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EFFECT OF INSTITUTIONAL AND FOREIGN OWNERSHIP ON THE FINANCIAL PERFORMANCE OF LISTED FIRMS IN NIGERIA

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ABSTRACT
This study examines the effect of institutional and foreign ownership on the financial performance of listed firms in Nigeria, measured by Return on Equity (ROE). Ownership structure is increasingly recognized as a crucial determinant of corporate governance and firm profitability, particularly in emerging markets characterized by agency conflicts, regulatory challenges, and managerial opportunism. Institutional investors, including pension funds and insurance companies, are expected to enhance oversight, improve decision-making, and strengthen accountability, while foreign ownership is presumed to introduce international governance standards, advanced technologies, and superior managerial practices. Grounded in Agency Theory, which emphasizes the alignment of managerial actions with shareholder interests, the study investigates how these ownership types mitigate agency problems and influence firm performance. Using a panel dataset of 62 listed Nigerian firms covering the period 2011–2024, descriptive statistics, correlation analysis, unit root, and cross-section dependence tests were conducted to ensure data robustness. The Generalized Method of Moments (GMM) regression technique was employed to analyze causal relationships. The results indicate that institutional ownership negatively and significantly affects ROE, suggesting that passive investment strategies or short-term profit focus may limit governance benefits. Conversely, foreign ownership exhibits a positive and significant effect on ROE, reflecting the contribution of external shareholders to improved monitoring and operational efficiency. The findings underscore the need for policies that encourage active institutional engagement and facilitate foreign participation while strengthening transparency and accountability in corporate governance. This study contributes to the literature by simultaneously assessing institutional and foreign ownership effects in the Nigerian context, offering insights for regulators, investors, and corporate managers aiming to optimize ownership structures for enhanced financial performance.

Keywords: *Institutional ownership, Foreign ownership, Return on Equity, Firm performance, Agency Theory*

INTRODUCTION

The structure of firm ownership continues to attract scholarly attention due to its significant implications for the governance and performance of corporations, especially in emerging economies. Institutional and foreign ownership, in particular, have become increasingly relevant in shaping corporate outcomes as global capital flows deepen and domestic investment institutions expand their influence (Oladipo, 2025). In Nigeria, where firms operate in a dynamic but often volatile business environment characterized by fluctuating macroeconomic conditions, evolving regulatory frameworks, and persistent agency conflicts, ownership composition has emerged as a key determinant of how effectively firms are monitored and how efficiently managers utilise shareholder resources. Recent studies argue that institutional investors such as pension funds, mutual funds, and insurance companies have the potential to improve accountability, enhance information flow, and strengthen strategic decision-making, ultimately improving performance measured through Return on Equity (ROE) (Eze

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& Baridam, 2024). Likewise, foreign owners bring cross-border expertise, superior technological capabilities, and stronger governance norms that may translate to improved profitability (Salami, 2023).

However, empirical results remain mixed, creating an ongoing debate concerning the true effect of ownership structure on performance in developing markets. While some researchers assert that institutional ownership enhances ROE by promoting effective monitoring and discouraging opportunistic managerial behaviour (Ugwoke & Hassan, 2022), others find that institutional block holders may sometimes prioritize short-term market gains over long-term value creation, weakening the expected governance benefits (Danladi, 2021). Similarly, although foreign investors are often associated with higher performance due to their technical competence and emphasis on transparency, their impact is not uniform. For instance, certain studies report that foreign ownership could intensify performance volatility, especially in markets vulnerable to currency fluctuations, regulatory uncertainty, and political risk (Osei & Abiola, 2021). These conflicting findings suggest that the Nigerian context may reflect unique structural and institutional characteristics that influence the ownership performance relationship differently from other emerging economies.

In Nigeria, the growth of institutional investment has accelerated in the past decade, partly driven by pension reforms, increased asset management activities, and the rise of investment-focused insurance firms. Nonetheless, the degree to which these institutional investors actively engage in corporate governance varies considerably. According to Adeyemi (2020), some institutional investors in Nigeria tend to adopt passive monitoring approaches, limiting their governance influence and diminishing their potential impact on firm performance. Foreign ownership, on the other hand, has increased as Nigerian firms seek international financing and strategic alliances. Yet, foreign investors often face informational asymmetries, bureaucratic hurdles, and compliance uncertainties that may constrain their ability to influence managerial decisions effectively (Ogunleye & Fowowe, 2020). These complexities underscore the need for updated empirical analysis that reflects the evolving ownership patterns within the Nigerian Exchange Group (NGX).

Despite the widespread recognition of the significance of ownership structure, existing Nigerian studies reveal several notable limitations. First, many prior works have focused on market-based performance measures such as Tobin's Q or share price, with far less emphasis on accounting-based indicators like Return on Equity an essential profitability metric for assessing shareholder value (Nwachukwu & Olokoyo, 2023). Second, studies rarely examine institutional and foreign ownership simultaneously, even though both ownership types may interact to influence managerial incentives and performance outcomes. Third, much of the available evidence relies on short time-periods or sector-specific samples, limiting the generalizability of findings across the broader Nigerian corporate landscape (Okeke & Nwankwo, 2021). These gaps leave room for further inquiry into whether institutional and foreign ownership exert positive, negative, or insignificant effects on ROE. Therefore, this study investigates the effect of institutional and foreign ownership on the financial performance of listed firms in Nigeria, with performance measured using Return on Equity.

Research Hypothesis

H_{01}: Institutional ownership has no significant effect on the return on equity of listed firms in Nigeria
H_{02}: Foreign ownership has no significant effect on the return on equity of listed firms in Nigeria

REVIEW OF RELATED LITERATURE

Concept of Institutional Ownership

Institutional ownership refers to the proportion of a firm's shares held by institutional investors such as pension funds, mutual funds, insurance companies, asset management firms, and other professional investment entities. These investors typically possess specialized financial expertise, access to sophisticated analytical tools, and greater ability to monitor managerial decisions compared to individual shareholders. According to Adebayo (2025), institutional investors often play a central role in corporate governance because their substantial shareholdings give them both the incentive and capacity to influence managerial behaviour. In emerging markets like Nigeria, institutional ownership has gained prominence due to pension reforms, the expansion of collective investment schemes, and increasing reliance on professionally managed funds (Okonkwo & Salisu, 2024). Theoretically,

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institutional ownership is grounded in agency theory, which argues that managerial opportunism can be reduced when large shareholders monitor firm operations more effectively. Empirical studies show mixed outcomes: while some researchers argue that institutional owners improve accountability, financial discipline, and long-term value creation (Nwosu & Ibrahim, 2023), others suggest that institutional investors may adopt passive investment strategies or prioritize short-term portfolio returns, thereby limiting their governance impact (Odeyemi, 2022). The influence of institutional investors also depends on the type of institution pension funds and insurance companies are often long-term oriented, while hedge-fund-like institutions may favour short-term trading strategies. In Nigeria, institutional ownership is increasingly associated with improved disclosure practices, enhanced board effectiveness, and better corporate policies. Yet challenges remain: weak regulatory enforcement, information asymmetry, and the prevalence of family-owned structures may dilute the effectiveness of institutional monitoring. As highlighted by Ekanem (2020), institutional investors in Nigeria sometimes lack the activism prevalent in more developed markets, reducing their transformative potential. Overall, institutional ownership remains a critical variable in understanding firm behaviour and performance.

Concept of Foreign Ownership

Foreign ownership refers to the share of equity in a domestic firm that is held by non-resident investors, including multinational corporations, foreign institutional investors, international equity funds, and individual foreign shareholders. It represents the integration of domestic firms into the global capital market and often introduces international governance norms, advanced technologies, and managerial expertise. As noted by Adetunji (2025), foreign investors are typically attracted to firms with strong governance structures, solid growth prospects, and credible financial reporting. Their presence can serve as a signal of confidence, improving a firm's reputation and access to global financial resources. Incorporating perspectives from international business theory, foreign ownership is expected to enhance firm performance through knowledge transfer, improved risk management, and exposure to global markets. Empirical evidence supports this view, with recent studies showing that foreign investors can strengthen monitoring mechanisms and reduce managerial entrenchment (Okafor & Yusuf, 2024). However, other scholars caution that foreign ownership may also introduce challenges, such as vulnerability to external shocks, exchange-rate risks, and potential conflicts between foreign and domestic shareholders (Osei & Abiola, 2021). Moreover, foreign investors often demand high governance standards, which many developing economies struggle to maintain consistently. In the Nigerian context, foreign ownership has grown due to economic liberalization, privatization initiatives, and increasing interest from global investment firms. Despite this growth, barriers such as regulatory uncertainty, market volatility, and limited transparency continue to constrain foreign participation. Studies highlight that the positive effects of foreign ownership in Nigeria are more pronounced in sectors with strong regulatory oversight and high competition (Ogunleye & Fowowe, 2020). Nonetheless, foreign ownership remains an essential component of corporate ownership structure, influencing performance indicators such as Return on Equity through improved monitoring, access to international networks, and enhanced strategic decision-making.

Concept of Financial Performance

Financial performance refers to the ability of a firm to generate sustainable returns from its resources and operations. It encompasses profitability, efficiency, liquidity, and value-creation outcomes that reflect the firm's overall financial health. According to Ezeani (2025), financial performance remains one of the most widely used measures for assessing corporate success because it captures how effectively management utilizes firm assets to generate income. Among the various indicators, return on equity (ROE) stands out as a key accounting-based metric that evaluates the profitability attributable to shareholders. ROE measures the rate of return earned on the shareholders' investment in the firm, calculated as net income divided by total equity. It reflects the firm's efficiency in converting equity capital into profits, making it highly relevant for investors, regulators, and corporate managers. Researchers such as Bello & Haruna (2024) argue that ROE is a more precise indicator of shareholder value creation than return on assets, because it focuses specifically on owners' returns. It also integrates the effects of leverage, operational performance, and managerial decision-

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making. Firms with strong ROE performance are generally perceived as more financially stable and better managed, attracting greater investor confidence.

In corporate governance research, ROE is frequently used to assess how ownership structure, board characteristics, and managerial incentives influence profitability. Several studies have examined how institutional and foreign ownership affect ROE, with findings suggesting that strong monitoring, effective oversight, and improved resource allocation can enhance equity returns (Nnamdi & Nwankwo, 2023). However, other scholars note that governance inefficiencies, excessive leverage, or weak regulatory environments can dilute the expected benefits (Adeyemi, 2020). In Nigeria, ROE remains a central measure for evaluating listed firms' performance due to its relevance for investment decisions and its ability to reflect shareholder wealth creation.

Theoretical Framework

Agency Theory: Agency Theory, developed by Michael C. Jensen and William H. Meckling in 1976, is one of the most influential frameworks for explaining the relationship between ownership structure and firm performance. The theory centers on the inherent conflict of interest between principals (shareholders) and agents (managers) who control day-to-day operations. Because managers may pursue personal benefits rather than maximizing shareholder value, firms face agency problems, which can lead to inefficiency, poor decision-making, and reduced profitability.

According to the theory, the presence of strong monitoring mechanisms can reduce agency costs and align managerial behavior with shareholder interests. This is where institutional and foreign ownership become relevant. Institutional investors such as pension funds and asset management firms typically hold substantial equity stakes, giving them both the incentive and capacity to monitor management more closely. Likewise, foreign investors often demand stricter governance standards, better disclosure practices, and higher accountability due to their global experience and exposure to international regulatory norms. In the context of Nigeria, where weak governance, information asymmetry, and managerial opportunism can undermine performance, Agency Theory explains why institutional and foreign owners may play a corrective governance role. Their monitoring pressure can lead to better strategic decisions, improved resource utilization, and ultimately higher Return on Equity. Thus, Agency Theory provides a strong theoretical foundation for analyzing how ownership structure influences the financial performance of listed firms.

Empirical Review

Recent empirical findings on ownership structure and firm performance in Nigeria continue to evolve, with several studies highlighting both convergences and contradictions. Beginning with the most recent, Oluwole and Nwankwo (2025) examined 42 listed firms and reported that institutional ownership significantly enhances ROE through improved oversight mechanisms, establishing a foundation for the monitoring-effect argument. Building on this, Okafor, Hassan, and Bamidele (2025) found that foreign ownership exerts an even stronger positive influence on ROE in highly regulated sectors, suggesting that external shareholders import stricter governance expectations. However, Nchekwube and Adegboye (2024) offered a contrasting perspective by showing that while institutional ownership improves ROE in large firms, its effect becomes insignificant in medium-sized firms, implying that firm size moderates governance influence. Extending this debate, Usman and Ezeani (2024) found that foreign investors positively affect ROE only when the firm exhibits high disclosure quality, linking ownership effects to transparency levels. In a broader multi-sector analysis, Danladi and Sulaiman (2024) reported that institutional investors increase performance only in firms with lower debt ratios, thereby integrating capital structure considerations into ownership–performance dynamics. Adding nuance, Mbah and Ogundipe (2023) revealed that both institutional and foreign ownership improve ROE but only in firms with effective audit committees, implying a complementary relationship between governance structures. Meanwhile, Chukwu and Ibrahim (2023) focused on consumer-goods firms and observed that institutional ownership sometimes exerts a negative effect on ROE, especially when institutions are passive rather than activist, challenging the blanket assumption of positive monitoring. This aligns with Lawal and Omoregie (2023), who found that foreign ownership may turn insignificant in politically unstable periods, emphasizing contextual risks. Similarly, Ojo and Akpan (2022) documented that institutional investors do not significantly influence

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ROE in firms with dominant family ownership, demonstrating how entrenched control can weaken monitoring benefits. On the other hand, Adewuyi and Salisu (2022) discovered that foreign ownership enhances profitability and ROE in manufacturing firms by promoting better operational efficiency, providing evidence that foreign participation can offset internal inefficiencies. Adding further support, Chinedu and Okeke (2022) reported that both institutional and foreign shareholders jointly improve ROE in capital-intensive sectors, indicating synergistic effects when both ownership types coexist. Earlier analyses also highlighted similar patterns. Olagunju and Adefemi (2021) found a positive but relatively weak relationship between institutional ownership and ROE in the financial services industry, noting that Nigerian institutional investors often behave conservatively, thereby limiting governance impact. Complementing this, Oshodin and Isah (2021) demonstrated that foreign ownership improves ROE primarily in export-oriented firms, reinforcing the idea that foreign investors thrive in internationally linked business models. In one of the more foundational studies within the period, Ebele and Udo (2020) documented that institutional ownership was statistically significant in explaining variations in ROE across listed firms, but foreign ownership showed inconsistent effects due to fluctuating exchange-rate conditions. Finally, Ogunleye and Fabiyi (2020) concluded that ownership structure matters for ROE only when governance frameworks are strong, stressing that institutional and foreign owners yield performance gains only under environments of accountability and transparency.

GAP in literature

Existing empirical studies on ownership structure and firm performance in Nigeria reveal several critical gaps that constrain a comprehensive understanding of how ownership composition influences corporate outcomes. First, much of the literature examines institutional and foreign ownership separately, failing to consider their simultaneous and potentially interactive effects on firm performance. This limits insights into how these ownership types might complement or counterbalance each other in influencing managerial behavior and profitability. Second, many prior studies rely heavily on market-based performance indicators such as Tobin's Q or share price, while underemphasizing accounting-based measures like Return on Equity (ROE), which provide a more direct assessment of shareholder returns and managerial efficiency. Third, existing research often focuses on short time horizons or sector-specific samples, restricting the ability to generalize findings across industries and over time, and neglecting the impact of macroeconomic volatility and regulatory changes on ownership–performance dynamics. Fourth, several studies overlook the role of firm-specific governance structures, such as audit committees and disclosure practices, which may mediate or moderate the effect of ownership on performance. This study addresses these gaps by examining both institutional and foreign ownership simultaneously, employing ROE as a robust accounting-based performance metric, and covering a 14-year period (2011–2024) across 62 listed firms, thereby offering a more comprehensive, longitudinal, and cross-sectoral assessment of ownership structure and corporate performance in Nigeria.

METHODOLOGY

The study adopted an ex-post facto research design to examine the effect of institutional and foreign ownership on the financial performance of listed firms in Nigeria. This design was considered appropriate because the variables under investigation ownership structure and financial performance are historical in nature and cannot be manipulated by the researcher. The study was situated within the Nigerian corporate environment, where listed firms operate under governance frameworks that mandate periodic disclosures of ownership composition, thereby providing a reliable basis for secondary data extraction. Data for the study were sourced exclusively from audited annual reports and financial statements of firms listed on the Nigerian Exchange Group (NGX), complemented by ownership disclosures from NGX Factbooks and corporate governance reports. The target population comprised all 159 firms listed on the NGX during the study period, while the sample of 62 was selected using purposive sampling to include only firms with consistent and complete data on institutional ownership, foreign ownership, and financial performance across the period under review 14 years (2011 -2024). Firms with missing ownership disclosures or inconsistent reporting formats were excluded to ensure the validity and comparability of observations.

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The dependent variable, financial performance, was measured using Return on Equity (ROE), which captures the firm's ability to generate returns for shareholders. The key independent variables were institutional ownership and foreign ownership, measured respectively as the proportion of shares held by institutional investors such as pension funds, insurance companies, and asset management firms, and the proportion of equity held by foreign shareholders. Firm size, leverage, and firm age were incorporated as control variables to isolate the specific effects of ownership structure on financial performance, as these factors have been shown to influence corporate outcomes in emerging markets. Descriptive statistics were used to determine the distribution of the variables, while correlation analysis was performed to provide preliminary insights into the relationships among the study constructs. Given the panel nature of the dataset and the potential for endogeneity arising from reverse causality between ownership structure and firm performance, the study employed the Generalized Method of Moments (GMM) as the primary estimation technique. The GMM estimator was preferred because it effectively addresses endogeneity, serial correlation, and unobserved firm-specific effects while producing consistent parameter estimates. Lagged dependent variables were utilized as internal instruments to enhance estimation efficiency. Model significance was evaluated using t-statistics and probability values at a 5% significance level, while instrument validity and model specification were assessed using the J-statistic and Arellano-Bond serial correlation tests. All statistical analyses were conducted using EViews software.

RESULTS OF ANALYSIS AND INTERPRETATION

Descriptive analysis

The descriptive statistics provide an initial understanding of the characteristics and distributional behaviour of the variables used in the study. This analysis provides an initial understanding of how institutional and foreign ownership, firm size, and leverage relate to return on equity (ROE)

Table 1: Descriptive Statistics of the Study Variables

	ROE	IO	FO	FSIZE	LEV
Mean	97.00220	0.489470	0.47235 0	16.26331	4.076322
Median	9.090000	0.520000	0.00000 0	16.07500	0.904150
Maximum	69697.36	1.470000	1.00000 0	21.30000	161803.5
Minimum	-1964.350	0.000000	0.00000 0	11.73000	-231207.7
Std. Dev.	2393.773	0.266882	0.49952 3	1.887193	9726.141
Skewness	28.45457	-0.207867	0.11076 9	0.236017	-10.08117
Kurtosis	825.6459	2.256232	1.01227 0	2.604585	457.7200
Jarque-Bera	24592789	26.25788	144.672 1	13.71332	7492895.
Probability	0.000000	0.000002	0.00000 0	0.001052	0.000000
Sum	84197.91	424.8600	410.000 0	14116.55	3538.248
Sum Sq. Dev.	4.97E+09	61.75276	216.336 4	3087.818	8.20E+1 0
Observations	868	868	868	868	868

Source: Researcher's output 2025

Return on Equity (ROE) has a mean of 97.00 but a median of only 9.09, indicating that the distribution is highly influenced by a few extremely large positive values. This is further confirmed by the very high maximum value of 69,697.36 and a minimum of –1,964.35, suggesting the presence of outliers and substantial variability in firm

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performance. The extremely large standard deviation (2,393.77) and exceptionally high skewness (28.45) and kurtosis (825.65) confirm that ROE is heavily right-skewed and leptokurtic, implying that most firms have modest ROE values while a few firms report unusually high returns. Both the Jarque-Bera statistic and its probability (0.0000) indicate that ROE is not normally distributed.

Institutional ownership (IO) has a mean of 0.489 and a median of 0.52, suggesting that, on average, institutional investors hold roughly 49% of outstanding shares across firms. The small difference between mean and median implies a more balanced distribution. The standard deviation of 0.27 indicates moderate variability. With skewness close to zero (–0.21) and kurtosis around the normal benchmark (2.26), IO appears fairly normally distributed, although the Jarque-Bera probability (0.000002) still rejects strict normality.

Foreign ownership (FO) has a mean of 0.47 but a median of 0.00, showing that although some firms have significant foreign participation, many have none at all. The maximum value of 1.00 confirms that foreign investors sometimes hold full ownership stakes. The binary-like spread explains the relatively high skewness and kurtosis, and the Jarque-Bera test again rejects normality.

Firm size (FSIZE) is more stable, with a mean of 16.26 and median of 16.08, indicating a fairly symmetric distribution. Its standard deviation of 1.89 shows moderate dispersion, and skewness and kurtosis are close to normal ranges, although normality is still statistically rejected. Leverage (LEV) shows extreme variability, with unusually large maximum and minimum values, a very high standard deviation (9,726.14), and large negative skewness, reflecting substantial differences in firms' capital structures. Overall, the descriptive statistics highlight significant heterogeneity across firms and the presence of non-normality, particularly in ROE and leverage.

Correlation analysis

The correlation results provide insight into the direction and strength of association among the study variables, especially the extent to which institutional ownership, foreign ownership, firm size, and leverage relate to financial performance measured by ROE.

Table 2: Correlation results of the study variables

Correlated Variables	*Coefficient*	*Probability*	*Strength of Association*	*Remarks*
ROE ↔ IO	.000	1.000	Very Weak	Positive and insignificant
ROE ↔ FO	-.038	.269	Very Weak	Negative and insignificant
ROE ↔ FSIZE	-.065	.056	Very Weak	Negative and insignificant
ROE ↔ LEV	-.793**	.000	Strong	Negative and significant
IO ↔ FO	.291**	.000	Weak	Positive and significant
IO ↔ FIZE	.289**	.000	Weak	Positive and significant
IO ↔ LEV	.008	.807	Very weak	Positive and insignificant
FO ↔ FSIZE	.157**	.000	Very Weak	Positive and significant
FO ↔ LEV	.002	.942	Very Weak	Positive and insignificant
FSIZE ↔ LEV	.045	.187	Very Weak	Positive and insignificant

Source: Researcher's output 2025

The correlation between ROE and institutional ownership (IO) is extremely weak and statistically insignificant (r = 0.000; p = 1.000), indicating that institutional investors do not exhibit any meaningful linear relationship with firms' return on equity. Similarly, the correlation between ROE and foreign ownership (FO) is very weak and negative (r = –0.038; p = 0.269), showing that foreign ownership has no significant explanatory connection to firms' performance. The negative sign suggests a slight tendency for ROE to decline as foreign participation increases, but the insignificance implies that this relationship lacks statistical credibility. ROE also shows a very weak and insignificant negative correlation with firm size (FSIZE) (r = –0.065; p = 0.056), suggesting that larger firms do not necessarily generate higher returns for shareholders. Only leverage (LEV) exhibits a strong and significant relationship with ROE (r = –0.793; p = 0.000), implying that higher financial debt levels substantially reduce return on equity. This strong negative association indicates that firms with excessive leverage face higher financing burdens that erode profitability.

Regarding the relationships among independent variables, IO and FO are positively but weakly correlated (r = 0.291; p = 0.000), meaning that firms with higher institutional ownership also tend to attract foreign investors, possibly due to better governance quality. Likewise, IO shows a weak positive and significant correlation with firm size (r = 0.289; p = 0.000), suggesting that larger firms are more attractive to institutional shareholders. The correlation between IO and leverage (r = 0.008; p = 0.807) is negligible and insignificant, implying no meaningful pattern between institutional ownership and debt behavior. FO displays a very weak but significant positive correlation with firm size (r = 0.157; p = 0.000), indicating that foreign investors prefer relatively larger firms. However, its correlation with leverage (r = 0.002; p = 0.942) is practically zero and

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insignificant. Firm size and leverage also exhibit a very weak and statistically insignificant relationship (r = 0.045; p = 0.187), showing that firm size does not influence leverage decisions in a linear form. Overall, the correlation results reveal limited associations between ownership structure and financial performance, while leverage remains the dominant factor influencing ROE.

Cross-section dependence test

The cross-section dependence test provides insight into whether shocks affecting one firm spill over to others within the panel, which in turn determines the appropriate generation of unit root tests to apply.

Table 3: Cross-Section Dependence Test Results of Variables

Variables	Prob.	Generation of Unit Root	Appropriate Method of Unit Root
ROE	0.0000	2nd Generation	Im, Pesaran
IO	NA	1st Generation	LLC
FO	NA	1st Generation	LLC
FSIZE	0.0000	2nd Generation	Im, Pesaran
LEV	0.5647	1st Generation	LLC

Source: Researcher's output 2025

The results show that ROE exhibits significant cross-section dependence (p = 0.0000), indicating strong interlinkages in firms' financial performance, likely due to sector-wide market conditions or macroeconomic influences; thus, a second-generation unit root test such as Im-Pesaran is appropriate. Similarly, firm size (FSIZE) also shows significant dependence (p = 0.0000), meaning size-related shocks are shared across firms, justifying the use of a second-generation approach. Leverage (LEV), however, displays no significant dependence (p = 0.5647), implying firms' debt structures behave independently, making first-generation tests like LLC suitable. Institutional ownership (IO) and foreign ownership (FO) also rely on first-generation unit root techniques due to the absence of cross-section dependence issues in their distributional characteristics.

Panel unit root test

The panel unit root results indicate the stationarity properties of the study variables and determine their suitability for regression analysis.

Table 4: Panel unit root test results on study variables

Series	Unit Root Method	Order	t-statistic	P-value)	Remarks on order of integration
ROE	Im, Pesaran and Shin W	Level	-14.4169	0.0000	*I*(0)
IO	Levin, Lin & Chu t	Level	-19.9442	0.0000	*I*(0)
FO	Levin, Lin & Chu t	Level	-3.1690	0.0008	*I*(0)
FSIZE	Im, Pesaran and Shin W	Level	-0.95057	0.1709	*I*(1)
		First Differencing	-5.66040	0.0000	
LEV	Levin, Lin & Chu t	Level	-22.8431	0.0000	*I*(0)

Source: Researcher's output 2025

ROE is stationary at level using the Im, Pesaran and Shin test (t = –14.4169; p = 0.0000), confirming it is integrated of order zero, I(0). Institutional ownership (IO) and foreign ownership (FO) are also stationary at level under the Levin, Lin and Chu method, with highly significant statistics, indicating they are I(0) variables. Leverage (LEV) similarly shows stationarity at level (t = –22.8431; p = 0.0000), confirming an I(0) process. Firm size (FSIZE), however, is non-stationary at level (p = 0.1709) but becomes stationary after first differencing (p = 0.0000), meaning it is integrated of order one, I(1). Overall, the mixture of I(0) and I(1) variables validates the use of dynamic panel techniques such as GMM for robust estimation.

Table 5: Selection criteria between first differences and system panel GMM regression

Regression Approach	ROE(-1) Coefficient	Remarks	Decision
Pooled OLS	-0.004326	Upper bound	1st Differences GMM is preferred since -0.002907 *is not lower than* -0.031601
Fixed Effect OLS	-0.031601	Lower bound	
1st Differences GMM	-0.002907	System GMM is preferred if ROA (-1) Coefficient from 1st Diff. GMM < lower bound coefficient, otherwise 1st Differences GMM is used.	

Source: Researcher's output 2025

The selection between first-difference GMM and system GMM depends on the ROE(-1) coefficient. Since the 1st-difference GMM estimate (-0.002907) does not fall below the fixed-effects lower bound (-0.031601), system GMM is not justified. Therefore, first-difference GMM is selected as the appropriate estimation technique.

Generalized Method of Moments (GMM) Regression

The GMM regression output examines the dynamic relationship between institutional and foreign ownership and the return on equity (ROE) of listed firms in Nigeria, using a first-difference transformation to address unobserved heterogeneity, endogeneity, and autocorrelation.

Table 6: GMM Test results of the effect of institutional and foreign ownership on ROE

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ROE(-1)	-0.002907	1.63E-06	-1778.777	0.0000
IO	-915.5092	5.670143	-161.4614	0.0000
FO	309.3158	52.36925	5.906440	0.0000
FSIZE	89.40808	0.147186	607.4488	0.0000
LEV	0.003507	4.56E-06	768.8671	0.0000
	Effects Specification			
Cross-section fixed (first differences)				
Mean dependent var	1.418921	S.D. dependent var	607.9307	
S.E. of regression	611.6343	Sum squared resid	2.33E+08	
J-statistic	48.04060	Instrument rank	51	
Prob(J-statistic)	0.312483			

Source: Researcher's output 2025

The coefficient of the lagged dependent variable, ROE (–1), is –0.002907 and statistically significant at the 1% level. This small negative value suggests a very weak inverse persistence in firm performance, implying that past ROE has only a minimal dampening effect on current ROE.

Institutional ownership (IO) has a large negative and significant coefficient (–915.5092), indicating that increases in institutional shareholding reduce ROE. This may reflect monitoring pressures, stringent governance actions, or risk-averse investment policies typically associated with institutional investors. Conversely, foreign ownership (FO) shows a positive and significant coefficient (309.3158), implying that foreign shareholders contribute positively to firm performance, likely due to superior managerial expertise, access to global networks, and stricter performance expectations.

Firm size (FSIZE) also exerts a strong positive influence on ROE (89.40808), suggesting that larger firms benefit from economies of scale, market dominance, and better access to resources that enhance profitability. Leverage (LEV) registers a positive and highly significant coefficient (0.003507), indicating that debt financing contributes positively to returns, possibly due to effective use of borrowed funds and the tax shield benefits of debt.

The diagnostic statistics support the validity of the model. The J-statistic (48.04060) with a probability of 0.312483 exceeds the 0.05 threshold, confirming that the instruments used are valid and uncorrelated with the error term. Overall, the GMM results demonstrate strong explanatory power and suggest that ownership structure and firm-specific characteristics significantly shape financial performance in Nigerian listed firms.

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Arellano-bond serial correlation test

Post estimation test to check for possible existence of autocorrelation problem in the model was conducted using the Arellano Bond Serial Correlation test and the results are shown in Table 7

Table 7: Arellano-bond serial correlation test on ROE model

Test order	m-Statistic	rho	SE(rho)	Prob.
AR(1)	-1.082745	-113450252.894280	104780231.812826	0.2789
AR(2)	0.929219	1026505.896219	1104697.399058	0.3528

Source: Researcher's output 2025

The Arellano-Bond serial correlation test shows no evidence of autocorrelation in the first- or second-order residuals. Both AR(1) (p = 0.2789) and AR(2) (p = 0.3528) probabilities exceed 0.05, indicating the null hypothesis of no serial correlation cannot be rejected, confirming the reliability of the GMM estimates.

Test of hypothesis

H_{01}: Institutional ownership has no significant effect on the return on equity of listed firms in Nigeria

Institutional ownership shows a significant negative effect on ROE, with a coefficient of –915.5092 and p-value of 0.0000. Since the p-value is below 0.05, the null hypothesis is rejected. Institutional ownership significantly reduces ROE, indicating stricter monitoring and risk-averse strategies that may suppress short-term profitability.

H_{02}: Foreign ownership has no significant effect on the return on equity of listed firms in Nigeria

Foreign ownership significantly increases ROE, evidenced by its positive coefficient of 309.3158 and p-value of 0.0000. Because the p-value is below 0.05, the null hypothesis is rejected. Foreign investors enhance performance through superior expertise, governance quality, and access to global resources, improving profitability for listed Nigerian firms.

DISCUSSION OF FINDING

Institutional Ownership and ROE

The study found that institutional ownership significantly reduces the return on equity (ROE) of listed firms in Nigeria, contrary to the a priori expectation that institutional investors generally improve firm performance through monitoring and governance oversight. According to Agency Theory (Jensen & Meckling, 1976), institutional shareholders act as monitors of managerial actions to reduce agency costs, which should theoretically enhance profitability. However, the negative coefficient observed may reflect the passive or overly conservative nature of institutional investors in the Nigerian context, limiting risk-taking and short-term profitability. This aligns with Chukwu and Ibrahim (2023), who reported that institutional ownership sometimes exerts a negative effect on ROE when investors are passive rather than activist, and with Ojo and Akpan (2022), who found that dominant family control can weaken institutional monitoring effects. Conversely, earlier studies such as Oluwole and Nwankwo (2025) and Ebele and Udo (2020) reported positive effects of institutional ownership on ROE, highlighting the role of active oversight and robust governance structures. The findings suggest that institutional influence in Nigeria may be context-dependent, moderated by factors like firm size, capital structure, and managerial discretion. Policy implications include encouraging active participation of institutional investors and strengthening governance frameworks to ensure that institutional involvement translates into improved financial performance rather than restrictive oversight, thereby aligning managerial actions with shareholder value objectives.

Foreign Ownership and ROE

The study also revealed that foreign ownership significantly increases ROE among listed Nigerian firms, consistent with the a priori expectation that foreign investors enhance performance through global expertise and governance practices. Agency Theory posits that external shareholders, including foreign investors, can mitigate agency conflicts by monitoring management and aligning interests with profit maximization (Jensen & Meckling, 1976). The positive and significant coefficient corroborates findings by Okafor, Hassan, and Bamidele (2025), who documented strong performance effects of foreign ownership in regulated sectors, and Adewuyi and Salisu (2022), who linked foreign participation to improved operational efficiency. Supporting evidence from Chinedu and Okeke (2022) and Oshodin and Isah (2021) further emphasizes that foreign shareholders bring managerial expertise, global networks, and disciplined oversight, particularly in capital-intensive or internationally oriented firms. Contrastingly, Lawal and Omoregie (2023) observed that foreign ownership may lose significance during politically unstable periods, highlighting contextual risks. The theoretical implication is that Agency Theory effectively explains foreign investors' positive influence, as their

monitoring reduces managerial discretion and agency costs. From a policy perspective, firms and regulators should facilitate mechanisms that attract and retain foreign investors while promoting transparency, risk management, and strong corporate governance to ensure sustainable improvements in financial performance.

CONCLUSION AND RECOMMENDATIONS

The study shows that institutional ownership significantly reduces ROE, while foreign ownership enhances it among listed Nigerian firms. Ownership structure therefore plays a critical role in shaping financial performance. Strengthened governance, strategic investor participation, and balanced monitoring mechanisms are essential to optimize profitability and sustain long-term firm value. Based on the above, the following recommendations are made

1. Firms should engage institutional investors strategically, ensuring their involvement promotes governance and oversight without excessively constraining profitability. Balancing institutional influence can prevent overly conservative policies that reduce returns.
2. Firms should actively attract and retain foreign investors, leveraging their expertise, global networks, and best practices to enhance operational efficiency and financial performance.

Limitations of the study

1) The study focuses exclusively on listed firms in Nigeria, which may limit the generalizability of the findings to unlisted firms or other emerging economies with different regulatory, institutional, and market dynamics.
2) While the study examines institutional and foreign ownership, it does not disaggregate the types of institutional investors or foreign shareholders, which may have heterogeneous effects on firm performance.

Suggestions for future research

1) Future research could explore the impact of ownership structure on other performance indicators, such as Tobin's Q, return on assets, or operational efficiency, to provide a more holistic view of firm performance.
2) Subsequent studies could investigate the role of specific types of institutional and foreign investors, examining how their investment horizon, activism level, and governance engagement influence firm outcomes across different sectors.

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