio (DER) shows a negative and statistically significant effect. This means that an increase in the proportion of debt relative to equity is associated with a notable decrease in shareholder returns. The study concludes that a high debt-to-equity ratio negatively impacts ROE, and cautions against relying solely on debt to boost shareholder returns. It recommends maintaining a balanced capital structure to optimize profitability and create sustainable value in the Nigerian industrial goods sector.

Chirchir et al. (2024), in their study titled Capital Structure and Financial Performance of Non- Financial Firms Listed at Nairobi Securities Exchange, Kenya, examines the impact of capital structure on the financial performance of non-financial firms listed on the Nairobi Securities Exchange. The study employed the Debt Ratio (DR), Equity Ratio (ER), and Debt-to-Equity Ratio (DER) as proxies for capital structure, while Return on Assets (ROA) was used to measure financial performance. The analysis was conducted on a sample of thirty-three (33) non-financial firms over the period 2009 to 2018. Utilizing panel data methodology, the study applied descriptive statistics, correlation analysis, and multiple regression analysis—specifically, a fixed-effects regression model—using STATA software. The study found that capital structure, as measured by debt ratio, equity ratio, and debt-to-equity ratio, has a significant effect on the financial performance of non-financial firms listed on the Nairobi Securities Exchange. The study concluded that an optimal mix of debt and equity financing contributes positively to return on assets, indicating improved efficiency in asset utilization and overall profitability. The implication of the findings is that corporate managers should carefully structure their financing decisions to achieve a balanced capital structure that enhances financial performance and supports long-term growth.

Short Term Debt to Total Assets and Financial Performance

Terkende and Terkuma (2026) investigate the effect of capital structure on financial performance of listed industrial goods firms in Nigeria. Correlational research design was adopted for the study. The data was sourced from audited annual reports and account of the 9 sampled firms from 2015-2024 out of the population of 13 listed industrial goods firms in Nigeria. The analysis of the data showed that Debt-equity ratio has no significant effect on return on assets of listed industrial goods firms in Nigeria, also Total-debt ratio has no significant effect on return on assets of listed industrial goods firms in Nigeria. The findings also reveal that long-term debt ratio has no significant effect on return on assets of listed industrial goods firms in Nigeria lastly findings of the study show that short-term debt ratio has no significant effect on return on assets of listed industrial goods firms in Nigeria. The study recommends that Industrial goods firms in Nigeria should focus on improving their relatively low financial performance based on long-term borrowing and to look for other determinants that would improve their financial performance. Industrial goods firms should rely less on short-term debt, which forms the major part of their leverage, and focus more on developing internal strategies that can help improve their accounting performance as their performance for the period studied was very low and insignificant.

Arhinful and Radmehr (2026) seeks to find the effect of financial leverage on the firm performance of non-financial companies listed in the Tokyo stock market. The study collected data from 263 companies in the automobile and industrial producer sectors listed on the Tokyo stock exchange between 2001 and 2021. The generalized method of moments was used to estimate the effect of leverage on financial performance due to its ability to overcome the problems of endogeneity and autocorrelation. The study found that the equity multiplier has a positive and statistically significant effect on return on assets (ROA), return on equity (ROE) and earning per share (EPS). The study discovered that the interest coverage ratio has a positive and statistically significant effect on ROA, ROE, EPS and Tobin's Q. The results revealed that the degree of financial leverage and debt to earnings before interest, taxes, depreciation and amortization (EBITDA) have a negative and statistically significant effect on ROE, EPS and Tobin's Q. The study also found that the capitalization ratios of the firms have a negative and statistically significant effect on ROA, ROE, EPS and Tobin's Q. The study concluded that the use of debt financing, which presents financial leverage, indicates that the companies can make enough earnings to pay off the interest and principal (debt service obligations), which were shown by the interest coverage ratio, as well as to pay all the long-term fixed expenses, which were shown by the fixed charge coverage ratio. Interest and fixed charge coverage have a positive statistically significant effect on the financial performance of automobile and industrial producer companies. The study recommends that companies should be encouraged to use more debt financing than equity financing to take advantage of the tax shield, leading to less tax and higher earnings.

Herawati and Sumiati (2025) examined the effect of intellectual capital, firm size, and capital structure on financial performance, with a view to understanding which of these internal factors significantly influence the profitability of firms operating in a volatile business environment, the dependent variable in the study is financial performance, measured using Return on Assets (ROA). The independent variables include Intellectual Capital, measured by Value Added Intellectual Capital (VAIC), Firm Size, measured by the natural logarithm of total assets, and Capital Structure, measured using the Debt-to-Equity Ratio (DER). The study analyzed a sample of 19 companies, with a total of 95 firm-year observations over the period from 2018 to 2022. To analyze the data, the researchers used multiple linear regression analysis on panel data, processed using SPSS. Various diagnostic tests such as normality, multicollinearity, autocorrelation, and heteroscedasticity were also conducted to ensure

model validity. The study concludes that to improve financial performance, manufacturing companies should focus on optimizing their intellectual assets and increasing company scale while maintaining a cautious approach to debt levels. The study recommends that management should be encouraged to invest in employee skills and technological innovation (intellectual capital) rather than relying excessively on external debt for growth.

Long-term Debt to Total Assets and Financial Performance

Akpoghelie and Okolie (2026) examined the effects of capital structure on the performance of selected quoted manufacturing firms in Nigeria from 2015 to 2024. Four models were specified to capture the influence of capital structure on the selected firms' performance. Capital structure was proxied by equity (EQF) and total debt of firms (TDF) while firms' performance, by returns on assets (ROA), earnings per share (EPS) and dividend per share (DPS). Data were sourced from the annual financial reports and balance sheets of the selected firms in various years. The Augmented Dickey Fuller (ADF) and Phillips Perron (PP) unit root tests were conducted to test for the stationarity of the series, while the Panel Ordinary Least Squares (POLS) estimation technique was adopted to test for the long run relationship of the series. The fixed and random effects estimation was also conducted while the Hausman test allowed us to select which model was more efficient for the analysis. The findings revealed that both equity and debt were positive but only debt was significant in explaining changes in returns on assets. Equity was negative while debt was positive but both were significant in explaining changes in earnings per share of the selected firms. Equity was negative while debt was positive but both were not statistically significant in explaining changes in dividend per share. The study recommended that an optimal mix of equity and debt financing will be appropriate for optimal utilization of assets and debt to leverage returns, and that firms should embark on more holistic and strategic policies geared towards increased profitability and decreased number of outstanding shares at the same time. Equity and debt can be leverage to create value for shareholders through increased financial leveraging, tax benefits, cost of debts and equity financing.

Ogechukwu et al. (2025) examined the impact of capital structure on financial performance of listed firms in Nigerian stock exchange. Specifically, the study looked at the effect of long-term debt to total investment on return on investments; the effect of short-term debt to total investment on return on investments; and the effect of total debt to total investment on return on investments. Data were described using descriptive statistics, Pearson correlation coefficient while multiple regression analytical technique with the aid of econometrical tool E-views 9 was used in analyzing the data. The result of analysis indicates that long term debt to total investments, short term debt to total investments, and total debt to total investments have significant positive impact on return on investments at 5% level of significance. Based on the findings, the study concluded that, the impact of capital structure on financial performance is positive and that capital structure explains a larger change in return on investments. Therefore, the study recommends, that consumer goods companies should strategically leverage debt to finance profitable investments by revisiting their capital structure policy to allow for more optimal levels of debt.

Fakunle et al. (2024) conducted a research on the impact capital structure on the financial performance of listed Non-Financial Companies on the Nigerian Exchange Group from 2009-2022. Ex-post facto research design was used for the study with a population of one hundred and five (105) listed Non-Financial Companies in Nigeria as listed in the Nigerian Exchange Group and a purposive sample of 60 companies was chosen for the study. Data were collected from annual reports of the selected companies for the period 2009-2022. They employed a fixed effect regression analysis to determine the significance of these variable

and their influence on Return on Asset. The study found a positive relationship between debt to equity and ROA, which implies that a higher ratio brings about an improved firm performance. The result of the study showed that capital structure has no significant effect on the financial performance of Non-Financial companies listed on the Nigerian Exchange group and therefore recommends the optimization of capital structure, qualitative analysis to understand the reasons behind capital structure decisions, diversification of funding sources, prudent risk management practice and regular performance assessments to align capital structure decisions with strategic objectives.

2.4 Gaps in Literature

While there is a growing body of empirical evidence on capital structure and financial performance individually, there is a limited number of studies that simultaneously examine both variables within a single unified framework for the consumer goods sector in Nigeria. Also, the extensive literatures on the relationship between capital structure and financial performance in developed economies, shows that the evidence in developing economies like Nigeria is less conclusive. This study addresses that gap by jointly examining both constructs. Theoretical inconsistencies further challenge capital structure research, with conflicting predictions from models like Modigliani and Miller's irrelevance theory, pecking order theory, and trade-off theory, leading to conceptual gaps. Non-financial factors, such as management quality and corporate governance, are also often neglected, despite their significant impact on both capital structure and performance (Rajan & Zingales, 1995). Therefore, this study seeks to investigate the relationship between capital structure and the financial performance of listed consumer goods firms in Nigeria, with a view to providing empirical insights that can inform financing decisions, investor strategy and policy direction.

3. METHODOLOGY

3.1. Research Design and Sample

This study adopts an ex-post facto research design. This design is appropriate because it examines relationships between variables after the events have occurred, meaning the researcher does not manipulate the independent variables. The population of the study consist of Nineteen (19) consumer goods firms listed on the Nigerian Exchange Group (NXG) during the time period from 2016 to 2025. (see attached appendix). This study employs a purposive sampling technique. To ensure data quality and consistency, only firms with complete and accessible information on capital structure variables and financial performance variable for the ten-year period will be considered. To arrive at the sample size, a filter criterion was applied in company's selection which includes that companies must have been listed throughout the study period (2016–2025) to ensure a balanced panel, it must not have been delisted during the study period, and also companies must have complete annual report data for all governance and financial variables. Therefore, a total of fifteen (15) sampled companies was selected for the sample creating a 150 firm-year observation. The secondary data for the dependent and independent variables for the study were derived from published annual financial statements to shareholders, annual reports and accounts of the listed consumer goods companies, and also from the Nigerian Exchange Group (NGX) for a ten (10) year period from 2016 to 2025. With the aid of STATA 17 statistical software, the study made use of both descriptive and inferential statistical methods for the analysis of data from the period of 2016 to 2025. The descriptive analysis involves the use of percentages, tabulation and graphical presentation, correlation matrix and variance inflation factor to test the presence of multicollinearity, while the inferential statistical method involves the use of panel econometric method. Panel diagnostic tests (e.g., Breusch-Pagan LM test, Durbin Watson test, Shapiro Wilk test, Hausman test) were also performed to determine the most appropriate panel data model specification (Pooled OLS, Fixed Effects, or Random Effects)

for robust analysis after specifying the most appropriate estimator by Hausman specification test.

3.2. Variable Definitions and Measurements

The dependent variable is financial performance, proxied by return on assets (ROA), while the independent variable is capital structure, proxied by equity ratio (EQR), short term debt ratio (STDR), and long-term debt ratio (LTDR). Table 1 shows the measurement of the variables.

Table 1: Variables Measurement and Definitions

Nature of Variable	**Proxies**	**Variables Measurement**	**Source**
Profitability (Dependent Variable)	Return on Assets (ROA)	Profit After Tax / Total Assets	Abor, 2008
Capital Structure (Independent Variable)	Equity Ratio	Shareholders' Equity / Total Assets	Akinyomi, 2013
	Short-term Debt to Total Assets	Short−term Debt / Total Assets	(Amara & Bilal, 2014)
	Long-term Debt to Total Assets	Long−term Debts / Total Assets	(Abdullah, 2014)

Source: Researcher's compilation (2026)

3.3. Model Specification

The model of (Modibbo et al. 2024) was adapted for use in testing the hypotheses of the study is presented below:

$ROA_{it} = \beta_0 + \beta_1 EQRit + \beta_2 STDR_{it} + \beta_3 LTDR_{it} + \epsilon_{it}$

Where:

ROA_{it} = Return on Asset for company i at time t
EQR_{it} = Equity Ratio
$STDR_{it}$ = Short-Term Debt Ratio
$LTDR_{it}$ = Long-Term Debt Ratio
$\beta 0$ = Intercept
$\beta 1 - \beta 8$ = Coefficients for the independent and control variables
ϵit = Error term

4. RESULTS AND DISCUSSION

4.1 Descriptive Statistics

Table 2 presents descriptive statistics for all variables included in the analysis.

Variable	Obs.	Mean	Std. Dev	Min	Max
ROA	150	.0285128	.1643799	-1.037984	.4969486
EQR	150	.4266335	.4181045	-.2973747	4.704724
STDR	150	.6034443	1.236269	-3.737009	12.62172
LTDR	150	.0900249	.1826039	-.4121247	.8392552

Source: compilation from Stata 17 (2026)

Table 2 presents the descriptive statistics for the dependent and explanatory variables. From the table, return on assets (ROA) has minimum and maximum values of -1.037 and .4969 respectively and the mean value of .0285128 (2.85%), showing that listed consumer goods companies in Nigeria are not judiciously utilizing the assets of their firms to generate returns. This indicates that for every naira investment made by listed consumer goods companies, there is an average of N0.0285 returns on the investment during the period under study. The results indicate a high-level dispersion from the mean value of ROA recorded within the period under review showing the standard deviation value of .16437. The standard deviation of .16437 signifies that the data deviate from the mean value from both sides by .16437 implying that there is a wide dispersion of the data from the mean because standard deviation is higher than the mean value. The table also shows that the mean of the equity to total assets of the sampled firms is .4266 with standard deviation of .4181, and minimum and maximum values of -.2973 and 4.704 respectively. This implies that the performance of the firms in terms of equity to total assets is on average .4266, and the standard deviation value indicates that the equity to total assets of the sampled firms deviates from the mean value from both sides by .4181, implying that there is no significant dispersion of the data from the mean because the standard deviation is lower. The table portrays that the short-term debt to total assets has an average value of .6034 with standard deviation of 1.236. The minimum and maximum values are -3.737 and 12.6217 respectively. The standard deviation indicates that the value of short-term debt to total assets of the firms deviates from the mean value from both sides by 1.236. This implies that there is significant dispersion of the data from the mean because the standard deviation is higher. Furthermore, the table shows that the mean of the long-term debt to total assets of the firms is .0900 with standard deviation of .18260. The minimum and maximum values are of -.412 and .83925 respectively. This implies that long-term debt to total assets of the firms is on average .09000. The standard deviation indicates that the value of the firms' long-term debt to total assets deviates from the mean value from both sides by .18260. This implies that there is significant dispersion of the data from the mean because the standard deviation is higher. Finally, firm age of the companies is well-established, averaging 36.03 years in operation. The youngest company is 7 years old and the oldest is 60 years.

4.2.2 Correlation Analysis

Table 3 presents the Pearson correlation matrix for all study variables which reveals the strength of the relationship among them. Correlations are classified as small (0.10–0.29), moderate (0.30–0.49), and strong (0.50–1.0). These benchmarks provide a basis for interpreting the magnitude and direction of the associations between variables.

Table 3: Correlation Analysis

	ROA	EQR	STDR	LTDR	DER	FAGE
ROA	1.0000					
EQR	0.3134*	1.0000				
STDR	-0.3719*	0.2365*	1.0000			
LTDR	-0.0831	0.1007	0.0936	1.0000		

Source: compilation from Stata 17 (2026)

Table 3 above reveals the correlation between financial performance (ROA), equity to asset ratio is significant, weak and positively correlated with financial performance, while short term debt is also significant and negatively correlated with financial performance. Long term debt ratio is negative and weakly correlated with financial performance. This suggests that equity capital is marginally associated with improved profitability, while short term debt, long term debt and older firm age tend to reduce profitability. The study computes a correlation analysis for all the variables to explain the level of relationship. A correlation that is less than 0.8 shows the absence of multicollinearity problems. Hence, the rule of thumb for the detection of multicollinearity is if the correlation is significantly more than 0.80 (Gujarati & Porter, 2003).

4.2.3 Variance Inflation Factor (VIF)

Table 4 below presents the result of collinearity test using variance inflation factor which test the presence of multicollinearity if the Variance Inflation Factor (VIF) is higher than 10.

Table 4: Variance Inflation Factor

Variable	VIF	1/VIF
EQR	1.07	0.937845
STDR	1.06	0.939152
LTDR	1.02	0.984692
Mean VIF	1.05	

Source: compilation from Stata 17 (2026)

Table 4 above shows the Variance inflation factor (VIF) as a measure used to detect the presence of multicollinearity in a regression model. The Variance Inflation Factor (VIF) values for all explanatory variables are well below the threshold of 10. This indicates the absence of multicollinearity, confirming that the independent variables can be reliably included together in the regression models without bias from correlation among them.

4.2.4 Test for Heteroskedasticity

Table 5 below shows the Hettest test for stability of the residual variance in the model. A heteroskedasticity test was carried out as a diagnostic check to verify the robustness of the estimates

Table 5: Test for Heteroskedasticity

Breusch-Pagan/Cook-Weisberg test for heteroskedasticity

Assumption: Normal error terms

Variable: Fitted values of ROA

H0: Constant variance
Chi2(1) = 1.24
Prob > chi2 = 0.2649

Source: compilation from Stata 17 (2026)

The Breusch-Pagan test results presented in Table 5 show a p-value of 0.2446, which is greater than the 0.05 significance threshold. This indicates that the null hypothesis of homoscedasticity (equal variance) cannot be rejected, suggesting that the data do not exhibit heteroscedasticity. Therefore, the variance of the error terms remains constant across all values of the explanatory variables.

4.2.5 Test for Normality

Table 6 below presents the results of the Shapiro-Wilk data normality test which determines whether a data set is symmetrically (normal) with p-values higher than 0.05, or asymmetrically (abnormal) distributed with p-value lower than 0.05 around the central expected mean. The Shapiro-Wilk test for normality indicates that the variables deviate from a normal distribution, with p-values of 0.00000 for ROA, EQR, STDR, LTDR. These results suggest that non- parametric considerations may be relevant in further analyses.

Table 6: Test for Normality

Variable	Obs.	W	V	z	prob>z
ROA	150	0.81078	22.017	7.009	0.00000
EQR	150	0.52019	55.828	9.119	0.00000
STDR	150	0.38130	71.990	9.695	0.00000
LTDR	150	0.93547	7.508	4.570	0.00000

Source: compilation from Stata 17 (2026)

To test the normality of the variables, Shapiro–Wilk test was used as it has the highest power among all tests for normality. The hypothesis was tested at a critical value at 0.05, where the rule is that reject H0 if the probability (P) value is less than 0.05 or else do not reject. From the results above, all variables with p value of 0.00000 are abnormally distributed.

4.2.6 Test for Autocorrelation

Table 7 below shows Durbin-Watson statistic is used to detect the presence of autocorrelation in the residuals from a statistical regression analysis. The Durbin-Watson statistic determines whether there is autocorrelation in the residuals of a time series regression.

Table 7: Test for Autocorrelation

.dwstat
Durbin-Watson d-statistic (5, 150) = 1.502008

Source: compilation from Stata 17 (2026)

From the analysis a Durbin-Watson statistic value of 1.502008 was revealed. The statistic ranges from 0 to 4. The Durbin- Watson statistic of 1.502008 suggests the existence of positive autocorrelation in the model.

4.2.7 Hausman Specification Test

Table 8 below shows the results from Hausman specification test conducted to show which of Random Effect or Fixed Effect will be most appropriate for estimating the model of the study. The Hausman test is a model specification test used in panel data analysis to choose between fixed and random effects models. Because the datasets utilized in this study were panel data, both fixed and random effects were performed.

Table 8: Hausman Specification Test

Test Summary	Chi2 Stat.	Chi2 d.f.	Prob > chi2
Cross-section random	0.90	3	0.8246

Source: compilation from Stata 17 (2026)

The Hausman test estimation results from table 8 show that we can accept the null hypotheses that the random effect model is more efficient than the fixed effect model. The probability values of variables (EQR, STDR, LTDR) are both statistically significant in explaining random effects in the dependent variable, ROA of the consumer goods companies in Nigeria. Results showed sufficient evidence for the acceptance of the null hypothesis at a 0.05 level of statistical significance. As can be seen, the probability value 0.8246 of the test is higher than the critical value of 0.05. If the p-value is less than 0.05, the null hypothesis is rejected, and the alternative hypothesis should be accepted.

4.2.8 Regression Results

Table 9 presents random effects panel regression results of capital structure onfinancial performance of listed consumer goods companies proxied by Return on Assets (ROA).

Table 9: Random Effect Regression (Direct relationship)

ROA	**Coefficient**	**Std. err.**	**p>/z/**
EQR	.1800519	.0275806	0.000 **
STDR	-.0668875	.0088315	0.000 **
LTDR	-.1180056	.0741911	0.112
_cons	.0026829	.0248996	0.914
R^2 = 0.3142			
Wald chi2 (5) = 81.87			
Prob > chi2 = 0.0000			

Source: compilation from Stata 17 (2026) *Note: *** p < 0.01; ** p < 0.05; * p < 0.10*

From Table 9, the coefficient of determination (R^2) for financial performance, proxied by return on assets (ROA), is 0.3142, indicating that 31.42% of the variation in ROA of listed consumer goods companies in Nigeria is explained by equity ratio, short term debts to total assets, long-term debt to total assets, while the remaining 68.58% is due to factors outside the model. The p-value of 0.000 and Wald chi² of 81.87 confirm statistical significance at the 5%

level. This model also met the test of autocorrelation as the Durbin-Watson statistics is 1.502008. The results in table 9 shows that when ROA was utilized as dependent variable to measure the financial performance, EQR has a coefficient of .1800519 and a p-value of 0.0000 which is significant at 5% level of significance. This implies that EQR has a positive and statistically significant impact on the ROA of listed consumer good companies. This implies that for every increase in the EQR, it has significant effect on ROA. Table 9 also provides result in respect of effect of STDR on ROA; with a coefficient value of -.0668875 and a p-value of 0.0000 which is significant at 5% level of significance. This signifies that STDR has a positive and significant impact on ROA of listed consumer good companies. This implies that for every increase in the STDR, it has a significant effect on ROA. Table 9 also provides result in respect of effect of LTDR on ROA; with a coefficient value of -.1180056 and a p-value of 0.112 which is insignificant at 5% level of significance. This signifies that LTDR has a negative and insignificant effect on ROA of listed consumer good companies. This implies that a unit increase in LTDR, it has a negative and insignificant effect on ROA.

4.3. Test of Hypotheses

The study hypothesized that equity ratio (EQR) has no significant effect on the financial performance of listed consumer goods companies in Nigeria. Based on the result in table 9, it was noted that equity ratio (EQR, $\beta = .1800519$, $p < 0.000$), has a significant and positive effect on financial performance (ROA) of listed consumer goods companies in Nigeria. This implies that for every unit increase in the EQR, it has a statistically significant positive effect on financial performance of consumer goods companies in Nigeria measured by Return on Asset (ROA). The p-value is less than 0.05 significance level. Therefore, the null hypothesis is accepted.

The study hypothesized that short-term debt ratio (STDR) has no significant effect on the financial performance of listed consumer goods companies in Nigeria. Based on the result in table 9, it was noted that short term debt ratio (STDR, $\beta = -.0668875$, $p < 0.000$), has a significant and negative effect on financial performance (ROA) of listed consumer goods companies in Nigeria. This implies that for every unit increase in STDR, it has a statistically significant negative effect on financial performance of consumer goods companies in Nigeria measured by Return on Asset (ROA). The p-value is less than 0.05 significance level. Therefore, the null hypothesis is accepted.

The study hypothesized that long-term debt ratio (LTDR) has no significant effect on the financial performance of listed consumer goods companies in Nigeria. Based on the result in table 9, it was noted that long term debt ratio (LTDR, $\beta = -.1180056$, $p > 0.112$), has an insignificant and negative effect on financial performance (ROA) of listed consumer goods companies in Nigeria. This implies that for every unit increase in LTDR, it has an insignificant negative effect on financial performance of consumer goods companies in Nigeria measured by Return on Asset (ROA). The p-value is greater than 0.05 significance level. Therefore, the null hypothesis is rejected.

4.4. Discussion of Findings

The first objective of the study was achieved with the magnitude coefficient of variable equity on return on asset; the result shows that equity (EQR) has positive and significant effect on return on asset of listed consumer goods companies in Nigeria as indicated by coefficient ratio (EQR, $\beta = .1800519$), with ($p < 0.000$), lower than 0.05 significance level. This implies that the equity form of financial structure contributes 18% positive impact on ROA. This means that, if EQR (i.e. the ratio of equity to total asset) is increased by a unit, there would be 18% increase in ROA. The study is consistent with pecking order theory

which states that firms finance their business in three hierarchical orders. This study is consistent with the findings of Githire & Muturi (2015), Zeitun and Tian (2007), Chinaemerem and Anthony (2012), Olokoyo (2012) but against the result of Ebaid (2009), Ahmad et al. (2012), Suleiman (2013), Khanam et al. (2014) and others.

The second objective of the study was achieved with the magnitude coefficient of variable short-term debt on return on asset (ROA); the result shows that short term debt (STDR) has negative and significant effect on return on asset of listed consumer goods companies in Nigeria as indicated by coefficient (STDR, β = -.0668875), with ($p < 0.000$), lower than 0.05 significance level. This implies that the short-term debt form of financial structure induced -6.68% negative impact on financial performance (ROA). From the result, it could be seen that short-term debt of financial structure induces a significant and negative effect on the firm's financial performance. Thus, all firms who are maximizing value should focus on when choosing the amount of debt and equity needed to finance their operation. This study is consistent with the findings of Ebaid (2009), Ahmad et al. (2012), Suleiman (2013), Khanam et al. (2014). The finding disagrees with the result of Githire and Muturi (2015), Chinaemerem and Anthony (2012), Zeitun and Tian (2007), and Olokoyo (2012) among others.

The third objective of the study was achieved with the magnitude coefficient of variable long-term debt on financial performance (ROA); the result shows that long term debt (LTDR) has an insignificant and negative effect on financial performance (ROA) of listed consumer goods companies in Nigeria as indicated by coefficient (LTDR, β = -.1180056), with ($p > 0.115$), at 0.05 significance level. This implies that the long-term debt form of financial structure does not contribute to the financial performance of listed consumer goods companies in Nigeria under the study period and for every unit increase in LTDR, the ROA of listed consumer goods companies in Nigeria will decrease insignificantly by the co-efficient value. In this scenario, long term debt seems not to be favorable, then alternative debt financing should be opted for. This is consistent with the findings of Goyal (2013); Mahmud & Musa (2016), Hawood (2014), Ebaid (2009), Ahmad et al. (2012), Suleiman (2013), Khanam et al. (2014) but contrary to the result of Ibrahim et al. (2016); Sanusi et al. (2020); Githire and Muturi (2015), Chinaemerem and Anthony (2012), Zeitun and Tian (2007), Olokoyo (2012) among others.

The combined and overall effect of the predictor variables on the explained variable showed that the model is adequate and free from misspecification. The Wald Chi^2 value of 81.87 with prob > chi^2 of 0.0000 which is significant at 1% level of significance shows that the model is well fitted with the variables of the study. Furthermore, the coefficient of determination R^2 which stands at 31.42% indicates the proportion of the total variation in dependent variable (return on assets) that is explained by the independent variables. This shows that capital structure has a significant impact on the financial performance of listed consumer goods companies in Nigeria.

Conclusion

The study uses secondarily sourced panel data over a period of 10 years from 2016 to 2025 of fifteen (15) consumer goods firm listed on the floor of the Nigerian Exchange Group (NGX). The study examines the effect of capital structure on financial performance, with focus on the effect of equity, short term debt, long term debts on financial performance measured as return on asset (ROA) of consumer goods companies listed on the Nigerian Exchange Group. Based on the above findings, the study concludes that capital structure significantly affects the financial performance of consumer goods companies listed on the Nigerian Exchange Group. Specifically, higher equity levels increase profitability and asset returns, while greater debt

levels diminish them. Practically, consumer goods companies listed on the Nigerian Exchange Group should prioritize equity over debt to enhance financial performance, though excessive debt may harm profitability due to interest costs. The findings conclude that more use of equity positively impacts financial performance, which indicates its role in accelerating return on capital of consumer goods companies; however, the excessive use of debt to assets, long-term debt to equity and long-term debt to capital have unfavourably affected the financial performance of consumer goods companies listed on the Nigerian Exchange Group. Financing is an important decision because it has a direct impact on a company's profitability. In fact, the quality of a company's financial decisions determines how successful it is in its operations. As evidenced in this study, capital structure, measured by equity ratio, short term debt ratio, and long-term debt ratio has a mixed effect on profitability (measured by ROA) of consumer goods companies in Nigeria. However, over exposure to debt for financing could lead to a fall in return on asset as revealed by the study.

Recommendations

Based on the findings and conclusions, it is recommended that:

1. Consumer goods companies should concentrate on maximizing their equity financing as this can go a long way in improving growth and financial steadiness through more investments in equity and improved retained earnings as it would lead to an upsurge in the financial performance of the listed consumer goods companies in Nigeria. This indicates that firms with higher equity ratio normally experience better financial performance which is consistent with the results of this study.
2. Consumer goods companies should prioritize maintaining an optimal short-term debt-to-total asset ratio (STDR) which is critical for listed consumer goods companies. The observed negative and significant impact of a high STDR on ROA underscores the detrimental effects of excessive short-term debt on the firm financial performance. Firms should strive for a balanced capital structure where the cost of short-term debt is appropriately weighted to maximize shareholder value. Companies should therefore, rely less on short-term debt, which forms the major part of their leverage, and focus more on developing internal strategies that can help improve their accounting performance.
3. Consumer goods companies should decrease their proportions of long-term debt to assets so as to align with their interests and those of the company's stakeholders so that they can work for the general interest of all and enhance financial performance of the company.

References

Abdullah,E.M. (2014). The impact of capital structure on firm's performance: Evidence from Saudi Arabia. *Journal of Applied Finance and Banking*, 4(2), 183-193.

Abdullahi, R. S., Kwaru, S. M., & Karim, I. D. (2023). Capital structure and financial performance of listed consumer goods firms in Nigeria. *Nigerian Journal of Management Sciences*, *24*(2), 55–64.

Abor, J. (2005). The effect of capital structure on profitability: An empirical analysis of listed firms in Ghana. *The Journal of Risk Finance*, 6(5), 438– 445.

Abor, J. (2008). Determinants of the capital structure of Ghanaian firms. *Research Paper African Economic Research Consortium*, 179.

Ahmad, Z., Abdullah, N. M. H., & Roslan, S. (2012). Capital structure effect on firms' performance: Focusing on consumers and industrial sectors on Malaysian firms. *International Review of Business Research Papers*, 8(5), 137-155.

Akinsulire, C. O. (2014). Financial management. ET-TODA Venture Ltd: Logos.

Akinyomi, O. J. (2013). Effect of capital structure on firm performance: Evidence from Nigerian manufacturing industry. *International Journal of Innovative Research and Studies,* 2(9), 1-13

Akpoghelie, M. S., & Okolie, A. O. (2026). Capital structure and firms' performance in Nigeria. *European Journal of Accounting, Auditing and Finance Research,14*(1), 38–57.

Aliu, N.O. (2010). Effect of capital structure on the performance of quoted manufacturing firms in Nigeria. Unpublished M.sc Thesis, Ahmadu Bello University Zaria.

Al-Nuaimi, A.T., & Al-Tamimi, A.F. (2019). Financial Analysis and Planning: Contemporary Trends, Arabic Edition, Amman: Al-Yazuri Publishing and Distribution.

Amara, U., & Bilal, A. (2014). Impact of capital structure on firm performance: Analysis of food sector listed on Karachi stock exchange. *International Journal of Multidisciplinary Consortium,* 1(1).

Arhinful, R., & Radmehr, M. (2026). The effect of financial leverage on financial performance : evidence from non-financial institutions listed on the Tokyo stock market. *Journal of Capital Markets Studies*, *7*(1), 53–71.

Atallah Y. (2017). The relationship between dividend pay-out ratio and firm profitability: A study of listed hotels and restaurant companies inSri-Lanka. *International Journal of Scientific and Research Publications,* 3(6),34-45

Awunyo, D.V., & Bandu, J. (2019). Capital structure and performance of listed banks in Ghana. *Global Journal of Human Social Science*,12(5), 1-7.

Chinaemerem, O. C., & Anthony, O. (2012). Impact of capital structure on the financial performance of Nigerian firms. *Arabian Journal of Business and Management Review (OMAN Chapter), 1*(12), 42–61.

Chirchir, F. K., Kalui, F. M., & Tari, J. (2024). Capital structure and financial performance of non-financial firms listed at Nairobi Securities Exchange, Kenya. *International Journal of Research and Innovation in Social Science*, 8(7), 534–543.

Chowdhury, A., & Chowdhury, P. S. (2010). Impact of capital structure on firm's value: Evidence from Bangladesh. *Peer Reviewed and Open Access Journal*, (3)3, 111-115.

Dada, A. B., & Ghazali, S. A. (2016). Capital structure determinants: An empirical analysis of Malaysian listed companies. *International Journal of Business and Management Invention*, 7, 38-45.

Das, C. P., & Swain, R. K. (2018). Influence of capital structure on financial performance. *Parikalpana: KIIT Journal of Management*, 14(1), 161-171.

Dinh, H. T., & Pham, C. D. (2020). The effect of capital structure on financial performance of Vietnamese listing pharmaceutical enterprises. *The Journal of Asian Finance, Economics and Business*, 7(9), 329– 340.

Donaldson, G. (1961). Corporate debt capacity: A study of corporate debt policy and the determination of corporate debt capacity. Division of Research, Harvard School of Business Administration: Boston.

Ebaid, E.I. (2009). The impact of capital structure choice on firm performance: Empirical evidence from Egypt.*The Journal of Risk Finance*, 10(5), 477-487.

Erasmus, P. D. (2008). Evaluating Value Based Financial Performance Measures, *Journal of Finance and Accounting*, 5, 56-63.

Ezeani, N.S., & Enyi, P.E. (2021). Impact of capital structure on financial performance of listed insurance firms in Nigeria. *European Journal of Accounting, Finance & Business*, 9(3), 48-64.

Fakunle, I. O., Omolel, I.I, &Adewumi A. D. (2024). Capital structure and financial performance of listed non- financial companies on the Nigerian Stock Exchange.

International Journal of Economics, Business and Management Research (IJEBMR), 8(2024) 1-19.

Gathara, Z, M; Kilika, J.M, & J. N, Maingi (2019). Effect of equity on financial performance of selected companies listed in the Nairobi securities exchange, Kenya. *International Journal of Business & Law Research*, 7(1), 1-24.

Githire, C.,& Muturi, W. (2015). Effects of capital structure on financial performance of firms in Kenya: Evidence from firms listed at the Nairobi securities exchange. *International Journal of Economics, Commerce and Management*, 3(4), 1-10.

Goyal, A. M., (2013). Impact of capital structure on performance of listed public sector banks in India. *International Journal of Business and Management Invention*, 2(10), 35-43.

Gujarati, D. N., & Porter, D. C. (2003). Basic econometrics (ed.). Singapore: McGrew Hill Book Co.

Harwood, I. K. (2014). Effects of debt on firm performance: A survey of commercial banks listed on Nairobi securities exchange. *Global Journal of Advance Research*, 2(6), 1025-1029.

Herawati, H., & Sumiati, D. M. N. (2025). The effect of intellectual capital, firm size, and capital structure on financial performance: Empirical study of sub-sector companies' property and real estate registered on the IDX in 2018-2022. *JIAKES Journal Ilmiah Akuntansi Kesatuan*, 13(2), 385–396.

Ibrahim, D, Dogarawa, A. B., and Muhammad A. H. (2016). Effect of capital structure on financial performance of listed manufacturing firms in Nigeria.

Ishaya, L.C. &Abduljeleel, B.O. (2014). Capital structure and profitability of Nigerian quoted firms: the agency cost theory perspective. *American International Journal of Social Science*, 3(1), 139-142.

Jibran, S., Ullah, H., & Atif, M. (2012). Pecking at pecking order theory: Evidence from Pakistan's non-financial sector. *Journal of Commerce*, 4(2), 10–20.

Julius, B. A., Nwidobie, B. M.,& Oluwatosin A. (2015). Capital structure and financial performance in Nigeria. *International Journal of Business and Social Research*,5(2), 21-31.

Khanam, F., Nasreen, S., & Pirzada, S.S. (2014). Impact of capital structure on firm's financialperformance: Evidence from food sector of Pakistan.*Research Journal of Finance and Accounting*, 5(11), 93-105.

Kumari, P. (2021). Role of capital structure in financial performance of a company. *The American Economic Review*, 6(2), 108 – 115.

Kurfi, A.K. (2003). Principles of Financial Management. Benchmark Publishers Ltd, Kano.

Luo, Y., & Jiang, C. (2022). The impact of corporate capital structure on financial performance based on convolutional neural network. *Computational Intelligence and Neuroscience*, 2022, 1–7.

Mahmud, B.,& Musa, B. (2016). The impact of capital structure on financial performance of listed firms in the Nigerian oil and gas industry. *International Journal of Public Administration and Management Research*, 3, (4).

Modibbo, S. A., Abubakar, M., & Kumshe, M. H. (2024). Capital structure and financial performance of listed consumer goods companies in Nigeria. *IRJEMS International Research Journal of Economics and Management Studies*, *3*(7), 454–459.

Modigliani, F., &Miller, M.H (1958). The cost of capital, corporate finance and theory of investment. *America Economic Review*, 48, 261-297.

Myers, S. C.,& Majluf, N. S. (1984). Corporate financing and investment decision when Firms have information that investors do not have. *Journal of Financial Economics*, 13, 187–221.

Ngatia, W. M., Omondi, M. & Atieno, O. D. (2022). Capital restructuring and financial performance of listed manufacturing firms in Kenya.*American International Journal of Business Management (AIJBM)*, 5(10),48-54.

Obafunso, A. R., & Mazadu, S. A. (2025). Impact of capital structure on financial performance of listed consumer goods firms in Nigeria. *Impressive Journal of Management and Social Sciences*, *1*(1), 113–126.

Ogechukwu, S., Ogbonnaya-ugwo, N., & Promise, I. (2025). Capital Structure and Financial Performance of Listed Consumer Goods Firms in Nigeria. *International Journal of Research And Innovation In Social Science(IJRISS)*, *9*(2454), 4894–4905.

Olayemi, O.O.,& Fakayode, O.P. (2021). Effect of capital structure on financial performance of quoted manufacturing companies in Nigeria. *European Journal of Accounting, Auditing and Finance Research*, 9(5), 73-89.

Olokoyo, F.O. (2012). Capital structure and corporate performance Nigerian quoted firms: A Panel Data Approach.

Pandey, M., (2001). Capital structure and the firm characteristics: evidence from an emerging market, Working paper, Indian Institute of Management Ahmedabad.

Rajan, R. G., & Zingales, L. (1995). What do we know about capital structure? Some evidence from international data. *Journal of Finance*, 50(5), 1421-1460.

Sajo, A. A., & Uthman, A. B. (2025). Effect of capital structure on the financial performance of listed industrial goods companies in Nigeria. *International Journal Of Research And Innovation In Social Science(IJRISS)*, *9*(6), 3320–3337.

Salawu, R. O., & Agboola, A. A. (2008). The determinants of capital structure of large non-financial listed firms in Nigeria. *The International Journal of Business and Finance Research*, 2(2), 75–84.

San, O. T., & Heng, T. B. (2011). Capital structure and corporate performance of Malaysian construction sector. *International Journal of Humanities and Social Science*, 1(2), 28–36.

Sanusi, B., Stephen, P.,& Vivi, P. V. (2020). Impact of capital structure on financial performanceof deposit money banks in Nigeria. *International Journal of Management, Social Sciences, Peace and Conflict Studies*, 3(4), 135-147.

Singh, V., Aggarwai, A.K & Mathur, P. (2023). Capital structure and its theories. *Journal of Pharmaceutical Negative Results*, 13(2), 2223-2230.

Suleiman, A. (2013). Capital structure effect on firms' performance: evidence from Saudi listed companies. Saint Mary's University, Master's thesis.

Terkende, A. J., & Terkuma, A. I. (2026). The effect of capital structure on financial performance of listed industrial goods firms in Nigeria. *Journal of Accounting and Financial Management*, *12*(4), 238–249.

Uwalomwa, U., Uwuigbe, O. R., & Oyewo, B. M. (2021). Leverage and financial performance: Evidence from Nigerian quoted firms. *Asian Economic and Financial Review*, 11(5), 407–419.

Van Horne, J. C. (2005). Fundamentals of Financial Management, 6th Edition Prentice hall International.

Zeitun, R., & Tian, G.G. (2007). Capital structure and corporate: Evidence from Jordan. *The Australasian Accounting Business & Finance Journal*, 1(4), 40-61.