Journal of Emerging Trends in Management Sciences and Entrepreneurship
Volume 8(2), Pages 369-391 April/June Edition, 2026
ISSN: 2384-762X
https://www.jetmase.com

Financial Leverage and Shareholder's Wealth of Listed Manufacturing Firms in Nigeria

Molokwu, J.I.[1*], Ofor, T.N. (Ph.D)[2] & Ugwu, V.I. (Ph.D)[3]
[1,2&3]Department of Accountancy, Chukwuemeka Odumegwu Ojukwu University
Igbariam, Anambra State, Nigeria
Corresponding Email: josephinemolokwu@yahoo.com

ABSTRACT: The study examined the effect of financial leverage on the shareholder's Wealth of quoted manufacturing firms in Nigeria. Specifically, the study determined the effect of debt-to-equity, debt-to-total assets, long-term debt-to-assets, on earnings per share of the firms. The study adopted an ex-post facto research design. The population comprised forty listed manufacturing firms in Nigeria. Purposive sampling was used to select a sample size of thirty (30) manufacturing firms. Secondary data were obtained from the published financial statements of the sampled firms covering a period of thirteen years (2012–2024). The data were analyzed using descriptive statistics, spearman ranking correlation and Panel Estimated Generalized Least Squares (EGLS) regression (Fixed Effect and Random Model) at a 5% significance level, Husman test was used to select fixed effect model result. The findings revealed that: debt-to-equity ratio had a positive and significant effect on earnings per share ($\beta = 0.3437$; $p = 0.0000$); total debt-to-total assets ratio had a positive but non-significant effect on earnings per share ($\beta = 0.3268$; $p = 0.9033$); long-term debt-to-total assets had a negative but non-significant effect on earnings per share ($\beta = -2.3526$; $p = 0.4084$). The study concluded that financial leverage affected shareholder's wealth of listed manufacturing firms in Nigeria prudent management of debt structure was seen as essential for improving profitability and sustaining the shareholder's wealth of manufacturing firms in Nigeria. It was recommended that management of quoted manufacturing firms in Nigeria should maintain a balanced mix of debt and equity financing, ensured that borrowed funds were used to finance projects with clear profit-generating potential, since the study showed that moderate debt use enhances earnings per share.

Keywords: Financial Leverage, Shareholder's Wealth, Earnings per Share, Debt to Equity, Debt to Total Assets, Longterm Debt

1. INTRODUCTION

In the dynamic business environment characterized by global competition and rapidly evolving markets, firms constantly seek to optimize their capital structures to enhance performance and create sustainable value. Financial leverage, which refers to the use of borrowed funds to finance a company's assets and operations, represents a critical strategic decision that significantly impacts a firm's financial health, growth potential, and competitive position (Rahman & Hasan, 2023). The strategic utilization of debt financing can amplify returns to shareholders when investments yield returns exceeding

borrowing costs, effectively multiplying the impact of successful business ventures. Across emerging markets, the debate on whether financial leverage (the mix and level of debt in a firm's capital structure) enhances or erodes shareholders' wealth remains unsettled.

The issue is particularly salient in Nigeria's manufacturing sector, where firms operate under volatile macroeconomic conditions—exchange-rate swings, high (but recently easing) inflation, and historically elevated borrowing costs (Abubakar & Anyonje, 2025). These conditions directly affect the cost–benefit trade-off of debt financing and, by extension, the market value of equity and total returns to shareholders. In the last two years, Nigeria's monetary stance shifted from aggressive tightening in 2024 to the first policy rate cut in five years in September 2025, a move intended to ease borrowing costs as inflation decelerated. This macro turn potentially changes the leverage calculus for manufacturers considering new debt or rolling over existing obligations (Halim, 2025). Companies with debt in their capital structure are said to be leveraged, while those that do not have debt are said to be unleveraged (Arhinful & Radmehr, 2023; Ogunewe, Ananwude, & Nduka, 2020). Financial leverage is a measure of how much firms use equity and debt to finance its assets and its financing decision making is one of the most important concepts in the business world. Financial leverage takes the form of a loan or other borrowing (debt), the proceeds of which are re-invested with the intent to earn a greater rate of return than cost of interest. An unlevered firm is an all-equity firm, whereas a levered firm is made up of ownership equity and debt (Masood et'al 2025). Leverage allows a greater potential returns to the investor than otherwise would have been available, but the potential loss is also greater if the investment becomes worthless, the loan principal and all accrued interest on the loan still need to be repaid (Halim, 2025).

The key objective of firm financing decisions is wealth maximization and the quality of any financing decision has an effect on firm's profitability (Odhiambo et'al 2025). Shareholder's wealth in turn is defined as the current price of the firm's outstanding ordinary shares (Goyal, 2013). Shareholders' wealth represents the economic value that owners derive from their investment in a firm, and it is widely regarded as the primary objective of corporate financial management. According to Brigham and Ehrhardt (2020), shareholders' wealth is maximized when the firm's market value is maximized, because the market price of a company's shares reflects the present value of its expected future cash flows. This definition places emphasis on the firm's ability to generate sustainable returns that increase share price, dividends, and overall market capitalization. Ross et al, (2019) also affirm that shareholder wealth is measured through market-based indicators, such as stock prices, because these metrics incorporate investor expectations, firm risk, and the effects of managerial decisions (Aniefor, Nduka, Ananwude & Ezeaku, 2021).

Financial decision making is very important for the profitability of any firm. Financial decisions include long term financing and short-term financial decisions. The long-term decisions are mode of capital sourcing and dividend decisions while the short-term financing decisions involve liquidity decisions. The key responsibility of determining the optimal mix of debt and equity that will ensure maximization of shareholder's wealth falls under the financial managers (Nassim, et'al 2025; Nduka, Okolie & Ngangah, 2025). Short and long term are the major means of financing firm's assets in developing financial markets and they have different incentive characteristics and in turn different effects on

firms' performance (Amirullah, & Endri 2025). In the wake of recent financial crisis, determining the best financing mix practices in manufacturing sectors in Nigeria have received heightened attention. Anecdotal evidence suggests that inability of financing managers determining the optimal financing mix in their different sectors considering the ethics in long term and short term debt financing and rate of return on investment lead to an extremely vulnerable bad debt (Singh & Bansal, (2016).

Despite the strategic importance of the manufacturing sector to Nigeria's economic growth, the sector continues to struggle with persistent cost pressures, limited access to long-term financing, exchange-rate volatility, and high interest-rate regimes. These macroeconomic and financial constraints force many listed manufacturing firms to rely heavily on debt financing to sustain operations, expand capacity, and fund working capital. However, the extent to which such financial leverage enhances or erodes shareholders' wealth remains unclear and empirically inconclusive within the Nigerian context. Existing reports from the Central Bank of Nigeria and the Nigerian Exchange Group indicate rising debt levels among manufacturing firms, yet fluctuations in share prices, earnings per share, and market valuation suggest that increasing leverage may be contributing to heightened financial risk rather than value creation for equity holders (Odhiambo, et'al, 2025).

Firms going through financial distress also have issues with its operational functions, high labour turnover and the organization objective shifted from key corporate objectives since the current issue is funding debt instruments. Companies in Nigeria do found it difficult to make a profit; thereby, having an effect on their performance, which may be attributed to inadequate finance or where the finance is available at a cost too expensive. The problem of financial leverage, therefore, arises from determining the quantum of each source of finance that will yield optimum return with little risks. The appropriation of a company's profit is a sensitive function in financial management, most especially because of the need to maintain optimality in the allocation of profit between the shareholders (i.e. dividend) and the company itself (retained earnings). However, the specific objectives were as follows:

i. Determine the effect of debt-equity ratio on earnings per share of selected quoted manufacturing firm in Nigeria.
ii. Examine the effect of total debt to total assets ratio on earnings per share of selected quoted manufacturing firm in Nigeria.
iii. Evaluate the effect of long-term debt-to-total assets on earnings per share of selected quoted manufacturing firm in Nigeria.

LITERATURE REVIEW

2.1 Conceptual Review

2.1.1 Financial Leverage

Financial leverage is a measure of how much firm uses equity and debt to finance its assets. As debt increases, financial leverage increases. Financial leverage refers to application of debt financing and borrowed capital in an attempt to increase firm's operations and profitability (Omabu et'al 2021). Financial leverage is the use of borrowed money (debt) to finance the purchase of assets with the expectation that the income or capital gain from the new asset will exceed the cost of borrowing (Ezechukwu & Amahalu, 2017). Leverage is an investment strategy of using borrowed money, specifically, the use of various financial instruments or borrowed capital to increase the potential return of an investment.

Leverage can also refer to the amount of debt a firm uses to finance assets. Leverage results

from using borrowed capital as a funding source when investing to expand the firm's asset base and generate returns on risk capital. Financial leverage which is also known as leverage or trading on equity, refers to the use of debt to acquire additional assets. Financial leverage is the use of debt to buy more assets. Leverage is employed to increase the return on equity. However, an excessive amount of financial leverage increases the risk of failure, since it becomes more difficult to repay debt (Ofulue, et al 2022; Anusi & Nduka, 2022).

According to Onakpoma et al (2023) stated that financial leverage means so many things to so many people. The financial managers, operators of firms, and management of organizations view financial leverage from different perspectives largely because entities choice of source of funds determines the allocation of its operating cash flow. According to Ezeduru, et'al (2018), the choice of an appropriate financing mix constitutes a critical decision for the survival and continuous growth of any business organization not only because of the need to maximize returns to the various interest holders but because of the impact such informed decision has on the performance of an organization in a competitive environment. Also, for entities to grow in line with their objectives they must choose the best financing sources to reach the optimal capital structure so that they can make suitable financing decisions that would enable them to achieve positive returns. Since the management of organizations requires funds for its short-term as well as long term financial requirements, it is obvious that the opinions of various stakeholders over the concept of financial leverage must vary amongst various organizations (Obidike, Onyeka & Nduka, 2022).

The importance of financial leverage in any organization needs not to be over-emphasized. This is because according to Ahmad, et al (2015), financial leverage comes under financial strategy planning that helps to increase the rate of return by generating a greater return on borrowed money than the cost of using that money. Gadzo & Asiamah (2018) opined that the purpose of financial leverage in any transaction is to generate more profit. Strebulaev & Yang (2013) posits that leveraged businesses have additional capital available to finance their operations and expansions compared to an unleveraged business solely dependent on equity. Ezeduru, et al (2018) stated that a good attribution of financial leverage in business will lead to the success of firms.

Orajaka (2017) observed that upon the introduction of financial leverage, the operating profits can see a sharp increase with a small change in sales as most parts of the expenses are stagnant and cannot further increase with sales. Likewise, if we consider financial leverage, the earnings share of each shareholder will increase significantly with an increase in operating profits. This means that the higher the degree of financial leverage, the higher will be the percentage increase in operating profits and earnings per share. Ahmad, et al (2015) pointed out that in the economic boom period, higher financial leverage gives benefits to the firm but on the other hand, in an economic recession this financial leverage hurts the firm's profitability. in this study, financial leverage is proxied as debt to equity ratio (Ekwunife, Nduka & Ogini, 2022).

2.1.2 Debt to Equity Ratio

Debt Obligation financing originates from speculators at an expense as they are relied upon to draw in intrigue, which is a risk to the firm (Nawazish, et al 2016). According to Onakpoma et'al (2023) the debt-to-equity ratio is defined as a measure of the proportion of

debt to shareholders' funds (i.e., Net Worth) in the total financing of a business. Items such as accumulated losses and deferred expenditures are eliminated from the shareholders' funds before using it as the denominator. The ratio indicates how much naira was raised as debt for N1 of equity. Enekwe (2012) opined that debt-to-equity ratio is a financial ratio indicating the relative proportion of equity and debt used to finance a company's assets which is an indicator of financial leverage. It is equal to total debt divided by shareholders' equity. Farooq et al. (2017) pointed out that the debt-to-equity ratio shows the proportion of firm funding that comes from creditors. This shows that in any organization a greater debt-to-equity ratio shows that more creditors funding is used than shareholders funding.

Debt to equity ratio is a widely used metric for assessing the relationship between a company's debt and its equity. This ratio is calculated by comparing total debt, including current liabilities, to total equity. Bernardin and Tifani (2019) contend that the debt-to-asset ratio can positively influence the prediction of financial distress. However, Dirman (2020) notes that a high DER does not necessarily indicate financial distress, just as a low debt to equity ratio does not automatically signify financial stability. This is attributable to the fact that a company may possess significant total liabilities while simultaneously holding substantial total assets, allowing it to fulfill its obligations through asset liquidation. In a recent analysis, Oktaviani et al. (2024) documented the positive effect of financial leverage on company value; conversely, Aljundi et al. (2024) found no statistically significant relationship between financial leverage and profitability in industrial firms.

2.1.3 Total Debt-to-Total Assets Ratio

Total debt is a term used most often when discussing organizational finances from the macro perspective. From a business perspective, total debt is a combination of both short-term and long-term debt. A country's total debt is determined by adding up all the debt that the government has amassed, usually by borrowing from other nations but also by issuing debt to the public.

Total debt to total assets is a leverage ratio that defines the total amount of debt relative to assets. This enables comparisons of leverage to be made across different companies. The higher the ratio, the higher the degree of leverage, and consequently, financial risk. This is a broad ratio that includes long-term and short-term debt (borrowings maturing within one year), as well as all assets – tangible and intangible. With regards to agency theory, Nduka, and Ucheahara (2016) affirm that the higher leverage would lower agency costs, reduce inefficiency and thereby lead to improvement in firm's performance. Increasing the leverage ratio should result in lower agency costs outside equity and improve firm performance, all things being equal. Hence we expect an inverse relationship between leverage and firm performance (Proxied with return on assets and return on equity) (Nduka, Ananwude & Osakwe, 2019).

2.1.4 Long-term debt-to-total assets (LDTA)

In accounting, long-term debt generally refers to a company's loans and other liabilities that will not become due within one year of the balance sheet date" It could be in the form of a bank loan, mortgage bonds, debenture, or other obligations not due for one year, (Accounting Coach, 2016).

The long-term debt to total assets ratio is a capital structure measurement representing the percentage of a corporation's assets financed with loans or other financial obligations lasting more than one year. The regression parameter β_2 is expected to be less than zero i.e $\beta 2 < 0$. The long-term debt to total assets ratio is a key determinant of a firm's capital structure. The

ratio provides a general measure of the long-term financial position of a company, including its ability to meet financial requirements for outstanding loans. Long term debt-to-total assets ratio influences firm's performance, since lower ratios show that a company is performing well and depending less on debt. A higher ratio means a company must maintain a high revenue stream to pay its expenses. This may mean that a firm needed lower ratios in order to maximize returns otherwise known as shareholder wealth. Based on prior studies, Long-term debt-to-total assets ratios are expected to express negative and insignificant relationship with financial performance surrogated by return on assets and return on equity (Monogbe, Omotayo, Achugbu & Nduka, 2016).

2.1.5 Earnings per Share (EPS)

Earnings per Share is a vital performance dynamic for corporations in that it weights the profit attributable to ordinary shareholders in relation the average number of ordinary shares of the corporation. This study estimated EPS as the difference in profit after tax and preference dividend divided by number of ordinary shares ranking for dividend for a financial year. Earnings per Share can be gauged as profit after tax while subtracting preference dividend and minority interest divided by number of ordinary shares ranking for dividend for a financial year. Prior studies have shown that EPS is a key reported financial performance measures that is being alchemized by management compared to performance measures like ROA and ROE (Nduka, Atueyi, Osakwe & Mbanefo, 2021).

2.2 Theorical Framework

Trade-Off Theory

The Trade-Off theory argues that management should set optimal levels of financial leverage by weighing the debt equity ratio and total debt-to-total assets ratio to maximize shareholder wealth. According to Keynes (2009), there are two main benefits from holding liquid assets. The first benefit comes from the transaction factor: companies save transaction costs to raise funds and do not have to liquidate key assets to make payments. The second benefit comes from the precautionary factor: in that case, companies can use liquid assets to finance their short and long-term investments if other sources of funding are excessively costly. However, managers and shareholders look at costs and benefits differently. Managers have great incentive to hold cash due to managerial discretion and firm risk reduction. Such discretion plays an important role in explaining cash holding (Dittmar *et al.*, 2003). A greater preference for liquid assets can lead managers to overestimate the importance of the precautionary motive for holding cash (Opler *et al.*, 1999). According to Opler *et al.* (1999) and Bates et al (2009), cash holdings are negatively related to company size, net assets, payment of dividends and debt, and positively related to growth opportunities and cash flow variability. For Bates *et al.* (2009), cash holdings are also negatively related to capital expenditures. For Chang and Noorbakhsh (2009), cash holdings are positively related to cash flow. Additionally, based on corporate demand of liquidity arguments (Almeida et al, 2002), Ferreira and Vilela (2004) argue that cash holding allows the pursuance of investment projects with positive net present value (NPV) even when financial constraints are met.

This theory of relevance to this study as follows; The Trade-Off Theory of capital structure is highly relevant to the study of the effect of financial leverage on shareholders' wealth of listed manufacturing firms in Nigeria, as it provides a realistic explanation of how firms balance the benefits and costs of debt financing in imperfect capital markets. The theory posits that firms determine an optimal capital structure by trading off the tax advantages of debt against the costs of

financial distress and bankruptcy (Kraus & Litzenberger, 1973). In the context of listed manufacturing firms in Nigeria, the Trade-Off Theory explains how financial leverage can enhance shareholders' wealth through interest tax shields. Since interest payments on debt are tax-deductible, moderate use of leverage can increase after-tax earnings, improve profitability, and raise firm value, which ultimately benefits shareholders through higher dividends and market valuation. This aspect of the theory is particularly relevant in Nigeria, where corporate taxation significantly affects firms' net income.

However, the Trade-Off Theory also emphasizes the costs associated with excessive leverage, including bankruptcy costs, financial distress, and agency conflicts between debt holders and shareholders. Nigerian manufacturing firms operate in an environment characterized by macroeconomic volatility, high interest rates, exchange rate fluctuations, and infrastructural challenges. These conditions increase the likelihood and severity of financial distress when firms rely excessively on debt, potentially eroding shareholders' wealth. The theory therefore provides a framework for understanding why high leverage may negatively affect shareholder value beyond a certain threshold. Furthermore, the Trade-Off Theory suggests that firms with stable cash flows and tangible assets, such as manufacturing firms, may optimally employ more debt than firms in other sectors. Tangible assets can serve as collateral, reducing borrowing costs and mitigating lender risk. This makes the theory particularly relevant for analyzing differences in leverage decisions and shareholder wealth among listed manufacturing firms in Nigeria.

Importantly, the Trade-Off Theory supports the empirical examination of a non-linear relationship between financial leverage and shareholders' wealth. While moderate leverage may enhance firm value and shareholder returns, excessive leverage may reduce wealth due to rising distress costs. This theoretical prediction aligns with empirical studies in emerging markets, including Nigeria, where institutional weaknesses and financing constraints shape firms' capital structure decisions.

2.3 Empirical Review

Oladejo et'al (2025) studied financial leverage on profitability of quoted consumer goods companies in Nigeria. The strategic use of financial leverage is a critical determinant of firm profitability, yet its impact remains ambiguous, particularly for consumer goods companies in Nigeria facing significant operational challenges. This study therefore investigated the effect of debt-to-equity, short-term, and long-term debt ratios on the return on assets of quoted consumer goods firms in Nigeria of ten (10) selected quoted consumer goods companies in Nigeria. The study adopted an ex post facto research design and utilized secondary data sourced from the Central Bank of Nigeria statistical bulletin and annual reports of sampled firms covering 2014–2023. Panel regression analysis was employed using E-Views 10. The results revealed that DTE had a positive and significant effect on l ROA, indicating that equity financing strengthens profitability when combined with moderate debt. Conversely, both STDR and LTDR had negative and significant effects on ROA, suggesting that excessive reliance on debt financing, whether short- or long-term, erodes profitability. The Hausman test confirmed that the fixed effect model was more appropriate analysis.

Nassim et'al (2025) studied financial leverage and firm performance in Moroccan Agricultural SMEs: Evidence of Nonlinear Dynamics. This study investigates the nexus between leverage and financial performance in a sample of 54 Moroccan agricultural small- and medium-sized enterprises (SMEs) over the

period of 2017–2022. Drawing on trade-off, pecking order, and agency theories, this analysis examines whether different levels of indebtedness influence performance, as measured by return on assets (ROA). Using panel data regression models, both linear and nonlinear specifications were tested to explore the potential curvature of the leverage performance relationship. The empirical results reveal a significant and negative lin ear relationship between both short-term and long-term leverage and ROA, suggesting that increased indebtedness impairs financial performance. A quadratic specification reveals a persistently negative effect of short-term leverage and a U-shaped relationship between long-term leverage and ROA, indicating that performance may improve beyond certain debt thresholds. To address endogeneity concerns and validate the findings, dynamic panel estimation using the generalized method of moments (GMM) was employed, confirming the leverage's adverse effects on performance. Thus, this study provides policy-relevant insights into optimal capital structure decisions for small agribusinesses and underscores the need for tailored financial strategies to support their sustainable development.

Kaleemullah et'al (2025) examined impact of fiscal pressure on financial performance of Banking Sector in Pakistan: Moderating Role of Financial Leverage. Banking institutions are facing increasingly fiscal constraints that impact their profitability and stability. However, there is limited research on this issue in developing economies like Pakistan. To fill this gap, this study examines the effect of fiscal pressure on the financial performance of banks in Pakistan, considering the moderating role of financial leverage. The analysis uses panel data from 20 banks listed on the Pakistan Stock Exchange (PSX) from 2013 to 2022, employing random effects regression methods. Results indicate that both the sales ratio ($\beta = 1.262$, $p < 0.05$) and expenditure ratio ($\beta = 1.115$, $p < 0.10$) have a positively effects on the return on assets, enhancing operational efficiency. Financial leverage significantly moderates the relationship between fiscal pressure and profitability negatively (interaction term $\beta = -1.380$, $p < 0.10$ and $\beta = 1.440$, $p < 0.05$), suggesting that higher debt levels increase risks and reduce profitability. The overall model explains a substantial portion of the variation in profitability (Adj. $R^2 = 0.46$).

Omowumi et'al (2025) studied financial leverage and economic sustainability: evidence from in Nigerian Industrial Goods Firms. Ex-post facto research design was used in the study. A sample of nine (9) listed industrial goods firms were selected from the population of thirteen (13) industrial goods firms. Data were extracted from the annual reports of the firms from 2012-2024. Descriptive analysis was done using measures of central tendency and dispersion, Test of hypotheses was carried out using panel estimated generalized least squares. The study revealed that total debt to capital ratio and long-term debt to equity ratio have a significant and positive effect on operating cash flow margin. Based on the results.

Köycü and Nur (2025) evaluated the moderating role of financial leverage in the relationship between manager-shareholder agency cost and financial performance: A Study On Bist Textile Leather Index. This study examines the moderating role of the use of financial leverage in the relationship between agency cost and financial performance in companies operating in the BIST Textile Leather index during the period 2000-2023. In the study, firm size and age variables are used as control variables; ROA, ROE, and Tobin's Q are preferred as financial performance indicators. The analyses are conducted using BA-OLS and CUP-FMOLS estimation methods, following a second-generation process is followed. The findings

reveal that financial leverage, firm size and age variables have a positive impact on ROA, ROE, and Tobin's Q, while the manager-shareholder agency costs have a negative impact on these performance indicators. Moreover, the interaction between financial leverage and agency costs has a negative effect on ROA and ROE, and a positive effect on Tobin's Q. The results suggest that financial leverage alone may not be a sufficient policy instrument to reduce agency costs and improve financial performance.

Maulidia et'al, (2025) studied sustainability reporting, leverage, and firm size: impact on financial performance of Issi Manufacturing Firms. The focus of this research is: 1) Does sustainability reporting significantly impact financial performance? 2) Does leverage significantly impact financial performance? 3) Does company size significantly impact financial performance? 4) Which has a greater impact on financial performance: sustainability reporting, leverage, or company size? This research employed purposive sampling with a quantitative approach. Data collection utilized secondary data and documentation. Data analysis employed multiple linear regression using IBM SPSS Statistics version 25, with a sample of 21 companies. The results of this study indicate that 1) Sustainability reporting disclosure has neither a positive nor significant effect on financial performance. This is evident from the multiple linear regression results, which obtained a significant value of 0.071 > 0.05. 2) Leverage has neither a positive nor significant effect on financial performance. This can be seen from the results of multiple linear regression which obtained a significant value of 0.323 > 0.05. 3) Company size has a positive and significant effect on financial performance. This can be seen from the multiple linear regression which obtained a significant value of 0.031 < 0.05. 4) Sustainability report disclosure, leverage, and company size simultaneously influence financial performance. This is evident from the F-test results, which obtained a significant value of 0.048 <0.05

Angsoyiri et'al (2025) studied governance, ownership structure, and financial leverage: The role of board gender diversity in UK Firms. The study sample includes 484 UK firms from the FTSE All-Share Index for the period (2015–2023), with 4356 firm-year observations. The results show that CEO duality, gender diversity, managerial ownership, institutional ownership, and government shareholding are all positively associated with financial lever age, thus confirming the importance of these governance and ownership characteristics in determining capital structure policies. On the other hand, board size and the proportion of non-executive directors are not found to have a significant impact on financial leverage, which points to some room for improvement in UK board practices. In this regard, the study contributes to the governance-sustainability-finance nexus discussion by focusing on these dimensions in the UK corporate sector. As such, the findings of this study are important in providing policy recommendations for policymakers and corporate leaders and contribute to the ongoing wave of global corporate governance reforms and practical insights into enhancing governance frameworks at the firm level.

Toan et'al (2025) studied the impact of cash flow, company size, and financial leverage on the profitability of Seafood Companies in Vietnam. This study aims to investigate the influence of operational cash flow (OCF), company size (SIZE), and financial leverage (FLV) on gross profit (GP), operating profit (EBIT), and net profit (NP) within the seafood sector in Vietnam. This study uses secondary data obtained from the financial statements of 24 seafood companies published over a five-year period from 2019 to 2024. The analysis employs descriptive statistics and incorporates

three linear regression models to assess the relationships among the variables. The results show that both OCF and SIZE have a positive impact on GP and EBIT, while FLV does not exhibit any significant effect on these profit measures. Additionally, the analysis reveals that OCF and SIZE positively influence GP, EBIT, and NP, whereas FLV exerts a negative effect on these outcomes of financial indicators. Based on the findings, seafood companies are advised to implement robust cash flow management strategies, determine an appropriate company size, establish an optimal capital structure, and exercise prudent debt management to mitigate potential financial risks. However, given the presence of large companies operating across multiple sectors, the findings may not fully capture the intricacies of the entire seafood industry. Therefore, further research is warranted to explore these factors in greater depth and strengthen empirical evidence on these dynamics.

Sitienei et'al (2025) examined the effect of financial leverage on financial performance of Non- Financial Firms Listed in the Nairobi Securities Exchange, Kenya. This study was anchored on the Trade-off theory, adopted a mixed approach research design comprising of descriptive, causal and longitudinal designs to a study population of 40 non-financial firms listed at NSE where 29 firms were purposively sampled and pooled for 14 years (2010-2023) to obtain 406 firm-year observations. Data was obtained from the NSE website, World Bank reports as well as Capital Market Authority website. Diagnostic tests were conducted in order to prepare the data for regression analysis. In cases where the assumption of ordinary least squares was violated, panel corrected standard errors were recalculated. A transformed regression model-feasible generalized least squares was fitted in case of existence of autocorrelation and heteroscedasticity. The study findings revealed that debt -to-equity ratio (DER) had a statistically significant positive effect on financial performance while interest coverage ratio (ICR) had a statistically significant negative impact on financial performance. Debt -to – asset ratio (DAR) showed no statistically significant effect on financial performance. The study expands the existing base of knowledge on financial leverage and financial performance on listed non-financial firms in the Kenyan context. The study emphasizes on the importance of adopting a strategic approach to capital structure decisions. Firms should carefully consider their specific circumstances when determining appropriate leverage levels. The findings particularly highlight the value of maintaining a balanced debt-to-equity ratio while avoiding excessive interest burdens.

Odhiambo et'al (2025) studied financial leverage and firm performance: An Empirical Review and Analysis. Financial leverage, the use of borrowed capital to finance business operations, can enhance profitability and growth, but also introduces significant risks, especially in developing economies. By analyzing various models and empirical studies, the paper discusses the role of leverage in determining financial performance, highlighting both its potential advantages and the dangers of excessive debt. The research draws on theoretical frameworks, such as the trade-off theory and pecking order theory, to evaluate the relationship between financial leverage and corporate performance across different industries. Key findings emphasize the need for firms to carefully balance their debt levels to avoid financial distress and ensure long-term sustainability. The paper concludes with recommendations for future research, urging a deeper investigation into the varying effects of leverage on firms of different sizes and across industries.

Ahmad and Stacey (2025) examined financial leverage and corporate financial performance: A comprehensive review. The research

analyzes how debt financing influences corporate profitability, stability, and overall financial health. Through a systematic review of recent literature, the study investigates different leverage metrics and their effects on financial performance indicators such as Return on Assets (ROA) Return on Equity (ROE), and Earnings Per Share (EPS). The findings reveal that while moderate levels of financial leverage can enhance firm value and shareholder returns, excessive debt may lead to financial distress and undermine long-term sustainability. The optimal capital structure varies significantly by industry, firm size, and market conditions, suggesting that companies should tailor their leverage strategies to their specific operational characteristics and risk profiles.

Chukwu and Efanga (2025) studied firm profitability on financial leverage of listed industrial goods firms in Nigeria. The study used profitability of industrial good firms as dependent variable, while financial leverage of same consumer good firms as dependent variable. The traditional panel least square regression (PLSR) was used in the model. The study applied panel data models on annual data of consumer good firms within the scope. In order to circumvent endogeneity problems, panel estimation techniques of fixed and random effects was adopted in this study, Panel data estimation allows for the control of individual-specific effects usually unobservable which may be correlated with other explanatory variables included in the specification of the relationship between dependent and explanatory variables using Haussmann test. Result from the Haussmann test statistics reveals that market value had a negative and non-significant effect on financial leverage of industrial good firms in Nigeria. The researcher therefore recommended that Profitability of the firm should be prioritised since it had a significant positive effect on financial leverage of industrial good firms in Nigeria. When a firm is profitable, it lead to efficiency of their capital structure mix.

Halim (2025) examined linking financial leverage and stock price volatility to the Jakarta Islamic Index: Insights from Indonesia's Capital Market. Jakarta Islamic Index (JII), as well as the influence of Financial Leverage on the JII, and whether fluctuations in the stock prices of JII-listed companies affect the index. The Financial Services Authority stipulates a maximum debt-to-total asset ratio of 45% as a requirement for a stock to be categorized as sharia-compliant. This regulation inevitably affects the stock prices of sharia compliant companies, including those listed in the JII. Numerous studies have investigated the relationship between the Jakarta Islamic Index (JII) and the Composite Index (JCI), producing varying findings. This variation serves as the motivation for the current research, which incorporates distinct variables: The Composite Index, Financial Leverage, and changes in stock prices of JII issuers as independent variables, with the JII as the dependent variable. Using a quantitative causal method, the research demonstrates that the Composite Index significantly influences the Jakarta Islamic Index. However, Financial Leverage and changes in stock prices of JII-listed companies do not have a significant impact on the JII.

Ukwueze and Ajibo (2024) Effect of Financial Leverage on Financial Performance of Selected Publicly Listed Nigerian Manufacturing Firms. The specific objectives are to; examine the effect of operating leverage on the financial performance and evaluate the effect of consumer leverage on the financial performance of selected publicly listed Nigerian manufacturing firms. A descriptive survey research design was adopted for the study. A structured questionnaire with question so nayes-or-no basis and a four-pointLikert scale was used to collect data. The

statistical tools used are exploratory data analysis (respondent demographic statistics) and Chi-square. SPSS27.0was used for the analysis. Operating leverage has a significant effect on the financial performance (GiventhatX2=67.0214 table =9.488, df= 4). While consumer leverage statistically and significantly affects the financial performance (Giventhat.X2=33.0528, table 5.991df =2). The researchers concluded that financial leverage has a significant effect on the financial performance of selected publicly listed Nigerian manufacturing firms.

Omiete (2024) evaluated financial leverage, firm size and profitability of quoted insurance companies in Nigeria over the period 2010-2022. Secondary time-series were gathered from bias-free annual reports of 20 QICs. The unit root, Pedroni cointegration, and GMM techniques were adopted at the 5% level. The unit root test shows that all the variables are integrated at first difference leading to application of the Pedroni co integration which confirmed the absence of long-run form among the variables. The GMM test shows that long-term debt and firm size are substantially positive to Tobin's Q ratio; while short-term debt and ROE also promote the Tobin's Q ratio, but this was seen to be insignificant. From the findings, the study advocates for the continual usage of long-term debt ratio and an increase in firm's size of quoted insurance companies to accommodate more insurance businesses and at the same time boost the level of their confidence among potential and actual investors. Additionally, insurance companies are advised to do share buyback when analyzed to be undervalued to remain more competitive in their industry and create added value for shareholders. Lastly, the Central Bank of Nigeria should revert to a bi-monthly review of interest rate charges by lending institutions in Nigeria to help monitor and improve their performance on the usage of borrowed funds.

Olaoye and Omodara (2023) evaluated Empirical Insights on the Relationship between Financial Leverage and Firm Performance among Nigerian manufacturing firms. specifically, the ROA, of listed manufacturing firms in Nigeria.it contribute to existing literature by considering recent data, employing appropriate measures of financial leverage, and utilizing panel data methodology. It provides empirical justifications for understanding the relationship between LTDR and the financial performance of Nigerian manufacturing firms. The study's population comprises listed manufacturing firms in Nigeria, with purposive sampling ensuring representation across sub-sectors. The research design adopts a quantitative, observational approach, utilizing panel data regression analysis. The theoretical framework considers Modigliani and Miller's (1958) proposition, accounting for market imperfections, taxes, transaction costs, and bankruptcy costs. Descriptive analysis provides an overview of the sample, revealing insights into central tendencies, variability, and distribution characteristics. Correlation analysis explores associations among variables, setting the stage for a nuanced interpretation of the LTDR-ROA relationship. Findings indicate a positive average performance among sampled manufacturing firms, with a moderate reliance on long-term debt. Weak correlations between ROA and LTDR, industry type, firm age, and size underscore the nuanced nature of these relationships. Regression analysis suggests that an increase in long-term debt is associated with an increase in ROA, emphasizing the positive influence of strategic long-term debt utilization. Control variables contribute to performance variations, reflecting industry-specific factors, firm age, and size. The findings offer practical implications for financial managers, policymakers, and stakeholders, facilitating informed decision-

making in a challenging economic environment.

3.0 METHODOLOGY

This study used ex-*post facto* research design. The study will employed *ex-post facto* research design due to its special characteristics which are the event that has already occurred hence there is no need for manipulation or alteration and it is also less costly and less time consuming. The population was made up of forty (40) manufacturing firms that are listed on the floor of the Nigerian stock exchange Group up to December, 2024. The sample size for the study consisted of 30 firms, selected using purposive sampling. The study used secondary data that covered the period of thirteen years (13) from 2012-2024. Data are collected from the published financial statement of quoted manufacturing firms in the Nigerian Exchange Group for the various years covered by the study. The study utilized secondary data obtained from the audited financial statements and annual reports of the selected firms. The data covers the period from 2012 to 2024. Data analysis was carried out using descriptive statistics, such as mean, standard deviation, minimum, and maximum values, to provide an overview of the variables under consideration. Panel Estimated Generalized Least Squares regression analysis was employed to test the hypotheses.

Measurement of Variables.

Table 3.1: Variables and Measurement.

INDEPENDENT VARIABLES	MEASUREMENTS	SOURCES	Aproi Expectations
Debt to Equity Ratio (DER)	Total Debt / Equity	Ofulue et'al (2022), Abubakar (2020)	Positive
Debt to Total Assets Ratio (DTAR)	Total Debt/ Total Assets	Ofulue et'al (2022), Abubakar (2020)	Positive
Long Term Debt to Total Assets (LDTA)	long-Term Debt / Total Assets	Ofulue et'al (2022), Brealey (2019)	Positive

Source: author's Compilation 2026

Model Specification

This study adapted the model of Abubakar and Garba (2019) in determining the relationship between financial leverage and financial performance of quoted industrial goods firms in Nigeria: The model is specified as follows:

$$ROA = \beta 0 + \beta 1\ LTDR + \beta 2\ STDR + \mu .$$

The above model was modified to suit the specific objectives of the presents study, thereby yielding the model specified in equation below

$$EPS = f(DEF + DTAR + LDTA + SDTD + TDC) \text{ ----------equi}$$

This can be econometrically expressed as

$EPS_{it} = \beta 0 + \beta_1 DEF_{it} + \beta_2 DTAR_{it} + \beta_3 LDTA_{it} + \beta_4 SDTD_{it} + \beta_5 TDC_{it} + \epsilon_i$ _____eqii

Where:

EPS = Earnings Per Share
DER = Debt to Equity Ratio
DTAR = Debt to Assets Ratio
LDTA = Long-term Debt to Total Assets
SDTD = Short term Debt to Total Debt
TDC = Total Debt to Capital

4. RESULTS AND DISCUSSION OF FINDINGS

4.1 Descriptive Analysis of Data

Table 4.1 Descriptive Analysis

	EPS	DER	DTAR	LDTA
Mean	2.836027	1.984991	1.038225	0.184549
Median	0.716674	1.259339	0.598244	0.090169
Maximum	80.98526	103.6188	20.01988	3.428688
Minimum	-207.6500	-21.35047	0.028268	0.000000
Std. Dev.	16.24688	6.509852	2.456923	0.370895
Skewness	-5.159255	10.81821	5.887747	5.335342
Kurtosis	80.82690	161.0885	38.28659	35.54984
Jarque-Bera	100156.8	413726.7	22486.85	19067.03
Probability	0.000000	0.000000	0.000000	0.000000
Sum	1106.051	774.1465	404.9077	71.97403
Sum Sq. Dev.	102680.8	16485.11	2348.187	53.51192
Observations	390	390	390	390

Source: Eviews 10 Output (2025)

Table 4.1 presents the descriptive statistics of the study variables, including Earnings per Share (EPS), Debt-to-Equity Ratio (DER), Debt-to-Total Assets Ratio (DTAR), Long-term Debt-to-Total Assets (LDTA), based on 390 firm-year observations.

The descriptive result for **Earnings per Share (EPS)** shows a mean value of 2.84, suggesting that, on average, the sampled manufacturing firms generated ₦2.84 in earnings for every share outstanding during the study period. The minimum and maximum values of -207.65 and 80.99 respectively indicate wide variations in profitability across firms some experienced substantial losses while others recorded high profits. The standard deviation of 16.25 further confirms a high level of dispersion around the mean, implying considerable volatility in firms' earnings performance. The negative skewness value of -5.16 signifies that the EPS distribution is left-skewed, meaning more firms reported lower earnings than the mean. The extremely high kurtosis value of 80.83 indicates a leptokurtic distribution, suggesting the presence of outliers or extreme earnings figures. The Jarque-Bera probability of 0.0000 shows that EPS is not normally distributed, which is typical for financial performance data in heterogeneous industries.

For the **Debt-to-Equity Ratio (DER)**, the mean value of 1.98 implies that, on average, manufacturing firms in Nigeria used approximately ₦1.98 of debt for every ₦1 of shareholders' equity, indicating a moderate reliance on debt financing. The minimum of -21.35 and maximum of 103.62 point to significant variability in capital structures across firms, possibly due to differences in size, age, or financial strategies. The standard deviation of 6.51 supports this observation, reflecting a wide spread in leverage levels. The high positive skewness (10.82) and excessive kurtosis (161.09) demonstrate that most firms maintain relatively lower DER values, with a few having extremely high leverage. The Jarque-Bera probability of 0.0000 again confirms that DER is not normally distributed.

The **Debt-to-Total Assets Ratio (DTAR)** recorded a mean of 1.04, meaning that, on average, firms financed about 104% of their assets through debt, which suggests over-leverage in some firms. The maximum value of 20.02 and minimum of 0.03 reveal a broad variation in how firms utilize debt to finance assets. A standard deviation of 2.46 indicates moderate volatility in debt structure among the firms. The positive skewness of 5.89 and kurtosis of 38.29 reveal a non-symmetric and highly peaked distribution dominated by a few firms with very high DTAR values. The Jarque-Bera probability of 0.0000 shows a clear departure from normality.

For **Long-term Debt-to-Total Assets (LDTA)**, the mean of 0.18 indicates that, on average, only 18% of the firms' assets were financed by long-term debt, implying a preference for short-term borrowing or equity financing. The minimum of 0.00 and maximum of 3.43 confirm that some firms relied entirely on short-term funds, while others had significant long-term obligations. A standard deviation of 0.37 suggests relatively low dispersion compared to other leverage variables. The skewness (5.34) and kurtosis (35.55) indicate a non-normal, highly peaked distribution with a few firms holding very high long-term debt proportions. The Jarque-Bera probability of 0.0000 confirms non-normality.

4.2. Correlation Analysis

Spearman Ranked Order Correlation Coefficient was used to analyse the research questions.

Table 4.2 Correlational Analysis
Spearman rank-order
Date: 11/03/26 Time: 07:27
Sample: 1 390
Included observations: 390

Correlation Probability	EPS	DER	DTAR	LDTA
EPS	1.000000			

DER	0.121208	1.000000		
	0.0166	-----		
DTAR	-0.192080	0.544914	1.000000	
	0.0001	0.0000	-----	

LDTA	-0.142889 0.0047	-0.065071 0.1997	0.219631 0.0000	1.000000 -----

Source: Eviews 10 Output (2025)

Table 4.2 presents the results of the Spearman rank-order correlation analysis, which examines the strength and direction of the relationship between Earnings per Share (EPS) and the different measures of financial leverage, namely Debt to Equity Ratio (DER), Debt to Total Assets Ratio (DTAR), Long Term Debt to Total Assets (LDTA), using 390 firm-year observations. The Spearman correlation method is suitable for this analysis because it evaluates monotonic relationships among variables, regardless of their normality. The table includes both correlation coefficients and their corresponding probability values, indicating the significance levels of the relationships between financial leverage indicators and firm performance. The result between EPS and DER shows a positive correlation coefficient of 0.121 with a p-value of 0.0166, which is statistically significant at the 5 percent level. This finding implies that as the debt to equity ratio increases, earnings per share also tend to increase slightly, suggesting that moderate debt use can improve shareholders' returns. The positive relationship aligns with the leverage effect, which proposes that debt can amplify profitability when firms earn more than their borrowing costs.

The correlation between EPS and DTAR is negative at -0.192 with a p-value of 0.0001, which is significant at the 5 percent level. This result indicates that firms with higher total debt relative to total assets tend to record lower earnings per share. The implication is that when firms rely heavily on debt financing, their profitability may decline due to increased interest expenses and potential financial distress. For EPS and LDTA, the correlation coefficient is -0.143 with a p-value of 0.0047, also significant at the 5 percent level. This means that an increase in long-term debt proportion within total assets is associated with lower earnings per share. The result implies that high long-term debt may burden firms with fixed repayment obligations, thereby constraining profitability.

4.3 Hausman Specification Test

Table 4.3 reports the result of the Hausman specification test, which helps determine the appropriate model between the fixed effects and random effects estimators in panel data analysis. The purpose of the test is to check whether the unique errors are correlated with the regressors, as this guides the correct model choice for unbiased estimation.

Table 4.6 Hausman Specification Test
Equation: Untitled
Test period random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random	3.630358	3	0.0038

Source: Eviews 10 Output (2025)

As shown above in Table 4.3, the result shows a probability value of 0.0038, which is less than the 5 percent significance level, leading to the rejection of the null hypothesis that the random effects model is appropriate. This implies that the fixed effects model is more suitable for the study since it accounts for firm-specific characteristics that may influence financial performance. Therefore, the fixed effects model was adopted for subsequent analysis.

4.4 Test of Hypotheses

Table 4.4 Test of Hypotheses
Dependent Variable: EPS
Method: Panel EGLS (Period SUR)
Date: 11/03/26 Time: 07:22
Sample: 2012 2024
Periods included: 13
Cross-sections included: 30
Total panel (balanced) observations: 390
Linear estimation after one-step weighting matrix
Period SUR (PCSE) standard errors & covariance (d.f. corrected)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DER	0.343662	0.041209	8.339397	0.0000
DTAR	0.326773	2.686562	0.121633	0.9033
LDTA	-2.352580	2.842809	-0.827555	0.4084
C	1.878641	0.353951	5.307623	0.0000

Weighted Statistics

R-squared	0.331459	Mean dependent var	0.054921
Adjusted R-squared	0.322754	S.D. dependent var	1.107506
S.E. of regression	0.904788	Sum squared resid	314.3582
F-statistic	38.07709	Durbin-Watson stat	1.969585
Prob(F-statistic)	0.000000		

Source: Eviews 10 Output (2025)

Table 4.7 presents the results of the Panel Estimated Generalised Least Squares (EGLS) regression used to examine the *effect* of various measures of financial leverage on earnings per share (EPS) of selected quoted manufacturing firms in Nigeria from 2012 to 2024. The model validity statistics indicate that the adjusted R-squared value is **0.3228**, showing that approximately 32.3% of the systematic variations in firms' earnings per share are explained by the included leverage variables (DER, DTAR, and LDTA,). The probability of the F-statistic is **0.0000**, which is less than the 5% significance level, implying that the overall model is statistically significant and well-fitted. This means that, collectively, the

explanatory variables significantly explain variations in EPS among the firms. The Durbin-Watson statistic of **1.9696** falls within the acceptable range of 1.5–2.5, suggesting the absence of serial correlation in the residuals, thereby confirming the reliability and validity of the model estimates.

The constant term (C) has a coefficient of **1.8786** with a probability value of **0.0000**, which is statistically significant at the 5% level. This implies that when all the leverage variables are held constant, the average earnings per share of the sampled manufacturing firms will be approximately 1.88 units. The positive and significant constant term further suggests that other firm-specific and macroeconomic factors not captured in the model contribute positively to firms' earnings performance in Nigeria.

Test of Hypothesis I

Ho^1: Debt to equity ratio does not significantly affect earnings per share of selected quoted manufacturing firms in Nigeria.

For Hypothesis I, which states that *Debt-to-Equity Ratio (DER) does not significantly affect earnings per share of selected quoted manufacturing firms in Nigeria*, the regression result shows a coefficient of **0.3437** with a p-value of **0.0000**. This positive coefficient means that a one-unit increase in DER leads to a marginal increase of 0.34 units in EPS, implying that higher debt relative to equity tends to improve firms' earnings performance. The effect is statistically significant at the 5% level, leading to the rejection of the null hypothesis (Ho1). This finding suggests that debt financing, when properly managed, can exert a positive effect on shareholders' returns by enhancing firms' capacity to expand operations and generate higher profits.

Test of Hypothesis II

Ho^2: Total debt-to-total assets ratio does not significantly affect earnings per share of selected quoted manufacturing firms in Nigeria.

For Hypothesis II, which posits that *Total Debt-to-Total Assets Ratio (DTAR) does not significantly affect earnings per share*, the coefficient is 0.3268 with a p-value of 0.9033. The coefficient indicates a positive marginal effect, meaning that a one-unit increase in DTAR could increase EPS by about 0.33 units. However, the very high p-value (greater than 0.05) implies that the effect is not statistically significant. Therefore, the null hypothesis (Ho2) is accepted. This shows that the total debt-to-total assets ratio does not have a meaningful or consistent effect on firms' earnings performance, possibly because the combination of short-term and long-term debts in total financing does not yield uniform benefits across firms in the manufacturing sector.

Test of Hypothesis III

Ho^3: Long-term debt-to-total assets does not significantly affect earnings per share of selected quoted manufacturing firms in Nigeria

In the case of Hypothesis III, which asserts that *Long-term Debt-to-Total Assets (LDTA) does not significantly affect earnings per share*, the coefficient is -2.3526 with a p-value of 0.4084. The negative coefficient suggests that a one-unit increase in LDTA leads to a decrease of about 2.35 units in EPS, indicating that higher long-term debt tends to exert a negative effect on firms' earnings. However, since the effect is statistically insignificant at the 5% level, the null hypothesis (Ho3) is accepted. This finding implies that while long-term debt may reduce profitability due to high interest obligations and repayment burdens, its influence on earnings per share is not strong enough to be statistically validated.

4.4 Discussion of Findings

The positive and significant effect of the Debt-to-Equity Ratio on earnings per share suggests that firms benefit from using debt in moderation relative to their equity. This occurs because borrowing can provide additional funds for investment in profitable projects, allowing firms to expand operations, increase production capacity, and ultimately generate higher earnings. In the Nigerian manufacturing context, where firms may face limited access to equity financing, leveraging debt efficiently appears to enhance returns to shareholders, which explains the strong positive relationship observed in the study.

The Total Debt-to-Total Assets Ratio shows a positive but non-significant effect on earnings per share, indicating that while there may be a slight tendency for firms with higher total debt relative to assets to report higher earnings, the effect is not strong enough to be meaningful. This could be because total debt includes both short-term and long-term obligations, some of which may not directly contribute to profit generation. Additionally, variations in firms' asset efficiency and management of debt costs may weaken the overall effect of total debt on earnings.

Long-term Debt-to-Total Assets has a negative but non-significant effect on earnings per share, implying that higher reliance on long-term debt may slightly reduce profitability, but the effect is not statistically meaningful. This result may be due to the fixed interest and repayment obligations associated with long-term debt, which can increase financial costs and reduce available profits if the funds borrowed are not immediately generating returns. In the Nigerian manufacturing sector, firms may not fully utilize long-term debt efficiently, limiting its potential to enhance earnings.

Summary of Findings

The study examined the effect of financial leverage on the shareholder's wealth of quoted manufacturing firms in Nigeria. The hypotheses were tested using Panel Estimated Generalized Least Squares (EGLS) regression at a 5% significance level. The findings revealed that:

1. Debt-to-Equity Ratio has a positive and significant effect on earnings per share of selected quoted manufacturing firms in Nigeria ($\beta = 0.3437$; $p = 0.0000$).

2. Total Debt-to-Total Assets Ratio has a positive but non-significant effect on earnings per share of selected quoted manufacturing firms in Nigeria ($\beta = 0.3268$; $p = 0.9033$).

3. Long-term Debt-to-Total Assets has a negative but non-significant effect on earnings per share of selected quoted manufacturing firms in Nigeria ($\beta = -2.3526$; $p = 0.4084$).

CONCLUSION

The results reveal important insights about how the financial structure of manufacturing firms in Nigeria influences their earnings performance over time. The evidence demonstrates that the pattern and composition of debt financing play a crucial role in shaping firms' earnings behaviour, as the direction and magnitude of the effects vary across leverage indicators. The positive and significant effect of the debt-to-equity ratio indicates that moderate borrowing relative to shareholders' equity can enhance profitability, reflecting firms' ability to use external financing effectively to boost operational output and expand revenue generation. However, the results also show that overall debt accumulation, particularly when measured by

total debt to capital, exerts a significant adverse effect on earnings per share, emphasizing that high financial obligations may weaken firms' capacity to maintain stable profits. The combined pattern of both positive and negative effects among the debt ratios highlights the delicate balance between financial risk and return management within Nigeria's manufacturing sector. Firms appear to benefit from a proportionate mix of debt and equity, but excessive reliance on borrowed funds, especially when long-term or total debt dominates capital structure, can lead to financial strain and reduced earnings capacity. The study made recommendations in line with the findings.

1. Management of quoted manufacturing firms in Nigeria should maintain a balanced mix of debt and equity financing, ensuring that borrowed funds are used to finance projects with clear profit-generating potential, since the study shows that moderate debt use enhances earnings per share.

2. The finance departments of these firms should continuously assess how total debt is distributed across asset holdings to ensure that borrowed funds are effectively converted into productive assets that contribute to revenue growth and operational efficiency, through total debt to total assets was found to be significant.

3. Corporate financial managers should exercise restraint in accumulating long-term debt, adopting strategic debt planning that aligns repayment obligations with projected cash flows to prevent the drag of heavy interest costs on future earnings.

REFERENCES

Abubakar, A. O., & Anyonje, S. A. (2025). Financial Leverage and Corporate Financial Performance: A Comprehensive Review. *East African Finance Journal*, *4*(2), 34-54.

Abubakar, A. (2015). Relationship between financial leverage and financial performance of deposit money banks in Nigeria. *International Journal of Economics, Commerce and Management*, *3*(10), 759-778.

Aharon, D. Y., & Yagil, Y. (2019). The impact of financial leverage on shareholders' systematic risk. *Sustainability*, *11*(23), 6548.
Aharon, D. Y., & Yagil, Y. (2019). The impact of financial leverage on shareholders' systematic risk. *Sustainability*, *11*(23), 6548.

Ahmad, N., Salman, A., & Shamsi, A. F. (2015). Impact of financial leverage on firms' profitability: An investigation from cement sector of Pakistan. *Research Journal of Finance and Accounting*, 6(7), 75–81

Akhtar, S., Javed, B., Maryam, A., & Sadia, H. (2012). Relationship between financial leverage and financial performance: Evidence from fuel & energy sector of Pakistan. *European Journal of Business and management*, *4*(11), 7-17.

Aljundi, N. A., Ahmad, A. B., & Bani Atta, A. A. (2024). The Impact of Financial Leverage on the Profitability of Industrial Companies in Light of the Corona Pandemic: Evidence from Emerging Economies. WSEAS *Transactions on Business and Economics*, 21, 665–675.

Amirullah, A., & Endri, E. (2025). The Influence of ESG Disclosure, Leverage, and Company Size on Financial Performance at Bank KBMI 3 and 4: The Role of Credit Quality Moderation. *International*

Journal of Social and Management Studies, *6*(4), 57-68.

Aniefor, C. G., Nduka, A. J., Ananwude, A. C., & Ezeaku, C. N. (2021). Effect of capital structure on corporate performance: Evidence from agricultural firms quoted on the Nigeria stock exchange (2007 – 2018). *Journal of Emerging Trends in Management Sciences and Entrepreneurship, 3*(1), 68-78.

Arhinful, R., & Radmehr, M. (2023). 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.

Anusi, A. O. & Nduka, A. J. (2022). Effect of working capital management on performance of basic materials firms in Nigeria. *Journal of Emerging Trends in Management Sciences and Entrepreneurship, 4*(1), 186-203.

Bernardin, D. E. Y., & Tifani, T. (2019). Financial distress predicted by cash flow and leverage with capital intensity as moderating. *Jurnal Apresiasi Ekonomi*, 7(1), 18–29.

Blouin, J., Huizinga, H., Laeven, M.L. and Nicodeme, G. (2014), Thin Capitalization Rules and Multinational Firm Capital Structure, International Monetary Fund.

Brigham, E. F., & Ehrhardt, M. C. (2020). *Financial Management: Theory and Practice* (16th ed.). Cengage.

Brealey, R., Myers, S., & Allen, F. (2019). *Principles of Corporate Finance* (13th ed.). McGraw-Hill Education

Collins Sitienei, D. J. N., & Masinde, J. The Effect of Financial Leverage on Financial Performance of Non-Financial Firms Listed in the Nairobi Securities Exchange, Kenya.

Dirman, A. (2020). Financial distress: the impacts of profitability, liquidity, leverage, firm size, and free cash flow. *International Journal of Business, Economics and Law,* 22(1), 17–25

Ekwunife, I. J., Nduka, A. J. & Ogini, P. (2022). Selected macroeconomic variables and capacity utilization in Nigeria. *Journal of Emerging Trends in Management Sciences and Entrepreneurship, 4*(1), 340-359

Enekwe, C. I., Agu, C. I., & Eziedo, K. N. (2014). The effect of financial leverage on financial performance: Evidence of quoted pharmaceutical companies in Nigeria. IOSR *Journal of Economics and Finance,* 5(3), 17–25.

Ezechukwu, B. O., & Amahalu*, N. N. (2017).* Effect of firm characteristics on financial performance of quoted deposit money banks in Nigeria. *In* Contemporary Issues in Business Management: A Multidisciplinary Approach *(Book of Readings, Vol. 1, No. 1, pp. 387–409*

Gill, A., & Obradovich, J. (2012). The impact of corporate governance and financial leverage on the value of American firms. *International Research Journal of Finance and Economics*, *91*(2), 46-56.

Halim, S. (2025). Linking Financial Leverage and Stock Price Volatility to the Jakarta Islamic Index: Insights from Indonesia's Capital Market. *International Journal of Economics, Business and Management Research*, *9*(02), 1-18.

Masood, S., Javed, R., Awan, H., & Naz, A. (2025). The Role of Female Directors and Female Board Characteristics on Firm Financial Leverage: Evidence from Pakistan. *Journal of Social Signs Review*, *3*(09), 25-37.

Mirza Nawazish, Rahat Birjees & Reddy Krishna. (2016). Financial leverage and stock returns: evidence from an emerging economy. *Economic Research – Ekonomska Istraživanja, 29(1), 85–100.*

Monogbe, G. T., Omotayo, A. F., Achugbu, A, & Nduka, J. A. (2016). Cashless policy and financial development in Nigeria. *European Journal of Economic and Business, 1*(2), 10-21

Nassim, I., Nassim, S., & Moussa, A. (2025). Financial Leverage and Firm Performance in Moroccan Agricultural SMEs: Evidence of Nonlinear Dynamics. *International Journal of Financial Studies*, *13*(3), 164.

Nduka, A.J., Okolie, O. & Ngangah, O.C. (2025). Evaluating the Impact of Bank Consolidation on SMEs Financing in Nigeria: The Emerging Roles of AI and Fintech Innovation. *Journal of Emerging Trends in Management Sciences and Entrepreneurship (JETMASE)*, 7(1), 333-353

Nduka, A. J., Atueyi, C., Osakwe, C. I. & Mbanefo, A. P. (2021). Effect of exchange rate policies on non-oil export in Nigeria. *Journal of Emerging Trends in Management Sciences and Entrepreneurship, 3*(1), 105-117

Nduka, J. A., Ananwude, A. C., & Osakwe, C. I. (2019). Expenditure of the Federal Government of Nigeria: Effect on the standard of living of her citizens. *International Journal of Academic Research in Accounting, Finance and Management Sciences, 9*(4), 57-64.

Obidike, J., Onyeka, M. & Nduka, A. (2022). Effect of selected macroeconomic variables on the Nigerian economy 1987 – 2020. *International Journal of Business and Law Research, 10*(3), 84-96.

Obradovich, J.D., & Gill, A. (2013). The impact of corporate governance and financial leverage on the value of American firms. *International Research Journal of Finance and Economics*, (91), 1–14.

Ofulue, I., Ezeagba, C. E., Amahalu, N. N., & Obi, J. C. (2022). Financial leverage and financial performance of quoted industrial goods firms in Nigeria. *International Journal of Management Studies and Social Science Research, 4(1), 172–181*.

Odhiambo, J. D., Murori, C. K., & Aringo, C. E. (2025). Financial leverage and firm performance: An empirical review and analysis. *East African Finance Journal*, *4*(1), 25-35.

Ogunewe, N. C., Ananwude, A. C., & Nduka, J. A. (2020). Non-oil exports and manufacturing sector growth in an oil-rich country in Africa: Case of Nigeria. *Finance & Economics Review, 2*(4), 1-11

Nduka, A. J., & Ucheahara, O. F. (2016). *Financing Corporate Organization for Efficient Performance in Nigeria: Equity or Debt Option.* African Journal of Education, Science and Technology, 3(2), 196–204.

Oktaviani, D., Satriansyah, A., & Widianingrum, E. (2024). The Effect of Profitability, Company Size and Leverage on Company Value. *Jurnal Ilmiah Akuntansi Kesatuan*, 12(2), 207–218.

Orajaka, U. P. (2017). The impact of leverage financing on financial performance of some manufacturing industries in Nigerian Stock Exchange. *European Journal of Business and Management*, 9(34).

Omabu, S. E., Okoye, P. V., & Amahalu, N. N. (2021). Financial leverage and

shareholders wealth creation of quoted industrial goods firms in Nigeria. *International Journal of Trend in Scientific Research and Development (IJTSRD)*, *5*(6), 673-681

Onakpoma, O. J., Ugwu, N. N., & Nnamani, C. O. (2023). Effect of Financial Leverage on Organizational Performance of Pharmaceutical Firms in Nigeria. *Global Journal of Finance and Business Review, 6(2), 63–74.*

Oyinloye, L., Olaniyan, T. O., & Agbadua, B. O. (2020). Effect of financial leverage on shareholder's returns in a dynamic business environment. Corporate Governance and Organizational Behavior Review, 4(2), 40-49.

Rahman, H. U., & Hasan, M. M. (2023). Financial leverage and firm performance: Evidence from emerging economies. Journal of Risk and Financial Management, 16(2), 79-95.

Rehman, S. S. F. U. (2013). Relationship between financial leverage and financial performance: Empirical evidence of listed sugar companies of Pakistan. *Global Journal of Management and Business Research*, *13*(8), 45-53.

Ross, S. A., Westerfield, R., & Jaffe, J. (2019). *Corporate Finance* (13th ed.). McGraw-Hill.

Senan, N. A. M., Ahmad, A., Anagreh, S., Tabash, M. I., & Al-Homaidi, E. A. (2021). An empirical analysis of financial leverage and financial performance: Empirical evidence from Indian listed firms. *Investment Management & Financial Innovations*, *18*(2), 322.

Singh, A. K., & Bansal, P. (2016). Impact of financial leverage on firm's performance and valuation: A panel data analysis. Indian Journal of Accounting, 48(2), 73–80