MODERATING EFFECT OF FOREIGN OWNERSHIP STRUCTURE ON THERELATIONSHIP BETWEEN FIRMS ATTRIBUTES AND FINANCIAL PERFORMANCE OF LISTED OIL AND GAS COMPANIES IN NIGERIA

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DOI: https://doi.org/10.57233/ijamer.v2i2.31

Article History: Received: 20 May 2026 | **Revised:** 29 May 2026 | **Accepted:** 7 June 2026 | **Published:** 25 June 2026

How to Cite This Article
Muhammad, J., Duniya, B., & Tagawai, M. (2026). Moderating effect of foreign ownership structure on the relationship between firm's attributes and financial performance of listed oil and gas companies in Nigeria. *International Journal of Accounting, Management and Economic Review, 2*(2). https://doi.org/10.57233/ijamer.v2i2.31

Abstract
The study examines the Moderating effect of foreign ownership on the relationship between Firm Attributes and Financial performance of listed Oil Gas Firms in Nigeria.Failure of many companies due to Managerial failures is of great concern while this could be attributed to poor of selection of managers/ directors who runs the affairs of the organization, directors overriding internal control system, taking high or irrelevant risk, lack of motivation, monitoring, and coercive measures against deviance from laid down rules. The Study covers the period of ten (10) years from (2015 to 2024). The Sample size of this study include all the five (5) Firms listed in the Nigerian Exchange (NE) as at 31 December, 2024. In view of this availability of data for five (5) Firms, the study adopted Census sampling approach by studying the five (5) Firms as the population of the study. Multiple regression was used for the panel data analysis in order to establish effect and relationship between the variables of the study. While, Correlation, and descriptive statistics were also employed. This study recommend that Oil and Gas Firms should strengthen long-term corporate strategies **s**ince firm age was found to significantly influence financial performance, management of oil and gas firms should focus on sustaining long-term operational stability, institutional experience, and corporate reputation. Older firms should leverage their accumulated knowledge, market networks, and operational expertise to improve profitability and return on equity. Management should closely monitor sales growth and leverage levels. The study revealed that sales growth and leverage significantly influence financial performance. Therefore, firms should adopt efficient sales expansion strategies while maintaining optimal debt levels. Excessive borrowing should be avoided because high leverage may negatively affect profitability and financial stability. Foreign investors should be encouraged in the oil and gas sector**,** the findings showed that foreign ownership structure significantly moderates the relationship between firm age and financial performance.

Keyword: Foreign Ownership structure, Firm age, Firm size, Firm Growth rate, Sales growth rate, Capital Adequacy, Leverage and Financial Performance.

1.0 Introduction

The Nigerian oil and gas industry constitute a vital component of the national economy, contributing significantly to government revenue, foreign exchange earnings, employment generation, and industrial development. Despite its strategic importance, the financial

performance of many listed oil and gas companies has remained inconsistent over the years due to fluctuations in global oil prices, operational inefficiencies, regulatory uncertainties, exchange rate volatility, and changes in the business environment. These challenges have raised concerns among investors and policymakers regarding the factors that influence the profitability and sustainability of firms operating within the sector.

The financial performance of several companies has been basically connected to their ownership structure because it provides financing through owner's equity. Generally, business firms are saddled with the task of generating returns from market which determines its capacity to survive in the future (Bacha & Attia, 2016). This responsibility is essential since the capability of a firm to create returns in a competition depends on financial performance which is a device that measures how well firms use their resources in generating returns, thus make it an essential tool to many stakeholders in a firm. Financial performance thus, is critical to any firm's survival and constant patronage by prospective and existing investors, creditors, and other stakeholders in the world of business. However, the nature of ownership structure a company adopts is determined by the vision of the firm (Ismail & Ali, 2020).

Firms are associated with some attributes which affect their financial performance either negatively or positively. Firm attributes are those characteristics such as firm age, firm size, firm growth rate, capital adequacy, sales growth rate, leverage, and assets structure among others which affect the financial performance of a firms negatively or positively.

The influence of ownership structure on firm performance is derived from the agency theory.
The separation of administration from control creates a "principal-agent problem" in which managers (agent) might make decisions that are not in the first-rate interest of the owners (principal). Managers may use non-public records for their advantage and act towards shareholders' interests and views (Mudi, 2017). This managerial opportunism, in which managers searching for self-interest via deceit, can prevent maximization of shareholder wealth. The economic overall performance of countless businesses has been basically related to their ownership structure due to the fact it offers financing via owner's equity. Generally, business companies are saddled with the assignment of generating returns.

Failure of many companies due to Managerial failures is of great concern while this could be attributed to poor of selection of managers/ directors who runs the affairs of the organization, directors overriding internal control system, taking high or irrelevant risk, lack of motivation, monitoring, and coercive measures against deviance from laid down rules. However, Multinational enterprises have known for better performed compare to domestically owned firms (Aydin, Sayim & Yalama, 2007 & Adegbayibi, 2021). The last decade has witnessed increased levels of foreign Direct Investment in the developing and emerging economies like Nigeria which culminate to a high performance on foreign ownership of firms. Foreign owners are more likely to have the ability to monitor managers and give those performance-based incentives, lead the managers more seriously, and avoid behaviors and activities that undermine the wealth creation motivations of the firm owners. This is also evidenced in the transfer of new technology and globally tested management practices to the firm to enhance performance by reducing operating expenses and generating savings for the firm. Large acquisitions of a firm's share by foreign investor provide effective monitoring on the management. Adegbayibi (2020) opined that as the volume of managerial and institutional holding rises, these owners will wield greater power and influence over senior managers' decision. This is because executives usually attend more to others on whom their outcomes are dependent; they are likely to pay more attention to

those institutional owners who hold significant ownership positions in their companies for better performance.

However, according to Baron and Kenny (1986) assumes that if a relationship has several outcomes which ultimately gives different or mixed results, a moderator should be employed to strengthen or changes the direction of the relationship. There must be a significant statistical interaction between the dependent and the moderator. Hence the introduction of moderating variable to strengthen and change the direction of the relationship between the independent and the dependent variable is necessary.

The moderating variable in this study is foreign ownership structure. Foreign investors are primarily concerned with the returns generated on their equity investments. Therefore, ROE aligns naturally with the interests of foreign shareholders because it evaluates the profitability earned on owners' capital. Return on Equity (ROE) was adopted as the proxy for financial performance because it measures the efficiency with which management utilizes shareholders' funds to generate profits. ROE is particularly suitable for this study because it reflects the returns accruing to equity investors, including foreign shareholders, whose ownership structure constitutes the moderating variable.

However, aside the fact that all the aforementioned studies examined only direct relationship of Firm Attributes on Financial Performance of listed oil and gas companies, this shows that the seemingly moderating effect of Foreign ownership as a second order construct on Financial Performance has not been overlooked in previous studies; despite the scholarly suggestions to examine the moderating role of Foreign ownership structure in ownership structure model. For instance, (sabo, 2024; Jamil 2024) suggested that further study is required to investigate the complex moderating effect of Foreign ownership structures on relationship between firm attributes and financial performance of listed oil and gas firms, as most of the previous studies only examined the direct relationship between firm attributes and financial performance.

2.0 Literature

Financial Performance

Dagunduro et al. (2024) define financial performance as a firm's capacity to generate profits from its operational activities over a specified period, commonly measured using profitability indicators such as Return on Assets (ROA), Return on Equity (ROE), and Net Profit Margin.Similarly, Adebowale and Ogunsola (2024) view financial performance as a measure of business success that can be quantified in monetary terms and used to determine the extent to which organizational financial objectives have been achieved.Financial performance has also been described as the overall financial health of an organization, reflecting its capacity to utilize available resources efficiently to generate revenue, profits, and shareholder value. In this regard, Okutu and Adegbie (2024) argue that financial performance represents how effectively a firm uses its assets and business operations to generate earnings and achieve sustainable growth.

Firm size refers to the scale of a firm's operations and resource base. It is one of the most widely used firm-specific characteristics in financial performance studies. Large firms generally enjoy economies of scale, greater access to financial markets, stronger bargaining power, and diversified business operations. As a result, larger firms are often expected to achieve superior financial performance compared to smaller firms. Firm size also influences a firm's ability to attract foreign investors, obtain financing, and withstand market uncertainties. (Abdulkarim, Kalyanaraman, & Alhussayen, 2024).

Michella,, & Wijaya, (2024) Firm age refers to the number of years a company has been in operation since its incorporation or establishment. It reflects the firm's experience, reputation, learning capability, and market maturity. Older firms are generally expected to possess accumulated knowledge, established customer relationships, and stronger organizational structures that may enhance performance. However, younger firms may exhibit greater flexibility, innovation, and growth potential. Consequently, the relationship between firm age and financial performance remains an important empirical issue in corporate finance research.

Firm growth refers to the increase in a company's operational capacity, assets, market share, revenue generation, or overall business activities over a specified period. It reflects the ability of a firm to expand its operations and improve its competitive position within an industry. Growth is often considered an indicator of organizational success because expanding firms tend to attract more investors, create employment opportunities, and achieve economies of scale. Contemporary literature views firm growth as a multidimensional construct that may be measured through growth in assets, sales, employment, profits, or market value. Firms experiencing sustained growth are generally better positioned to enhance their financial performance and long-term sustainability. (Zahwa, Innayah,, Rahmawati, , & Widyaningtyas, 2025).

Capital adequacy refers to the sufficiency of a firm's capital resources to absorb potential losses and support business operations. It reflects the financial strength and stability of an organization. Although commonly applied in banking studies, capital adequacy is equally relevant for non-financial firms because it measures the extent to which a company possesses adequate capital to finance investments, withstand economic shocks, and support future growth. Firms with adequate capital are generally perceived as less risky and more capable of meeting their financial obligations (Abdulkarim, Kalyanaraman, & Alhussayen, 2024)Capital adequacy refers to sufficiency of capital for operational existence. Capital adequacy is essential for the soundness and economic performance of any organization; however, the argument that is still open ended is determining how much capital is adequate to drive business success. (Lekaaso et al., 2020).

Sales growth refers to the percentage increase in a firm's sales revenue from one accounting period to another. It is a key indicator of market acceptance, business expansion, and operational success. Sales growth demonstrates a firm's ability to increase demand for its products and services and is frequently used as a proxy for growth opportunities. A high sales growth rate often indicates improved market penetration, customer satisfaction, and effective marketing strategies. Researchers argue that firms with consistent sales growth are more likely to achieve higher profitability and financial performance because increasing revenues provide opportunities for cost absorption and profit enhancement. (Dianti, & Bawono, 2024)

Abdulkarim, Kalyanaraman, & Alhussayen, (2024) Leverage is the extent to which a firm utilizes debt financing in its capital structure. It indicates the proportion of borrowed funds relative to owners' equity or total assets. Leverage enables firms to finance expansion projects beyond the limits of internally generated funds. However, excessive leverage increases financial risk because firms must meet fixed interest and principal repayment obligations. From the perspective of capital structure theory, an optimal level of leverage can improve firm performance through tax advantages and enhanced investment capacity, while excessive leverage may reduce profitability and increase financial distress risk.

According to Deste (2020), leverage is a measure of how much a firm uses equity and debt to fund its assets, and it is considered as a result of an event that determines a firm's source of

financing to manage the business. It might take the form of a loan or other form of borrowing (debt). It is measured as a firm's total debt to equity ratio leverage financing refers to a bank's debt-to-equity capital ratio. A significant portion of the bank's cash flow would be reduced as a result of paying interest and repaying the principal amount of the debt. (Deste, 2020),

Liquidity refers to a firm's ability to meet its short-term financial obligations as they become due without disrupting normal business operations. It reflects the availability of cash and other liquid assets that can be readily converted into cash. Liquidity is an important indicator of financial health because firms with adequate liquidity can settle liabilities, finance working capital requirements, and withstand temporary financial difficulties. While insufficient liquidity may lead to insolvency risk, excessive liquidity may indicate inefficient utilization of resources. (Dianti, & Bawono, 2024)
Liquidity is the ability to meet expected and unexpected demands for cash through continuing cash flow or the sale of an asset at fair market price. Liquidity risk is the danger which arises when an entity will not have enough cash or liquid assets to meet its cash commitments. In order to remain into being and maintain its operations as a going concern, a business must keep liquid and meet its cash commitments as and when they become due. (Zaskya, Mukhzarudfa, & Ridwan, 2025).

Huang, An, & Li, (2023) Foreign ownership structure is the proportion of a company's equity shares held by foreign individuals, institutional investors, multinational corporations, or foreign entities. It represents a component of ownership structure that reflects the extent to which non-domestic investors participate in the ownership and control of a firm's operations. Foreign ownership has become increasingly important in the contemporary global business environment due to the growing integration of financial markets and cross-border investment activities (Roedder, & Schmid, 2025)

Empirical Review
Abraham, Celestine, Lucky, and Yemisi (2024)examined the impact of firm characteristics and profitability of listed industrial goods companies in Nigeria. As a moderating factor, firm characteristics were represented by liquidity, leverage, and firm age, while the return on assets measured profitability. The study data was collected from ten listed industrial goods firms that had consistently published their audited annual financial reports from 2013 to 2022. The panel-corrected standard error for the random effect model was used to analyze the data. The results show that liquidity has a negative and significant effect on profitability. Conversely, leverage and firm age have a positive and insignificant impact on profitability. In evaluating the moderating effect of firm size, the panel regression results conclude that firm age can reduce profitability. However, the analysis also revealed that liquidity has a positive and insignificant effect on profitability when moderated by firm size while leverage has a negative and insignificant result on profitability. On the other hand, firm size significantly moderates the relationship between firm characteristics and profitability. The findings of this study recommend that younger listed industrial goods firms should not be discouraged by the negative effect of their age on profitability rather they may be profitable as they grow old.

Nangih, Turakpe, and Effe-Nnamdi (2023) examined the effect of firm characteristics on financial performance of listed companies. The study population was listed consumer goods firms in Nigeria. The study adopted the ex post facto design and was anchored on the Dynamic capability theory. It employed purposive sampling technique to select a total of 16 companies; which served as sample for the study. Data were sourced from annual financial reports of the sampled firms from 2013 to 2022 and analyzed using descriptive, correlation and panel

regression techniques. The findings showed that firm age had a negative, though insignificant effect on EPS. Relatedly, firm age was also found to have a significant negative effect on the ROA of the consumer goods firms. In contrast, firm size (FSIZ) was found to have a positive and significant effect on EPS. Lastly, it was found that FSIZ has a significant negative effect on the return on assets of consumer goods firms in Nigeria. Based on the findings, the study recommended that; firstly, consumer goods firms should not consider firm age as important since it had insignificant effect on EPS. Secondly, since firms age matter when it as to with increase in profitability (return on assets). Thirdly, it was recommended that managers of consumer goods firms should know that as the age of the firms increases, the more the profitability, since it had significant positive effect on ROA. Finally, the study recommended that managers of consumers should increase their firm size, since it contributed significantly to both measures of financial performance.

Grace and James (2022) examined the firm effects attributes had on manufacturing and allied and construction companies listed on NSE financial performance. This research reviewed theories were liquidity preference, trade-off, and pecking order. This survey used a descriptive research design to describe the characteristics of the phenomenon being studied. The study's target population was nine manufacturing and five construction and allied NSE-listed firms. The financial statements were obtained from the various company websites and the NSE website. Descriptive statistical analysis was applied in analyzing the data using regression models, which aided in examining the correlations that existed amongst the study variables. Diagnostic testing preceded data analysis for data reliability and validity determination. The analysis indicated that assets structure had a significant negative correlation with firms' financial performance in the manufacturing and allied firms. In contrast, it was observed that asset structure had an insignificant positive correlation with the firms' financial performance for the construction and allied firms. The study's results also indicated that the leverage ratio had a significant negative correlation with the financial performance of manufacturing and allied firms. For the construction and allied firms', financial leverage had an insignificant positive correlation with the financial performance.Liquidity had an insignificant negative correlation with the manufacturing and allied firms' performance, while for the construction and allied firms, financial performance correlation with liquidity was positive and significant.The study recommended that further research be carried out in the same sectors and the other listed ones to capture firm attributes' effects on financial performance by comparing the pre-Covid and the post-Covid period.

Mohammed and Mohammed (2022) examined the effect of firms' specific attributes and financial performance of quoted conglomerates companies in Nigeria. Secondary data were sourced through the published annual reports of the sampled companies for the period under review 2015-2021. Panel data extracted were analyzed using multiple regression technique after conducting series of robustness checks to ascertain validity. Findings from the study reveal that firm size has a positive and significant effect on financial performance. While liquidity has positive and insignificantly effect on financial performance, on the other hand leverage has a negative but insignificantly effect on financial performance. The study recommends that management should try as much as possible to increase their total asset level as this will serve as a guarantee in generating future economic benefit. Management should also watch out for their leverage level so as to keep it at optimum point, because leverage level negatively influence performance for conglomerate firms in Nigeria based on the findings of these study, within the period under review

Aribaba, Abdul-Lateef, Patrick, Yakibi, and Salaam (2022) examined the effect of firm characteristics on the financial performance of Nigerian-listed oil and gas companies. The

information was obtained from the indices report of twelve (12) oil and gas companies listed on the Nigerian Stock Exchange (NSE) market between the periods 2015 - 2019 which covers the period before and after the economic downturn experienced in Nigeria. The data collected were analyzed using the pool and cross-sectional data. Descriptive statistics were used to examine the characterization of variables while the pooled least square technique was used to investigate the empirical relationship of the variables. The regression result shows that about 69% of the variation in financial performance is explained by the independent variable of Firm Size, Financial Leverage, Ownership Impetrated and Firm Age. Apart from these variables, there are other factors responsible for the financial performance of listed oil and gas companies in Nigeria. The findings revealed that there is a negative relationship between Firm Size and Ownership Impetrated on financial performance, while Financial Leverage and Firm Age showed a positive relationship on the financial performance of listed oil and gas companies in Nigeria. Based on these findings, the study recommends that businesses adopt a culture of capitalizing and reporting all expenditures on their products.

Efuntade and Akinola (2020) examine the impact of firm characteristics on the financial performance of quoted manufacturing firms in Nigeria. Descriptive and cross-sectional research design were adopted to investigate the relationship between variables of firm characteristics and financial performance of quoted manufacturing firms in Nigeria over a period of 14 years. Secondary Data were obtained from annual reports of five selected quoted manufacturing firms. Panel least square regression model was used to test the formulated hypothesis. Findings showed that all the independent variables jointly and strongly have impact on the financial performance of manufacturing firms in Nigeria measured by return on assets. It was concluded the explanatory variables (Firm Age, Firm Size, Sales Growth, Liquidity and Leverage) were significantly associated with the dependent variable (Return on Asset). The Study then recommends that, the managements of manufacturing companies should find ways to improve and acquire the optimal utilization of their assets, while making maximum use of their resources during the production processes and distribution of finished products as this would help them in improving their profits.

Etukudo, Okoro and John (2022) studied the effect of firm characteristics on financial performance of listed consumer goods firms. The study utilised secondary data generated from annual reports and accounts of the selected firms. The data collected were analyzed using multiple regression analysis. The finding revealed that (i) Firm characteristics (leverage, firm size, liquidity and operating expenses) have a significant effect on profit after tax of listed consumer goods firms in Nigeria (ii) Firm characteristics (leverage, firm size, liquidity and operating expenses) have a significant effect on return on asset of listed consumer goods firms in Nigeria (iii) Firm characteristics (leverage, firm size, liquidity and operating expenses) have no significant effect on return on equity of listed consumer goods firms in Nigeria.

Ehiedu and Imoagwu (2022) examined the firm specific determinants of profitability of listed Oil & Gas firms in Nigeria between the periods of 2011-2020. The study made used of secondary data which was sourced from the annual reports and accounts of the various 10 Oil and Gas Firms for the measures of firm specific determinants [Firm Size (FS), Firm Age (FA), Liquidity (LIQ), Leverage (LEV), Sales Growth (SG) and Operating Expenses (OE) in relation to profitability proxy with Return on Assets (ROA). Descriptive statistics and the correlation analysis were used to determine the nature of relationship between the independent and dependent variables. In view of the hypothesis formulated for this research, the method of data analysis chosen was a multiple regression analysis using E-VIEW 9.0 The findings revealed that LIQ, LEV and OE have significant relationship on ROA while FS, FA and SG does not have

significant relationship on ROA relationship with ROA. Hence, the study concluded that there is a significant relationship between firm specific determinants and profitability.

Egolum, Onyinyechukwu and Ezeh, (2021) examined the effect of ownership structure on firm value of listed oil and gas firms in Nigeria. Specifically, the study determined the effect of managerial ownership, government ownership, ownership concentration and CEO ownership on firm value (surrogated by Tobins q) of oil and gas firms from 2010 to 2019. The tests of the four null hypotheses were carried out using spearman rank correlation analysis and also employed panel least square (POLS) regression analysis. The result of the analyses revealed that managerial ownership and CEO ownership have insignificant positive effect on firm value of listed oil and gas firms in Nigeria (Coef. = 0.089, t = 0.46 and P -value = 0.643) (Coef. = 0.013, t = -0.41 and P -value = 0.683); while government ownership has an insignificant negative effect on firm value of listed oil and gas firms in Nigeria (Coef. = -0.037, t = -1.47 and P -value = 0.145); ownership concentration has a significant negative effect on firm value of listed oil and gas firms in Nigeria (Coef. = -0.420, t = -1.95 and P -value = 0.054). The study recommended, among others, that management should reconsider and pay critical attention to management policies that tends to increase the volume of concentrated ownership of listed oil and gas firms in Nigeria.

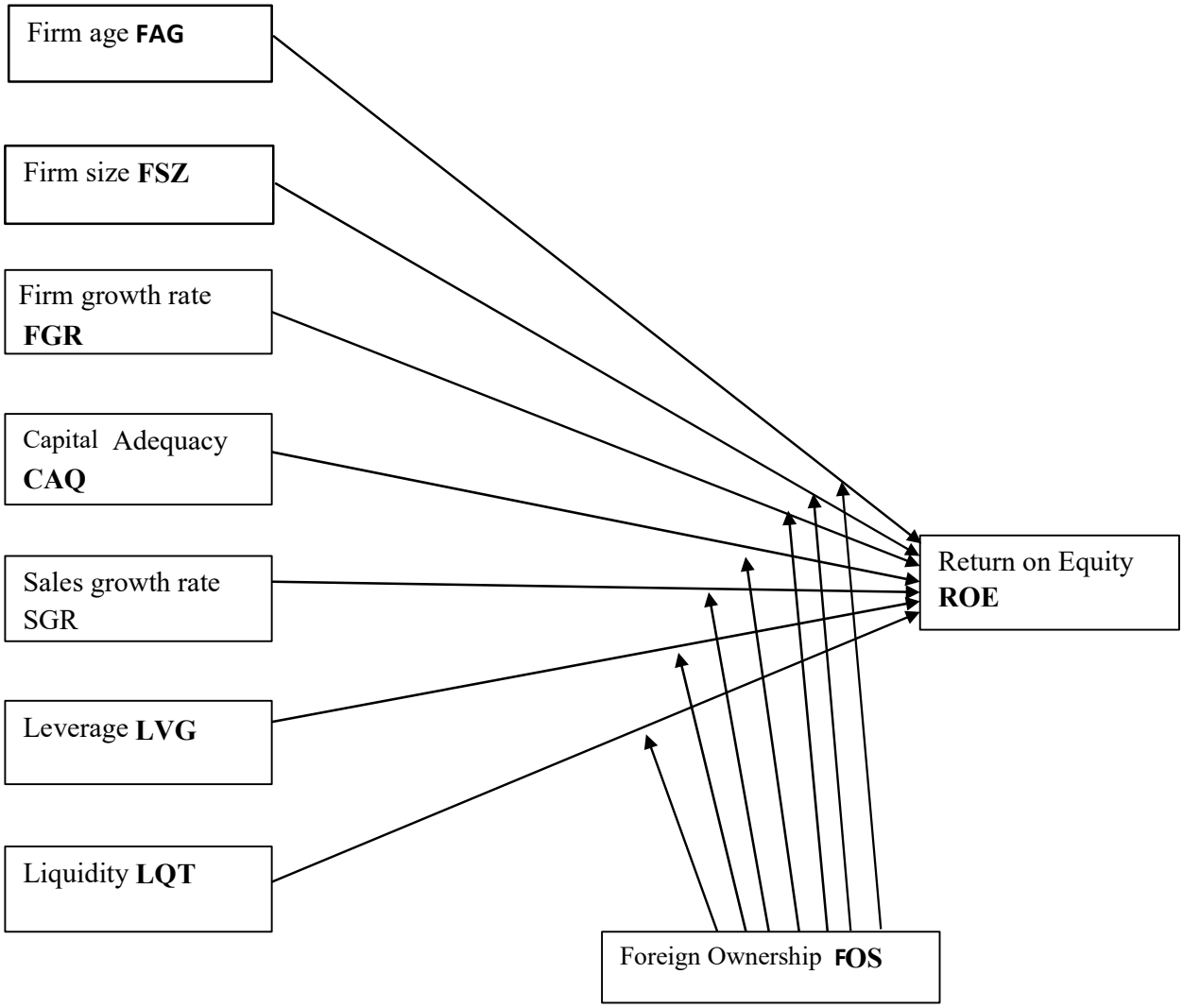
Emshima, Isaac, and Nnenna (2022), assessed the effect of ownership structure on financial performance of listed deposit money bank in Nigeria. The expo-facto research design was adopted with reliance on secondary data from annual report of listed firms. The purposive sampling techniques was employed in selecting the 13 firms out of 15 deposit money bank in Nigeria for 2011-2020 financial year. To carry out this objective panel regression estimation was used which is fixed effect by Hausman test which was analyzed using E-views 10. The finding shows that managerial ownership and institutional ownership has positive significant effect on capital adequacy of deposit money bank in Nigeria. The study concludes that managerial ownership and institutional ownership has a significantly positive effect on financial performance and substantially increase the performance of listed deposit money bank in Nigeria. The study recommends that financial regulatory bodies in Nigeria such as the Central Bank of Nigeria (CBN), Nigeria Deposit Insurance Corporation (NDIC), and Securities and Exchange Commission (SEC) should ensure that a reasonable degree of ownership concentration is maintained by all banks due to its potential benefit in improving financial performance in Nigerian banks.

Suleiman and Nasamu (2021) examines the effect of ownership structure on the financial performance of listed oil and gas companies in Nigeria for the period of 2006-2019. Secondary data was extracted from the financial reports and accounts of the sample companies. Robust OLS as the best estimator of the regression model was used to analyze the data extracted. The findings revealed foreign ownership has a positive significant impact on the financial performance of oil and gas companies in Nigeria. Based on the findings, the study recommends that, foreigners should be allowed to take the majority of the ownership structure of listed oil and gas companies in the downstream sector of the petroleum industry in Nigeria, more so, management of these companies should formulate policies that would boost the number of shares allocated to foreigners since foreign ownership increases financial performance. Contrary to managerial ownership and concentrated ownership, this study recommends that foreigners should be allowed to take the majority of the ownership structure of listed downstream oil and gas companies in Nigeria. As of the challenges faced by listed oil and gas companies in Nigeria in the Niger delta area such as vandalization of company's assets, militancy and kidnapping of the company's personnel which will discourage foreigners to invest much funds in the firm, listed

oil and gas companies in Nigeria should pay more attention to corporate social responsibility such as providing services to the people living in those communities. The listed oil and gas companies are also advice to make more scholarships available to youths as this will help reduce the number of unemployed youths, they should also ensure that up to 50% of their staff are from the Niger delta region (East) and they should also provide social amenities and recreational centers.

Conceptual Model

The figure below represents the Conceptual model adopted for the study which shows the relationship between variables of the study firm age, firm size, firm growth rate, capital adequacy, sales growth rate, leverage, and liquidity are the independent variables of the study while financial Performance as the dependent variable. The independent variables (firm age, firm size, firm growth rate, capital adequacy, sales growth rate, leverage, and liquidity) and the dependent variable (Financial Performance) will be moderated by Foreign Ownership structure



3.0 Methododlogy

Ex-post facto research design is adopted for the study because the study used panel data. The researcher seeks to examine the effect of Firm Attributes and financial performance of listed Oil and Gas Firms in Nigeria over the period of 2015 to 2024. Secondary data was used due to the nature of the research paradigm which is quantitative. Panel data was used to extract data from the annual reports and accounts of the banks for the purpose of assessing the effect between the variables of the study, data was collected from Nigerian Exchange annual report statement online.

The Sample size of this study will include five (5) listed oil and Gas firms in Nigerian Exchange (NE) as at 31 December, 2024. In view of this availability of data for five (5) Oil and Gas firms. the study adopted Census sampling approach by studying the five (5) Firms as the population of the study. Two criteria were used to arrive at the sample. One, the firm must have continuously traded in the Nigerian Exchange (NE) for the period 2015 to 2024. Two, it must have readily available data for the variables of interest. This gives a sample of 5 firms that meet up with both the criteria. The data was be collected through secondary source, mainly from published annual reports.

Multiple regressions were used for the panel data analysis in order to establish effect and relationship between the variables of the study. Multiple regression, correlation and descriptive statistics was considered appropriate. In order to achieve reliability of the result, robustness tests like multicollinearity test, hausman test, heteroscedasticity test and Normality test were conducted.

The data will be analyzed using $STATA_{13}$ software. Multiple regressions will be used for the panel data analysis in order to establish effect and relationship between the variables of the study. Multiple regression, correlation and descriptive statistics were considered appropriate in view of the fact that it helps in not only establishing relationship between variables, but cause and effect of their relationship. $STATA_{13}$ software was adopted due to the fact that, $STATA_{13}$ software is more statistically reliable for quantitative research basically secondary data that are extracted from the annual report of companies and other related sources. $STATA_{13}$ software is a parametric tool of analysis which deals with complex data and does not accept incomplete data that come in units and decimals as such, is a reliable tool of analyzing secondary data.

Population and sample size

The population of this study will consist of all the ten (5) Oil and gas firms listed.

Table 1

List of oil and gas companies operating in Nigeria

S/N	NAME OF BANKS
1	Conoil Plc
2	Eternaoil Plc
3	Oando Plc
4	Seplat Energy Plc
5	Total Nigeria Plc

Sources: (NGX, 2025).

Technique of Data Analysis

The data will be analyzed using $STATA_{13}$ software. Multiple regressions will be used for the panel data analysis in order to establish effect and relationship between the variables of the

study. Multiple regression, correlation and descriptive statistics were considered appropriate in view of the fact that it helps in not only establishing relationship between variables, but cause and effect of their relationship. $STATA_{13}$ software was adopted due to the fact that, $STATA_{13}$ software is more statistically reliable for quantitative research basically secondary data that are extracted from the annual report of companies and other related sources. $STATA_{13}$ software is a parametric tool of analysis which deals with complex data and does not accept incomplete data that come in units and decimals as such, is a reliable tool of analyzing secondary data.

Model Specification and Variables Definition and Measurement

In a bid to ascertain the effect moderating effect of Foreign Ownership Structure on the relationship between Firm Attributes and financial performance of listed oil and gas companies in Nigeria, a multiple linear model is built. The model encapsulates the contribution of firms Attributes, firm age, firm size, firm growth rate, capital adequacy, sales growth rate, leverage, and liquidity on Financial Performance

The Following models will be used to empirically test the hypotheses formulated as follows:

MODEL 1 $= ROE_{it} = \beta_{0it} + \beta_1 FAG_{it} + \beta_2 FSZ_{it}\ \beta_3 FGRit + \beta_4 CAP_{it} + \beta_5 SGR_{it} + \beta_6 LVG_{it} + \beta 7 LQTit + \varepsilon it$

Incorporating foreign Ownership Structure as the moderating variable that affect the direct relationship in equation, which is based on the prediction of the agency theory that foreign Ownership structure aligns the interest of managers and shareholders and consequently affect financial performance; the following regression model will be employed.

MODEL 2 $= ROEit = \beta_{0it} + \beta_1 FAG_{it} + \beta_2 FSZ_{it}\ \beta_3 FGRit + \beta_4 CAP_{it} + \beta_5 SGR_{it} + \beta_6 LVG_{it} + \beta_7 LQTit + \beta_8 FOSit + \beta_9 FAG*FOSit + \beta_{10} FSZ*FOSit + \beta_{11} FGR*FOSit + \beta_{12} CAP*FOSit + \beta_{13} SGR*FOSit + \beta_{14} LVG*FOSit + \beta_{15} LQT*FOSit\ \varepsilon it + Uit$

Where,
FAG = Firm age
FSZ = Firm size
FGR = Firm growth rate
CAP = Capital Adequacy
SGR = Sales Growth Rate
LVG = Leverage
LQT = Liquidity

FOS= Foreign Ownership Structure (moderating variable) i= number firm observation, t= measure of time, E= error term, U= random effect for subject it, and β0 = Intercept of the model "Constant"

The dependent variable and independent variables used in the model are explained in. Table 3.2 below Variables definition and measurement

Table 2
Variable Measurement

Variables Acronym	Variables Name	Variables Measurement and Sources
ROE	Return on Equity	Measured as banks' profit after tax divided by the firms' total equity Omaliko and Okpala (2020), Omaliko, Okeke and Obiora (2021), Omaliko, Nwadialor and Nweze (2020).
FAG	Firm Age	Measured as Log of the number of years since listening (Mule el al, 2020).
FSZ	Firm Size	Firm size is measured by the value of total asset of the firm. (Natural Log of Total Asset) (Hamza, 2017)
FGR	Firm Growth rate	Measured as the total growth of current year minus total growth of previous year divide by the previous year total growth
LVG	Leverage	Measured as firm total Debt divide by shareholders equity (Oyekwelu, Nwajei, Ugwu, 2017)
SGR	Sales Growth Rate	Measured as the Current period Net sales minus previous year Net sales divide by the previous year Net sales (Oyekwelu, Nwajei, Ugwu, 2017)
CAP	Capital Adequacy	Measured by shareholders fund divided by the total assets (Ikpefan, 2013)
LQT	Liquidity	Measured as ratio of total liquid assets
FOS	Foreign Ownership structure	Measured as percentage of shares held by foreigners to total number of shares (Saifullahi, Mohammed, Hassan, 2015).
FAG*FOS	Interaction of Firm Age and Foreign Ownership Structure	Measured by Log of the number of years since listening by the ratio (%) Proportion of shares owned by Foreign shareholders to the total number of shares issue.
FSZ*FOS	Interaction of Firm size and Foreign Ownership structure	Measured value of total asset of the firm. (Natural Log of Total Asset) by the ratio (%) Proportion of shares owned by Foreign shareholders to the total number of shares issue.
FGR*FOS	Interaction of Firm growth rate band Foreign Ownership structure	Measured as the total growth of current year minus total growth of previous year divide by the previous year total growth multiplied by the ratio (%) Proportion of shares owned by foreign shareholders
CAP*FOS	Interaction of Capital and Foreign Ownership structure	Measured as ratio of banks total debt to equity multiplied by the ratio (%) Proportion of shares owned by institutional shareholders to the total number of shares issue.
SGR*FOS	Interaction of Sales growth rate and Foreign Ownership structure	Measured as the total sales of current year minus total sales of previous year divide by the previous year total sales multiplied by the ratio (%) Proportion of shares owned by foreign shareholders to the total number of shares issue.

LVG*FOS	Interaction Leverage and Foreign Ownership structure	Measured as firm total Debt divide by shareholders equity multiplied by the ratio (%) Proportion of shares owned by foreign shareholders to the total number of shares issue
LQT*FOS	Interaction Liquidity and Foreign Ownership structure	Measured as ratio of total liquid assets to the ratio multiplied by the ratio (%) Proportion of shares owned by Foreign shareholders to the total number of shares issue.

Source: Compiled by the authors from various literature, 2025.

4.0 Data Presentation and Analysis

Table 3.
Descriptive Statistics

Variables	Observation	Mean	Standard Dev	Min	Max
ROE	50	0.1423649	0.1597609	-0.10213	0.61474
FSIZE	50	9290414	1.3707	935436	5.2107
FAG	50	0,28458	13.11657	1	45
FWR	50	0.1244	0.0485361	-0.03	0.21
CAQ	50	0.4699	0.1263357	0.25	0.65
SGR	50	0.0976	0.054979	-0.06	0.19
LQT	50	10.2496	14.24323	0.11	35
LEV	50	0.37498	0.1937	0.00445	0.627023
FOS	50	31.88	23013107	2	60

Sources: Output generated using STATA 13 (2025).

ROE has minimum value of -0.10213and maximum value of 0.61474. This signifies that, sampled banks incurred losses while others made profits within the period of the study. In addition. The average value of Bank Financial Performance 0.1423649 with the standard deviation of 0.1597609. This signifies that the data is not widely dispersed. The Firm size of Banks has a minimum value of 935436 and a maximum value 5.2107 respectively. This implied that within the periods of the study. The Firm with the lowest firm size quantum of Capital adequacy is sufficient. The average Firm size is 9290414 and standard deviation of 1.3707 which signifies average level of dispersion in the data of the study. This implies low chances of having normal distribution problem associated with the data of the study.

In addition, Firm Age has minimum value of 1 and a maximum value 45 respectively. This implies that Older firms are shown to perform more than the younger ones. This is a feature of the disadvantage that comes with the passage of time despite that age could mean more experience. On average, the Firm have 0, 28458, which indicates the average firm age. The standard deviation of13.11657 which is not largely dispersed from the mean value data. This signifies less likelihood having non-normally distributed data for the study. Firm growth rate has minimum value of -0.03 and a maximum value 0.21 respectively. This implies that Firm with lowest earnings from Firm growth rate loses 0 percent from Firm growth rate and the Firm with the highest earning from, generate 21 percent from Firm growth rate within the period of the study. On average, the Firm have 0.1244, which indicates the average Firm growth rate of the Firms. The standard deviation of 0.0485361 which is not largely dispersed from the mean value data. This signifies less likelihood having non-normally distributed data for the study. The Firm capital adequacy has minimum and maximum values of 0.25 and 0.65 respectively. This implies that some firms have meet up with the capital adequacy requirement of 25 percent and 65 percent. However, based on the maximum value of 0.65 of capital adequacy of the firms, it signifies that some firms have enough capital adequacy to absorb all the possible losses that may

occur within the period of their operation beyond the requirements. The mean and standard deviation value of the banks' capital adequacy are 04699 and 0.1263357. This implies that on average, the Nigerian listed oil and gas firms meet up with the capital adequacy requirements. The standard deviation of 0.1263357 signifies that the capital adequacy data of the study deviated from the mean at lower level of dispersion.

Sales growth rate has minimum value of -0.06 and a maximum value 0.19 respectively. This implies that Firm with lowest earnings from sales growth rate loses 0 percent from sales growth rate and the Firm with the highest earning from, generate 19 percent from sale growth rate within the period of the study. On average, the Firm have 0.0976, which indicates the average Sales growth rate of the Firms. The standard deviation of 0.054979 which is not largely dispersed from the mean value data. This signifies less likelihood having non-normally distributed data for the study.

Similarly, Leverage has minimum value of 0.0044515 and a maximum value 0.627023 respectively. This implies that within the period of the study the firms with the lowest earning from Leverage generate 0.044 percent of the total Leverage of firms. The Firms with the highest earnings from Leverage 62 percent. Leverage has an average score of 0.3744983. The standard deviation of 0.1937902 which is not largely dispersed from the mean value data, this signifies average level of dispersion in the data of the study. This implies average chances of having normality distribution problem associated with the data of the study.

The liquidity of oil and Gas firms in Nigeria has minimum and maximum values of 0.11 and 35 respectively. This signifies that some Nigerian oil and Gas Firms have 11 percent of their liquidity ratio as the lowest liquidity while others have the highest liquidity ratio. The average liquidity of Nigerian Oil and Gas Firms is 10.2496 and standard deviation of 14.24323. This implies low level of dispersion in liquidity data of the study. This signifies low likelihood of having non-normally distribution in the data of the study.

The Foreign Ownership Structure of the Firms has a minimum and maximum values of 2 and 60 respectively. This implies that within the period of the study, the firms with the lowest earnings from Foreign Ownership Structure generate 2 percent of the total ownership and equity holding. The bank with the highest earnings from interest income generate 60 percent of the total ownership. The average interest risk of the firms is 31.88 with standard deviation of 23.13107 which signifies low level of dispersion in the Foreign Ownership Structure data of the study. This implies low chances of having normality distribution problem associated with the data of the study.

Correlation Matrix

The correlation matrix is used to determine the degree of association between dependent variable and independent variables. It is also used to identify whether there is relationship among the independent variables themselves, to be able to detect if multicollinearity problem exists.

Table 4.
Correlation Matrix

Variables	ROE	FSZ	FAG	FWR	CAQ	SGR	LEV	LQT	FOS
ROE	1								
FSZ	0.1410	1							
FAG	0.0222	-0.0458	1						
FWR	-0.0815	-0.1295	0.1262	1					
CAQ	-0.4814	-0.6148	-0.1229	0.3059	1				
SGR	0.1257	0.0759	-0.1517	0.5088	0.1614	1			
LEV	0.6074	0.0252	-0.1414	-0.0672	-0.6012	-0.0866	1		
LQT	-0.4618	-0.1910	-0.5512	0.1376	0.5196	0.1815	-0.4052	1	
FOS	-0.5758	0.1624	-0.2007	0.0111	0.5556	0.2060	-0.8407	0.5875	1

Sources: Stata Output, 2025.

The results indicate a positive association between firm size, firm age, sales growth, leverage, and the financial performance of listed oil and gas firms in Nigeria. This is evidenced by the computed correlation coefficients of 0.1410, 0.0223, 0.1257, and 0.6074, respectively.This signifies that firm size as one of the independent variables of the study are moving in the same direction with the financial performance of Oil ang Gas Firms in Nigeria. Also, the correlation matrix result reveals that Firm Growth rate, capital Adequacy, liquidity, and foreign ownership structure are individually negatively associated with the financial performance of listed oil and gas firms in Nigeria. The negative association of these independent variables with financial performance as the dependent variable of the study can be observed based on the computed values of correlation coefficient of -0.095, -0.005, -0.128, -0.0815, -0.4814, -0.4618, and -0.5758 respectively. This implies that these independent variables are not moving in the same direction with the financial performance of listed oil and gas firms in Nigeria, and they inversely associated with banks financial performance.

Also, from Table 4 the association of the independent variables among themselves reveals that firm size and firm age, firm growth rate, capital adequacy, and liquidity were individually negatively associated among themselves. Firm size and sales growth, leverage and foreign ownership structure, were individually confirm positive correlation with each other. Firm age and Capital adequacy, sales growth, leverage, liquidity, foreign ownership structure is individually negatively associated among themselves. Firm growth rate and capital adequacy, sales growth, liquidity, and foreign ownership structure were all positively correlating with each other. All the computed correlation matrix coefficient is less than 0.8, this signifies less chances of having multicolinearity problem in the data of the study. The results further prove that the independent variables can be together in the same model when using the regression because none of the correlation has an absolute value above 1, meaning that there is no multicollinearity problem (Gujarati, 2004).

Robustness Test

The study conducted a diagnostic test which include Multicolinearity test, Heteroscedasticity test and Hausman specification tests in order to ascertain the reliability of the statistical regression result. The results from the diagnostics tests are presented below:

Multicollinearity Test

Table 6

Multicollinearity Test Result

Variables	VIF	Tolerance
FSZ	3.08	0.324715
FAG	2.80	0.357083
FWR	1.93	0.617572
CAQ	5.72	0.174735
LQT	2.59	0.385378
SGR	1.51	0.662389
LEV	3.90	0.256313
Mean VIF	3.08	

Sources: Stata Output, 2025.

The study adopted panel multiple regression model, to measure the association between independent and dependent variables. Where the association is highly correlated, multicollinearity exists. For that, the study tested for multicollinearity, to see the determine its existence or otherwise. This was done using variance inflation factor (VIF) and tolerance value. Where the variance inflation factor (VIF) and tolerance value are less than 10 and 1 respectively, this signifies the absence of multicollinearity problem associated with the data of the study. Where otherwise, this implies the existence of multicollinearity problem in the data of the study. The result of multicollinearity test of the study is presented in Table 5:

Heteroskedasticity Test.

Table 7 Robustness Test for Model

Variables	Statistics	P-Values
Model		
Hausman Test	99.24	0.0000
R^2	0.7095	
F-Statistic (Wald)	3.85	0.0009
Hettest	8.08	0.0045
Mean VIF: Chi2		

Sources: Output generated using STATA 13, 2025.

The presence of Heteroskedasticity in the panel for the models indicate by the Breuch Pagan/cook-weisberg test for heteroskedasticity Chi^2 value of 8.08 with p-value of 0.0045 is significant at 5% level of significance. Therefore, further post estimated test was conducted to ascertain and correct for the presence of hecteroskedasticity. The result from the Hausaman fixed and random effect test model with Chi^2 value and 99.24 with p-value 0.0000 respectively is statistically significant at 1% level of significance. The model indicates fixed effect model as the most appropriate for the study.

Regression results and hypotheses testing

The (R^2 value of 0.7095) coefficient of determination, which is explained around 70% of the total variation in the dependent variable. Hence, the result of R^2 signifies that 70% of total variation in the financial performance measured by ROE is caused by Firm size, Firm age, firm growth rate, sales growth, Capital adequacy, liquidity, leverage and foreign ownership structure R^2 value between 0.10 and 0.50 is acceptable when some of the explanatory variables are statistically significant (Ozili, 2023).

Table 8

Multiple Regression

Variables	Coefficient	Z-Value	P-Value	Hypothesis
FSZ	-1.96008	-0.96	0.337	Fail to reject
FAG	-0.030301	-3.39	0.001	Reject
FWR	0.7664244	1.05	0.295	Fail to reject
CAQ	2.14243	1.64	0.102	Fail to reject
LQT	0.0000828	0.01	0.990	Fail to reject
SGR	0.8657063	2.16	0.0.031	Reject
LEV	0.8668695	2.63	0.009	Reject
FSZFOS	5.4410	1.27	0.206	Fail to reject
FAGFOS	0.006421	2.36	0.018	Reject
FWRFOS	-0.0194151	-0.92	0.360	Fail to reject
CAQFOS	-0.0402055	-1.56	0.119	Fail to reject
LQTFOS	-0.000021	-0.16	0.876	Fail to reject
SGRFOS	-0.0080483	-0.64	0.522	Fail to reject
LEVFOS	-0.012082	-1.04	0.296	Fail to reject
Constant	-0.157013	-057	0.566	

Sources: Output generated using STATA 13 (2025).

Testing Hypothesis

Ho_1: Firm size has no significant influence on the Financial Performance of Listed Oil and Gas Firms in Nigeria.

Firm size has a negative and insignificant effect on the Financial Performance of Listed Oil and Gas Firms reveals a beta coefficient (β) of Bank size is negative -1.96008 with a p-value of 0.337 which is insignificant. The null hypothesis failed to reject and it is concluded that Firms size has insignificant negative effect on firm financial performance. This implies that when Firm size increases will lead to increases in the financial performance of the bank.

Ho_2: Firm Age has no significant effect on the Financial Performance of Listed Oil and gas in Nigeria.

The beta coefficient (β) of Firm age is negative -3.39 with a p-value of 0.001 which is at 1% level of significance. The null hypothesis was accepted and concluded that Firm age has significant negative effect. Firm age and Financial Performance may be as result of the age of the firm, irrespective of firm size, age-returns on invested capital relationship was not affected.

Ho_3: Firm Growth rate has no significant influence on the Financial Performance of Listed Oil and Gas Firms in Nigeria.

The beta coefficient (β) of Firm growth rate is 0.7664244 with a p-value of 0.295 which is positive and statistically insignificance. The null hypothesis was accepted and concluded that Firm growth rate have an insignificant positive effect on firm financial performance. This implies that when Firm performance increases, will lead to increase in financial performance of the firm.

Ho_4: Capital Adequacy has no significant influence on the Financial Performance of Listed Oil and Gas Firms in Nigeria.

The beta coefficient (β) of Capital Adequacy is 2.14243 with a p-value of 0.102 which is positive and statistically insignificance. The null hypothesis was accepted and concluded that Capital Adequacy have an insignificant positive effect on firm financial performance. This implies that, when Capital Adequacy increases will lead to increase in financial performance of the oil firms.

Ho_5: Liquidity has no significant influence on the Financial Performance of Listed Oil and Gas Firms in Nigeria.

The beta coefficient (β) of Liquidity is 0.0000828 with a p-value of 0.990 which is positive and statistically insignificance. The null hypothesis was accepted and concluded that Liquidity have an insignificant positive effect on oil and gas firm financial performance. This implies that when Liquidity increases, will lead to increase in financial performance of the Oil and Gas.

Ho_6: Sales Growth has no significant influence on the Financial Performance of Listed Oil and Gas Firms in Nigeria.

The beta coefficient (β) of Sales Growth is 0.8657063 with a p-value of 0.0.031 which is positive and statistically significance. The null hypothesis was accepted and concluded that Sales growth have an insignificant positive effect on bank financial performance. This implies that when Sales growth Leverage increases, will lead to increase in financial performance of the banks. This implies that an increase or decrease in sales will increasing financial performance (ROE). This is as a result of significant influence of sales growth on financial performance. This also implies high production cost will negatively affect selling price thereby causing a decrease in turnover and affect firm Financial Performance. The study is supported by the theory of firm growth. The finding is in line with those reported by Nousheen & Arshad, (2013), but negates the study of Mohamed, (2014), who presented that sales growth has a negative and significant effect on ROE. Therefore, the study has enough evidence to accept the null hypothesis; sales growth has no significant impact on return on assets. This finding concurred with Ogundu (2022) report a positive relationship with performance, Saidu and Abdallah (2018) positive relationship with performance, but it contradicts the study of Desta (2020) report a negative insignificant relationship with performance.

Ho_7: Leverage has no significant influence on the Financial Performance of Listed Oil and Gas Firms in Nigeria.

The beta coefficient (β) of Leverage is 0.8668695 with a p-value of 0.009 which is positive and statistically significance. The null hypothesis was accepted and concluded that Leverage have an insignificant positive effect on Oil and Gas financial performance. This implies that when Leverage increases, will lead to increase in financial performance of the firms Oil and Gas firms. This finding concurred with Ogundu (2022) report a positive relationship with performance, Saidu and Abdallah (2018) positive relationship with performance, but it contradicts the study of Desta (2020) report a negative insignificant relationship with performance.

Ho_8: Foreign Ownership structure has moderating effect on the relationship between of Firm size and Financial Performance of Listed Oil and Gas Firms in Nigeria.

The interaction of Foreign Ownership structure and Firm size, the study reveals a positive coefficient value of 5.4410 and p-value of 0.206. This indicates that the moderation of foreign ownership structure on firm size and financial performance is positive and insignificant. This implies that increase in foreign ownership structure will increase firm financial performance by 5%. This means that foreign ownership structure can increase firm size of firms thereby increasing their financial performance. The result suggests that foreign ownership structure has a positive insignificant relationship with firm size on financial performance. It is on this basis that we accept the hypothesis that foreign ownership structure has no significant moderating effect on the relationship between firm size and financial performance of listed Oil and Gas firm in Nigeria.

Ho_9: Foreign Ownership structure has moderating effect on the relationship between of Firm age and Financial Performance of Listed Oil and Gas Firms in Nigeria.
The interaction of Foreign Ownership structure and Firm age, the study reveals a positive coefficient value of 5.4410 and p-value of 0.206. This indicates that the moderation of foreign ownership structure on firm age and financial performance is positive and insignificant. This implies that increase in foreign ownership structure will increase firm financial performance by 5%. This means that foreign ownership structure can increase firm age of firms thereby increasing their financial performance. The result suggests that foreign ownership structure has a positive insignificant relationship with firm age on financial performance. It is on this basis that we accept the hypothesis that foreign ownership structure has no significant moderating effect on the relationship between firm age and financial performance of listed Oil and Gas firm in Nigeria.

Ho_{10}: Foreign Ownership structure has moderating effect on the relationship between of Firm Growth rate and Financial Performance of Listed Oil and Gas Firms in Nigeria. The interaction of Foreign Ownership structure and Firm age, the study reveals a positive coefficient value of 0.006421 and p-value of 0.018. This indicates that the moderation of foreign ownership structure on firm growth has a positive and statistically significance. The null hypothesis was rejected and concluded that foreign ownership has significant positive effect on firm growth. This implies that 10% increase in foreign ownership structure will increase firm financial performance. This means that foreign ownership structure can increase Firm growth of oil and Gas Firms thereby increasing their financial performance. The result suggests that foreign ownership structure has a positive significant relationship with firm growth on financial performance. It is on this basis that we reject the hypothesis that foreign ownership structure has no significant moderating effect on the relationship between firm growth rate and financial performance of listed oil and Gas firms in Nigeria.

Ho_{11}: Foreign Ownership structure has moderating effect on the relationship between of Capital Adequacy and Financial Performance of Listed Oil and Gas Firms in Nigeria.
The interaction of foreign ownership structure and capital Adequacy, the study reveals a negative coefficient insignificant value of -0.000021 and p-value of 0.119. This indicates that the moderation of foreign ownership structure on Capital Adequacy financial performance relationship is negative insignificant with financial performance. This implies that increase in interaction of foreign ownership structure and Capital Adequacy will decrease oil and Gas Firms financial performance. This means that foreign ownership structure can increase Capital Adequacy, thereby decreasing their financial performance. It is on this basis that we accept the hypothesis that foreign ownership structure has no significant moderating effect on the relationship between Capital Adequacy and financial performance of listed oil and gas firms in Nigeria.
Ho_{12}: Foreign Ownership structure has moderating effect on the relationship between of Liquidity and Financial Performance of Listed Oil and Gas Firms in Nigeria.
The interaction of foreign ownership structure and liquidity, the study reveals a negative coefficient value of -0.473755 with p-value of 0.87. This indicates that the moderation of foreign ownership structure on liquidity and financial performance is negative and insignificant at any level of significance. This implies that 1% decrease in the interaction between foreign ownership structure and liquidity will increase firm financial performance by -47%. This means that foreign ownership structure can decreases liquidity of firms thereby decreasing their financial performance. The result suggests that foreign ownership structure has a negative insignificant relationship with liquidity on financial performance. It is on this basis that we accept the

hypothesis that foreign ownership structure has no significant moderating effect on the relationship between liquidity and financial performance of listed oil and gas Firms in Nigeria.

Ho_{13}: Foreign Ownership structure has moderating effect on the relationship between of Sales growth and Financial Performance of Listed Oil and Gas Firms in Nigeria.

The interaction of foreign ownership structure and Sales growth, the study reveals a negative coefficient value of -0.0080483 with p-value of 0.522. This indicates that the moderation of foreign ownership structure on Sales growth and financial performance is negative and insignificant at any level of significance. This implies that 1% decrease in the interaction between foreign ownership structure and Sales growth will increase firm financial performance by -0.8%. This means that Foreign ownership structure can decreases Sales growth of firms thereby decreasing their financial performance. The result suggests that foreign ownership structure has a negative insignificant relationship with Sales growth on financial performance. It is on this basis that we accept the hypothesis that foreign ownership structure has no significant moderating effect on the relationship between Sales growth and financial performance of listed oil and gas Firms in Nigeria.

Ho_{14}: Foreign Ownership structure has moderating effect on the relationship between of Leverage and Financial Performance of Listed Oil and Gas Firms in Nigeria.

The interaction of foreign ownership structure and Leverage, the study reveals a negative coefficient value of -0.012082 with p-value of 0.296. This indicates that the moderation of foreign ownership structure on Leverage and financial performance is negative and insignificant at any level of significance. This implies that 1% decrease in the interaction between foreign ownership structure and Leverage will increase firm financial performance by 1.2%. This means that foreign ownership structure can decreases Leverage of firms thereby decreasing their financial performance. The result suggests that foreign ownership structure has a negative insignificant relationship with Leverage on financial performance. It is on this basis that we accept the hypothesis that foreign ownership structure has no significant moderating effect on the relationship between Leverage and financial performance of listed oil and gas Firms in Nigeria.

Summary of findings and Policy implication

Findings of this study have several implications for investors and listed oil and gas firms in Nigeria. This predicts that the performances of high levered listed oil and gas firms in Nigeria will reduce the profit of the oil and gas firms and it implies that debt financing is not appropriate for the listed oil and gas firms. From the result, it implies that profitable listed oil and gas firms most likely rely more on internally generated funds and equity capital as the source of financing than debt financing. Furthermore, Equity financing is will increase the size of the firm. Empirical it has shown that the older a firm is, the greater its tendency to involve in inefficient financial performance, such as large board sizes and higher top management compensations.

Findings also reveal that and sales growth rate has a positive significant effect on return on equity. The implication is that the lower growth in sales will lead to shortfall in liquidity resulting to decrease in return on equity. The analysis reveals Bank size has a negative and insignificantly effect on the financial performance proxied by ROE of the listed oil and gas in Nigeria. This predicts that the performances of high firm of listed oil and gas firms in Nigeria are going to increase the profit of the Firms. Furthermore, the findings reveal that Firm growth rate and Liquidity has negative and insignificant effect on return on equity (ROE). The implication is that the lower firm growth rate and liquidity slightly reduce the return on equity.

5. 0 Conclusion, recommendation, and suggestion of further research

This study concluded that interaction between Firm age, sales growth, leverage, and financial performance were found to be negative and positive significantly influencing financial performance. This means that Firm age can control the financial performance of oil and gas firms, it was also found that firm size, firm growth, capital adequacy and liquidity have insignificant positive. The findings on the moderating effect of foreign ownership structure on the relationship between firm attributes and financial performance provides additional evidence that foreign ownership structure play a significant role in the firm attributes and financial performance relationship. In the testing of moderation effect, it was found that foreign ownership structure moderated only firm age relationship against financial performance. The older higher the foreign ownership action resulting in an increase in firm age, in turn, will increase the financial performance indicating that the return on equity of the firms will increase. In the testing of moderation effect, it was found that foreign ownership structure moderated the interaction between Firm size, firm growth, capital adequacy, liquidity, sales growth and leverage insignificantly.

In line with the findings of the study the following recommendations are made:

Oil and Gas Firms should strengthen long-term corporate strategies **s**ince firm age was found to significantly influence financial performance, management of oil and gas firms should focus on sustaining long-term operational stability, institutional experience, and corporate reputation. Older firms should leverage their accumulated knowledge, market networks, and operational expertise to improve profitability and return on equity. Management should closely monitor sales growth and leverage levels. The study revealed that sales growth and leverage significantly influence financial performance. Therefore, firms should adopt efficient sales expansion strategies while maintaining optimal debt levels. Excessive borrowing should be avoided because high leverage may negatively affect profitability and financial stability. Foreign investors should be encouraged in the oil and gas sector**,** the findings showed that foreign ownership structure significantly moderates the relationship between firm age and financial performance. Policymakers and regulatory authorities should therefore encourage foreign participation and investment in the oil and gas sector through favorable investment policies, transparent regulations, and investor protection mechanisms. Older firms should utilize foreign ownership opportunities**, s**ince foreign ownership enhances the positive effect of firm age on financial performance, older oil and gas firms should seek strategic alliances, foreign equity participation, and international partnerships that can improve managerial expertise, technology transfer, and access to global markets.

Firms should improve internal financial management practices**.** Although firm size, firm growth, capital adequacy, and liquidity showed insignificant positive effects, firms should still maintain adequate liquidity positions and sound capital structures to ensure operational efficiency and financial sustainability. Regulatory authorities should promote corporate governance policies**.** Government agencies and industry regulators should formulate policies that strengthen corporate governance and transparency in firms with foreign ownership participation. This will help maximize the benefits of foreign ownership on firm performance. Managers should focus more on efficient resource utilization rather than expansion, firm size did not significantly affect financial performance, managers should prioritize effective utilization of resources, operational efficiency, and productivity improvement rather than focusing solely on increasing firm size.

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