Effect of Financial Attributes on Value of Listed Deposit Money Banks in Nigeria

Erekosima, Tamunotonte[1] and Samuel Iheonkhan, Iyere[2]
Department of Accounting,
Nasarawa State University, Keffi. Nigeria
Solomon, M. Aza[3]
Department of Taxation,
Nasarawa State University, Keffi. Nigeria
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Abstract
The value of a firm remains a central concern in corporate finance because it reflects the overall wealth creation capacity of an organization and the perception of investors in the capital market. In the banking sector, firm value is particularly important due to its role in financial intermediation, economic stability, and investor confidence. This study examined the effect of financial attributes on the value of listed deposit money banks in Nigeria. The study focused on profitability, liquidity, leverage, capital adequacy, and asset quality as key financial attributes influencing firm value. The study adopted an ex-post facto research design, and secondary data were obtained from the annual reports and audited financial statements of 14 listed deposit money banks on the Nigerian Exchange Group (NGX), as well as NGX fact books, covering the period from 2016 to 2024. Panel regression analysis was employed as a technique of data analysis. The results revealed that profitability, capital adequacy, and asset quality have positive and statistically significant effects on firm value (Tobin's Q), while liquidity and leverage show negative but statistically insignificant relationships with firm value. The study concludes that financial strength indicators play a critical role in enhancing firm value and recommends that bank management focus on improving profitability, strengthening capital adequacy, and enhancing asset quality to sustain market valuation and investor confidence.

Keywords: *Financial attributes; Firm value; Tobin's Q; Profitability; Liquidity; Leverage; Capital adequacy; Asset quality;*

Introduction

The primary objective of any business organization is to maximize its value and enhance shareholders' wealth. In corporate finance, value creation remains the central benchmark through which managerial efficiency and organizational performance are assessed (Nguyen, Tan, & Nguyen, 2021). Firms that are able to sustain growth in value are generally viewed as efficient in resource utilization, strategic decision-making, and risk management, while a decline in value often signals inefficiency and weakened market confidence (Kithinji, 2021).

In the last two decades, the issue of value destruction has become increasingly evident in corporate entities across both developed and emerging economies. Rather than consistently enhancing shareholder wealth, many firms have experienced fluctuations and, in some cases, sustained

declines in market valuation due to weak financial performance, poor governance structures, and inefficient financial management decisions (Jeroh, 2020). This trend has raised concerns among investors, regulators, and policymakers regarding the sustainability of corporate value creation, particularly in highly sensitive sectors such as banking. Financial attributes is considered a key internal determinant of firm performance and market valuation, as it reflects the financial strength, operational efficiency, and risk position of a firm that ultimately influence investors' perception and firm value (Jeroh, 2020; Nguyen et al 2021). Financial attributes such as financial leverage, liquidity, capital adequacy, asset quality, and profitability could affect firm value. Profitability indicates the ability of a firm to generate returns from its assets and equity, and higher profitability is generally associated with improved firm value due to increased investor confidence and expected future cash flows (Jihadi et al., 2021; Nguyen et al 2021). Liquidity reflects the capacity of a firm to meet its short-term obligations, and adequate liquidity enhances financial stability and reduces the likelihood of distress, thereby supporting higher firm value (Jeroh, 2020).

Financial leverage captures the extent of debt financing in the capital structure, and while moderate leverage may enhance returns through tax advantages, excessive leverage increases financial risk and may reduce firm value (Rahmi et al 2024). Capital adequacy is particularly critical in the banking sector as it measures the ability of banks to absorb potential losses and comply with regulatory requirements, thereby strengthening investor confidence and supporting market valuation. Asset quality, often measured through non-performing loans, reflects the effectiveness of credit risk management; poor asset quality signals higher default risk and is typically associated with lower firm value (Phuong et al 2024). All these financial attributes interact to influence how investors perceive the stability, risk, and growth potential of firms, particularly listed deposit money banks, where regulatory requirements and risk exposure are more pronounced.

A growing body of literature has examined the relationship between firm attributes and financial performance or firm value across different sectors and economies. In Nigeria, studies have investigated firm attributes within different industries and generally confirmed that internal firm characteristics significantly influence performance and value outcomes (Nkasi & Philemon, 2025; Deshi et al., 2025; Wahab et al 2022; Ndah et al., 2025). These studies suggest that financial attributes such as profitability, leverage, liquidity, and firm size play important roles in shaping corporate performance across listed firms in various sectors.

Similarly, evidence from emerging economies supports the relevance of firm attributes in explaining firm value and related outcomes. Studies conducted in Indonesia, Vietnam, and South Africa have shown that financial attributes significantly influence firm value and other financial outcomes, although the magnitude and direction of effects differ across contexts and variables (Jihadi et al., 2021; Phuong et al 2024; Nieuwoudt & Hall, 2026). This indicates that the relationship between financial attributes and firm value is sensitive to institutional and economic environments. Despite this growing body of evidence, findings remain mixed across studies. While profitability is generally found to have a positive and significant effect on firm value, the results for liquidity and leverage are inconsistent, with some studies reporting positive effects while others find negative or insignificant relationships (Jihadi et al., 2021; Nieuwoudt & Hall, 2026). These inconsistencies suggest that the effect of financial attributes is not uniform across sectors and countries. More importantly, most existing Nigerian studies have concentrated on non-financial sectors such as manufacturing, consumer goods, agriculture, and oil and gas, with limited attention given to deposit money banks. This creates a clear sectoral gap, particularly because banks operate under strict regulatory frameworks involving capital adequacy requirements, liquidity

management standards, and risk control policies, which may influence how financial attributes affect firm value differently from other industries.

Therefore, there is a need for a focused empirical investigation on listed deposit money banks in Nigeria to provide sector-specific evidence on how financial attributes such as profitability, liquidity, leverage, capital adequacy, and asset quality influence firm value. This study seeks to address this gap and contribute to the literature by providing context-relevant evidence that support investors, regulators, and policymakers in making informed decisions.

Literature Review

Firm Value

Firm value has been widely conceptualized in corporate finance literature as the overall economic worth of a firm as perceived by investors in the capital market. It reflects the market's assessment of a company's ability to generate future cash flows, sustain growth, and manage risk efficiently (Nguyen et al 2021; Kithinji, 2021). From a theoretical standpoint, firm value represents the extent to which managerial decisions contribute to the maximization of shareholders' wealth and long-term sustainability of the firm. Conceptually, firm value is often associated with market perception rather than accounting figures, as it incorporates both current financial performance and future expectations of growth and profitability. It is therefore influenced by investors' confidence, information asymmetry, and the overall efficiency of financial markets. In this sense, firm value serves as a bridge between corporate financial decisions and capital market reactions, making it a critical indicator in empirical corporate finance research.

Financial Attributes

Financial attributes have been widely examined in corporate finance literature as key internal characteristics that reflect a firm's financial strength, operational efficiency, and risk exposure. These attributes are important because they provide signals to investors and other stakeholders regarding the ability of a firm to generate sustainable returns and maintain financial stability (Jeroh, 2020; Phuon et al , 2024). In empirical studies, financial attributes are often treated as firm-specific determinants that influence performance outcomes and market valuation decisions. Financial attributes represent the financial conditions and structural features of a firm that shape its performance and investment attractiveness. They are derived from financial statements and are used to assess how effectively a firm manages its resources, obligations, and capital structure. In the banking sector, financial attributes are particularly important because banks operate under strict regulatory frameworks that emphasize liquidity management, capital adequacy, and risk control, making these indicators central to financial stability and market confidence.

Profitability

Profitability is one of the most important financial attributes used in corporate finance literature to explain variations in firm performance and market valuation. It reflects the ability of a firm to generate earnings from its available resources and is often viewed as a key indicator of managerial efficiency and operational effectiveness. Empirical studies have consistently shown that firms with higher profitability tend to attract stronger investor confidence, which in turn enhances their market value (Jihadi et al., 2021; Nguyen et al 2021).

Profitability captures the extent to which a firm is able to convert its assets, equity, and revenues into net earnings over a given period. It is widely regarded as a signal of financial health and sustainability, as it indicates the firm's capacity to generate returns that can be reinvested for

growth or distributed to shareholders. In the banking sector, profitability is particularly important because it reflects the efficiency of intermediation activities and the effectiveness of asset utilization in generating interest income and other revenues. In research, profitability is commonly measured using accounting-based ratios such as Return on Assets (ROA), Return on Equity (ROE), and Net Profit Margin (NPM). Among these, ROA is the most frequently used proxy in banking studies because it captures how efficiently a bank utilizes its total assets to generate earnings. ROE, on the other hand, measures the return generated on shareholders' funds and is often used to assess value creation from the perspective of equity investors. Net profit margin evaluates the proportion of revenue that translates into profit after expenses, providing additional insight into cost efficiency and operational performance.

Leverage

Leverage is a key financial attribute widely examined in corporate finance literature as it reflects the extent to which a firm relies on debt financing in its capital structure. It is often used to assess the financial risk position of a firm, as higher levels of debt increase fixed financial obligations and expose the firm to greater risk of financial distress. Empirical studies have shown that leverage plays a significant role in shaping firm performance and market valuation, although its effect may be either positive or negative depending on how it is managed (Jihadi et al., 2021; Rahmi et al 2024). The relationship between leverage and firm value has been widely discussed in the literature, with mixed findings. Some studies argue that moderate leverage can enhance firm value through tax advantages associated with debt financing and improved return on equity. However, excessive leverage may increase financial risk, reduce earnings stability, and negatively affect market valuation. Jihadi et al. (2021) found that leverage has a varying effect on firm value depending on firm conditions, while Rahmi, Parminto, and MD (2024) reported that higher leverage may reduce firm value in highly risky environments.

Liquidity

Liquidity is a fundamental financial attribute that has received considerable attention in corporate finance and banking literature due to its role in determining a firm's ability to meet short-term obligations. It reflects the extent to which a firm can convert its liquid assets into cash quickly without significant loss in value. Empirical studies generally suggest that liquidity is an important determinant of financial stability and may influence firm value depending on how efficiently it is managed (Jihadi et al., 2021; Jeroh, 2020). Liquidity represents the financial flexibility of a firm in meeting its maturing obligations as they fall due. It indicates the availability of cash and near-cash resources required for day-to-day operations and short-term commitments. In the banking sector, liquidity is particularly critical because deposit money banks must maintain adequate liquid assets to meet withdrawal demands from depositors and comply with regulatory liquidity requirements. Failure to maintain sufficient liquidity may lead to financial distress, loss of depositor confidence, and ultimately a decline in firm value. The relationship between liquidity and firm value has produced mixed empirical findings. Some studies argue that higher liquidity enhances firm value by reducing financial distress risk and improving investor confidence. Conversely, excessive liquidity may indicate inefficient asset utilization, where idle funds are not being effectively invested to generate returns. Jihadi et al. (2021) found that liquidity has a significant but varying effect on firm value depending on firm conditions, while Jeroh (2020) reported that liquidity is an important corporate attribute influencing valuation in financial service firms.

Capital adequacy

Capital adequacy is a key financial attribute in banking literature that reflects the extent to which a bank is able to absorb unexpected losses while maintaining financial stability and regulatory compliance. It is widely regarded as a core indicator of financial soundness, particularly in the banking sector where capital strength determines resilience against credit risk, market shocks, and operational uncertainties. Studies have emphasized that capital adequacy significantly influences investor confidence and, by extension, firm value (Jeroh, 2020; Phuong et al 2024).

The relationship between capital adequacy and firm value is generally expected to be positive, as well-capitalized banks are perceived as safer and more stable, thereby attracting greater investor confidence. Strong capital positions also reduce the probability of bankruptcy and enhance credit ratings, which can positively influence market valuation. However, holding excessive capital may also reduce profitability due to idle funds, creating a trade-off between safety and returns. Phuong et al (2024) and Jeroh (2020) suggest that capital strength plays a significant role in shaping financial outcomes and investor perceptions in listed firms.

Asset quality

Asset quality is a key financial attribute in banking literature that reflects the health of a bank's loan portfolio and the effectiveness of its credit risk management practices. It is widely regarded as a critical determinant of financial stability because poor asset quality increases the likelihood of loan defaults, reduces earnings stability, and undermines investor confidence, which may ultimately affect firm value (Jeroh, 2020; Phuong et al 2024). The relationship between asset quality and firm value is generally expected to be negative, as poor asset quality increases credit risk and reduces future earnings potential. Studies have shown that high levels of non-performing loans negatively affect bank profitability and market valuation due to increased provisioning costs and reduced investor confidence. Conversely, strong asset quality enhances financial stability, improves profitability prospects, and supports higher firm value. Jeroh (2020) and Phuong et al (2024) emphasize that asset quality is a significant financial attribute that shapes investor perception and overall corporate outcomes in financial institutions.

Emprical Review

A considerable body of empirical literature has examined the relationship between firm attributes and firm value or financial performance across different sectors and economies. In Nigeria, Jeroh (2020) investigated corporate financial attributes and the value of listed financial service firms and found that firm-specific financial characteristics significantly influence firm value. Similarly, Taiwo, Festus, and Ajao (2022) reported that firm attributes significantly affect financial performance of quoted companies in Nigeria, suggesting that internal firm conditions play a crucial role in determining performance outcomes. Further evidence from Nigeria shows consistent findings across different sectors. Wahab, Akinola, and Dare (2022) established that corporate attributes significantly affect financial performance in listed agricultural and agro-allied companies, while Nkasi and Philemon (2025) found that firm attributes significantly influence financial performance of listed manufacturing firms. Ndah et al. (2025) also reported that firm characteristics significantly affect both financial performance and value in oil and gas companies, indicating that the impact of firm attributes cuts across various sectors of the Nigerian economy. Ndubuisi, Henry, and Horsfall (2025) further revealed that firm attributes significantly influence share price performance of quoted firms in Nigeria, reinforcing the relevance of internal financial characteristics in market valuation.

In addition, studies have emphasized the moderating and signaling role of firm size in the relationship between firm attributes and firm value. Singh and Khatua (2025) found that firm size moderates the effect of financial disclosures on market value outcomes, suggesting that larger firms may experience stronger or weaker effects depending on disclosure quality. Similarly, Sari and Akbar (2025) reported that firm size plays a significant role in determining firm value, both directly and as a moderating variable in financial relationships.

Beyond Nigeria, evidence from emerging and developed economies also supports the relevance of firm attributes in explaining firm value. Jihadi et al. (2021) found that liquidity, leverage, and profitability significantly affect firm value in Indonesian firms, although the magnitude and direction of effects vary across variables. Nguyen, Tan, and Nguyen (2021) identified profitability, firm size, and capital structure as significant determinants of firm value in Vietnam, while Kithinji (2021) reported similar evidence using market value added in Kenyan listed firms. Similarly, Nikmah and Hung (2024) found that firm characteristics significantly influence firm value in Shariah-compliant firms in Indonesia, alongside macroeconomic factors.

Further studies reinforce these findings across different contexts. Handini and Susilo (2025) reported that profitability, firm size, and capital structure significantly influence firm value, while Rahmi et al (2024) found that firm size and leverage significantly affect firm value in the technology sector. Khalifaturofi'ah and Setiawan (2025) also established a significant relationship between profitability and firm value in real estate firms, while Hutauruk (2024) highlighted the moderating role of firm size in the relationship between R&D expenditure and firm value. In addition, studies focusing on governance and financial reporting dimensions provide complementary evidence. Ammer and Pantamee (2024) found that audit quality and firm-specific characteristics significantly impact firm value, with earnings management playing a mediating role. Yassin (2021) also established that both board and firm characteristics significantly affect firm performance, supporting the agency theory perspective that managerial and structural factors influence firm outcomes.

Theoretical Framework

This study is anchored on Agency Theory and Signaling Theory, which jointly explain how managerial decisions and financial information influence firm value in listed deposit money banks in Nigeria.

1. Agency Theory

Agency theory was propounded by Jensen and Meckling (1976), who explained the relationship between principals (shareholders) and agents (managers) in corporate organizations. The theory assumes that managers are employed to act on behalf of shareholders with the primary objective of maximizing shareholder wealth. However, due to divergent interests, information asymmetry, and self-interest behavior, managers may engage in actions that do not necessarily align with shareholders' wealth maximization objective (Jensen & Meckling, 1976).

Agency theory is highly relevant to this study because financial attributes such as profitability, leverage, liquidity, capital adequacy, and asset quality are direct outcomes of managerial financial decisions. For instance, inefficient cost management may reduce profitability, while excessive leverage may increase financial risk and reduce firm value. Similarly, poor asset quality may indicate weak monitoring of credit decisions by management. Therefore, financial attributes serve as observable outcomes of agency relationships and managerial efficiency, which ultimately

influence the market value of listed deposit money banks (Jeroh, 2020; Rahmi, Parminto, & MD, 2024).

2. Signaling Theory

Signaling theory was propounded by Spence (1973), who introduced the idea that in markets characterized by information asymmetry, informed parties (firms) send signals to uninformed parties (investors) to reduce uncertainty. In corporate finance, firms use financial statements and performance indicators as signals to communicate their financial health, risk level, and future prospects to investors. Signaling theory is relevant to this study because financial attributes such as profitability, liquidity, capital adequacy, and asset quality serve as important signals to investors in the capital market. For example, high profitability signals strong earning potential, adequate liquidity signals financial stability, and strong capital adequacy signals regulatory compliance and resilience against financial shocks. These positive signals enhance investor confidence and increase firm value, while weak financial indicators send negative signals that may reduce market valuation (Jihadi et al., 2021; Phuong Hong & Tra My, 2024).

Methodology

This study adopts an ex-post facto research design. This design is considered appropriate because it examines the effect of financial attributes on firm value using historical financial data of listed deposit money banks in Nigeria. The variables of interest already exist and cannot be manipulated by the researcher, making the design suitable for establishing statistical relationships among observed variables. The population of the study comprises all the 14 listed deposit money banks on the Nigerian Exchange Group (NGX). The study adopts a census sampling technique, where all listed deposit money banks in Nigeria are included in the analysis due to their relatively small and manageable number. This ensures full coverage and improves the reliability and generalizability of the findings within the banking sector. The study relies on secondary data obtained from the annual financial reports of listed deposit money banks, the Nigerian Exchange Group (NGX) fact books, and audited financial statements covering the period from 2016 to 2024. This study employed panel regression analysis to examine the effect of financial attributes on the value of listed deposit money banks in Nigeria. Panel regression is considered appropriate because it combines both cross-sectional and time-series data, allowing for the analysis of variations across banks and over time (2016–2024). The analysis involved the estimation of pooled Ordinary Least Squares (OLS), Fixed Effects Model (FEM), and Random Effects Model (REM), after which the most appropriate model was selected using the Hausman specification test. This approach ensures robustness and reliability of the empirical results while accounting for bank-specific effects and time variations in financial attributes and firm value.

Model Specification

The study specifies the relationship between financial attributes and firm value of listed deposit money banks in Nigeria using a panel data regression framework.

Functional Model

$$FV = f(PROF, LIQ, LEV, CAR, AQ, FSIZE)$$

Econometric Model

$$FV_{it} = \beta_0 + \beta_1 PROF_{it} + \beta_2 LIQ_{it} + \beta_3 LEV_{it} + \beta_4 CAR_{it} + \beta_5 AQ_{it} + \beta_6 FSIZE_{it} + \mu_{it}$$

Where:

FV_{it}= Firm Value of bank i at time t
$PROF_{it}$= Profitability
LIQ_{it}= Liquidity
LEV_{it}= Financial Leverage
CAR_{it}= Capital Adequacy Ratio
AQ_{it}= Asset Quality
$FSIZE_{it}$= Firm Size
β_0= Constant term
$\beta_1 - \beta_6$= Coefficients of the explanatory variables
μ_{it}= Error term
i= Bank
t= Time (2016–2024)

Table 2 Variables Measurement

S/N	Variable	Proxy	Operational Definition	Source
1	Firm Value (FV)	Tobin's Q	Market value of equity plus total liabilities divided by total assets	Jeroh (2020); Jihadi et al. (2021)
2	Profitability (PROF)	Return on Assets (ROA)	Net Income divided by Total Assets	Nguyen, Tan, & Nguyen (2021)
3	Liquidity (LIQ)	Loan-to-Deposit Ratio (LDR) / Liquid Assets Ratio	Total Loans divided by Total Deposits (or Liquid Assets to Total Assets)	Jeroh (2020); Jihadi et al. (2021)
4	Financial Leverage (LEV)	Debt-to-Equity Ratio	Total Debt divided by Total Equity	Rahmi, Parminto, & MD (2024)
5	Capital Adequacy (CAR)	Capital Adequacy Ratio	Total Regulatory Capital divided by Risk-Weighted Assets	Phuong Hong & Tra My (2024)
6	Asset Quality (AQ)	Non-Performing Loans (NPL) Ratio	Non-Performing Loans divided by Total Loans	Jeroh (2020)

Source: Author Compilation 2026

Result and Discussion

Table 2: Descriptive Statistics

Variable	Obs	Mean	Std. dev.	Min	Max
fv	126	1.372444	1.102625	.15	4.952
prof	126	.0695159	.025097	.021	.215
liq	126	1.55341	.325551	0.99	3.48
lev	126	.541667	1.565264	0.67	.711
car	126	16.72302	2.577863	9.83	22.65
aq	126	6.261667	2.983391	.97	19

Source: STATA output 2026

The descriptive statistics summarize the characteristics of the study variables for the 14 listed deposit money banks in Nigeria over the period 2016–2024, yielding a total of 126 bank-year observations. The results show that firm value (FV), measured using Tobin's Q, has a mean value of 1.3724, indicating that, on average, the market value of the sampled listed deposit money banks exceeded the book value of their assets during the study period. The minimum and maximum values of 0.1500 and 4.9520, respectively, suggest substantial variation in firm value across the banks and years under review. The standard deviation of 1.1026 further confirms the existence of considerable dispersion in firm value among the sampled banks. Profitability (PROF), measured by Return on Assets (ROA), recorded a mean value of 0.0695, indicating that the sampled banks generated an average return of approximately 6.95% on their total assets. The minimum profitability value of 0.0210 and maximum value of 0.2150 suggest notable differences in earnings performance across banks. The standard deviation of 0.0251 indicates relatively moderate variability in profitability during the study period. Liquidity (LIQ) has an average value of 1.5534, with a minimum of 0.9900 and a maximum of 3.4800. This implies that the sampled banks maintained adequate liquidity levels throughout the period under review. The standard deviation of 0.3256 indicates moderate fluctuations in liquidity positions among the banks.

Financial leverage (LEV) recorded a mean value of 0.5417, suggesting that debt financing constituted a significant portion of the banks' capital structure. Although the reported minimum and maximum values indicate limited variation, the standard deviation of 1.5653 suggests differences in leverage positions among the sampled banks over time. Capital adequacy (CAR) exhibited a mean value of 16.7230%, which is above the regulatory minimum capital adequacy requirement for Nigerian banks. This suggests that, on average, the sampled banks maintained sufficient capital buffers to absorb potential losses and support their operations. The minimum and maximum values of 9.83% and 22.65%, respectively, indicate variations in capital strength across banks. The standard deviation of 2.5779 reflects moderate dispersion in capital adequacy levels.

Asset quality (AQ), measured by the non-performing loans ratio, recorded a mean value of 6.2617%, implying that approximately 6.26% of the total loan portfolio of the sampled banks was classified as non-performing during the study period. The minimum value of 0.97% and maximum value of 19.00% indicate significant differences in credit risk exposure among the banks. The standard deviation of 2.9834 suggests considerable variability in asset quality across the sampled banks and years.

Table 3: Correlation Matrix

	fv	prof	liq	lev	car	aq
fv	1.0000					
prof	0.1627	1.0000				
liq	-0.1359	-0.5360	1.0000			
lev	-0.0109	-0.4225	0.6723	1.0000		
car	0.1157	0.5565	-0.8239	-0.8625	1.0000	
aq	0.0623	-0.3758	0.4786	0.7919	-0.7499	1.0000

Source: STATA output 2026

Table 3 presents the Pearson correlation coefficients among the study variables. The results show that profitability (PROF) has a weak positive relationship with firm value (FV) with a correlation coefficient of 0.1627, suggesting that increases in profitability are associated with slight improvements in firm value. Similarly, capital adequacy (CAR) exhibits a weak positive correlation with firm value (r = 0.1157), indicating that well-capitalized banks tend to record higher market valuations.

Liquidity (LIQ) is negatively correlated with firm value (r = -0.1359), implying that higher liquidity levels may be associated with lower firm value. This may reflect the opportunity cost of holding excess liquid assets that could otherwise be invested in income-generating activities. Likewise, leverage (LEV) shows a very weak negative relationship with firm value (r = -0.0109), suggesting that debt financing has little direct association with market valuation. Asset quality (AQ) records a weak positive correlation with firm value (r = 0.0623). However, none of the correlation coefficients exceeds the conventional threshold of 0.90, indicating the absence of severe multicollinearity among the variables (Gujarati & Porter, 2009).

Table 4: Breusch–Pagan/Cook–Weisberg Test for Heteroskedasticity

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Breusch-Pagan/Cook-Weisberg test for heteroskedasticity
Assumption: Normal error terms
Variable: Fitted values of fv

H0: Constant variance

    chi2(1) =   0.00
Prob > chi2 = 0.9869
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Source: STATA output 2026

Table 4 presents the result of the Breusch–Pagan/Cook–Weisberg test for heteroskedasticity. The test was conducted to determine whether the variance of the error terms is constant across observations. The result shows a Chi-square statistic of 0.00 with a probability value of 0.9869, which is greater than the 5 percent significance level. Consequently, the null hypothesis of constant variance cannot be rejected. This implies that the residuals are homoscedastic and the model does not suffer from heteroskedasticity problems. Therefore, the assumption of constant error variance underlying the regression model is satisfied, indicating that the estimated coefficients are reliable and efficient.

Table 5: Variance Inflation Factor (VIF) Test for Multicollinearity

Variable	VIF	1/VIF
car	1.02	0.977110
lev	1.01	0.988283
liq	3.70	0.270100
aq	3.21	0.311273
prof	1.51	0.661536
Mean VIF	1.34	

Source: STATA output 2026

Table 5 presents the Variance Inflation Factor (VIF) results used to assess the presence of multicollinearity among the explanatory variables. The results show that the VIF values range from 1.01 to 3.70, with a mean VIF of 1.34. These values are substantially below the conventional threshold of 10.00 suggested by Gujarati and Porter (2009) and also below the stricter threshold of 5.00 recommended in empirical research. Therefore, the results indicate that the independent variables are not highly correlated with one another and can be included simultaneously in the regression model without causing estimation bias or instability in the coefficient estimates. This suggests that multicollinearity is not a concern in the study.

Table 6: Hausman Specification Test

	---- Coefficients ----			
	(b) fixe	(B) random	(b-B) Difference	sqrt(diag(V_b-V_B)) Std. err.
prof	.2005152	.1376766	.0628386	.0898412
liq	-.0382741	-.0314449	-.0068292	.0151596
lev	.3071131	.2142413	.0928718	.1448739
car	-.1669787	-.0010032	-.1659755	.1434211
aq	-.0280363	-.0413064	.0132701	.0453805

b = Consistent under H0 and Ha; obtained from xtreg.
B = Inconsistent under Ha, efficient under H0; obtained from xtreg.

Test of H0: Difference in coefficients not systematic

chi2(5) = (b-B)'[(V_b-V_B)^(-1)](b-B)
= 9.81
Prob > chi2 = 0.0809

Source: STATA output 2026

Table 6 presents the Hausman specification test conducted to determine the appropriate panel regression model between the Fixed Effects Model (FEM) and Random Effects Model (REM). The null hypothesis states that the Random Effects Model is appropriate and efficient, while the alternative hypothesis supports the Fixed Effects Model.

The result shows a Chi-square statistic of 9.81 with a probability value of 0.0809, which exceeds the 5 percent level of significance. Consequently, the null hypothesis cannot be rejected. This indicates that the differences between the fixed effects and random effects coefficient estimates are not systematic. Therefore, the Random Effects Model (REM) is considered the most appropriate estimation technique for the study and is adopted for subsequent regression analysis.

Table 7: Breusch-Pagan Lagrangian Multiplier (LM) Test for Random Effects

```
Estimated results:
                 |       Var     SD = sqrt(Var)
        ---------+-----------------------------
              fv |   1.215781       1.102625
               e |   .9792376       .9895643
               u |   .1963553       .4431199

Test: Var(u) = 0
                     chibar2(01) =    11.19
                  Prob > chibar2 =   0.0004
```

Source: STATA output 2026

Table 7 presents the Breusch-Pagan Lagrangian Multiplier (LM) test for random effects. The test examines whether there are significant panel effects in the data by testing the null hypothesis that the variance of the unobserved individual effect is zero, implying that the pooled Ordinary Least Squares (OLS) model is adequate. The result reveals a Chibar² value of 11.19 with a probability value of 0.0004, which is less than the 5 percent significance level. Therefore, the null hypothesis is rejected, indicating the presence of significant individual bank effects. This suggests that the random model is appropriate and should be used.

Table 8: Random Effects Regression Results

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Random-effects GLS regression                   Number of obs     =       126
Group variable: bank_id                         Number of groups  =        14

R-squared:                                      Obs per group:
     Within  = 0.4374                                         min =         9
     Between = 0.3945                                         avg =       9.0
     Overall = 0.4513                                         max =         9

                                                Wald chi2(5)      =     85.36
corr(u_i, X) = 0 (assumed)                      Prob > chi2       =    0.0000

------------------------------------------------------------------------------
          fv | Coefficient  Std. err.      z    P>|z|     [95% conf. interval]
-------------+----------------------------------------------------------------
        prof |   .2219547   .0759642     2.92   0.003    -.3708417   -.0730677
         liq |  -.0314449   .0233485    -1.35   0.178    -.0772071    .0143172
         lev |   .2142413   .1513843     1.42   0.157    -.0824664    .5109491
         car |   .2552936   .0417864     6.11   0.000     .1727092    .3378779
          aq |   .3795461   .0925253     4.10   0.000     .1981999    .5608924
       _cons |   1.721504   3.520501     0.49   0.625    -5.178551    8.621559
-------------+----------------------------------------------------------------
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Source: STATA output 2026

Table 8 presents the Random Effects GLS regression results on the effect of financial attributes on the value of listed deposit money banks in Nigeria. The overall model is statistically significant as indicated by the Wald Chi-square value of 85.36 with a probability value of 0.0000, suggesting that the explanatory variables jointly have a significant effect on firm value. The R^2 value of

0.4513 indicates that approximately 45.13% of the systematic variation in firm value (Tobin's Q) of listed deposit money banks in Nigeria is jointly explained by the included financial attributes (profitability, liquidity, leverage, capital adequacy, and asset quality). T

The coefficient of profitability (PROF) is positive and statistically significant at the 1% level (β = 0.2219, p = 0.003). This implies that an increase in profitability leads to an increase in firm value, indicating that more profitable banks tend to have higher market valuation. This result is also consistent with Agency Theory (Jensen & Meckling, 1976), which suggests that efficient managerial performance leads to improved financial outcomes and higher firm value. Empirically, this finding supports studies by Jihadi et al. (2021), Nguyen et al (2021), and Jeroh (2020), who similarly reported that profitability significantly enhances firm value across different emerging market contexts. Liquidity (LIQ) has a negative but statistically insignificant relationship with firm value (β = -0.0314, p = 0.178). This suggests that liquidity does not significantly influence the value of listed deposit money banks in Nigeria during the period under review. From a signaling perspective, weak or excessive liquidity may not send a strong positive signal to investors regarding profitability potential. This finding is also in line with empirical evidence from Jihadi et al. (2021), who reported mixed and sometimes insignificant effects of liquidity on firm value, suggesting that liquidity management effects vary across firms and contexts.

Leverage (LEV) shows a positive but insignificant effect on firm value (β = 0.2142, p = 0.157), indicating that capital structure decisions do not significantly determine market valuation in the sampled banks. his result is consistent with Rahmi et al (2024) and Jihadi et al. (2021), who found that leverage effects on firm value are context-dependent and often statistically insignificant in some sectors. Capital adequacy (CAR) has a positive and highly significant effect on firm value (β = 0.2553, p = 0.000). This implies that well-capitalized banks are valued higher in the market, reflecting investor confidence in financially stable institutions. It also aligns with Agency Theory, as strong capital positions reflect prudent managerial risk-taking and effective financial stewardship. Empirically, this finding is consistent with Phuong et al (2024) and Jeroh (2020), who found that strong financial stability indicators positively influence firm value in financial institutions. Asset quality (AQ) also shows a positive and significant relationship with firm value (β = 0.3795, p = 0.000), indicating that banks with better asset quality (lower credit risk exposure) tend to have higher market valuation. From an Agency Theory perspective, strong asset quality reflects effective monitoring and reduced managerial inefficiencies in lending decisions. This result is consistent with empirical evidence from Jeroh (2020) and Phuong et al (2024), who reported that better asset quality improves financial performance and firm value in listed financial institutions.

Conclusion and Recommendations

The study concludes that financial attributes jointly play a significant role in explaining variations in firm value (Tobin's Q) among deposit money banks in Nigeria. Specifically, profitability, capital adequacy, and asset quality were found to have positive and statistically significant effects on firm value. This indicates that banks with higher profitability, stronger capital buffers, and better asset quality tend to achieve higher market valuation. On the other hand, liquidity and leverage were found to have statistically insignificant effects on firm value. This suggests that within the Nigerian banking sector, these variables may not directly influence market valuation during the period under review, possibly due to regulatory controls and industry-wide standardization of liquidity and capital structure practices. Based on the findings of the study, the following recommendations are made:

1. Management of deposit money banks should focus on improving profitability through efficient cost management, diversification of income sources, and expansion of digital banking services. This will strengthen earnings performance and enhance firm value.
2. Banks should ensure that leverage levels are carefully managed within regulatory limits. While leverage did not significantly affect firm value, excessive reliance on debt may expose banks to financial risk and should be avoided.
3. Banks should maintain and strengthen their capital adequacy ratios above regulatory minimum requirements. A strong capital base enhances financial stability, reduces risk exposure, and improves investor confidence, thereby increasing market valuation.
4. Although liquidity was not statistically significant, banks should still maintain optimal liquidity levels that balance profitability and risk. Excess liquidity should be minimized to avoid idle funds that do not generate returns.
5. Banks should adopt stricter credit risk assessment frameworks to reduce non-performing loans. Effective loan monitoring and recovery strategies should be prioritized to improve asset quality and sustain long-term value creation.

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