



Managerial Ownership and Tobin's Q Ratio

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Abstract: This study addresses the persistent concern over fluctuating firm value among listed Deposit Money Banks (DMBs) in Nigeria, despite ongoing corporate governance reforms, with particular attention to the role of managerial ownership in influencing market-based performance, the effect of managerial ownership on firm value remains unclear in Nigeria's Deposit Money Banks, as empirical evidence is mixed and the unique banking environment may cause managerial shareholding to either enhance or erode Tobin's Q. therefore, the study examines the effect of managerial ownership on Tobin Q' ratio of listed deposit money banks in Nigeria over the period 2015-2024. A panel data methodology was employed, incorporating pre-estimation tests (unit root, multicollinearity, heteroskedasticity, and cointegration), while the Fully Modified Ordinary Least Squares (FMOLS) and Error Correction Model (ECM) techniques were used for long-run and short-run estimations, respectively. Firm value was proxied primarily by Tobin's Q, alongside Return on Assets (ROA), Return on Equity (ROE), and Earnings Per Share (EPS). The findings reveal that executive directors' shareholding has a positive and statistically significant effect on firm value, whereas CEO ownership and non-executive directors' ownership exert significant negative effects, suggesting the presence of managerial entrenchment at higher ownership levels. Overall, the study concludes that managerial ownership has a mixed and non-linear impact on firm value in Nigeria's banking sector. It is therefore recommended that regulatory authorities and bank management establish optimal ownership thresholds and strengthen corporate governance mechanisms to prevent excessive concentration of control and enhance firm value.

Keywords: Managerial Ownership, Tobin's Q, Firm Value, Corporate Governance

INTRODUCTION

The primary objective of any firm is to maximize profit and, ultimately, enhance shareholders' wealth. This foundational principle underscores the rationale for corporate existence, as firms are established with the clear purpose of creating value for their owners. Shareholders are more inclined to invest in firms that demonstrate strong prospects for wealth maximization, reflected in rising firm value and improved financial performance (Thaharah & Asyik, 2016). Firm value, therefore, serves as a critical indicator of how effectively management utilizes corporate resources to generate returns. It encapsulates both market-based and accounting-based measures, including Tobin's Q ratio, which compares a firm's market value to the replacement cost of its assets. A higher firm value signals strong investor confidence, efficient resource utilization, and sustainable profitability (Gill & Mathur, 2024). Consistent with the theory of the firm, organizations strive to maximize corporate value as a pathway to long-term growth and competitive advantage (Wiyono & Kusuma, 2017). In contemporary corporate finance discourse, Tobin's

Q ratio has gained prominence as a robust proxy for firm value due to its forward-looking nature and its ability to capture market perceptions of a firm's future growth potential. Firms with high Tobin's Q are generally perceived as having superior investment opportunities and efficient management practices. Consequently, understanding the determinants of Tobin's Q has become essential for investors, policymakers, and corporate managers seeking to enhance firm performance and market valuation.

One of the critical determinants of firm value within the framework of corporate governance is ownership structure, particularly managerial ownership. Good corporate governance mechanisms are expected to align the interests of managers and shareholders, thereby minimizing agency conflicts and promoting value creation (Kurniati, 2019). Managerial ownership, defined as the proportion of equity held by directors and top executives, plays a significant role in this alignment process. According to agency theory, when managers hold a substantial stake in the firm, their interests converge with those of shareholders, incentivizing them to make decisions that enhance firm value. This convergence of interest hypothesis suggests that managerial ownership can positively influence Tobin's Q by improving managerial accountability and performance (Antón et al., 2023). However, beyond a certain threshold, increased managerial ownership may lead to entrenchment, where managers prioritize personal benefits over shareholder wealth, potentially diminishing firm value.

In Nigeria, the banking sector represents a vital component of the economy, with Deposit Money Banks (DMBs) playing a central role in financial intermediation, capital formation, and economic stability. Following the 2004 banking consolidation and subsequent regulatory reforms, there has been heightened emphasis on corporate governance and ownership structures as mechanisms for enhancing firm performance and stability (Bernard, 2022). Despite these reforms, the ownership structure of Nigerian banks remains complex and often opaque, characterized by a mix of managerial, institutional, foreign, and sometimes state ownership. These diverse ownership patterns significantly influence corporate decision-making, risk-taking behavior, and overall firm value.

Empirical evidence on the relationship between managerial ownership and firm value in Nigeria remains inconclusive. Some studies report a positive association, suggesting that increased managerial stakes enhance firm performance and market valuation (Uwugbe & Olusanmi, 2012), while others find negative or insignificant effects due to entrenchment and governance challenges (Obembe & Soetan, 2015). These mixed findings are further complicated by Nigeria's unique institutional environment, characterized by regulatory instability, information asymmetry, and underdeveloped capital markets (Adeyemi et al., 2025). As a result, the impact of managerial ownership on Tobin's Q and overall firm value may vary depending on firm-specific and macroeconomic conditions. Moreover, firm liquidity and market characteristics also play a crucial role in shaping the ownership-value relationship. Firms with higher liquidity, larger size, and better financial performance tend to exhibit higher Tobin's Q ratios, reflecting favorable market valuation (Nguyen, 2022). Liquidity facilitates ownership adjustments, allowing managers to diversify their holdings without significantly affecting stock prices, consistent with the lifecycle theory of managerial ownership (Minh Ha et al., 2022). Conversely, illiquid markets may hinder ownership changes, leading to prolonged managerial control and potential value erosion.

Despite extensive research on ownership structure and firm value, significant gaps remain in the Nigerian context. Existing studies have largely focused on isolated ownership variables or single performance indicators, with limited attention to the combined effect of managerial ownership on multiple dimensions of firm value. Furthermore, the paradoxical nature of managerial ownership where it can either enhance or erode firm value has not been sufficiently explored using comprehensive and recent data. Against this backdrop, this study seeks to provide empirical evidence on the effect of managerial ownership on Tobin's Q ratio, among listed Deposit Money Banks in Nigeria.

REVIEW OF LITERATURE

Conceptual Review

Tobin's Q Ratio

Tobin's Q is a performance metric to evaluate firms and assess management effectiveness in effectively managing corporate assets. The Tobin ratio is often regarded as a comprehensive measure for assessing a company's valuation, as it encompasses debt and capital components in its calculation (Farida et al., 2024). According to Hendrawan (2017), the alteration of the initial formula resulted in a statistically significant enhancement in confidence levels, reaching a value of 96%. Tobin's Q determines how effective management is in utilizing its economic resources and revealing corporate social responsibility (Gamayuni, 2015). Tobin's Q is estimated as a firm's total equity value, divided by the book value of assets. The Q ratio is an accepted measure of investor confidence (Hyoung-Joo & Dafydd 2023).

A study by Wolfe (2003) defined that, Tobin's Q was examined as indicator of the firm's effectiveness from an investment perspective across a variety of top management games. Tobin's Q (TQ) is used as market measure since accounting measures does not revealed all of the agency costs. A modified version of the Tobin's Q by Wolfe (2003) is used because of their simplified balance sheets. Tobin's Q is the ratio of market value in relation to a firm's assets and its replacement value. According to Flodberg and Nadjari (2013), Tobin's Q plays an important role in their study about corporate governance on firm value. Tobin's Q stated the firm market value against the total assets value as a proxy for replacement cost of the firm's assets. Flodberg and Nadjari stated the hypothesis of the Tobin's Q that the long term value of a firm should equal to the cost of replacing the firm's assets.

Managerial Ownership

Managerial ownership is the presentation of director share ownership, which can reconcile the manager's interests with a firm. The objective of shareholders is to maximize the value of their investment (the value of the company). Managerial ownership is the percentage of shares owned by management who actively participate in company decisions, including commissioners and directors (Galbreath, 2017). According to Luluk et al. (2021), managerial ownership allows managers to dominate the company and decide which strategies and policies the company will take. Managerial ownership is the management party who actively participates in company decision making (managers, directors or commissioners) and is also

given the opportunity to share ownership of the company (shareholders). Managerial ownership is often associated with an effort to increase firm value because managers other than as management as well as company owners will feel directly the consequences of the decisions they make so that managerial will not take actions that only benefit managers (Asmaul, 2020).

Theoretical Review

Stakeholder Theory

According to Pandey (2010), stakeholder theory is based on the ground that the fundamental concern of managers and firms are to maximize profit and create more value for all the stakeholders and not necessarily for the shareholders alone. Freeman (1983) postulates two categories of stakeholder theory (a) a corporate strategic decision of managers in social responsibility of all the stakeholders: shareholders, creditors, government, general public towards its continuous corporate existence, and the business planning and policy which include external influences likely oppositional to the existence of the firm. In support of the stakeholder's theory, Donaldson and Preston (2015) asserted that stakeholder theory focuses on managerial decision making and interests of all stakeholders which have intrinsic value, and no sets of interests is assumed to dominate the others. This suggests that managers are expected to consider the interests and influences of people who are either affected or may be affected by a firm's policies and operations.

Blattberg (2004) has criticized the stakeholder theory for assuming that the interests of the various stakeholders can be, at best, compromised or balanced against each other. Blattberg argued that this is a product of its emphasis on negotiation as the chief mode of dialogue for dealing with conflicts between stakeholder interests. He recommends conversation instead and this leads him to defend what he calls a patriotic conception of the corporation as an alternative to that associated with stakeholder theory (Blattberg, 2004). According to Mansell (2013) by applying the political concept of a social contract to the corporation, stakeholder theory undermines the principles on which a market economy is based.

Empirical Review

Saidu (2019) examined the impact of the chief executive officer's (CEO) ownership, education and origin on firm performance. The study uses balanced panel data for 6 years from 2011 to 2016 to run ordinary least square regression. Three variables that include the CEO origin, education and ownership are investigated in relation to firm performance. The findings indicate that CEO education improves profitability. Similarly, stock performance gets improved when the CEO has prior experience of the firm before being appointed as the chief executive officer. Ching-Chih Yi-Ru (2020) investigated how a change in CEO ownership influences financial performance and market return in the long run. Using an accounting-based framework, they measured financial performance and changes in CEO ownership by using the public firms in the Taiwan Stock Exchange from 1996 to 2018. The findings in CEO ownership are consistent with the convergence-of-interests, entrenchment, and signaling hypotheses in different empirical tests. We find a positive relation between return on assets (ROA) and changes in CEO ownership when the CEO ownership is decreasing. In contrast,

ROA is negative significantly associated with CEO ownership when the CEO ownership is increasing. Moreover, the study also find that market performance is significantly positively associated with CEO ownership, which is consistent with the signaling hypothesis. Herlina (2020) analyze the source of a company's profitability by choosing two main factors namely, Return on Equity (ROE) and Earning per Share (EPS) as the strength and resilience of companies engaged in food and beverage listed on the Indonesia Stock Exchange between 2015 to 2018. The findings show that Return on Equity (ROE) has a positive and significant impact on stock prices, while Earning per Share (EPS) has an impact negative and significant to stock prices.

Mukaria et al (2020) investigate the relationship between ownership structure and value of listed firms at the Nairobi Securities Exchange. Panel data analysis for pooled ordinary least squares, fixed and random effect models was employed. Moreover, a feasible generalized least square estimator was adopted in attempt to attain robust results. The study findings revealed managerial ownership has a statistically significant negative effect on firm value, as sign of eroding effect on wealth. By contrast, institutional and foreign ownership depict statistically significant positive effect on value which depict firm value enhancement by institutional and foreign investors.

Ihsan and Ina (2022) determine the significant effect of Return on Assets and Debt to Equity on stock returns. The research sample used is the insurance sub-sector company on the Indonesia Stock Exchange for the 2014-2018 period, which amounted to 6 companies. Based on the results of the analysis, it was found that partially Return On had a positive and significant effect on stock prices, while the Debt-to-Equity Ratio had a negative and significant effect on stock prices. Simultaneously the results of the Return on Assets and Debt to Equity Ratio variables have an influence on stock prices.

Ahmad and Umar (2023) investigate the impact of CEO ownership on financial performance among Nigerian listed firms from 2016 to 2022. The study utilized descriptive, correlation, and panel corrected standard error (PCSE) analyses to examine the data collected. The findings reveal a significant positive association between CEO ownership and financial performance, indicating that higher CEO ownership levels are associated with improved firm outcomes. This underscores the importance of aligning managerial incentives with shareholder interests to drive sustainable value creation. Grecea and Eskasari (2023) determine the effect of Return on Assets (ROA), Return on Equity (ROE), Debt to Assets Ratio (DAR), Debt to Equity Ratio (DER), Dividend Payout Ratio (DPR), and Net Profit Margin (NPM) on share prices on company value in LQ45 companies listed on the Indonesian Stock Exchange. This study uses quantitative methods with secondary data. The data analysis technique used was multiple linear regression analysis with the help of the SPSS 24 application. The results of the analysis show that partially return on assets (ROA), Debt to Assets Ratio (DAR), Dividend Payout Ratio (DPR), and Net Profit Margin (NPM) have no effect on stock prices. Meanwhile, Return on Equity (ROE) and Debt to Equity Ratio (DER) affect stock prices. Michael and Wahyu (2024) study investigate the impact of CEO characteristics, such as gender, education level, discipline, tenure, overseas work experience, and foreign nationality, on firm value in the mining sector in Southeast Asia. Multiple linear regression analysis shows that CEO gender, education level, tenure, and foreign nationality significantly affect firm value. The results show that companies led by female CEOs and those with higher education levels tend to have higher values. In contrast, the CEO's discipline and foreign work experience do not significantly affect firm value.

METHODOLOGY

Research Design

This study adopts an *ex-post facto* research design, which is considered appropriate for empirical investigations where the variables of interest are already established and cannot be manipulated or controlled by the researcher. The study relies on secondary data extracted from the published annual reports and audited financial statements of listed Deposit Money Banks in Nigeria. These historical records are used to examine the influence of managerial ownership comprising CEO ownership, executive directors' ownership, non-executive directors' ownership, and other managerial shareholdings on various measures of firm value, including Tobin's Q.

Model Specification

In order to investigate the effect of managerial ownership on firm value in Nigeria, both the agency theory and Suzan and Ramadhani, (2023) work on managerial ownership and intellectual capital on firm value was adapted. The work of Suzan and Ramadhani, (2023) model is specified below:

$$ROA_t = f(INTC_t, MAO_t) \dots \dots \dots (1)$$

Where ROA is Return on Assets proxy for Firms Value, INTC is Intellectual capital and MAO is Managerial Ownership.

Sequel to the study objective of managerial ownership on Tobin's Q Ratio of Deposit Money Banks Listed in Nigeria, the work of Suzan and Ramadhani, 2023 is adapted to suite the objectives. The model is specified as:

$$TOQ_{it} = \alpha_0 + \alpha_1 EDSH_{it} + \alpha_2 MGO_{it} + \alpha_3 CEOW_{it} + \alpha_4 ONED_{it} + \mu_{it} \dots \dots \dots 2$$

Since the variables are in ratio forms, regressing this nature of the variables may not lead to the problem of heteroskedasticity, therefore, we maintain the functional as above:

Where:

TOQ is Tobin's Q Ratio, EDSH is Percentage of Shares Held by Executive Directors, CEOW represent CEO Ownership (%), MGO is Managerial ownership - Senior managers, ONED = Ownership by Non-Executive Director, i depicts the Individual bank in the cross-section study, t denotes the regular time interval within the study period, ln = Natural logarithm

α_0 = Intercept, which explains the average value of the Tobin's Q Ratio as the independent variables are held constant, $\alpha_{1,2,3,4}$ = represent the coefficients of Percentage of Shares Held by Executive Directors, CEO Ownership (%), Managerial ownership and Ownership by Non-Executive Director. They indicate the magnitude and direction of change in the Tobin's Q Ratio resulting from a one-unit change in each corresponding independent variable, holding other variables constant, μ = stochastic (error) term captures the unexplained variation in the dependent variable that is not accounted for by the independent variables in the model

Since the variables are stationary at first different and the cointegration exist among the variables, the Fully Modified Ordinary Least Squares (FMOLS) estimator developed by

Phillips and Hansen (1990) and extended to panel data by Pedroni (2000) is suitable and employed for this study. The long-run FMOLS model is expressed as:

$$TOQ_{it} = \alpha_0 + \alpha_1 EDSH_{it} + \alpha_2 MGO_{it} + \alpha_3 CEOW_{it} + \alpha_4 ONED_{it} + \mu_t \dots \dots \dots (3)$$

While FMOLS provides long-run estimates, it does not capture short-run dynamics. Therefore, the Error Correction Model (ECM) is specified to examine short-run adjustments toward long-run equilibrium. The residuals obtained from the FMOLS long-run regression are used to construct the Error Correction Term (ECT). The short-run panel ECM is specified as:

$$\Delta TOQ_{it} = \alpha_0 + \alpha_1 \Delta EDSH_{it} + \alpha_2 \Delta MGO_{it} + \alpha_3 \Delta CEOW_{it} + \alpha_4 \Delta ONED_{it} + \phi ECT_{it-1} + \mu_t \dots \dots (4)$$

Table 1: Variables, Description, Measurement and Sources

			Data Source
Tobin's Q	Market-based firm value	(Market value of equity + liabilities) / total assets	Annual Financial Reports
Executive Director Shareholding (EDSH)	Managerial ownership	% of total shares held by executive directors	Annual Financial Reports
CEO Ownership (CEOWN)	CEO equity interest	% of shares held by CEO	Annual Financial Reports
Managerial Ownership	Managerial Ownership	% of shares held by managerial ownership	Annual Financial Reports
Ownership by non-executive director (ONED)	Mechanism balancing Independence	Total shares held by non exec directors/ total shares	Annual Financial Reports

Source: Researcher's Compilation, 2026

Estimation Techniques

The study adopts panel data estimation techniques to examine the relationship between managerial ownership components CEO ownership, executive directors' ownership, non-executive directors' ownership, and staff ownership and firm value proxies. To ensure data reliability and model suitability, several pre-estimation tests are conducted, including unit root tests to determine stationarity, multicollinearity diagnostics using the Variance Inflation Factor (VIF), and tests for heteroskedasticity and serial correlation. Additionally, the Johansen panel cointegration test is employed to establish the existence of a long-run equilibrium relationship among the variables.

RESULTS

Table 2: Descriptive Statistics

	Mean	Maximum	Minimum	Std. Dev.	Skewness
TOQ	0.409863	0.951300	0.004500	0.269644	0.167621
EDSH	3.504216	14.77000	0.003170	3.226184	1.260820
MGO	7.026973	14.72630	0.054000	4.222443	0.177413
CEOW	39.95090	100.0000	5.300000	24.54076	0.438106
ONED	18.28660	39.30000	7.040000	4.427769	1.489692

Source: Author's Computation (2026); where TOQ is Tobin's Q Ratio (TOQ), Percentage of Shares Held by Executive Directors (EDSH), CEO Ownership (%) (CEOW), Managerial ownership (MGO), Ownership by non-executive director (ONED)

To capture both short-run dynamics and long-run adjustments, the panel Error Correction Model (ECM) is utilized, allowing for the measurement of the speed at which deviations from equilibrium are corrected. Furthermore, the Fully Modified Ordinary Least Squares (FMOLS) technique is applied to obtain robust long-run coefficient estimates, as it effectively addresses issues of endogeneity and serial correlation commonly associated with cointegrated panel data, thereby ensuring unbiased and efficient results.

Correlation Matrix

Table 3: Correlation Matrix

	TOQ	EDSH	MGO	CEOW	ONED	VIF
TOQ	1					
EDSH	0.0765	1				1.016417
MGO	-0.3368	0.0780	1			1.038985
CEOW	0.2317	-0.0706	-0.1719	1		1.034896
ONED	0.0030	0.0851	0.0631	0.0139	1	1.011477
					Mean	1.025444

Source: Author's Computation (2026); where TOQ is Tobin's Q Ratio (TOQ), Percentage of Shares Held by Executive Directors (EDSH), CEO Ownership (%) (CEOW), Managerial ownership (MGO), Ownership by non-executive director (ONED)

The correlation matrix results indicate varying degrees of association between managerial ownership components and firm value, proxied by Tobin's Q (TOQ). Specifically, executive directors' shareholding (EDSH) exhibits a weak positive relationship with TOQ (0.0765), suggesting a marginal alignment between executive ownership and firm value. Managerial ownership (MGO), however, shows a moderate negative correlation with TOQ (-0.3368), implying that higher overall managerial ownership may be associated with a decline in firm value, possibly due to entrenchment effects. CEO ownership (CEOW) demonstrates a positive relationship with TOQ (0.2317), indicating that increased CEO equity participation may enhance firm value through better alignment of interests. In contrast, ownership by non-executive directors (ONED) shows a negligible positive correlation (0.0030), suggesting minimal influence on firm value. The inter-correlations among the independent variables are generally low, indicating the absence of strong linear relationships among them. This is further confirmed by the Variance Inflation Factor (VIF) values, which are all close to 1 with a mean of 1.025444, well below the threshold of 10, thereby suggesting that multicollinearity is not a concern in the model and that the variables can be reliably included in subsequent regression analysis.

Pre-Estimation Test

The results of the pre-estimation tests are presented in table 4.2a and 4.2b.

The panel unit root test results using the ADF-Fisher Chi-square approach indicate that all the variables Tobin's Q (TOQ), executive directors' shareholding (EDSH), managerial ownership (MGO), CEO ownership (CEOW), and non-executive directors' ownership (ONED) are non-stationary at levels but become stationary after first differencing. This is evident from the relatively low test statistics at level compared to the significantly higher values at first difference across all variables, leading to their classification as integrated of order one,

I(1). The lag lengths selected, ranging between 2 and 3, further ensure the robustness of the test outcomes by accounting for possible serial correlation. The implication of these findings is that the variables share similar stochastic properties, making them suitable for cointegration analysis to determine the existence of a long-run equilibrium relationship. Hence, the confirmation that all series are I(1) justifies the subsequent application of panel cointegration and error correction modeling techniques in the study.

Table 4: Panel Unit root Test

	ADF - Fisher Chi-square			
	Level	First Diff.	Lag Selection	Integration
TOQ	21.3030	53.4607	2	I1
EDSH	11.2238	30.6538	3	I1
MGO	6.0778	25.5888	2	I1
CEOW	11.7190	39.8885	2	I1
ONED	20.3424	39.8885	3	I1

Source: Author's Computation (2026); where TOQ is Tobin's Q Ratio (TOQ), Percentage of Shares Held by Executive Directors (EDSH), CEO Ownership (%) (CEOW), Managerial ownership (MGO), Ownership by non-executive director (ONED)

Table 5: Pedroni Residual Cointegration Test on Managerial Ownership and Tobin-Q of deposit money bank listed in Nigeria

	within-dimension		between-dimension	
	Statistic	Prob.	Statistic	Prob.
Panel v-Statistic	-2.472811	0.9933	-	-
Panel rho-Statistic	2.517882	0.9941	3.687738	0.9999
Panel PP-Statistic	-4.285837	0.0000	-13.35034	0.0000
Panel ADF-Statistic	-2.431912	0.0075	-4.021657	0.0000

Source: Author's Computation (2026); where TOQ is Tobin's Q Ratio (TOQ), Percentage of Shares Held by Executive Directors (EDSH), CEO Ownership (%) (CEOW), Managerial ownership (MGO), Ownership by non-executive director (ONED)

Table 4.2b presents the results of the Pedroni cointegration test conducted to examine the existence of a long-run relationship between managerial ownership variables and Tobin's Q (TOQ) of listed deposit money banks in Nigeria. The Pedroni test reports both within-dimension (panel statistics) and between-dimension (group statistics) results. Under the within-dimension results, the Panel PP-Statistic (-4.285837, $p = 0.0000$) and Panel ADF-Statistic (-2.431912, $p = 0.0075$) are negative and statistically significant, leading to the rejection of the null hypothesis of no cointegration. Although the Panel v-Statistic and Panel rho-Statistic are not statistically significant, the significance of the PP and ADF statistics provides sufficient evidence of a stable long-run equilibrium relationship among the variables.

Similarly, the between-dimension results reinforce this conclusion. The Group PP-Statistic (-13.35034, $p = 0.0000$) and Group ADF-Statistic (-4.021657, $p = 0.0000$) are both negative and highly significant, confirming the rejection of the null hypothesis of no cointegration. Even though the Group rho-Statistic is not significant, the majority of the test statistics support the presence of cointegration. Overall, the results indicate that

managerial ownership and Tobin's Q move together in the long run, implying that changes in managerial ownership have a long-term equilibrium effect on firm value among listed deposit money banks in Nigeria, justifying the estimation of long-run coefficients using panel techniques such as FMOLS.

Table 6: Model investigating the effect of Managerial Ownership on the Tobin Q ratio of deposit money banks listed in Nigeria

Dependent Variable: TOQ				
Variable	Coefficient	Std. Error	t-Statistic	Prob.*
Short Run Equation (Panel Error Correction Model)				
D(TOQ(-1))	-0.166854	0.115648	-1.442776	0.1534
D(EDSH(-1))	0.017210	0.010873	1.582737	0.1179
D(MGO(-1))	-0.029561	0.094515	-0.312770	0.7554
D(CEOW(-1))	0.001827	0.002984	0.612242	0.5423
D(ONED(-1))	0.004877	0.008705	0.560300	0.5770
ECT (-1)*	-0.386890	0.098715	-3.919246	0.0002
C	-0.013197	0.026618	-0.495795	0.6215
Long Run Equation (Panel Fully Modified Ordinary Least Square)				
EDSH	0.186391	0.057989	3.214229	0.0020
MGO	-0.029736	0.036247	-0.820358	0.4149
CEOW	-0.003721	0.001185	-3.139150	0.0025
ONED	-0.010693	0.004088	-2.615961	0.0110
MODEL EVALUATION				
R-squared	0.722202			
Adjusted R-squared	0.610092			
F-statistics	4.17822 (0.0007)			
Diagnostics				
Normality Test	0.2326 (0.8902)			
Breusch-Pagan LM	56.6922 (0.1134)			
Pesaran scaled LM	1.2324 (0.2178)			

Source: Author's Computation (2026); where TOQ is Tobin's Q Ratio (TOQ), Percentage of Shares Held by Executive Directors (EDSH), CEO Ownership (%) (CEOW), Managerial ownership (MGO), Ownership by non-executive director (ONED)

Table 6 presents the result of the Panel Error Correction Model (short-run dynamics) and the Panel Fully Modified Ordinary Least Squares (long-run estimates) examining the effect of managerial ownership components on the Tobin's Q ratio of deposit money banks listed in Nigeria. In the short-run equation, the lagged value of Tobin's Q, D(TOQ(-1)), has a negative coefficient of -0.166854 with a probability value of 0.1534, indicating that a 1 per cent increase in the previous period's Tobin's Q leads to about 0.17 per cent decrease in the current Tobin's Q; however, the effect is not statistically significant at the 5 per cent level. The lagged executive directors' shareholding D(EDSH(-1)) shows a positive coefficient of 0.017210 with a probability of 0.1179, implying that a 1 per cent increase in executive directors' ownership results in approximately 0.0172 per cent increase in Tobin's Q in the short run, though the relationship is statistically insignificant. Similarly, managerial ownership D(MGO(-1)) has a negative coefficient of -0.029561 with a probability of 0.7554, suggesting that a 1 per cent rise in managerial ownership decreases Tobin's Q by about 0.0296 per cent, but the effect is not significant. CEO ownership D(CEOW(-1)) records a positive coefficient of 0.001827 with a probability of 0.5423, indicating that a 1 per cent

increase in CEO ownership increases Tobin's Q by about 0.0018 per cent, although the effect is statistically insignificant. Ownership by non-executive directors $D(ONED(-1))$ has a positive coefficient of 0.004877 with a probability of 0.5770, implying that a 1 per cent increase in non-executive directors' ownership increases Tobin's Q by 0.0049 per cent, but this effect is also not statistically significant. The error correction term $(ECT(-1))$ has a negative and statistically significant coefficient of -0.386890 with probability 0.0002, indicating that approximately 38.69 per cent of short-run disequilibrium in Tobin's Q is corrected annually toward the long-run equilibrium, confirming the existence of a stable long-run relationship among the variables.

In the long-run equation, executive directors' shareholding (EDSH) shows a positive and statistically significant coefficient of 0.186391 with probability 0.0020, implying that a 1 per cent increase in executive directors' ownership leads to about 0.1864 per cent increase in Tobin's Q ratio in the long run. Managerial ownership (MGO) has a negative coefficient of -0.029736 with a probability value of 0.4149, suggesting that a 1 per cent rise in managerial ownership reduces Tobin's Q by about 0.0297 per cent, but the relationship is not statistically significant. CEO ownership (CEOW) records a negative and significant coefficient of -0.003721 with probability 0.0025, indicating that a 1 per cent increase in CEO ownership results in approximately 0.0037 per cent decrease in Tobin's Q ratio in the long run. Similarly, ownership by non-executive directors (ONED) shows a negative and statistically significant coefficient of -0.010693 with probability 0.0110, implying that a 1 per cent increase in non-executive directors' ownership leads to about 0.0107 per cent decrease in Tobin's Q ratio. Overall, the long-run results suggest that while executive directors' shareholding improves firm value, higher CEO ownership and non-executive directors' ownership tend to reduce the market valuation of deposit money banks in Nigeria.

The model evaluation results indicate that the explanatory variables jointly provide a good explanation of variations in the Tobin's Q ratio of deposit money banks in Nigeria. The R-squared value of 0.722202 implies that approximately 72.22% of the total variation in Tobin's Q ratio is explained by the managerial ownership variables included in the model, while the remaining 27.78% is accounted for by other factors outside the model. The Adjusted R-squared of 0.610092 further shows that after adjusting for the number of explanatory variables, about 61.01% of the variation in Tobin's Q ratio is still explained by the model, indicating a reasonably strong explanatory power. In addition, the F-statistic of 4.17822 with a probability value of 0.0007 demonstrates that the model is statistically significant at the 5% level, meaning that the independent variables jointly have a significant effect on the Tobin's Q ratio of deposit money banks in Nigeria.

The diagnostic test results further confirm the reliability and robustness of the model. The Normality Test result of 0.2326 with a probability of 0.8902 indicates that the residuals are normally distributed, since the probability value is greater than 0.05. The Breusch-Pagan LM statistic of 56.6922 with probability 0.1134 suggests that there is no problem of heteroskedasticity in the model because the probability value exceeds the 5% significance level. Similarly, the Pesaran scaled LM statistic of 1.2324 with probability 0.2178 shows that there is no evidence of cross-sectional dependence among the panel units. Overall, these diagnostic results imply that the estimated model satisfies the major econometric assumptions, thereby making the results reliable and suitable for policy interpretation.

Discussion of Findings

The study examined the effect of Managerial ownership on Tobin's Q, of listed deposit money banks in Nigeria. The result reveals that in the short run, managerial ownership variables (executive directors' shareholding, managerial ownership, CEO ownership, and non-executive directors' ownership) have no statistically significant effect on Tobin's Q of deposit money banks in Nigeria, although some variables exhibit positive and negative relationships. However, the error correction term (ECT = -0.386890, $p = 0.0002$) is negative and significant, indicating that about 38.69% of short-run disequilibrium is corrected annually, confirming the presence of a stable long-run relationship among the variables. In the long run, executive directors' shareholding has a positive and significant effect on Tobin's Q, while CEO ownership and non-executive directors' ownership have significant negative effects on firm value. Managerial ownership shows a negative but statistically insignificant relationship with Tobin's Q. Overall, the findings suggest that higher executive directors' ownership improves firm value, whereas greater CEO and non-executive ownership tend to reduce the market valuation of deposit money banks in Nigeria.

This result is consistent with Ching-Chih Yi-Ru (2020), who found that increasing CEO ownership can negatively affect accounting-based performance measures such as ROA, reflecting potential managerial entrenchment. Similarly, Saidu (2019) noted that CEO characteristics, including ownership concentration, can influence firm performance outcomes, although the study emphasized education and experience as positive drivers. Conversely, Ahmad and Umar (2023) reported a positive relationship between CEO ownership and financial performance in Nigerian listed firms, highlighting a divergence from the current study. The difference may stem from sectoral variation or the period analyzed, suggesting that the effect of CEO ownership on market valuation is context-specific.

This finding contrasts with Mukaria et al. (2020), who reported a positive effect of institutional ownership on firm value in Kenyan listed firms, suggesting that ownership by non-operational stakeholders may vary in impact across institutional and regulatory contexts. The study's findings also partially align with empirical studies on performance metrics and market valuation. For instance, Herlina (2020) highlighted that profitability indicators such as ROE positively affect stock prices, whereas EPS may have a negative influence. Similarly, Ihsan and Ina (2022) and Grecea and Eskasari (2023) showed that accounting-based performance measures affect market valuations differently, reinforcing the idea that Tobin's Q may respond to multiple, interacting governance factors. These studies validate the notion that ownership structure alone is not a universal determinant of firm value and must be analyzed alongside performance and governance contexts.

SUMMARY

This study examined the effect of managerial ownership on Tobin's Q Ratio of listed deposit money banks in Nigeria. The study applied Panel Error Correction Model (short-run dynamics) and the Panel Fully Modified Ordinary Least Squares with the inference at 5% significant level. The findings of this study reveal that managerial ownership exerts a significant but heterogeneous effect on the firm value of listed Deposit Money Banks in Nigeria, particularly when measured using Tobin's Q. Specifically, executive directors' shareholding enhances firm value, suggesting that equity participation by executive directors aligns managerial

decisions with shareholders' wealth maximization objectives. Conversely, CEO ownership and non-executive directors' ownership demonstrate significant negative effects on Tobin's Q, indicating the presence of managerial entrenchment and weak monitoring mechanisms at higher ownership levels. The insignificant effect of overall managerial ownership further underscores the complexity of the ownership-value nexus in the Nigerian banking sector. These outcomes validate the dual perspective of agency theory, which posits that while ownership can align interests, excessive control may lead to self-serving behavior that undermines firm performance. Therefore, managerial ownership in Nigerian banks is not uniformly beneficial; its impact depends on the structure, distribution, and level of ownership among different managerial groups. Based on the findings, the study recommends that:

1. regulatory authorities such as the Central Bank of Nigeria (CBN) and the Securities and Exchange Commission (SEC) should establish clear thresholds and guidelines for managerial shareholding, particularly for CEOs and non-executive directors, to prevent excessive ownership concentration that may lead to entrenchment.
2. Deposit Money Banks should promote a balanced ownership structure by encouraging moderate equity participation among executive directors while strengthening board independence and oversight functions. Furthermore, there is a need to enhance corporate governance frameworks through stricter enforcement of disclosure requirements and transparency in ownership structures.
3. Institutional investors should also be empowered to play a more active monitoring role in corporate governance to counterbalance managerial dominance. Finally, banks should adopt performance-based compensation systems that align managerial incentives with long-term value creation rather than short-term gains, thereby improving overall firm value and investor confidence.

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