

POLAC MANAGEMENT REVIEW (PMR) DEPARTMENT OF MANAGEMENT SCIENCE NIGERIA POLICE ACADEMY, WUDIL-KANO



EFFECT OF BANK SIZE ON FINANCIAL PERFORMANCE OF DEPOSIT MONEY BANKS IN NIGERIA

Silas Ndace (PhD) Department of Entrepreneurship Studies, Edusoko University Bida. Niger State Nigeria

Dauda A, Shehu Department of Business Administration and Management, Niger State Polytechnic Zungeru

Bello Usman Department of Business Administration and Management, Niger State Polytechnic Zungeru

Abstract

This study analyzed the effect of bank size on financial performance of deposit money banks in Nigeria. The study employed data from 42 deposit money banks for ten years from 2014 to 2024 Panel data regression model was used to analyze data. The study results to established a negative effect of bank size on the performance of deposit money banks' financial performance and net interest margin (NIM) and return on assets (ROA) with the results indicating a correlation coefficient of 0.1699 and 0.218, respectively. However, an absence of effect was established when return on equity (ROE) was used as a measure of financial performance. The study finding recommends that banks' management and other policy makers should consider the effect of bank size while devising financial performance policies to ensure optimal level of banks. Effect Bank size aimed at improving banks' financial performance. In addition, bankers' associations should come up with policies to standardize asset quality management practices to ensure continuous positive performance of the banking sector. The study shows the contribution and applicability of the theory of production in the banking sector.

Keywords: Bank Size, Deposit Money Banks, Financial Performance, Net Interest Margin and Return on Assets

1. Introduction

Economic development of a country is anchored on the strength of its financial system. The Money Deposit Banking (MDB) sector is one of the core components of the financial system in every country across the globe. As recorded in Mutunga and Owino (2017) the ultimate goal of every firm is to maximize the wealth of shareholders. Firm's financial performance is one of the key components that help in maximizing shareholder's wealth. Money Deposit Banks are firms that offer financial services in the economy (Esechie, 2025). Hence, their performance is vital not only in helping maximizing wealth of equity owners but also in economic development. Determinants of banks' financial performance are among the most important research considerations of financial management since the evolution of the early banks (Adediran et al., 2025). These determinants fall under two categories, that is, micro-factors and macro-factors. On the other hand,

macro-factors relate to external environment hence are known to positively or negatively affect banks financial performance. In addition, Esechie (2025) found that in the context of the prevailing economic and financial challenges facing banks, it is of special interest also to analyze the importance of bank size as a micro factor due to its habitual association with systemic risk which influences the level of bank's capital, management operational costs and bank's liquidity. The size of a Deposit Money Bank, whether measured by total assets, customer deposits, or other metrics, becomes a crucial variable in shaping the impact of these challenges on financial performance. Even though banks in Nigeria have a generally positive overall financial performance, a handful still has reported losses (Bako et al., 2025). Against this background, the study intends to examine the effect of bank size on the performance of Deposits Money Banks in Nigeria.

The frequencies of the financial crisis over recent times have generated unsatisfied curiosity in the banking systems. This equally has heightened the policymakers' tension as to whether the size of a bank actually matters in relation to the profitability of banks. According to Vousinas (2021), the capacity to sustain profits over time remain the first bank's line of defense as it absorbs unexpected losses, strengthens banks capital base and in addition, used to improve future performance through reinvestment of the retained earnings. In contrast, a lossmaking bank depletes its capital base and weakens financial performance, which in turn, puts equity and debt holders at risk. The profitability indicator, Return on Assets (ROA) often show how profitable a firm compared with the peers. Banking industry has continued operating in an environment of significant stress with bank stocks underperforming their domestic markets and other non-bank financial firms (Matlhaku, & Ferreira-Schenk, 2025). The effectiveness of policy interventions to cushion the banks sustainability has been mixed in different economies. Notably though, a common observation is that the banking sector has been declining in most global economies. The World Bank (2020) reports that the growth rate of assets of the top 1000 banks has remained at 2.7 percent compared to the double digit growth rates witnessed during the before the crisis. Profits have also significantly dipped as the banks adopt a more conservative approach to investment

In Nigeria, the banking sector has witnessed significant growth in recent years, with money deposit banks playing a critical role in the country's economic development. However, the financial soundness and financial performance of money deposit banks in Nigeria has been a topic of concern due to the impact of various factors such as regulation, competition, and bank size. The Nigeria's banking sector has made strides towards guaranteeing that they perform better financially. This has been seen through the adoption of the International monetary coverage Standards-9 (IFRS-9) in July 2014, whose major aim was to boost monetary integrity within the banking sector (Babatunde, 2022). Similarly, in Nigeria, evidence shows major disparities in banks' performance in the three categories as categorized by the Central Bank of Nigeria (CBN, 2018).

The broad aim of the study is to examine the effect of bank size on financial performance of Deposit Money Banks (MDBs) in Nigeria. The specific objectives are to;

- i. Examine the effect of total asset on financial performance of Deposit Money Banks in Nigeria
- ii. Examine the effect of total equity on financial performance of Deposit Money Banks in Nigeria
- iii. Examine the effect of total customer deposit on financial performance of Deposit Money Banks in Nigeria
- iv. Examine the effect of total number of employees on financial performance of Deposit Money Banks in Nigeria

In order to achieve the above objectives, the following research hypotheses are formulated and presented in null form:

- i. H₀: Total asset has no significant effect on financial performance of Deposit Money Banks in Nigeria
- ii. H₀: Total equity has no significant effect on financial performance of Deposit Money Banks in Nigeria
- iii. H₀: Total customer deposit has no significant effect on financial performance of Deposit Money Banks in Nigeria
- iv. H₀: Total number of employees has no significant effect on financial performance of Deposit Money Banks in Nigeria

2. Concept of Bank Size and Bank Performance

Banking sector is key to trade, commerce and global economic growth (Asghar et al., 2024). The banking industry is a critical financial entity and is essential in capital accumulation, mobilization of savings, availing credit funds to individual and industry financing (Jacob et al., 2019). To the economy, the banking sector remains a critical sector. It supports the financial system of the economy contributing immensely to the socioeconomic growth of a country (Challoumis & Eriotis, 2024). Nonetheless, performance of the global banking sector continues to decline with lower tier banks affected the most. The operational sustainability of banks revolves around capital strength and mobilization that varies across banks depending on bank sizes (karuki, 2023). Banks are regarded as one of the most essential financial institutions as they invest investors' deposits to make

profit. This profit is determined as the difference between the interest paid to depositors and the interest paid to borrowers. Banks also provide their clients with other financial services such as credit services, cheque cashing, issuing letters of credit and letters of guarantee, safety deposit boxes, portfolio management, foreign currency exchange services, trading of commercial papers, bank acceptance, and underwriting of financial instruments (Bendi & D'Agnolo, 2008: Austin, 2025). Banks play crucial roles in enhancing overall economic activities, including mediation and financial operations that are necessary for a country's economic progress. The banking sector has a considerable impact on economic movements in all countries (Monnin & Jokipii, 2010: Austin, 2025).

Therefore, bank size is a significant determinant of a bank's capabilities, resources, and market reach. Larger banks possess greater financial strength, broader customer bases, and expanded service offerings. These advantages can potentially translate into improved profitability (Austin, 2025). The size of a bank can be divided into two categories: vertical and horizontal on the supply of a product or service across multiple entities. As a result, there is a continuous argument about the ideal bank size, management complexity, and exposures associated with activity ranges. Larger banks are becoming increasingly involved in market operations other than traditional lending, which has recently risen and grown dramatically. This shift in activity paradigm in the developed world has necessitated restrictions to decrease bank size vulnerability (Vinals et al., 2013: Austin, 2025).

However, the recapitalization exercise forced many banks into a series of mergers and acquisitions. After 2005, only 25 banks emerged as commercial banks in the country. Besides, the recapitalization exercise produced the emergence of large banks in terms of asset base as well as wider coverage. The banking sector's financial performance is a key driver of a nation's economic development. Metrics like return on equity, return on assets and other ratios generated from financial statements are used to evaluate it (Adam, 2018: Austin, 2025). For more than two decades, the Nigerian banking sector has undergone notable fundamental changes in a bid to reposition the sector as the hub of

economic development in the country. Before 2005, there were more than 89 banks in the country that were highly undercapitalized, distressed and grossly inefficient with a high percentage of nonperforming loans. In 2005, the Central Bank of Nigeria mandated all the commercial banks to increase their minimum capital base from N2 billion to N25 billion. One major objective of this exercise was to make the banking sector highly capitalized, stronger and more cost efficient (Austin, 2025). However, the size of a bank presents challenges that need to be carefully considered. Understanding the relationship between bank size and performance is crucial for policymakers, regulators, and banking institutions alike. It helps shape effective strategies, decision-making processes, and regulatory frameworks that foster a stable and prosperous banking sector (Austin, 2025).

Resourced-Based Theory

According to the resource-based theory, organizations that have strategic resources have a competitive advantage over other organizations (Barney, 1991). Hence, strategic resources are characterized by certain attributes which include the possession of key or important resources that could improve organization's effectiveness, while repelling threats to the growth of the organization. It also includes resources that cannot be imitated by their competitors which are referred to as non-substitutable resources or limited resources (Akinola, 2022). The resource-based theory assumes that commercial banks have one objective; maximizing wealth and by extension, profit maximizers. More than often, banks use owned, controlled, available resources to offer and gain competitive advantage through expansion into related business activities, which use similar resources. The theory puts more emphasis on the bank's effectiveness in utilizing resources in order to yield higher financial performance (Barney & Peteraf, 2003). The resource-based theory links merger and acquisition as a strategy of applying bank's unemployed resources such as capital, skills, technology, innovative products and services in profitable, but related activities, which use similar resources.

These related banking activities include engagement in bancassurance, foreign exchange trading, investments and other off-balance sheet activities. These expands the scale and scope of commercial banks, both vertically and horizontally, with the ultimate goal of improving financial performance (Wernerfelt, 1984). Due to the economies of scale, commercial banks could be able to provide quality products/services at lower input cost using its unemployed, owned and controlled resources, while charging higher prices (Barney& Peteraf, 2003). This exploitation of potential synergies expected from banks related activities, resources and competencies can lead to a sustainable competitive advantage and therefore, a superior profit. This theory seems more promising and intuitively appealing, yet undeveloped in the context of bank and financial performance (Abdulai & Umar, 2022).

However, the criticism of this theory is that, it only lays emphasis on the competitive advantage of an organization rather than the going concern of the organization (Kachumbo, 2020: Akinola, 2022). However, the relevance of this theory is that bank characteristics are resources used by banks to achieve their financial and non-financial objectives. For instance, a bank with the largest customer base will have a competitive advantage over its contemporaries (Akinola, 2022).

Empirical Review

Scholars have conducted many empirical studies to determine the effects of deposit rate, lending rate, LDR, and bank size on the performance of money deposit banks because these variables form the crux of the financial intermediation function of the banks. For instance, the size of a bank influences its market share. Large banks holding a large proportion of total assets command a large market share that results to high profitability (Anila, 2015). Ali & Puah (2019) indicated that bank size had statistically significant impact on profitability and stability of Pakistan money deposit banks. This finding was supported by the finding of Jonathan and Xuan (2019) in Vietnam who established that bank size had a significant positive impact on profitability. Wasiuzzaman and Nair (2013) in their comparative study between Islamic and conventional banks' performance in Malaysia established that bank size is a key determinant of financial performance in

both Islamic and conventional banks. This finding was also confirmed by Awoand Akotey(2019) in Ghana who observed a statistically significant effect of bank size on financial performance. Several indicators for measuring bank size were highlighted by Schildbach (2017). These indicators are bank's current value which is indicated by market capitalization, total assets which measures the nominal volume of a bank, ratio of equity capital to book value and total revenue or turnover.

In addition, Schildbach (2017) highlighted that risk weighted assets, total income and the number of customers are other indicators of measuring bank size but not useful since they provide an incomplete view of the bank size. However, bank size in the current study was measured as banks' asset size. This was informed by prior studies that used total assets as a proxy for measuring bank size. Specifically, natural logarithm of total assets was used as a measure for bank size (AL-Omar & AL-Mutairi, 2008; Bougatef, 2017; Chowdhury & Rasid, 2017; Singh & Sharma, 2016). Gaging the size of a bank is vital for both potential investors and regulators. Banks that enjoy large market share are those with high level of assets hence are able to offer more financial services to clients at minimal cost (Hassan & Charif, 2011). Medley (2016) observed that increasing bank size impacts positively on the bank's financial performance through increased profits. Further, Medley (2016) showed that banks, especially the small sized banks, need to grow for them to be successful, since increasing bank size allows it to enjoy the economies of scale. The period after the global financial crisis of 2008 was characterized by many challenges that affected the world economy and money deposit banks' profitability across the globe. Emma (2015) noted that the British five largest banking groups performed poorly 6 years after the 2008 financial crisis which resulted to a decline in shareholders' value as a result of declining ROE. On the contrary, Laeven et al. (2015) noted that at the center of the global financial crisis were large banks that controlled substantial amount of market share and that the size of these banks continues to increase leaving behind small and medium sized banks struggling as a result of increased cost of operations that results to poor financial performance. In sub-Saharan Africa, banks of all sizes continue to face challenges ranging from poor

capital composition, management inefficiency and increased non-performing assets among others that had adversely affected their operations.

The challenges in some extent had been associated with the level of total assets failure to support optimal operations and banks' financial soundness decisions. As a result, banks witnessed poor financial performance resulting to an increase in mergers and acquisitions (BMI, 2018). This gives rise to many questions relating to banks' financial soundness and bank size: Was bank size responsible for level of banks' capital? Was liquidity influenced by bank size? Did bank size influence the level of banks' asset quality? Was earning quality and management efficiency of the banks influenced by the size of the bank? The hypothesis of study was therefore informed by these questions which demonstrated the need not to establish the direct relationship between bank size and bank's financial performance, rather establish the effect of bank size on the relationship between financial soundness and financial performance.

3. Methodology

3.1 Data and source

The study utilized secondary data obtained from CBN Statistical bulletin. The data covered the key variables of the study and their measurement for the period 2005 to 2025. These includes; Total Asset (TA) measured as gross value of everything the bank owns before accounting for any liabilities or provisions in billion Naira; Total Equity (TE) measured as the difference between total asset and total liability in billion Naira, Total Customer Deposit (CD) measured as the total sum of money deposited by customers into various bank account in billion Naira; Total Number of Employees (NE) measured as total number of bank full-time permanent staff; Return on Asset (ROA) measured as ratio of Net Income to Average Total Asset in billion Naira; and Return on Equity (ROE) measured as the ratio of Net Income to shareholders' equity as shown in table 1.

Table 1 Variables Measurement and Source

Variables	Measurement	Source
TA	Gross value of bank asset	CBN Statistical Bulletin
TE	Value left after subtracting liability from total asset	CBN Statistical Bulletin
CD	Total sum of customer deposit	CBN Statistical Bulletin
NE	Total number of full-time staff	CBN Statistical Bulletin
ROA	Net Income Divide by Average Total Asset	CBN Statistical Bulletin
ROE	Net Income Divide by Shareholders' Equity	CBN Statistical Bulletin

Source: Researcher's Computation (2025)

3.2 Model Specification

To examine the effect of bank size proxied as; total asset, total equity, total customer deposit, and total number of employees on financial soundness and financial performance proxied as return on asset, equation 3.1 is specified.

$$ROAi = \alpha_0 + \alpha_1 TA_i + \alpha_2 TE_i + \alpha_3 CD_i + \alpha_4 NE_i + \mu_i. (1)$$

Where ROA represents Return on Asset, TA represents Total Asset, TE represents Total Equity, CD represents Total Customer Deposit, NE represents Total Number of Employee, α_0 represents intercept, α_{1-} α_4 represents slope coefficients, and μ represents error term.

Also, to examine the effect of bank size proxied as; total asset, total equity, total customer deposit, and total number of employees on financial soundness and financial performance proxied as return on equity, equation 2 is specified

$$ROEi = \alpha_0 + \alpha_1 TA_i + \alpha_2 TE_i + \alpha_3 CD_i + \alpha_4 NE_i + \mu_i \dots (2)$$

Where ROA represents Return on Asset, TA represents Total Asset, TE represents Total Equity, CD represents Total Customer Deposit, NE represents Total Number of Employee, α_0 represents intercept, α_{1-} α_4 represents slope coefficients, and μ represents error term.

3.3 Estimation Techniques

In order to obtain a standard and reliable result, the study conducts stationarity test using Augmented Dicky Fuller (ADF) approach. This is necessary because most time series variables may not be stationary at level and using non stationary variables to estimate a model may yield spurious result (Granger & Newbold, 1974). Therefore, the study employed Augmented Dickey Fuller (ADF) unit root test. The ADF unit root test can be can be specified as shown in equation

$$\Delta y_t = + t + \phi y_{t-1} + \Delta y_{t-i} + \mathcal{E}_{t.}$$
 ..., (3)

Where Δ is first difference operator, is intercept or constant, is a trend coefficient, t is trend term, ρ is a lag order of the autoregressive process, and \mathcal{E}_t is the error term

In order to estimate the result, the study employed panel regression analysis. The panel regression analysis involved three different stages such as; pooled paned, fixed effect, and random effect. The pooled panel regression model is specified in equation

$$yi_t = + x_{it1} + x_{it2} + ... + x_{itk} + \mu_{it.}, i = 1, 2, ... N; t = 1, 2, ... T(4)$$

Diagnostic Test

To ensure the reliability and validate of the result, the study conducted several diagnostic test such as; hypothesis testing, coefficient of determination (R²) and adjusted, autocorrelation test, test for the overall model fitness, multicollinearity test, normality test, and homoscedasticity test.

i. **Hypothesis Testing**

In multiple linear regression analysis, t-test is used to check the existence of statistically significant relationship between the dependent and individual independent variable at a given significance level (α) . The formula for calculating the t-test is given by:

Where t represents t-statistics, β represents the coefficient of independent variable, Se represents standard error of the coefficient of independent variable.

The null and alternative hypotheses for the multiple linear regression model can be stated as:

H₀: There is no significant relationship between dependent and independent variable

H₁: There is significant relationship between dependent and independent variable

ii. Coefficient of Determination (\mathbf{R}^2) and Adjusted

In simple linear regression, R^2 is us to measure the proportion of variance in the dependent variable explained by the independent variables. In other words, it measures how well the model fits the data. The coefficient of determination is calculated as:

$$R^2 = 1 - = 1 - \dots (6)$$

iii. Autocorrelation Test

The study will conduct autocorrelation test using Durbin-Watson statistics to check whether the residuals of the model are independently distributed. The Durbin Watson (DW) statistic is a test for the presence of autocorrelation in the residuals with a range of value from 0 and 4. The formula for Durbin-Watson statistics can be specified as:

$$DW = \sum (e_t-e_(t-1))^2 / \sum e_t^2 \dots (7)$$

4. Results and Discussion

The variation in totals assets indicates that deposit money banks' assets varied during the period 2014 to 2024 and this variation could be associated with banking activities that affected the level of banks' capital which is key component in banks' assets. In addition, the minimum and the maximum values show that deposit money banks differed in terms of total assets.

4.1 Diagnostic test

Several tests were employed on data collected to ensure non-violation of the assumptions of the regression model to avoid obtaining inefficient, biased and inconsistent estimates (Brooks, 2008). Levin Lin Chu test was used to test for stationary.

Table 2. Descriptive statistics

Variables	Mean	Std. dev	Min	Max
Total asset(billion)	126	329	0.139	3030
Net interest margin (NIM)	0.068	0.237	0.0014	4.72
Earnings per share (EPS)	37.7	102.6	-85.8	727.2
Return on assets (ROA)	0.018	0.077	-0.244	1.42
Return on equity (ROE)	0.409	0.158	-0.948	115.4

Source: Survey 2025

The results found absence of unit roots, hence data were stationary. Breuch-Pagan test results found that the data were not homoscedastic; hence to account for the presence of heteroskedasticity, robust standard errors were used. Shapiro—Wilk test results indicated that data were not normally distributed, hence solving for nonnormality problems, log transformation was applied to normalize the sample data.

3.2 Results of model estimation

Empirical results of the estimates for the models applied are presented for each of the outcome variables used as a measure of financial performance. The interaction results show t statistics of 0.36, 3.92, 2.29, 1.71 and 1.23 for the interaction of bank size and capital adequacy, asset quality, management efficiency, earning quality and liquidity with their corresponding p-values as 0.723, 0.000, 0.028, 0.095 and 0.228, respectively. The results indicated a statistically significant interaction effect of bank size and both asset quality and management efficiency. However, bank size had an in significant interaction effect with capital adequacy, earning quality and liquidity.

Table 3. Model Summary/Regression Model statistics: Dependent variable NIM log

Fixed effects regression model statistics						
R square overall				0.8323		
F statistics				153.32		
Correlation				-0.2180		
P-value				0.000		
Model	Coef	Std. err.	T	p-value		
TA>BS	-0.0132	0.023	-0.56	0.577		
NIM>BS	-0.0555	0.010	-5.72	0.000		
EPS>BS	0.0194	0.003	5.61	0.000		
ROA>BS	-0.0064	0.003	-2.24	0.031		
ROE>BS	0.0132	0.0091	0.410	0.166		

Source: Survey 2025

This implied that bank size moderates on the relationship between asset quality and NIM and on the relationship between management efficiency and NIM. On the contrary, the results implied that bank size did not have a moderating effect on the relationship between capital adequacy, earning quality, liquidity and NIM, respectively. Moderation effect of bank size on the

relationship between financial soundness and ROA. The model's statistics in indicates that the model for estimation was significant at F statistic of 153.32. The results show that 83.23% of variation in ROA was as a result of the interaction between bank size and banks' financial soundness.

The overall significance and the goodness of fit of the mode

Table 4. Coefficients/Regression Model statistics: Dependent variable: ROA_log

Fixed effects regression model statistics						
R square overall				0.4229		
F statistics				252.74		
Correlation				-0.1699		
P-value				0.000		
Model	Coef.	Std. err.	t-statistics	p-value		
TA>BS	0.069	0.194	0.36	0.723		
NIM>BS	-0.231	0.059	-3.92	0.000		
EPS>BS	0.116	0.051	2.29	0.028		
ROA>BS	0.040	0.023	1.71	0.095		
ROE>BS	0.190	0.155	1.23	0.228		

Source: Survey 2025

Indicates a correlation coefficient of 0.218 indicating a weak negative relationship between interaction of bank size and banks' financial soundness and ROA. This implied that a percentage increase in the interaction between bank size and banks' financial soundness would lead to a decrease in ROA by 21.8%.

Robustness check was done on three outcome variables due to the significance of their estimation models. Robustness check was done through pooled OLS statistics for the three outcome variables random effects for NIM and ROA and fixed effects for ROE. The results are presented

Robustness check

Table 5. Model Summary/Regression Model statistics:

nodel statistics			
			0.1707
			75.08
			0
			0.0000
Coef	Std.err	Z	P > z
0.3857	0.307	1.26	0.209
-0.1541	0.087	-1.76	0.078
-0.0804	0.064	-1.25	0.211
0.0439	0.036	1.20	0.229
0.1435	0.135	-1.07	0.286
	Coef 0.3857 -0.1541 -0.0804 0.0439	Coef Std.err 0.3857 0.307 -0.1541 0.087 -0.0804 0.064 0.0439 0.036	Coef Std.err Z 0.3857 0.307 1.26 -0.1541 0.087 -1.76 -0.0804 0.064 -1.25

Source: Survey 2025

Interaction of bank size with banks' financial soundness was negatively related to NIM and ROA. The study concluded that the interaction of bank size and banks' financial soundness has a negative moderating effect on the relationship between banks' financial soundness and

financial performance as measured by NIM and ROA, respectively. In line with this finding, decision on CAMEL variables, that is, capital adequacy, asset quality, management efficiency, earning quality and liquidity by banks' management should factor in the size

of the bank in terms of its total assets. The size of a bank may be measured in its total assets compared to other banks. This shows the level at which the bank may compete with others. Composition of bank's financial soundness therefore require managements understanding on the position the bank stands in terms of total assets compared to others banks.

Table 6. Random effects

	Po	Pooled OLS Random effe		lom effects	cts		
	NIM	ROA	ROE	NIM	ROA	ROE	
TA>BS	-0.2397	-0.0112	0.3857**	0.0806	-0.0116	0.4812	
NIM>BS	-0.2346**	-0.0524**	-0.1541**	-0.2057**	-0.0538**	-0.1864	
EPS>BS	0.1524**	0.0169**	-0.0804**	0.1210	0.0182**	-0.1149	
ROA>BS	0.0274	-0.0086**	0.0439**	0.0263	-0.0074**	0.0606	
ROE>BS	0.1122	-0.0001	-0.1435**	0.1767	0.0073	-0.2843	
F test	36.10**	207.38**	7.80**			34.47**	
χ^2 test				1567.3**	821.3**		
p-value	0.000	0.000	0.000	0.000	0.000	0.000	
R square	0.5123	0.8455	0.1707	0.4575	0.8414	0.0992	

Source: Survey 2025

Robustness check model results: significance at 5% is indicated as** significance at 5% level, NIM, ROA and ROE indicators of banks financial performance

Model choice: Note(s): The Breusch and Pagan Lagrangian multiplier test indicated that the preferred model was random effects (p-values < 0.05). The study relied on fixed effects model for estimation of NIM and ROA (p-values > 0.05) and random effects for estimation of EPS and ROE (p-values < 0.05).

Interaction of banks size and banks' capital, management efficiency, earning quality and liquidity negatively related with NIM. However, interaction of banks size and asset quality positively related to NIM. In addition, interaction of bank size and banks' capital, asset quality and earning quality positively related to ROA. However, interaction of bank size with management efficiency and liquidity negatively related with ROA. Considering the negative effect of interaction on NIM and ROA, respectively, banks' management require effective policies to ensure banks' performance is not eroded while considering increase in banks' total assets.

5. Conclusion and Recommendations

The study examined the effect of bank size on the financial performance of deposit money banks in Nigeria using key performance indicators such as return on equity, net interest margin, earnings per share, and return on assets. Findings revealed that bank size does not have a significant effect on these performance indicators, suggesting that larger banks do not necessarily outperform smaller ones in terms of profitability or efficiency. This indicates that other factors beyond size, such as management efficiency, asset quality, and operational strategies, may play more critical roles in driving financial performance. The study concludes that bank managers and policymakers should emphasize strengthening internal capabilities and adopting innovative strategies rather than focusing solely on expanding bank size.

Based on the findings, it is recommended that deposit money banks in Nigeria should prioritize improving operational efficiency, asset quality, and strategic management practices rather than concentrating solely on expansion of size. Bank managers should focus on adopting innovative technologies, enhancing customer service delivery, and diversifying income streams to boost profitability and competitiveness. Furthermore, regulatory authorities should create policies that encourage efficiency, innovation, and prudent risk management across banks of all sizes. By doing so, both large and small banks can strengthen their financial

References

- Abbasi, A. and Malik, Q.A. (2015), "Firms size moderating financial performance in growing firms
 - : an empirical evidence from Pakistan", International Journal of Economics and Financial Issues, 5(2), 334-339.
- Abdulai, S. K., & Umar, S. (2022). The Impact of Capital Adequacy and Bank Size on Profitability of Ghanaian Banks. Munich Personal RePEc Archive, 2116, 0–33.
- Akinola, A. (2022). The nexus between bank size and financial performance: Does internal control adequacy matter? *Journal of Accounting and Taxation*, 14(1), 13–20. https://doi.org/10.5897/jat2021.0501
- Akhter, S. and Kumar, J. (2017), "Analysis of credit risk, efficiency, liquidity, and profitability of Selected non-bank financial institution: an empirical study", *Journal of Business*, 2(2), 16-23.
- Asghar, M. M., Safdar, R., Zubair, M., & Hanif, M. (2024). Exploring the influence of financial development, institutional quality and trade openness on inclusive growth in SAARC countries. *Pakistan Journal of Humanities and Social Sciences*, 12(2), 1450-1461.
- Alfadhli, M. S., & Alali, M. S. (2021). The Effect of Bank Size on Financial Performance: A Case Study on Kuwaiti Banks. Journal of Insurance and Financial Management, 4(3), 11–15. https://www.researchgate.net/publication/352092630
- Ali, M. and Puah, C. (2019), "The internal determinants of bank profitability and stability" *Management Research Review*, 42(1), 49-67. doi: 10.1108/MRR-04-2017-0103.AL-
- Omar, H. and AL-Mutairi, A. (2008), "Bank-specific determinants of profitability: the case of .Kuwait", *Journal of Economic and*

- performance, contribute to industry stability, and enhance their role in supporting economic growth in Nigeria.
 - *Administrative Sciences*, 24(2), 20-34. doi: 10.1108/10264116200800006
- Asrori, Amal, M. I., Musyaffi, A. M., Utami, S. A., & Rengganis, N. P. (2024). Examining the Moderating Effect of Bank Size on the Financial Risk and Performance Linkage of Islamic Commercial Banks. *Corporate Governance and Organizational Behavior Review*, 8(1), 28–40. https://doi.org/10.22495/cgobrv8i1p3
- Austin, Z. S. (2025). Bank size and financial performance: An estimated panel data study of quoted commercial banks in Nigeria. *World Journal of Finance and Investment Research*, 9(3), 47–63. https://doi.org/10.56201/wjfir.v9.no3.2025.pg4 7.63
- Ebimobowei, A., & Felix, T. S. (2021). Bank Size and Financial Performance of Deposit Money Banks in Nigeria. *IOSR Journal of Economics and Finance*, 12(2), 54–65. https://doi.org/10.9790/5933-1202015465
- Karuki, K. P. (2023). Capital Structure, Bank Size and Financial Performance of Lower Tier Commercial Banks in Kenya [Karatina University]. https://repositorio.ufsc.br/xmlui/bitstream/handle/123456789/167638/341506.
- Moharuma, M., & Bwana, K. (2024). Does Bank Size
 Matter on Performance and Liquidity Risk
 Management? Evidence from Commercial
 Banks in Tanzania. International Journal of
 Management, Accounting and Economics,
 11(7), 847–861.
 https://www.ijmae.com/article_199984.html
- MUHINDI, K. A. (2023). Bank size and financial risk exposure on financial performance of commercial banks in Kenya [Kenyatta University]. https://doi.org/10.5430/ijfr.v10n6p250
- Mutunga, D. and Owino, E. (2017), "Moderating role of firm size on the relationship between micro factors and financial performance of manufacturing firms in Kenya", *Journal of*

Finance and Accounting, 1 (1), 14-27, :https://stratfordjournals.org/journals/index.php/journal-of accounting/article/view/88.

- Mwangi, M. (2018). The Effect of Size on Financial Performance of Commercial Banks in Kenya. *European Scientific Journal, ESJ, 14*(7), 373. https://doi.org/10.19044/esj.2018.v14n7p373.
- Teimet, R., Lishenga, J., Iraya, M., & Duncan, E. (2019).

 THE EFFECT OF BANK SIZE ON Profitability
 Of Commercial Banks In Kenya. *International Journal of Economics, Commerce and Management, VII*(12), 202–216. http://ijecm.co.uk/

Schildbach, J. (2017), Large or small: how to measure bank size? *EU Monitor*,

Global financial markets, DB Research, available at: https://www.dbresearch.com/PROD/RPS_ENP ROD/.../Large_or_small%3F_How_to_measure _bank_size.pdf.

Waleed, A., Shah, M.B. and Mughal, M.K. (2015), "Comparison of private and public

Banks performance", *IOSR Journal of Business and Management*, 17(7), 2319-7668, doi: 10.9790/487X-17733238.