OWNERSHIP STRUCTURE AND FINANCIAL PERFORMANCE: AN EMERGING MARKET STUDY

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Abstract

The relationship between ownership structure and firm performance has attracted considerable research attention in corporate governance. Ownership structure has become a critical governance issue for corporate performance. The present study focuses on the impact of block family, and institutional block ownership structure on the performance of listed firms in Nigeria. The three hypotheses for the study sought to establish whether block family ownership, block ownership, and institutional block ownership have any impact on the performance of the selected firms. The sample size consists of 76 non-financial multinational companies listed on the Nigerian Exchange Group (NGX) between 2011 and 2020. The data for the study was obtained from the financial statements of the selected firms. Panel fixed (FE) and random effect (RE) regressions were used to analyse the relationship between ownership structure and financial performance measured by gross profit margin (GPM). The results of the study show a significant impact of all the examined ownership structure variations (block family ownership structure, block ownership and institutional block ownership structure) on the performance of non-financial companies in the emerging market (at p-value < 0.05). This finding is consistent with existing empirical studies and highlights the key role of family ownership and institutional ownership in shaping the performance of non-financial firms in Nigeria. This study makes two important contributions by advancing the debate on the relationship between ownership structure and business performance in emerging markets and by providing a tangible resource for policymakers to promote prudent ownership governance to enhance business performance and sustainability in emerging markets.

Keywords: Ownership Structure, Financial Performance, Family Businesses, Emerging Markets

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1. INTRODUCTION

Corporate ownership structure has been identified as an effective tool to resolve agency problems in organizations and improve performance (Maryanti & Dianawati, 2024). Ownership structure refers to the distribution of a company's shares among different interests (Almashaqbeh et al., 2023,

Alkurdi et al., 2021). It can also be described as the allocation of control rights and residual benefit rights within an organization (Yang & Morgan, 2011). Ownership structure has been attributed to have implications for the success of the firm in terms of decision-making, strategic direction, corporate governance, and financial capability (Camisón-Zornoza et al., 2020; Affes & Jarboui, 2023; Handoyo et al., 2023). The separation of ownership from management has been attributed to conflicts between managers and owners in firms. Agency theory has been widely used as a framework to resolve these conflicts arising from separation. Some researchers have argued that the ownership structure should be organized in such a way that it provides an incentive mechanism that aligns the interests of decision-makers and owners to motivate appropriate actions from managers to guarantee the efficient allocation of resources (Zhou, 2001; Yang & Morgan, 2011). The governance monitoring mechanism has cost implications, and these costs are reduced when the benefits that accrue to the owners from the monitoring are remarkable. In other words, concentration of ownership increases the incentive to monitor the management of companies. The concentration of ownership has been recommended by researchers as a mechanism to ensure the monitoring of management as opposed to diverse ownership. Block ownership has been described as a structure in which shareholders own at least 5% of a company's common shares (Thomsen et al., 2006). Block shareholders can be individuals, families and institutions that own a large block of shares in their firms. Institutional shareholders can include hedge funds, mutual funds, pension funds, and corporations, who may exert their monitoring roles through various mechanisms. (Edmans & Holderness, 2017).

The literature provides insight into the critical role ownership structure plays in a firm's financial performance. The reason is that, beyond the provision of the needed capital, owners also influence investment decisions. Managers are, therefore, responsible for ensuring that corporate resources are used to maximize shareholder wealth. Different types of ownership have different effects on corporate decisions depending on their interests.

Block ownership in corporate governance is a very important internal governance mechanism that ensures the protection of shareholders' interests through appropriate monitoring and control of management (Madhani, 2016). It also provides opportunities that can benefit the owners, such as substitution and expropriation. Substitution benefits the firm by ensuring that appropriate monitoring systems are in place using both internal and external mechanisms to reduce conflicts of interest between owners and management, as well as agency costs. On the other hand, expropriation entails that block ownership can provide an opportunity for majority shareholders to align their interests with those of management against those of minority shareholders, which may involve the conversion of the firm's assets. This situation can create a conflict of interest between majority shareholders and minority shareholders.

However, dispersed ownership is an alternative to block ownership with smallholders who are widely dispersed. This shareholding structure does not provide effective monitoring and control of management, as they will not be willing to bear the agency's cost. This structure does not help in resolving the managerial agency conflict.

This study investigated the impact of ownership structure on the performance of non-financial businesses in Nigeria. Furthermore, the study investigated the impact of block family ownership and institutional block ownership on the performance of the selected businesses. This study contributes to the literature by examining the impact of controlling family and institutional investors in Nigerian businesses. Most of the studies on the ownership of Nigerian firms examined ownership and disclosure. Others that examined firm value or performance investigated the impact of managerial and other factors. So, the current study adopted a broad approach that examined block ownership, controlling family and institutional ownership and their impact on the financial performance of Nigerian businesses.

The remainder of this paper is organized as follows. Section 2 reviews the relevant literature and proposes hypotheses. Section 3 describes the data and the research methodology used in the study. Section 4 presents the results. Section 5 discusses the results and their implications. Section 6 concludes the study, discusses its limitations, and suggests directions for future research.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1. Firm ownership and agency theory

The seminal work by Berle and Means (1932) sparked several research in the area of corporate governance. The research work brought to the limelight the separation of ownership and control in companies referred to as the principal-agency relationship. Shareholders or investors provide the required resources to companies but do not have the competence to manage the resources leading to the assignment of that responsibility to managers. Managers on their own would prefer to pursue other self-interests by maximizing their benefits such as engagement in wasteful investment, or excessive salaries and perks (Edmans, 2014) at the detriment of shareholder value. However, this tendency is checked by large blockholders who exert governance through their monitoring role. Many researchers have affirmed that ownership structure is at the root of agency conflicts (Jensen & Meckling, 1976). Waseemullah and Hasan (2017) discussed two major agency problems that could arise in a family company as a result of the separation of ownership from control. The first conflict is between managers and shareholders, which could be addressed through the involvement of a family member in the management or board. The second conflict is between the dominant family shareholders and external shareholders. This second one according to the scholars could be challenging and have implications for the performance of the company.

Block ownership has become a widely used corporate governance tool in many countries of the world (Edmans, 2014). Shleifer and Vishny (1997) affirmed that ownership addresses the question of allocation of control rights between the managers and shareholders. However, the block ownership structure comes with the problem of information

asymmetry and possible misalignment of interests in the firm. Block shareholders tend to exert undue influence on the management which gives unfettered access to certain information. This information asymmetry could lead to the conversion of the firm resources to serve their self-interests against the minority shareholders, especially using the instrumentality of pyramiding and tunnelling. A pyramidal shareholding structure describes a situation where the block shareholder exerts some form of control over a group of firms in which the shareholder has interests. This allows the entity, maybe a company or family, to move resources from one company to the other to the detriment of the minority shareholders. This could be in the form of internal asset sales, equity sales, transfer pricing contracts, or cash appropriation (Riyanto & Toolsema, 2008). In tunnelling the transfer is from a lower-level firm to a higher-level firm in the chain (Riyanto & Toolsema, 2008).

2.2. Family ownership and firm performance

There is no agreement by researchers on whether family businesses outperform non-family businesses (Stryckova, 2023), however, there are some characteristics of family businesses that have implications for their performance. A variety of variables, characteristics and percentages of share ownership have been used by researchers to describe family businesses. One of such definitions identified four different entities with distinct cultures that made up the family business system such as the business itself, the owning family, the founder, and the board (Beckhard & Dyer, 1983; Stryckova, 2023). Others have used the size of investment controlling decision-making rights, and presence in the governance of the business (Ampenberger et al., 2013; Vandebeek et al., 2016, European Commission, 2009), yet there is no agreement on the percentage of ownership. Specifically, Ampenberger et al. (2013) recommended a minimum of 25% of voting rights, and the presence of the founding family on the management and supervisory boards.

There are varied opinions in the literature on the effect of family involvement on the performance of family businesses due to differences in focus and country specifics. However, some agree that firm performance is dependent on the management and nature and degree of family involvement (Chahal & Sharma, 2022; Zellweger et al., 2010). Kellermanns et al. (2012) and Zellweger et al. (2010) affirmed that family involvement can have both positive and negative outcomes on the performance of family firms. Zellweger et al. (2010) argued that family involvement can lead to families, which are unique, inseparable, and synergistic resources and capabilities associated with family ownership. They further identified three components of family involvement, essence, and family firm identity as capable of affecting family firms' competitive edge.

Based on the above, we propose to test the following null hypothesis:

$H1_0$: There is no significant impact of family ownership on the performance of non-financial firms in Nigeria.

2.3. Block ownership and firm performance

When controlling shareholders retain substantial cash flow rights and control in a firm, they are also motivated to strengthen their monitoring role on managers, as well as maximize their profit. This in some way also reduces the tendency for expropriation by the controlling shareholders (La Porta et al., 1999). Again, block ownership tends to resolve the managers-owners conflict. However, this is not without its challenges, as it may promote conflict between blockholders and minority shareholders (Madhani, 2016). Brockman and Yan (2009) affirmed that through their monitoring role, blockholders help reduce agency costs between the inside and outside shareholders.

Literature has shown that various ownership types impose distinct organizational structures, cultures, and business processes, which expose them to various institutional constraints and competitive advantages (Chen & Hua Tan, 2013; Handoyo et al., 2023). Ownership structure can have a remarkable impact on a firm's decision and policy outcomes and is associated with firm efficiency and reduction in the cost of equity (Handoyo et al., 2023).

In contrast, some studies did not find any statistically significant relationship between concentrated ownership and firm performance (Tsegba et al., 2014). We, therefore, test the following null hypothesis:

$H2_0$: Block ownership has no statistically significant effect on the performance of non-financial firms in Nigeria.

2.4. Institutional block ownership and firm performance

Institutional ownership as an important aspect of external corporate governance plays a key role in corporate practice (Alkurdi et al., 2021; Bushee et al., 2014). Institutional shareholders have both the incentive and the power to monitor and influence decision-making to protect shareholders (Bushee et al., 2014). Recent studies have shown a remarkable growth in institutional equity ownership in many countries of the world over the years (Alvarez et al., 2018; Aggarwal et al., 2011; Borochin & Yang, 2017, Martínez-Ferrero & Lozano, 2021; Guo et al., 2023). This has been attributed among other things, to corporate governance standards and development of the private pension fund industry (Alvarez et al., 2018).

Institutional investors can gather information, which enables them to impose market discipline on management. Literature indicates that types of institutional investors have different effects on corporate performance. The major distinguishing characteristic is the portfolio turnover and holdings concentration (Borochin & Yang, 2017). Institutional investors can be classified into two using Bushee's (2001) framework as either transient or dedicated investors. Transient investors have a very short-term focus and hold small positions in their firms. Dedicated institutional owners, on the other hand, are long-term-oriented and have concentrated positions. This classification has generated a lot of debate on the actual benefit of institutional investors in terms of improvements in market efficiency or the provision of corporate governance. While some researchers believe that institutional investors have improved governance others argue that, easy access to information has resulted in opportunistic behaviors that exert pressure on managers to achieve short-term results at the expense of long-term performance.

Borochin and Yang (2017) affirmed that studying the different classifications of institutional investors will yield better results than institutional investors as a group. Findings of the study show that firms with more long-term institutional investors outperform those with fewer of them. Based on the above, we form the null hypothesis below:

$H3_0$: There is no significant effect of institutional block ownership on the performance of non-financial firms in Nigeria.

3. RESEARCH METHODOLOGY

3.1. Research design

The research design is a methodological connection between the philosophies and the subsequent selection of data collection methods (Denzin & Lincoln, 2011). The research work adopted the *ex post facto* research design. *Ex-post facto* means after the event, meaning that the events under investigation had already taken place and data already exist. The choice of ex-post facto research design is based on the fact that the study relies on historical accounting data obtained from annual reports and accounts.

3.2. Population of the study

The population of the study comprises quoted non-financial firms on the Nigerian Exchange Group (NGX) as of the end of the 2023 financial year. The number of firms included in the various sectors that constitute the population of the study is shown in Table 1 below.

Table 1. Number of firms by sector

No.	*Sector*	*Number of firms*
1	Agriculture	5
2	Conglomerates	5
3	Construction/real estate	9
4	Consumer goods	20
5	Financial services	52
6	Healthcare	10
7	Information and communications technology (ICT)	9
8	Industrial goods	13
9	Natural resources	4
10	Oil and gas	12
11	Services	25
Total		**164**

Source: Authors' elaboration.

3.3. Sample size of the study

The study was limited to multinational non-financial firms in Nigeria. Multinational companies are companies that have operations in one foreign country besides Nigeria. Seventy-six (76) listed multinational non-financial companies were selected using the purposive sampling technique; the decision was premised on the classification of the firms as non-financial (based on the nature and description of activities) as shown on the NGX website. The sample selection criteria are shown in Table 2.

The exclusion of some sectors is consistent with previous studies where financial sector companies were mostly excluded due to different regulatory environments, as well as the difficulty of estimating discretionary accruals for these companies (Abid et al., 2018; Tsipouridou & Spathis, 2012). In addition, during the data analysis, any company whose required data is incomplete or unavailable will be eliminated from the sample. The final sample percentage relative to the population was approximately 46.34% of all listed non-financial companies on NGX.

Table 2. Companies excluded from the final dataset by industry

Sector/criteria	*Number of firms*
Initial samples	164
Less: Financial services	52
Less: Consumer goods	10
Less: Industrial goods	09
Less: Healthcare	07
Less: Agriculture	04
Less: Conglomerate	03
Less: ICT	03
Total sample size	**76**

Source: Authors' elaboration.

3.4. Sources of data

Data collection is a crucial stage of the research that entails gathering all the necessary and required information from essential sources to be used for the analysis (Krishna & Kumar, 2011). The data for this study was obtained from secondary sources. Secondary data is information or data that has previously been collected and recorded for other purposes (Blumberg et al., 2008). One of the major advantages of secondary data is that analysis time can be saved (Blumberg et al., 2008). The data for the analysis were extracted from the annual reports and accounts of the selected companies. In particular, the statement of financial position (balance sheet), statement of profit or loss and other comprehensive income, and statement of cash flows will provide the data for calculating the selected ratios.

3.5. Methods of data analysis

The study provided descriptive statistics to understand the data in terms of mean, standard deviation, maximum, and minimum. Correlation analysis was also conducted to express the relationship between the independent and dependent variables used in this study. To achieve the objective of the study, panel fixed (FE) regression and random effects (RE) regressions were used as mentioned in the following subsections[1]. Specifically, the econometric techniques adopted in this study are the panel FE and RE regression methods. The rationale for using them is based on the following: 1) the data collected may have time and cross-sectional attributes including across the sampled firms (cross-section); 2) panel data regression provides better results since as it uses a large observation and reduces the problem of degree of freedom; 3) it avoids the problem of multicollinearity and helps in capturing the individual cross-sectional (firm-specific) effects that different pools may exhibit with respect to the dependent variable in the model.

3.5.1. Model specification

Based on the theoretical literature and earlier empirical studies, the present study adapted the model of Gholami et al. (2022) to express the econometric form of the model.

[1] Panel data is a type of data that is collected by observing particular variables over a period of time at a regular frequency. It has the same number of years and the same number of companies.

$$GPM_{it} = \beta_0 + \beta_1 BFO_{it} + \beta_2 BO_{it} + \beta_3 BIO_{it} + \beta_4 FSize_{it} + \beta_5 LEV_{it} + \mu_{it} \quad (1)$$

where, *FSize* = firm size; *LEV* = leverage; β_0 = constant; β_1–β_5 = slope coefficient; μ = stochastic disturbance; i = company; t = period.

4. RESEARCH RESULTS

4.1. Data presentation

This study was set to investigate the effect of ownership concentration on the performance of non-financial firms in Nigeria between the periods of 2011–2020.

4.1.1. Descriptive statistics

Table 3 displays the descriptive statistics for the study which describes the nature of the variables used.

Table 3 provides a quick summary of the central tendency (mean), spread (standard deviation), and range (min and max) of this study reflecting 756 observations from non-financial companies over and 10-year period. The dataset recorded only four missing values arising from the computation of gross profit margin (*GPM*). This means that there were no instances of missing values in other variables. In the case of the dependent variable, Table 3 shows that the studied firms have an average performance score of 26.6%, as in the case of GPM. The mean value of block family ownership is 7.31, suggesting that on average 7.3% of firms in the entire sample have family block ownership and control. The standard deviation of 14.42 indicates that there is significant variation in block family ownership values.

Table 3. Descriptive statistics

Variable	*Description*	*Observations*	*Mean*	*Std. dev.*	*Min*	*Max*
GPM	Gross profit margin	756	0.2662141	0.3325539	-3.100749	0.9422573
BFO	Block family ownership	756	7.310526	14.42014	0	73
BO	Block ownership	756	55.96974	21.46242	0	98
BIO	Block institutional ownership	756	49.18158	23.40540	0	98
LEV	Leverage	756	-1.255539	54.17515	-1483.99	99.69
FSize	Firm size	756	16.3676	1.888974	12.06417	21.42758

Source: Authors' elaboration.

More so, the mean value of block ownership is 55.97, suggesting that, on average, 56% of firms in the entire sample have block ownership and control. The standard deviation of 21.46 shows that there is also a significant variation in block ownership values.

Furthermore, the mean value of institutional block ownership is 49.18, suggesting that, on average, 49% of firms in the entire sample have block institutional ownership and control. The standard deviation of 26.40 shows that there is also a significant variation in block institution ownership values.

The average leverage in the dataset is approximately -1.26, indicating that, on average, companies are negatively geared to the tune of -1.2555. The high standard deviation of 54.47 suggests significant variation in leverage ratios.

Summarily, the average firm size is approximately 16.37, which is a measure of the size of the companies in the dataset. The standard deviation of 1.89 suggests some variability in firm sizes.

4.1.2. Normality test

The dataset was tested for normality of distribution at the 0.05 (5%) significance level. If the probabilities are greater than 0.05, it indicates that the data was *normally* distributed. Conversely, if the probabilities are less than 0.05, it indicates that the data was *not normally* distributed. Table 4 below shows the result of testing the normality of the data set using the Shapiro-Wilk W test for normal data on STATA 14.2.

Table 4. Shapiro-Wilk W test for normal data

Variable	*Observations*	*W*	*V*	*Z*	*Prob > Z*
GPM	756	0.66532	163.662	12.478	0.00000
BFO	756	0.83530	80.925	10.757	0.00000
BO	756	0.97865	10.490	5.754	0.00000
BIO	756	0.96589	16.762	6.902	0.00000
LEV	756	0.02699	478.093	15.105	0.00000
FSize	756	0.98714	6.287	4.500	0.00000

Source: Authors' elaboration.

The test shows that the variables had Z-statistics of 12.48, 10.76, 5.75, 6.90, 15.11, and 4.50 for *GPM, BFO, BO, BIO, LEV*, and *FSize,* respectively. Shapiro-Wilk test also revealed the probability of Z-statistic is 0.0000 for all variables. The decision rule is that if the p-value is greater than 0.05 (p-value > 0.05) then the data is assumed to meet normality assumptions otherwise, the data is assumed not normal. The result implies that the data was not normally distributed since the probabilities of the Z-statistic were less than 0.05. However, the was continued with non-parametric regression analyses without the intention of the researcher to change the data but to carefully interpret the probability statistics against the t-statistic as recommended by Gujarati (2004).

4.2. Data analyses

To achieve the objectives of the study, the pooled ordinary least square (OLS) regression was conducted before proceeding to check for inconsistencies in the basic assumptions of the OLS regression and a test for deciding which method is most appropriate between FE and RE. These

diagnostics tests include multicollinearity test, Hausman test, and Lagrange multiplier (LM) test. They were preceded by tests for correlation between dependent variables and independent variables of the study. Therefore, Spearman rank correlation analysis was conducted to test this relationship and relationship as shown below.

4.2.1. Correlation analysis

In examining the association among the variables, this study employed the Spearman rank correlation coefficient (correlation matrix), and the results are presented in Table 5 below.

Table 5. Correlation matrix

Variable	*GPM*	*BFO*	*BO*	*BIO*	*LEV*	*FSize*
GPM	1.0000					
BFO	-0.0880	1.0000				
BO	0.0306	-0.0772	1.0000			
BIO	0.0431	-0.4838	0.8651	1.0000		
LEV	-0.0013	-0.0138	-0.0161	-0.0050	1.0000	
FSize	0.0788	-0.3771	0.1638	0.3036	0.0832	1.0000

Source: Authors' elaboration.

The result of the correlation analysis in Table 5 above between the independent and dependent variables shows that there is a weak negative correlation (-0.0880) between gross profit margin (*GPM*) and block family ownership (*BFO*). This suggests that as one variable increases, the other tends to decrease as well. In other words, companies with high family ownership tend to have lower GPM and, as a result, lower return on assets (ROA).

The correlation matrix also revealed a weak negative correlation (-0.0013) between gross profit margin (*GPM*) and leverage (*LEV*). Companies with higher leverage tend to have lower GPM and, as a result, lower ROA, indicating a negative relationship between these variables. Finally, there is a weak positive correlation (0.0788) between gross profit margin (*GPM*) and size (*FSize*). This suggests a small positive relationship, but it is not very strong.

4.2.2. Regression analysis

Specifically, the study used FE and RE panel regression analysis to examine the causal relationships between the variables and to test the formulated hypotheses. The Hausman test was used to confirm the choice between FE and RE regression models.

To control the adverse effect of outliers in our analysis, the study transformed all variables such as total assets (*FSize*) which have wider scale to their natural logarithmic value. The regression results obtained from the combined regression analyses are presented and discussed in Table 6. It comprises the results of the OLS regression model and panel data regression with FE and RE.

Table 6. Combined regression result

Variable	*Model 1*	*Model 2*	*Model 3*
	GPM Model (Pool OLS)	*GPM Model (FE)*	*GPM Model (RE)*
_cons	0.098 (0.407)	-0.636 (0.163)	-0.101 (0.630)
BFO	-0.004 (0.009)**	-0.002 (0.225)	-0.004 (0.018)**
BO	0.004 (0.045)**	0.005 (0.005)**	0.005 (0.002)
BIO	-0.003 (0.050)**	-0.007 (0.000)**	0.006 (0.000)
LEV	-0.000 (0.875)	0.000 (0.732)	0.000 (0.836)
FSIZE	0.009 (0.175)	0.060 (0.032)**	0.024 (0.064)*
F-stat	2.37 (0.038)**	5.44 (0.000)**	18.69 (0.002)**

*Note: p-values are in parentheses. * and **, imply statistical significance levels at 5% and 1%, respectively.*
Source: Authors' elaboration.

The F-statistic

A large F-statistic (F-stat) with a small probability value (p-value) means that the null hypothesis should be rejected, and we would assert that there is a general relationship between the dependent and independent variable, while a small F-stat, with a large p-value, would indicate that no relationship. The decision rule was to reject the null hypothesis at a significance level of p-value less than 5% (i.e., p-value < 0.05). Therefore, both from the entries in Table 6 and with regards to GPM, the F-stat values from the pooled OLS, FE, and RE regression are 2.37, 5.44, and 18.69 and the p-values are 0.038, 0.000, and 0.002, respectively (< 0.05), suggesting that we reject the null hypothesis and accept the alternate. This indicates that our regression models were statistically significant overall at the 5% significance level. Therefore, the regression model is valid and can be used for statistical inference. However, the study conducted some post-regression tests to further validate the OLS regression estimates, as shown below.

Multicollinearity test

The presence of multicollinearity among the independent variables will result in less reliable

statistical inferences. When multicollinearity occurs, there must be large standard errors in the estimated coefficients. However, multicollinearity is not a problem of the model and does not affect the Best linear unbiased estimators (BLUE) properties of the OLS estimates. The degree of multicollinearity can be tested using certain statistical tools such as the variance inflation factor (VIF). The VIF test helps us reveal whether there are multicollinearity issues in the specified model (Almeyda & Darmansya, 2019).

A VIF test result of a value greater than 10 is an indication of the presence of multicollinearity and calls for concern. From the records in Table 7, the mean VIF value of 5.75 indicates the absence of multicollinearity in the models, and this suggests that no independent variable should be dropped from the models.

Table 7. Variance inflation factor

Variable	*VIF*	*1/VIF*
BIO	13.05	0.076622
BO	10.05	0.099526
BFO	3.42	0.292435
FSIZE	1.20	0.832114
LEV	1.01	0.991797
Mean VIF	5.75	

Source: Authors' elaboration.

Fixed and random effect regression test

The fixed effects model according to Ajibolade and Sankay (2013) is the main method of panel data analysis used when it becomes important to control for omitted variables that vary between cases, but remain constant over time. The decision rule remains to reject the null hypothesis if the p-value is less than 5% (i.e., p-value < 0.05).

Table 8. Hausman test

Variable	*Coefficients*		*(b-B) Difference*	*sqrt [diag(V_b-V_B)] Std. Error*
	(b) Fixed	*(B)*		
BFO	-0.0024807	-0.040199	0.0015392	0.0011448
BO	0.0051916	0.0054409	-0.0002494	0.0006709
BIO	-0.0074046	-0.0060629	-0.00134127	0.0005084
LEV	0.0000639	0.0000385	0.0000254	0.0000182
FSIZE	0.0607616	0.0238905	0.0368711	0.0252895

b = consistent under H_0 and *Ha*; obtained from *xtreg*.
B = inconsistent under *Ha*, efficient under H_0; obtained from *xtreg*.
Test of H_0: Difference in coefficients not systematic
Chi^2 (5) = (b-B)'[(V_b-V_B)^(-1)](b-B) = 11.55
Prob > Chi^2 = 0.0414

Source: Authors' elaboration.

The Hausman specification test helps to resolve which one to use. Specifically, as seen in Table 8 above, the Hausman test result of 11.55 has a p-value of 0.0414. This implies that we fail to reject the null hypothesis and conclude that the RE regression is appropriate for testing the hypotheses.

The result of the Hausman specification test, however, is verified with another model called the Breusch and Pagan LM test (for serial correlation), also known as the LM test.

The outcome of the LM test for RE conducted showed a value of 430.66 has a *p*-value of 0.000, thereby favouring the RE model as most appropriate for validating the hypotheses (see Table 9).

Table 9. Lagrange multiplier (LM) test

The Breusch-Pagan LM test for RE: GPM[id,t] = Xb + u[id] + e[id,t]		
	Var	*sd = sqrt(Var)*
GPM	0.1105921	0.3325539
e	0.0688168	0.2623296
u	0.0418124	0.2044807
Test: Var (u) = 0 chibar2(01) = 430.66 Prob > chibar2 = 0.0000		

Note: e — idiosyncratic error or within-entity error, u — firm-specific effect or between-entity error.
Source: Authors' elaboration.

4.3. Test of hypotheses

Following the above discussion, the RE regression model was used in this study to test the hypotheses of the study (see column (3) in Table 6). Below is the specific analysis for each of the independent variables using RE regression.

4.3.1. Analysis of the first hypothesis

The results obtained from the RE regression as shown in Table 6 (Model 3) revealed that block family ownership (*BFO*) disclosure in listed non-financial firms in Nigeria has a coefficient of (-0.004) with a p-value of 0.018, which is below the significance threshold of 0.05. The result of -0.004 is an indication of a significant negative relationship between the independent and the dependent variables. This means that an increase in family ownership will lead to a proportionate decrease in the dependent variable, financial performance measured as the *GPM* of the firms under study. Our decision rule is to reject the null hypothesis where the p-value is less than 0.05 (5%). Therefore, since the p-value of *BFO* is 0.018 which is lower than 0.05, we reject the null hypothesis and conclude that there is a significant effect of block family ownership on the performance of non-financial firms in Nigeria.

4.3.2. Analysis of the second hypothesis

The results obtained from the RE regression as shown in Table 6 (Model 3) revealed that block ownership (*BO*) disclosure in listed non-financial firms in Nigeria has a coefficient of 0.005 with a p-value of 0.002 which is below the significance threshold of 0.05. The result of 0.005 is an indication of a significant positive relationship between the independent and the dependent variables. This implies that an increase in block ownership will lead to a proportionate increase in the dependent variable, financial performance measured as the *GPM* of the firms under study. Our decision rule

is to reject the null hypothesis where the p-value is less than 0.05 (5%). Consequently, since the *BO*'s p-value is 0.002 which is below 0.05 we, therefore, reject the null hypothesis and conclude that block ownership has a statistically significant effect on the performance of non-financial firms in Nigeria.

4.3.3. Analysis of the third hypothesis

Finally, the results obtained from the RE regression as shown in Table 6 (Model 3) revealed that institutional block ownership (*BIO*) disclosure in listed non-financial firms in Nigeria has a coefficient of 0.006 with a *p*-value of 0.000 which is below the significance threshold of 0.05. The result of 0.006 is an indication of a significant positive relationship between the independent and the dependent variables. This implies that an increase in institutional block ownership will lead to a proportionate increase in the dependent variable, financial performance measured as the *GPM* of the firms under study. The decision rule is thus to reject the null hypothesis where the p-value is less than 0.05 (5%). Consequently, since the *BIO*'s p-value is 0.000 which is below 0.05 we, therefore, reject the null hypothesis and conclude that there is a significant effect of institutional block ownership on the performance of non-financial firms in Nigeria.

5. DISCUSSION

The findings from the current study, which focused on the impact of block family ownership, block ownership, and institutional block ownership on the performance of non-financial firms in Nigeria, align with and contribute to the existing empirical literature on family businesses, ownership structures, and their impact on business outcomes.

The current study establishes a significant impact of block family ownership on the performance of non-financial firms in Nigeria. This finding resonates with the work of Badrul Muttakin et al. (2014), who examined the impact of family ownership on firm performance in Bangladesh. The findings of the study show a positive relationship between family ownership and firm performance.

Similarly, the study found a significant effect of institutional ownership on the performance of non-financial firms in Nigeria. This is consistent with the broader literature on ownership structures, as well as the findings of Salihu et al. (2024). The scholars recommended that firms should adopt transparent corporate governance strategies that attract institutional investors because of their value-adding expertise, monitoring capabilities, and long-term investment potential.

The empirical review also provides context for the current findings by showcasing similar studies in different regions and industries. While the current study did not directly focus on business size, the positive impact of block family ownership on performance may indirectly relate to the size and influence wielded by such ownership structures.

It is, however, noteworthy that the empirical review includes studies from various countries such as Ghana, the United Kingdom, China, South Africa, and India. This diversity underscores the generalizability of certain findings across different cultural and business contexts. The discussion should acknowledge that while the current study focuses on Nigeria, the broader empirical evidence suggests that the impact of ownership structures on business outcomes is a universal concern for family businesses. In conclusion, the current study's findings on the impact of block family ownership and institutional ownership on non-financial firms' performance in Nigeria align with existing research on governance structures, ownership models, and their influence on various aspects of family businesses.

6. CONCLUSION

In line with the decision rule governing our analysis, the findings emanating from the data analysis are summarized as follows:

1. There is a significant impact of block family ownership on the performance of non-financial firms in Nigeria (p-value < 0.05).

2. Block ownership has a statistically significant effect on the performance of non-financial firms in Nigeria (p-value < 0.05).

3. There is a significant effect of institutional block ownership on the performance of non-financial firms in Nigeria (p-value < 0.05).

This study underscores the pivotal role of family ownership and institutional ownership in shaping the performance of non-financial firms in Nigeria. The findings resonate with existing empirical research, emphasizing the importance of effective governance structures and diversified ownership models in businesses. Aligning with global trends identified in previous studies in Ghana, the United Kingdom, China, South Africa, and India, these results suggest universal considerations for businesses. Recognizing the impact that ownership structures provides valuable insights for practitioners and policymakers, urging them to foster sound governance and diverse ownership to enhance the performance and sustainability of businesses in emerging economies.

Based on the above findings and conclusion, the study, therefore, makes the following recommendations:

1. *Strengthen governance frameworks*: Given the significant impact of block family ownership on non-financial firm performance, businesses in Nigeria should prioritize the establishment of robust governance frameworks. This involves implementing effective governance mechanisms, as highlighted by Salihu et al. (2024), to enhance financial stability and overall business performance.

2. *Promote effective ownership transfer strategies:* Building on insights from Dekom et al. (2024) and Dike et al. (2025), businesses in Nigeria should plan and implement effective ownership transfer strategies. Recognizing the positive association between ownership transfer mechanisms and sustainability, businesses can secure long-term success by facilitating seamless transitions and continuity within the family ownership structure.

3. *Diversify ownership structures*: In light of the substantial influence of institutional ownership on performance, non-financial firms should consider diversifying ownership structures. Ciftci et al. (2019) findings support the idea that corporate ownership structures encourage innovation and improved capability. Integrating institutional ownership can contribute to a more innovative and resilient business environment.

The findings of this study have some limitations. The study examined the financial performance of the selected firms to arrive at the findings of this research work. The authors therefore call for further investigation of the subject by taking a broader approach that will include both financial performance and market value (Tobin's Q) of the firms. Again, emerging markets may have a high level of government involvement in the ownership of businesses. Therefore, future studies may be expanded to include other types of ownership such as the government and managerial forms as well. These limitations notwithstanding, the study made valuable contributions to the agency theory concept in explaining the relationship between managers and owners. It also made remarkable contributions to the discussion on the relationship between ownership and performance.

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