



DEPOSIT GROWTH RATE, LEVERAGE, AND BANK SIZE: AN EMPIRICAL STUDY OF THEIR EFFECTS ON FINANCIAL PERFORMANCE OF LISTED BANKS

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Abstract

The study examines the Deposit Growth Rate, Leverage, and Firm Size: An Empirical Study of Their Effects on Financial Performance of Listed Banks. The study covers the period of seven (14) years from 2010 to 2023. The population of this study consists of thirteen (13) listed deposit money banks on the Nigerian stock exchange as at 31 December, 2023. Multiple regression was used for the panel data analysis in order to establish relationship between the variables of the study. Multiple regression was considered appropriate in view of the fact that it helps in not only establishing relationship between variables. The analysis reveals Firm size has a negative and insignificantly effect on the financial performance proxied by ROE of the listed deposit money banks in Nigeria. This predicts that the performances of high firm of listed deposit money banks in Nigeria are going to increase the profit of the banks and it implies that debt financing is not appropriate for the listed deposit money banks. Furthermore, the findings reveal that Deposit growth rate, leverage had a positive and insignificant effect on return on equity (ROE). This means that Firm size can control the financial performance of banks, it was also found that Deposit growth rate has insignificant positive relationship with financial performance. It can be concluded that the study banks are increasing their Leverage very rapidly but their growth does not produce any outcome to the listed banks in Nigeria. More so, lower Leverage has been found to reduce the return on equity due to the reduction of investment by banks customers. This study recommends that banks should continuing investing their resources and expertise to exercise control over management and increase Firm size through ownership re-orientation which can affect the financial performance of listed deposit money banks.

KEYWORDS: *Deposit Growth Rate, Financial Performance, Bank size, Leverage*

1. Introduction

Bank's health is influenced by return on its equity, investments, and asset rather than the size of its financial statements expressed in millions, billions, or trillions. However, earning superiority has been a key indicator of a bank's performance. Bank performance is a significant factor in determining a banking system's growth, survivability, sustainability, and development, and it should be a top priority for bank managers. (Timothy, 2018). To determine the current financial performance of Banks, descriptive and analytical measures could be used. Total assets and liabilities, stockholders' equity, total revenues, total costs, and net income are characteristics of descriptive financial performance measures, while profitability, liquidity, and solvency measurements are characteristics of analytical financial performance measures (Mustafa, 2024).

Financial performance consists of the returns that bank can generate at the end of business operations which is measured in monetary terms. Also, financial performance involves a quantitative measure of how well a bank can use its assets from primary mode of operations to

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generate income (Nzoka, 2015). Financial performance is used as a general measure of a bank financial health for a given period of time. Analysts and investors use financial performance to compare similar banks across the same industry or to compare industries or sectors in aggregate within a particular country.

Deposit growth rate connotes the total amount of funds that the bank mobilized from its customers in form of savings from which is issued out in form of loan and Nigerian banks are at risk and the total deposit of Nigerian banking industry in 2019 is N24.07trillion and in 2021 N33.85trillion (CBN, 2021). leverage is very important external financing modes. Financial leverage shows that a business needs finance to purchase a new asset, enhance their production or operational activities, financial leverage is one of the best ways for Banks to achieve its goal, with the help of the financial leverage a Banks can not only achieve its goals but also maximize the value of its shareholders. (Umer & Muhammad, 2018).

The financial sector's bottom line has suffered as a result of the country's challenges, including the recession, high debt costs (leverage), and central bank liquidity and capital adequacy ratio regulatory benchmarks, all of which have reduced banks' operational efficiency in Nigeria. (Nigeria Banking report, 2019), In 2018 central bank CBN announced that industry Capital Adequacy had risen from 10.8 percent as at August to 15.3 percent at the end of the year. Despite this development, the figures have remained volatile. Nigerian banks seem to be unable to absorb unanticipated shocks due to a lack of Deposit growth. The financial stability report by CBN director, financial policy and regulation Department reported that seven (7) banks failed a stress test on Capital adequacy funding which exposes their weakness in sourcing fund, (Kevin Amugo, 2018). The seven banks were however, not mentioned by the apex bank to avoid panic among the stakeholders. (Financial stability report 2018, the nation newspaper).

The challenges Nigerian banks face may be linked back to their funding sources, which might be either equity or debt. It is critical to consider a bank's capital structure not just to increase profits, but also to understand how it affects the organization's capacity to manage competitive conditions. However, technology innovations and considerable changes in the financial and monetary environment have increased competitiveness in the banking sector. (2019, Sunday & Samson). The sudden collapse of some banks in the past is traceable to inability of corporate financial managers to secure the best proportion of capital in carrying out daily operations which engender profitability and continuity in banking system. If none of these financial means brings productive results, then there should be consideration for alternative route. However, the problem facing entities in Nigeria lies within financing either to source equity or debt assets. Considering Bank's capital structure is imperative not just to boost earnings but also its effect on organization's capability to manage competitive environments. The aim of a bank's capital structure may not be focused on wealth maximization but to safeguard management's interest mostly in banks where control is dictated by directors and shares of the corporation carefully held. Most of the studies in Nigeria on firm characteristics ignored deposit growth rate, leverage and loan loss provision as proxies of firm characteristics despite the strong relationship that has been established in the literature between deposit growth rate and financial performance by Mohammed (2020) and leverage and firm size Isiaka (2021). This study is therefore an attempt to fill these literature gaps.

2. Literature Review

Conceptual Review

Leverage

Leverage refers to how much money a company borrows (debt financing) to maximize profits, and it's measured by the ratio of total liabilities to equity. The ratio of debt to equity in a statement of financial position is referred to as leverage. The financing or leverage decision is a significant managerial decision because it influences the shareholder's return and risk and the market value of the firm (Omondi & Muturi, 2013). According to Deste (2020), leverage is a measure of how much a firm uses equity and debt to fund its assets, and it is considered as a result of an event that determines a firm's source of financing to manage the business. It might take the form of a loan or other form of borrowing (debt). It is measured as a firm's total debt to equity ratio. leverage financing refers to a bank's debt-to-equity capital ratio. A significant portion of the bank's cash flow would be reduced as a result of paying interest and repaying the principal amount of the debt (Deste, 2020). According to Magpayo (2011). The use of debt to acquire new assets often was referred to as financial leverage. It might be financial or operational leverage. Leverage is the use of borrowed money to expand a firm 's production volume, sales, and profitability in order to improve its performance. It is measured as a firm's total debt to equity ratio. Jang and Yoon (2005). The greater a firm's financial leverage is, the more debt it has. Because interest is a fixed expense that can be discounted from earnings, a loan allows a firm to create more profits without having to grow its equity capital, which would need an increase in dividend payments that could not be deducted from profits. Magpayo (2011).

Deposit Growth Rate.

Deposit growth rate is the annual increase of bank deposit that occurred as a result of increase of savings by the banks customers. Greenwood and Jovanovich (1990) financial institutions produce better information improve resource allocation thereby induce growth. Several research work on finance and growth support a positive correlation between the two variables while causality emanates from finance to growth. Following the line of argument of the previous researchers was Tesneema (2018) who used two growth models to examine the impact of financial intermediation on economic growth. He stated that economic growth is no longer believed to happen for exogenous reasons; instead governments through appropriate policies particularly with regard to financial market can influence it. Deposit money banks play a very significant role in facilitated the process of capital formation. Capital accumulation for investment requires domestic savings or foreign assistance. Capital formation, whether financed from internal or external sources, requires the mobilization of economic surpluses. For investment to increase there must be a growing surplus over and above current consumption that can be channeled into productive uses.

Bank Size

Firm size refers to the speed and extent of growth that is ideal for a specific company. Most companies are intent to expand the size of their business operation for them to grow either in revenue, profit, number of employees, or size of facilities Pervan and Visic (2012). Many companies compete in rapidly changing industries, expansion of manufacturing capacity, geographical presence, market shares and so on which may be imperative for survival Dogan, (2013). Another strategy in retaining growth involves employing employees who like to work in a company. These people tend to enjoy the diversity of the challenges they encountered in the company and they often have a strong interest in the firm's products and can provide their

expertise to customers. Firm size is measured as the natural logarithm of a firm's total assets, which can be easily regressed in order to determine the influence of the firm's total assets on its performance Driffield, Mahambaree and Pal (2005). A lot of empirical studies have been conducted using firm size. Some of them used firm size as a control variable while others used it as a predictor variable in their studies. The size of a firm has the potential to influence the firm's financial performance in terms of the choice of capital structure mix. As larger firms have an advantageous position in capital markets to raise external funds, they are less dependent on internal funds. Moreover, the probability of bankruptcy is lower in larger firms; therefore, they are more likely to pay dividends. This implies an inverse relationship between the size of the firm and its dependence on internal financing. Hence, larger firms are expected to pay more dividends.

Financial Performance

Firms' performance is of vital importance for investors, stakeholders and the economy at large. Investors are interested in the returns for their investment. Well performing businesses can bring higher returns to their investors. Financial performance of a company will increase the income of its employees, bring quality products to its customers and become friendlier to its operating environment Mirza and Javed, (2013). A company that has good performance can generate more profits which can lead to future investment that can provide employment opportunities and increase the income of people. Barbosa and Louri (2005) viewed firms' performance as the outcome of a firm's strategy or an assessment of how well a firm accomplished its business goals. In the words of Mirza and Javed (2013), banks' performance is the ability of a bank to achieve its objectives using its available resources. Company's financial performance refers to the measurement of the results of a bank's strategies, policies and operations in monetary terms. Financial performance provides a deductive measure of how well a company can use assets from business operations to generate revenue.

Theoretical Framework

Signaling theory is concerned with understanding why certain signals are reliable and other are not in terms of decision making. The theory looks at the quality and reliability of accounting information send by a bank to its users of accounting information for investment decision making by the potential investors. Brian et al (2010) posited that a well performing firm distinguishes itself from the non-performing one by sending a credible signal about its performance to capital markets as well as potential investors. Signals sent by firm are the results of its operating activities which will inform investors about the bank's future prospects. The theory assumed that managers and shareholders of a bank differ in terms of getting access to some vital information about firm operation. Some information can be accessed by the managers while the shareholders do not have access to such information.

According to Signaling Theory, organizations use financial and non-financial indicators to communicate their strength, stability, and growth prospects. In the banking industry, where information asymmetry is prevalent due to the complexity of financial operations, stakeholders often rely on signals such as deposit growth, capital structure decisions, asset size, profitability, and liquidity positions to assess the health and future performance of banks (Connelly et al., 2011). Under Signaling Theory, a high deposit growth rate serves as a positive signal of customer confidence, trustworthiness, and operational efficiency. Depositors are more likely to place funds in banks they perceive as financially sound and well-managed. Consequently, increasing deposits

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signal market confidence in the bank's stability and future prospects. Furthermore, a growing deposit base enhances the availability of loanable funds, enabling banks to expand their lending activities and generate higher interest income. Investors may therefore interpret sustained deposit growth as an indication of future profitability and improved financial performance.

Moderate leverage may signal efficient resource utilization and managerial confidence in future profitability. However, excessive leverage can generate adverse signals by increasing perceived financial risk and the likelihood of financial distress. Therefore, stakeholders evaluate leverage levels as an important signal when assessing a bank's financial strength and performance potential. According to Signaling Theory, larger banks send positive signals regarding financial strength, market dominance, operational capacity, and stability. Large asset bases often indicate greater diversification opportunities, stronger risk management capabilities, broader customer networks, and improved access to financial markets. Investors and depositors frequently perceive larger banks as less vulnerable to financial shocks and more capable of sustaining profitability. Consequently, bank size functions as a signal that can positively influence stakeholder confidence and expectations regarding future financial performance. (Ross,1977)

Empirical Review

Different components of bank attributes play a vital role in improving the performance of corporate entities in both developed and emerging countries. firm characteristics and how they relate to performance have been investigated separately in previous studies using various proxies of bank attributes (Ahmadu 2015), leverage (Yahaya & Lamidi, 2015), liquidity, leverage and growth(Gweyi & Karanja 2014), leverage (Sanda, Mikailu & Garba 2005, and Hartono et al 2013), firm size (Olaye & Olarewaju, 2015), profitability (Uwalomwa, Uwnigbe &Oyew 2015), deposit growth (Ajibike & Aremu, 2015), liquidity and leverage (Jonathan, Victor & Ifeoma 2013), liquidity (Kenny, Lanre &Jumoke 2013), profitability (Ikpafan 2013), (Velnampy & Nimalathan 2010) and bank size (Shehla *at .el* 2012) (Hussain,2014. The results of previous studies on the relationship between various firm characteristics and financial performance were reviewed below.

Empirical studies examining the effect of deposit growth rate on the financial performance of banks have produced conflicting results. On one hand, scholars argue that deposit growth enhances bank profitability because deposits constitute a relatively stable and low-cost source of funds that can be transformed into income-generating assets through lending activities. For example, Tasneema (2022) found that stronger funding positions contribute significantly to bank performance and resilience. Similarly, studies by Ibrahim (2020) and Oino (2025) reported that growth in customer deposits positively influences profitability indicators such as ROA and ROE. These findings support the argument that increasing deposits signal depositor confidence and provide banks with greater opportunities to expand their lending portfolios. However, opposing evidence suggests that rapid deposit growth may not always improve financial performance. According to Akarogbe, Chukwnwike, & Ozor, (2024), the profitability benefits of deposit expansion may be offset by increased operating costs and inefficiencies associated with managing larger deposit portfolios. Likewise, Sufian and Habibullah (2020) observed that excessive deposit accumulation without corresponding growth in quality lending opportunities may reduce profitability. Similarly, while larger bank size is frequently associated with economies of scale and stronger market power, researchers such as Ciganda, and Bortoluzzo (2024) contend that excessive

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organizational size may create inefficiencies, agency problems, and bureaucratic rigidities that weaken financial performance. Thus, the empirical evidence remains inconclusive regarding the extent to which deposit growth and bank size enhance bank profitability.

The relationship between leverage and financial performance is equally contentious within the empirical literature. Advocates of the positive leverage-performance relationship argue that debt financing enables banks to expand their asset base, increase lending activities, and maximize returns to shareholders. Supporting this view, Lamothe, Delgado, Solano, & Fernández, (2024) found that well-capitalized banks tend to achieve superior performance due to efficient utilization of financial resources. Similarly, Hashifa, & Pratiwi, (2026) reported that leverage can enhance profitability when banks effectively manage associated risks. Conversely, critics argue that excessive leverage increases financial vulnerability and raises the likelihood of distress, thereby exerting a negative effect on performance. Empirical evidence from Darul Ulum, Handriani, & Rahayu, (2025) revealed that higher leverage levels are associated with declining profitability due to increased debt servicing costs and financial risk exposure. These divergent findings suggest that the effects of leverage on financial performance may depend on contextual factors such as regulatory environment, risk management practices, and market conditions. Consequently, the inconsistency in previous empirical findings regarding deposit growth rate, leverage, and bank size provides a strong justification for further investigation, particularly among listed banks where stakeholder expectations, regulatory requirements, and competitive pressures may shape the performance outcomes of these variables. (Bortoluzzo et al. 2024)

3. Methodology

Ex-post facto research design is adopted, because it involves events that have already taken place and cannot be manipulated. Ex-post facto research can be defined as empirically based research which is also known as: After the fact research or Causal comparative research. It is also retrospective research which traces history; it deals with historical data/record, goes back to event. Investigation start after the fact has occurred. Variables cannot be manipulated because the event has happened; direct control over the dependent variable is not possible. (Zainab & Davin, 2022). The population of this study consists of the thirteen (13) listed deposit money banks on the Nigerian stock exchange as at 31 December, 2023. In view of the availability of data for thirteen (13) banks, the study will adopt convenience sampling approach by studying the thirteen (13) banks as a sample size of the study.

This study used secondary sources of data collection. The data was obtained from the annual reports and accounts of the thirteen (13) listed deposit money banks for the period 2010 to 2023. Secondary data was use due to the nature of the research paradigm which is quantitative. Panel data were extracted from the annual reports and accounts of the banks for the purpose of assessing the relationship between the variables of the study. Multiple regression was used for the panel data analysis in order to establish relationship between the variables of the study. Multiple regression was considered appropriate in view of the fact that it helps in not only establishing relationship between variables, but cause and effect of their relationship in order to achieve reliability of the result, robustness tests like multicollinearity test, hausman test and heteroscedasticity test will be conduct.

Model Specification

The model used was adapted Jamil and Murtala (2016) to empirically test the hypotheses formulated is as follows:

$$ROE_{it} = \beta_{0it} + \beta_1 BSZ_{it} + \beta_2 DPG_{it} + \beta_3 LVG_{it} + \epsilon_{it}$$

The dependent variable and independent variables used in the model are explained in

Table 1 below Variables definition and measurement

Variables Acronym	Variables Name	Variables Measurement	Sources
ROE	Return on Equity	Measured as banks’ profit after tax divided by the banks’ total equity	(Samuel, Yakubu, & Olumuyiwa 2018)
LVG	Leverage	Measured as ratio of banks total debt to equity	(Desta, 2020)
DPG	Deposit Growth Rate	Measured as the total deposit of current year minus total deposit of previous year divide by the previous year total deposit	(Tesneema, 2018)
BSZ	Bank size	Measured as natural logarithms of banks total assets	(shih, 2020)
β	Constant		
e	Error term		
it	Firm I at time t		

Source: compiled by the authors from various literature, 2024

4. Results and Discussion

The data collected for this study are; Firm size, Deposit growth rat, and Leverage and return on equity for the listed deposit money banks used in this study. The numbers of variables are Three independent variables, (FMS, DGR, & LEV) and one dependent variables (ROE) over a period of 14 years from 2010 to 2023 and the details of the data used were obtained from the Annual Report and Account.

Table 2: Descriptive Statistics

Variables	Observation	Mean	Standard Dev	Min	Max
ROE	182	0.0782879	0.451983	-3.9432	2.8708
FMS	182	0.3911783	20.26913	13.9833	22.9923
DGR	182	0.3911783	0.1806571	-0.3285	4.9664
LEV	182	02085007	0.8521088	0.0002	2.5475

Sources: Output generated using STATA 13 (2024)

ROE has minimum value of -3.9432 and maximum value of 2.8708. This signifies that, sampled banks incurred losses while others made profits within the period of the study. In addition. The average value of Bank Financial Performance 0.0782879 with the standard deviation of 0.451983. This signifies that the data is not widely dispersed. The Firm size of Banks has a minimum value of 13.9833 and a maximum value 22.9923 respectively. This implied that within the periods of the study. The Bank with the lowest firm size quantum of Capital adequacy is sufficient. The average

Firm size of the Bank is 0.3911783 with standard deviation of 20.26913 which signifies average level of dispersion in the data of the study. This implies low chances of having normal distribution problem associated with the data of the study.

In addition, Deposit growth rate has minimum value of -0.3285 and a maximum value 4.9664 respectively. This implies that Bank with lowest earnings from Deposit growth rate loses 0 percent from Deposit growth rate and the Bank with the highest earning from, generate 4.9 percent from Deposit growth rate within the period of the study. On average, the Bank have 0.3911783, which indicates the average Deposit growth rate of the banks. The standard deviation of 0.1806571 which is not largely dispersed from the mean value data. This signifies less likelihood having non-normally distributed data for the study. Similarly, Leverage has minimum value of 0.0002 and a maximum value 2.5475 respectively. This implies that within the period of the study, the bank with the lowest earning from Leverage generate 0.0002 percent of the total Leverage of Banks. The Bank with the highest earnings from Leverage 2.4 percent. Leverage has an average score of 02085007. The standard deviation of 0.8521088 which is not largely dispersed from the mean value data, this signifies average level of dispersion in the data of the study. This implies average chances of having normality distribution problem associated with the data of the study.

Correlation Matrix

The correlation matrix is used to determine the degree of association between dependent variable and independent variables. It is also used to identify whether there is relationship among the independent variables themselves, to be able to detect if multicollinearity problem exists.

Table 3: **Correlation Matrix**

Variables	ROE	BSZ	DGR	LEV			
ROE	1.0000						
BSZ	-0.0072 0.9236	1.0000					
DRG	0.0386 0.6046	0.0791 0.2884	1.0000				
LEV	0.0108 0.8848	-0.0428 0.5665	0.0399 0.5930	1.0000			

Sources: Output generated using STATA 13 (2024)

Above reports that ROE is negative correlated with Firm size, this can be confirmed from the computed value of correlation coefficient of (r = -0.0072) and (p = 0.9236). This signifies that Firm size as one of the independent variables of the study that is not moving in the same direction with financial performance of listed deposit money banks in Nigeria, and they inversely associated with banks financial performance. Also, a positive correlation with Deposit growth rate and financial performance of listed Deposit Money Banks in Nigeria, this can be confirmed from the computed value of correlation coefficient of (r = 0.0386) and (p = 0.6046). This signifies that Deposit growth rate as one of the independent variables of the study moving in the same direction with the financial performance of banks in Nigeria. However, ROE reveals a positive significant correlation with Leverage and financial performance of listed Deposit Money Banks in Nigeria,

this can be confirmed from the computed value of correlation coefficient of ($r = 0.0108$) and ($p = 0.8848$). This signifies that leverage as one of the independent variables of the study moving in the same direction with the financial performance of banks in Nigeria.

Also, from the correlation matrix the association of the independent variables among themselves reveals that firm size revealed a positive correlation with Deposit growth rate ($r = 0.0791$) and ($p = 0.2884$). Furthermore, Firm size has a negative and insignificant correlation with leverage ($r = -0.0428$) and ($p = 0.5665$) which is insignificant at any level of significant. Deposit growth has a positive insignificant correlation with leverage ($r = 0.0399$) and ($p = 0.5930$). The entire computed correlation matrix coefficients are less than 0.8; this signifies less chances of having multicollinearity problem in the data of the study. The results further prove that the independent variables can be together in the same model when using the regression because none of the correlation has an absolute value above 1, meaning that there is no multicollinearity problem (Gujarati, 2004).

Robustness Test

The study conducted a diagnostic test which include Multicollinearity test, Heteroscedasticity test and Hausman specification tests in order to ascertain the reliability of the statistical regression result. The results from the diagnostics tests are presented below:

Multicollinearity Test

The study adopted panel multiple regression model, to measure the association between independent and dependent variables. Where the association is highly correlated, multicollinearity exists. For that, the study tested for multicollinearity, to see the determine its existence or otherwise. This was done using variance inflation factor (VIF) and tolerance value. Where the variance inflation factor (VIF) and tolerance value are less than 10 and 1 respectively, this signifies the absence of multicollinearity problem associated with the data of the study. Where otherwise, this implies the existence of multicollinearity problem in the data of the study. The result of multicollinearity test of the study is presented in Table 4.3:

Table 4: Multicollinearity Test Result

Variables	VIF	Tolerance
BSZ	1.01	0.992
DGR	1.01	0.992
LEV	1.00	0.996
Mean VIF	1.01	

Sources: Stata Output, 2024.

Heteroskedasticity Test

The study observations are of different sizes, some in decimal while others are in units. As such, heteroscedasticity sometimes occurs when there is a large difference between the sizes of the observations. For that, the study conducts a Heteroscedasticity test to validate its existence or otherwise. The test is done using Breusch-pagan/cook-weisberg test for heteroskedasticity. The result of the test reveals a Chi square value of 0.47 with p-value of 0.4907 which is not significant at any level of significance. This signifies that heteroskedasticity problem do not exist in the data of this study.

Table 5 Robustness Test for Model

Variables	Statistics	P-Values
Model		
Hausman Test	1.68	0.6422
R ²	0.152	
F-Statistic (Wald)	0.30	0.9605
Hettest	0.47	0.4907
Mean VIF: Chi2		

Sources: Output generated using STATA 13 (2024)

The presence of Heteroskedasticity in the panel for the models indicate by the Breuch Pagan/cook-weisberg test for heteroskedasticity Chi² value of 0.47 with p-value of 0.4907 is significant at 5% level of significance. Thus, the null hypothesis which states that the residual has no constant variance and zero mean is not rejected. Therefore, further post estimated test was conducted to ascertain and correct for the presence of heteroskedasticity. The result from the Hausman fixed and random effect test model with Chi² value and 1.68 with p-value 0.6422 respectively is statistically insignificant at any level of significance. The model indicates Random effect model as the most appropriate for the study. Furthermore, the absence of multicollineality among the explanatory variables, as shown by the mean **VIF** 1.01 for the model. The decision criterion for the Variance Inflation factor is that a value of 10 and above implies the presence of multicollinearity.

Regression results and hypotheses testing

The (R² value of 0.152) coefficient of determination, which is explained around 15% of the total variation in the dependent variable. Hence, the result of R² signifies that 15% of total variation in the financial performance measured by ROE is caused by Firm size, Deposit growth rate, Leverage. R² value between 0.10 and 0.50 is acceptable when some of the explanatory variables are statistically significant (Ozili, 2023).

Table 4.5

Variables	Coefficient	Z-Value	P-Value	Hypothesis
BSZ	-0.00198	-0.14	0.892	Fail to reject
DGR	0.41245	0.52	0.605	Fail to reject
LEV	0.02320	0.12	0.904	Fail to reject
Constant	0.09131	0.26	0.792	

Sources: Output generated using STATA 13 (2024)

*** p<0.01, ** p<0.05, * p<0.1, Denotes Significance at 1%, 5% & 10%

Testing Hypothesis

Ho1: Bank size has no significant influence on the Financial Performance of Listed Deposit Money Banks in Nigeria.

Bank size has a negative and insignificant effect on the Financial Performance of Listed Deposit Money Banks in Nigeria, revealing a beta coefficient (β) of Bank size is negative -0.00198 with a p-value of 0.892, which is insignificant. The null hypothesis was not rejected, and it is concluded that Bank size has an insignificant negative effect on bank financial performance. This implies

Jamilu, M. & Sadiq, G. T. (2026). Deposit growth rate, leverage, and bank size: An empirical study of their effects on financial performance of listed banks. *Malete Journal of Accounting and Finance*, 7 (1), 373 – 388

that when Bank size increases will lead to increases in the financial performance of the bank. These findings don't align with the study results of Onyekwelu, Chukwuani, & Onyeka (2018), a positive significant relationship, but it contradicts the study of Mohiuddin and Shafir (2018), a negative insignificant relationship with financial performance.

Ho2: Deposit growth rate has no significant effect on the Financial Performance of Listed Deposit Money Banks in Nigeria.

The beta coefficient (β) of Deposit growth rate is positive 0.04125 with a p-value of 0.605, which is not significant at any level of significance. The null hypothesis was accepted, and concluded that the deposit growth rate has an insignificant positive effect. Deposit growth rate and Financial Performance may be a result of the inability of the Banks to increase in Deposit growth rate. This implies that when the deposit growth rate decreases, it will lead to a decrease in the financial performance of the bank. Deposit growth rate will result in a reduction in ROE, which means a reduction in Return on Equity (ROE) used as a proxy for the bank's financial performance. These findings are not in line with the study results of Sheilla & Nagib (2018) report an insignificant negative effect on financial performance, but it contradicts the study of Al-malik (2020) Significant relationship with financial Performance, Adekunle (2020) reports a positive significant effect on profitability, and Ogunjobi (2018) report positive effect on profitability.

Ho3: Leverage has no significant influence on the Financial Performance of Listed Deposit Money Banks in Nigeria.

The beta coefficient (β) of Leverage is 0.09131 with a p-value of 0.927 which is positive and statistically insignificant. The null hypothesis was accepted, and concluded that Leverage has an insignificant positive effect on bank financial performance. This implies that when Leverage increases, it will lead to an increase in the financial performance of the banks. This finding concurred with Ogundu (2022) report a positive relationship with performance, Saidu and Abdallah (2018) reported a positive relationship with performance, but it contradicts the study of Desta (2020) report a negative and insignificant relationship with performance.

Discussion of findings

The finding that bank size has a negative and statistically insignificant effect on the financial performance of listed deposit money banks in Nigeria suggests that an increase in total assets does not necessarily translate into improved profitability. This implies that managers should focus less on expanding asset size for its own sake and more on improving operational efficiency, asset utilization, and revenue generation. The result indicates that larger banks may experience diminishing returns due to bureaucratic complexities, agency costs, higher administrative expenses, and inefficiencies associated with managing extensive operations.

The finding challenges the conventional assumption that larger banks automatically enjoy economies of scale and superior profitability. The negative coefficient suggests that additional assets may not be effectively converted into earnings, thereby reducing shareholder value. This finding supports the argument of Signaling Theory, which posits that size alone may not serve as a strong positive signal of financial strength unless accompanied by efficient performance outcomes. Stakeholders increasingly evaluate banks based on profitability and operational efficiency rather than asset accumulation. The finding agrees with Mohiuddin and Shafir (2018),

Jamilu, M. & Sadiq, G. T. (2026). Deposit growth rate, leverage, and bank size: An empirical study of their effects on financial performance of listed banks. *Malete Journal of Accounting and Finance*, 7 (1), 373 – 388

who reported a negative and insignificant relationship between bank size and financial performance, suggesting that larger organizational structures may create inefficiencies. However, it disagrees with Onyekwelu, Chukwuani, and Onyeka (2018), who found a positive and significant relationship, arguing that larger banks benefit from economies of scale and stronger market power. The inconsistency may arise from differences in study periods, economic conditions, regulatory environments, and measurement approaches.

The finding that deposit growth rate has a positive but insignificant effect on financial performance indicates that although deposits remain a critical source of funding, increases in deposits alone do not significantly improve profitability among listed Nigerian banks. Merely increasing deposits without corresponding growth in quality earning assets may result in idle funds, higher operating costs, and reduced profitability.

The positive coefficient implies that deposit growth contributes to financial performance, but the weak statistical significance indicates that other factors may influence how effectively deposits are transformed into profits. Signaling Theory, increasing deposits may signal depositor confidence and trust in the bank; however, this signal appears insufficient to generate meaningful improvements in profitability unless accompanied by effective asset management and credit allocation. The finding contradicts the studies of Al-Malik (2020), Adekunle (2020), and Ogunjobi (2018), which reported significant positive effects of deposit growth on profitability, suggesting that increased deposits strengthen lending capacity and income generation. However, it partially aligns with Sheilla and Nagib (2018), who found an insignificant relationship between deposit growth and financial performance. The divergence in findings may be attributed to differences in banking structure, market maturity, macroeconomic conditions, and regulatory frameworks across study contexts.

Leverage has a positive but insignificant effect on financial performance implies that the use of debt financing contributes marginally to profitability but does not significantly determine performance among listed deposit money banks in Nigeria. Finding suggests that bank managers can utilize leverage as a financing tool without necessarily expecting substantial improvements in profitability. It further indicates that the benefits associated with leverage, such as increased lending capacity and enhanced returns, may be offset by rising financing costs, risk exposure, and regulatory constraints.

The positive coefficient indicates that leverage may enhance earnings by allowing banks to expand their asset base and investment activities. However, the lack of statistical significance suggests that leverage is not a dominant determinant of profitability within the Nigerian banking sector. This outcome is consistent with Signaling Theory, which argues that leverage can serve as a positive signal of managerial confidence regarding future cash flows and earning prospects. Nevertheless, stakeholders may perceive excessive leverage as a signal of increased financial risk, thereby limiting its positive influence on performance. The finding supports the studies of Ogundu (2022) and Saidu and Abdallah (2018), who reported a positive relationship between leverage and financial performance. However, it contradicts Desta (2020), who found a negative relationship, arguing that excessive debt financing increases financial risk and reduces profitability. These differences may be explained by variations in capital structure management, regulatory requirements, economic environments, and institutional characteristics across countries and banking systems.

5. Conclusion and Recommendation

This study concluded that interaction between Firm size and financial performance was found to be negative and significantly influencing financial performance. This means that Firm size can control the financial performance of banks, it was also found that Deposit growth rate has insignificant positive relationship with financial performance. This means that Deposit growth rate can significantly increase financial performance of Banks, also the Leverage and financial performance has a negative and insignificant effect on the return on equity. This implies that the Leverage slightly impacted negatively on the return on equity of the study banks in Nigeria. It can be concluded that the study banks are increasing their Leverage very rapidly but their growth does not produce any outcome to the listed banks in Nigeria. More so, lower Leverage has been found to reduce the return on equity due to the reduction of investment by banks customers.

In line with the findings of the study the following recommendations are made:

- i. Findings reveal that Bank size has negative and significant effect on financial performance of listed deposit money banks. This study recommends that banks should continue investing their resources and expertise to exercise control over management and increase Firm size through ownership re-orientation which can affect the financial performance of listed deposit money banks. Therefore, Investors should frequently deploy their experience, capital formation, expertise and wealth of professionalism to the banks towards meeting financial performance by implication institution ownership should be increased against other ownership structure. Policymakers and bank executives should prioritize efficient resource management rather than pursuing aggressive expansion strategies.
- ii. In the face of Deposit growth rate on Financial performance, it is therefore recommended that the regulatory agency should encourage more savings culture and absolute deposit mobilization. Bank managers should not focus solely on attracting deposits but should ensure that mobilized funds are efficiently allocated to productive lending and investment opportunities.
- iii. Leverage of listed deposit money banks proves that leverage ownership structure should be limited to equity ownership structure rather than debt financing as shown from the result. Manager free rider behavior should also be checked.

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