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# Ownership Structure and Bank Performance in Nigeria

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***Abstract*: The ownership structure of Nigerian banks and their performance from 2017 to 2021 were examined in this research. Panel analysis methods include OLS, fixed effects, random effects, and the Hausman test. The study's independent variables were debt ratio, foreign ownership, managerial ownership, and institutional ownership, while ROA was its dependent variable. Since the Hausman test probability value above the 5% significance requirement, the random effect model was chosen for the investigation. The study focused on random effect model effects. Foreign ownership, managerial ownership, and institutional ownership negatively impacted bank performance, notably return on assets. The study also found a modest negative association between debt ratio and bank performance. This data shows that ownership structure greatly impacts Nigerian bank performance. The study recommended that the government restrict foreign bank ownership, promote management ownership, and regulate bank debt to minimize bank collapse.**

***Keywords*: Return on Asset (ROA), Foreign Ownership, Managerial Ownership, Institutional Ownership, Debt Ratio.**

## 1. Introduction

Joseph (2018) states that the banking industry's macroeconomic influence depends on its performance and profits. Due to the rapid shift toward private banking ownership, several countries' financial institutions have changed ownership in recent decades. Because of this transition, local and international groups and people have become more interested in ownership than the government (Joseph, 2018). Thus, Nigeria's banking climate has altered dramatically. Competition amongst banks due to the move from public to private and foreign ownership has considerably improved sector efficiency (Joseph, 2018). Corporate finance studies how ownership structures affect company results. When management and shareholders have different aims, it might affect the company's performance and value (Tatiana & Stela, 2013). Directors distribute corporate resources to optimize their own financial well-being, but shareholders are the corporation's legal owners (Benjamin, Love & Kabiru, 2014). Three factors determine a company's worth. First, the corporation cannot control external forces. The second section is about commercial events and falls within their jurisdiction. Effective management, governance, and ownership impact a company's capacity to handle outside challenges. Finally, firm size, leverage, and industry type affect business performance (Kechi, 2011). Nigerian businesses typically experience crises, inefficiencies, and suffering due to ownership structure, division of duty, and managerial underperformance, which may lead to owner disputes. Manufacturing isn't doing well compared to other industries. Adenikinju (2005) reports that the manufacturing sector absorbs 81% of the nation's foreign currency gains but contributes just 1%. Ten percent of the population worked, with 70% in agriculture and 20% in services. High graduate unemployment, severe poverty, rampant corruption, and other social misdeeds are signs of Nigeria's industrial sector's failure. All of these problems make investment in Nigeria harder, which prolongs underdevelopment and undermines its nascent democracy. Government and regulatory authorities recommend reorganizing firms' ownership to boost efficiency and profit as a long-term solution. Due to the ambiguity of these possibilities, enterprises with an anticompetitive ownership structure may have lost profitability (Ezugwu & Itodo, 2014). Nigeria lacks clear empirical evidence on how initial public offers, conversion to Plc, and mergers effect corporate ownership structure and operational performance.

According to theoretical and empirical financial evaluations, a company's ownership structure affects its performance. They also affect how a company's owners operate it. Small owner numbers lessen agency conflicts, according to agency theory research. This strategy works well for investors that care about the company's growth and safeguard their wealth. After taking such precautions to protect their assets, firms frequently perform better. Stakeholder theory claims that state-owned banks can't attain their full market potential because they follow government policies. Kenya has this difficulty also. Unfortunately, when bringing successful goods to emerging countries, foreign financial institutions don't always consider local demands. Institutional theory explains why this may create poor performance. The ideas function better in industrialized financial markets than developing ones like Nigeria's, which are more flawed. Ownership structure considerations did not predict firm performance in any of the empirical investigations. Kim, Pattanapom, John (2004), Kiuri (2013), Kobeissi and Sun (2010), Kosak and Cok (2008), and Lannota, Nocera, and Sironi (2007) could not cover enough area to make accurate conclusions on the complicated link between corporate ownership and performance. This study

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focuses on Nigerian commercial banks' ownership and profitability structures. We'll examine commercial banks' profitability using returns on assets, equity, and investment. Our ownership structure study will include managerial, governmental, concentrated, foreign, and institutional ownership. This research examines how ownership kinds impact stock exchange-listed Nigerian commercial banks' profitability. Nigerian banks have been under investigation for corporate governance infractions for a decade. Due to hazardous assets, non-performing loans, and biased credit management, these banks' efficiency and leadership were questioned. These events led the government to modify regulations and how management, boards, and shareholders interact. Ranti (2011) criticized the board of directors for declining shareholder value and frequent corporate failure. Famous companies including Enron, WorldCom, Cadbury in Nigeria, Oceanic Bank PLC, and Intercontinental Bank PLC were accused of fraud. According to Uadile (2010), boards of directors failed to monitor accounting issues in 2009 at Oceanic Bank, Intercontinental Bank, Union Bank, Afribank, Fin Bank, and Spring Bank in Nigeria. Instead of holding corporate management accountable, they let them pursue self-interest. This study focuses on Nigerian bank ownership and performance. The specific goals are to determine how ownership, institutions, managers, foreign ownership, and debt ratio affect bank performance in Nigeria.

## 2. Literature Review

### *A. Concept of Ownership Structure*

Jensen and Meckling (1976) define ownership structure as voting rights, capital, and equity owner identity. They used this in their research on agency costs and equity to incorporate concepts in the early stages of a corporate ownership theory. Recent years have been a renewed attention on ownership arrangements due to corporate ownership portfolio complexity. Ownership structure, which affects financial performance, may increase a company's efficiency. Adam Smith (1776) said private co-partner organizations are more efficient since joint-stock company directors don't monitor their money as thoroughly. Transaction cost theory, which views a corporation as a series of contracts, says doing work in-house is cheaper than outsourcing. However, corporate feuds exist. Manager-shareholder conflicts are unavoidable, but principal-agent theory aims to reduce them. Management and shareholders' opposing interests, notably control and cash flow, cause disagreement. This research examines managerial, institutional, and concentrated ownership. Jensen and Meckling (1976) define ownership structure as identifying equity owners and assigning voting rights and money. These structures are crucial to corporate governance because they influence management incentives and company efficiency. National factors including stock market growth and government regulation and engagement impact company governance (La Porta, Lopez de Silanes, Shleifer & Vishny, 2000). Ownership structure is one. It also impacts business agency spending (Jensen & Meckling, 1976).

#### *1) Managerial Ownership*

Managerial ownership is the ratio of directors' shares to the company's total shares. Warfield, Wild, and Wild (1995) found several manager-ownership arrangements in organizations. The majority of equity shares are owned by owner managers. Professional managers own little of the firm. Separation of ownership and control undermines managers' motivation to serve owners. Management may influence firm decisions proportionally to their shareholdings (Jensen & Meckling, 1976). Rudiger and Rene (2007) provide many ideas to explain management ownership factors and the relationship between managerial ownership and corporate value. Examined are agency, contracting, and management discretion theories. Rudiger and Rene (2007) say agency theory assumes managerial ownership. They believe more management ownership aligns managers' and shareholders' interests. According to the contracting agency, shareholders may compromise. As managers own more of the company, their interests align with shareholders'. Thus, if they enhance the company's value by $1, their personal wealth will rise by a bigger amount.

#### *2) Institutional Ownership*

Institutional ownership of a company's shares as a proportion of total shares issued is often shown this manner. Institutional investors purchase stocks, bonds, real estate, and other financial assets using significant quantities of money. Operating businesses may also invest earnings in these assets. Financial institutions including banks, insurance companies, mutual funds, hedge funds, pension funds, and retirement funds invest. Specialist investors for others is their economic duty. For instance, most jobs provide retirement funds. Employee retirement savings are deposited into a designated fund by the firm. The investment entity buys corporate shares or other financial instruments. A fund's diversification across firms is a selling factor. Diversified investment portfolios are less affected by one company's demise. Another online encyclopedia is Wikipedia. Institutional investors can influence management if they can vote. It may participate in corporate governance. Institutional investors may buy and sell shares freely, so they have a disproportionate voice over which enterprises survive and which fail. Managing a company's investments involves funding and influencing public enterprises.

#### *3) Ownership Concentration*

An organization with a few powerful owners is termed ownership concentration. Zhang (2006) defines ownership concentration as the proportion of shareholders with a majority interest. The proportion of shares held by significant shareholders or a company's ownership concentration are further examples. Zhang (2006) lists three main ownership models. In "absolute concentration of ownership," one stakeholder controls half the corporation and has full control. Second, a highly distributed ownership structure indicates several stockholders. Individual ownership of less than 10% of the total suggests a clear divide between ownership and control. Thirdly, this depicts a firm with a few powerful individuals and many investors. When a few influential shareholders possess a

disproportionate quantity of shares in the organization, the ownership structure affects board composition. Many think that only shareholders with a significant stake can oversee the board's functioning. Dispersed shareholders may not be able to oversee management or make board decisions.

*4) Foreign Ownership*

Many studies show that foreign ownership affects banks' financial performance. Havrylek (2006) examined 1995 to 2003 data from 265 Central and Eastern European banks.Why international banks are more lucrative than local ones was investigated. It was discovered that global banks earn more than local banks. It examined local bank profitability characteristics to examine foreign ownership's merits and downsides. Foreign banks' profitability are less affected by the host country's macroeconomics. Another issue is that local banks in developing countries are more lucrative than international banks, contrary to widespread opinion in wealthier nations.

*5) Return on Assets*

Return on assets is one technique to evaluate a company's finances. This statistic illustrates how well the business generates income from assets. ROI increases with company success. Even if an increasing return on assets (ROA) sounds positive, it may not compare to the average or comparable sector firms. Thus, a poor return on assets (ROA) indicates that the company is underutilizing its resources. Booth, Berger, and Clarke (1999) used this statistic for the research because it could be computed across nations. They find that national profitability comparisons are challenging. Zeitun (2009), Zeitun and Tian (2007), Tze-Sam and Heng (2011), Onaolapo and Kajola (2010), and Khan (2012) employed this method in empirical research. The ROA ratio outperforms the risk-free rate of return because it reflects added risk. If a company's ROA is below the risk-free rate, investors will be unenthusiastic and should buy a bond with a guaranteed yield.

$$ROA = \frac{Profit\ before\ interest\ and\ tax}{Total\ Asset}$$

*6) Bank Performance and its Measurement:*

KPIs measure how successfully a business utilizes its finances to fulfill its long-term goals. Banks are profit-driven like other businesses. The outcomes of a bank's operations and management methods might indicate its success. Total profits, return on investment, earnings per share, asset composition, liquidity level, and overall contribution to the country's economic growth may be used to evaluate performance. However, the bank's operational environment also affects production. This context is described as "PESTLM," which stands for "political, economic, socio-cultural, technological, legal, and marketing." Banks must improve environmental characteristics and navigate a competitive climate to succeed (Akingunola, et al., 2013).

*B. Theoretical Review*

*1) Agency Theory*

The agency theory views a firm as a network of contracts among resource-owners. An agency relationship occurs when principals engage agents to do a job and assign decision-making power to them. Debt holders, stockholders, shareholders, and managers are the main corporate agency relationships. Agency theory focuses on agent-principal conflicts. Not all encounters are friendly. These consequences impact business ethics and governance, among others. Agency often results in expenditures. These are the costs of maintaining a good agency partnership. Since agency theory is a finance economics paradigm, many business ethics courses contain it. Agency theory was not formally founded until the early 1970s, although its principles have a lengthy history (Bowie & Edward, 1992).

*2) Stakeholder Theory*

This concept holds that managers handle owner-stakeholder concerns about legitimacy, authority, and urgency by responding to their demands. According to Freeman (1984), stakeholders may influence top management's planning and execution by withholding resources. Murtha and Lenway (1994) say governments may influence management by controlling authority, markets, and property rights. A company's strategic initiatives need these resources. Subsidies, incentives, and governmental involvement in executive and board hiring have this effect. Government market meddling may reduce market openness or control. In nations with excessive government control over property rights, this impact may be apparent. This idea states that government approaches significantly impact government-owned commercial banks' policies and market strategies. The state, as main investor, funds these institutions under certain conditions if everything goes well. Government policy impacts competitive tactics and state-owned bank performance.

*3) Empirical Review*

Joseph (2018) examined Nigerian deposit money banks' return on assets and ownership structure. Researchers wanted to see whether deposit money institutions' ROA and ownership structures were related. Cross-sectional data came from 15 public marketplace commercial banks. As functions of return on assets, the model included institutional, managerial, international, concentration, and domestic ownership. After assessing the pooling effect, random effect, and fixed effect models, the research finds the fixed effect model valid. Return on investment (ROI) is positively linked with private ownership and management ownership and adversely correlated with institutional ownership, ownership concentration, and managerial ownership. Return on assets, the dependent variable, increases with private, concentrated, institutional, and foreign ownership. Management ownership adversely affects the dependent variable. The Nigerian Investment Promotion Council and the Securities and Exchange Commission should encourage private investors to buy commercial bank equity shares. Commercial banks might issue rights, list, or otherwise increase their ownership structure to attract institutional and public investors.

Ohiani, Eniola, and Lateef (2018) examined how ownership structure affects financial performance in Nigerian insurance companies from 2011 to 2016. Descriptive statistics and the panel data technique, which uses multiple regression and correlation, were employed to estimate the model. We

examined the data using a mixed-effects regression model using General Least Square, Fixed Effects, and Random Effects. Except for concentrated ownership, which hurts listed insurance businesses, ownership structure promotes financial performance. Size and expansion of firms were control variables in this research, although their effects on financial success were varied. According to the findings, Nigerian insurance businesses should boost management equity ownership for better financial performance. This may inspire managers to perform effectively, benefiting stakeholders financially.

From 2002 to 2011, Maina and Ondongo (2013) examined how capital structure affects NSE-listed businesses' financial performance. Financial filings from these firms provided secondary data for the research. The researchers performed panel regression analysis using Gretl statistical software and causal study technique. This will greatly impact public company and government agency management. According to the research, debt and equity drive NSE-listed companies' financial success. Businesses with larger debt-to-equity ratios performed worse, according to a substantial and statistically significant negative association. The survey also indicated that NSE-listed enterprises used short-term borrowing more than long-term debt.

Godwin, Shehu, and Niyi (2020) examined the value of publicly listed Nigerian consumer products manufacturing businesses from 2010 to 2018 and how ownership structure influenced it. Time-series panel regression showed that management ownership lowers firm value. Institutional, foreign, and concentrated ownership may increase firm value for Nigerian consumer goods companies, according to study. According to the research, listed consumer goods companies in Nigeria may improve in value if management sells shares.

Laiho (2011) examined how ownership structure affects financial performance in Nairobi Securities Exchange companies. The study sought to establish how state, municipal, international, and management ownership affects firm earnings. A stratified random sample of 39 companies was selected for this cross-sectional study. The research focused on 61 Nairobi Securities Exchange-listed companies. The data was analyzed using multiple regression models. The findings showed that all ownership forms increased the company's bottom line. After examining all independent factors, the research indicated that foreign ownership and managerial holdings improved business performance the most. The research primarily examined corporate financial success, even if non-financial objectives may affect ownership arrangements.

Shohreh, Seyedeh, Mir, and Armin (2015) examined Tehran Stock Exchange businesses' financial performance and institutional ownership and financial practices. The 2006–2010 survey includes 90 firms. Multiple regression and Pearson correlation helped the study succeed. Institutional ownership highly adversely correlates with financial leverage and favorably and significantly correlates with dividend policy. Return on equity (ROE) was highly associated with institutional ownership.

Management ownership affects Baltic firm performance, according to Din and Javid (2011). The research evaluated the firm's performance using return on assets, return on equity, and profit before tax margin. This research questioned 51 of 776 privately held Estonian, Latvian, and Lithuanian enterprises in 2014. Analyses employed traditional least squares regressions. The regression analysis found that private Baltic enterprises' performance was adversely connected with directors and board members. This is likely due to governance inefficiency. Even though the literature is divided, our study suggests that management ownership may boost the value of listed Nigerian manufacturing firms. This expectation comes from the idea that profit drives management.

Chege (2013) found that commercial banks listed on Kenya's NSE with foreign shares were more profitable. He noted that even little changes in foreign shares had a tremendous impact on profitability, therefore their presence altered data explanation. Retail and business profitability are negatively correlated with local ownership. Chege and Avulamusi (2013) found similar relationships between Kenyan commercial banks' ownership structure and financial performance. Avulamusi found a substantial link between foreign ownership and numerous financial performance parameters. He blamed the connection on foreign owners' stronger supervision.

Udin, Khan, and Javid (2017) explored how ownership structure affects Nigerian conglomerate firms' financial performance. The impact of managerial and foreign ownership on performance was their main study focus. The regression analysis research found that management and foreign ownership hurt Nigerian listed conglomerate enterprises. This research overlooked ROA, a more common and dependable performance indicator.

Cambarihan and Sucuahi (2016) investigated how capital structure affects firm value in Nigerian stock-listed industrial companies. The research sample includes 38 Nigerian manufacturing businesses listed between 2012 and 2016 as of December 31. A conditional probability model and probit were used to analyze this study's data. The research examined how eight capital structure explanatory factors influenced company value using Tobin's Q. Profitability, firm size, liquidity, and leverage negatively correlated with company value. However, age, tangibility, and growth capacity positively and strongly correlate with a firm's value.

Olugbenga, Uwalomwa, Olubukola, Osariemen, Sylvester, Ajetunmobi, and Ilogho (2018) examined Nigerian MNC financial outcomes from 2010 to 2014 and how ownership concentration affected them. Annual report data from these banks was studied utilizing panel least square regression and correlational research methods. Results show a substantial unfavorable association between concentrated ownership and corporate performance. According to the study, local ownership negatively affected firm performance while foreign ownership had a small positive influence. The research found that Nigerian multinational banks should diversify their ownership structures away from concentrated ownership and toward indigenous businesses to improve corporate performance. Foreign ownership is advocated for financial and technical help that promotes corporate performance.

Folorunso and Sajuyigbe (2018) examined Nigerian food and drink firms' 2012–2016 financial outcomes and how their ownership structures influenced them. For estimation, researchers employed linear regression and Pearson moment correlation coefficient. It was found that managerial, institutional, governmental, and family ownership did not effect firm performance. The data also demonstrated that foreign ownership strongly correlates with organizational performance. The173esearchh revealed that management, government, and family ownership do not predict organizational performance, but foreign ownership structure does. Thus, the Nigerian government should aggressively explore FDI growth plans.

Gufong, Gufong, Arugu, and Dandago (2014) found that ownership structure substantially influenced Nigerian insurance companies formed between 2001 and 2010. Panel data from 17 firms was utilized in the study. As assessed by ROA and ROE, the ownership structure is significantly related to firm profitability.

In their 2013 research, Ioraver and Wilson examine how two forms of ownership effect Nigerian company performance. The sample included 72 non-financial companies with a five-year NSE history. Estimating with OLS. The data show that foreign ownership boosts corporate performance but concentrated ownership hurts it.

Mei (2013) examined state ownership and non-financial Chinese listed business performance from 2003–2010. Estimation using panel data regression. The data show that government assistance and political links favor concentrated ownership in China.

Bak, Elizabeth, and Joseph (2019) examined South Sudanese commercial banks from 2012-2017 for financial performance, stability, and ownership. For data analysis, they used descriptive and inferential statistics. The ownership structure of South Sudanese commercial banks greatly affected their financial performance. The report suggested that the government should tighten protections for publicly owned commercial banks to improve efficiency and effectiveness.

James and Shaban (2017) examined how ownership changes impact Indonesian bank performance and risk exposure. Data from sixty Indonesian commercial banks was collected using panel data from 2005 to 2012. Multiple linear regression was used to explore how ownership affects commercial bank performance and risk exposure. The regression research found state-owned banks less lucrative and riskier than private and international banks. The study found that non-regional purchases overseas lower risk. When foreign investors purchase local enterprises, performance improves.

In 2017, Akhigbe, McNulty, and Stevenson examined how ownership structure affects company performance. Comparison of pre- and post-crisis US bank profit efficiency. A panel data analysis contrasted publicly listed and privately owned bank holding companies (BHCs). The data showed minor differences between privately and publicly owned banks before the crisis. Overall, there were no statistically significant alterations throughout the crisis.

Benjamin, Love, and Kabiru (2014) examined how ownership structure affected the financial performance of listed insurance companies in Nigeria from 2001 to 2010. Panel data from seventeen firms was used for the regression investigation. ROA and ROE measurements showed a substantial association between corporate ownership and performance. The report recommended preserving and promoting the owner's equity code for publicly listed insurance companies. These owners' holdings may improve insurance businesses' corporate governance by creating checks and balances. This would boost listed Nigerian insurance companies' financial performance.

Helen and Bature (2016) examined how ownership structure affects Nigerian listed conglomerate enterprises' financial performance. This study used secondary sources and ex-post facto methods. The analysis found that management and foreign ownership hurt listed conglomerate firms. Larger businesses have typically done better. According to studies, managers shouldn't have more than 50% of the company's shares since it gives them too much control over shareholders and may lead to poor performance. It also suggests restricting foreign investors' share purchases. This would make monitoring the corporation simpler and prevent foreign economies from taking its money.

Okafor, Ugochukwu, and Hillary (2016) examined concentrated ownership and Nigeria's banking system's 2008–2014 performance. To analyze the data, they employed pooled panel data regression. Ownership concentration favorably benefited accounting and market-based performance indicators, but not statistically. The study also found that firm size, a control variable, positively and considerably affects banks' accounting and market-based measures. Large bank owners should not be allowed to utilize their dominant ownership position to benefit themselves at the expense of smaller shareholders and the public, according to the study's authors, who proposed regulatory and legislative changes.

Lis, Grahita, and Prihat (2018) evaluated risk management, ownership structure, and corporate governance in 2010–2015 Ontario banks. The variables were estimated using descriptive statistics and PLS analysis. The findings showed that the total ownership structure's public ownership had a considerable influence on company success, notably Return on Equity. With 90.8% of its overall contribution, Credit Risk impacts Risk Management. It significantly impacts the Company's performance, specifically Return on Equity. Corporate Governance's evaluation of management efficiency may explain 57.8% of a company's performance, specifically Return on Equity. The research shows how sharia banking has revived actual industries by collecting and distributing consumer cash, benefiting the Indonesian economy. The mudharabah and wadi'ah fundraising model shows that customers' savings and deposits generate interest via spending in the economy. Murabahah, mudharabah, and musyarakah money distribution are 'losely tied to real sectors.

Bukar, Ahmed, and Hamidu (2020) examined Nigerian deposit money banks' 2011–2015 performance and how board size and ownership structure influenced it using panel data analysis. Although not statistically significant, bigger boards negatively affected ROA and ROCE. Ownership structure adversely influenced ROCE but favorably improved ROA. The study's authors recommend creating, establishing, and

frequently assessing a comprehensive corporate governance system.

Gayan and Shanika (2016) study Listed Sri Lankan manufacturing businesses' ownership arrangements and performance. The research sampled 20 firms and used multivariate and correlation analysis. The study indicated a negative and statistically insignificant link between block ownership and ROE. ROE is positively and statistically strongly connected with business size and favorably but insignificantly correlated with institutional ownership. Berće-Berga, Dovladbekova, and Abula (2017) employed regression analysis to study the correlation between management ownership and firm performance. A sample of Baltic companies listed on Nasdaq Riga, Tallinn, and Vilnius stock exchanges was studied from 2010 to 2015. Management ownership correlates with internal performance indicator return on assets (ROA).

Abdullahi and Muhammad (2019) investigated the financial performance of listed Nigerian commercial banks from 2009 to 2016 in relation to ownership structure. Estimation was done using panel data regression models' OLS and GLS methods. Although not statistically significant, ownership concentration (OWC) adversely influenced Return on Asset (ROA). OWC has a statistically significant beneficial influence on financial performance using Tobin's Q, a market-based performance metric. Analytical data show that management ownership (MOW) improves ROA and TBQ but not statistically. The study found that institutional ownership (INSOW) lowers Tobin's Q (TBQ) but has no statistically significant influence on return on assets. The CBN, NDIC, and SEC should require a set amount of minority ownership for all Nigerian banks, according to the research. It may boost Nigerian banks' market-based financial performance. The CBN must create institutional ownership laws that encourage foreign banks to participate in Nigerian banks.

Masoyi, Abubakar, and Adamu (2016) examined how ownership structure affects Nigerian deposit money banks' dividend policies from 2009 to 2013. OLS multiple regression was used to estimate. At the 1% level of significance, ownership structure favorably influenced the dividend policy of Nigeria's listed deposit money banks over the study period. Institutional holdings and block holding boosted Nigerian listed deposit money banks' dividend policies. According to the contrary, management holdings do not impact Nigerian listed deposit money banks' dividend policies. Block holding—large-scale corporate investments in Nigerian deposit money banks—is advised for curr'nt and prospective investors. Authorities should also ensure that institutional investors hold most deposit money institution stock.

## 3. Research Method

This study adopt a model built based on the modification of Khadijat and Rodiat (2018) which can be expressed below as:

$$ROA = (FOWN, MOWN, INOWN, OWNCO, DR) \quad (1)$$

This model can for the purpose of simplicity be stated in the econometric form of equation as depicted below:

$$ROA = \beta0 + \beta1FOWN + \beta2MOWN + \beta3INOWN + \beta4OWNCO + \beta5DR + \mu \quad (2)$$

Where;
FOWN = Foreign Ownership
MOWN = Managerial Ownership
INOWN = Institutional Ownership
OWNCO = Ownership Concentration
DR = Debt Ratio
$\mu$ = Error Term
$\beta0$ = Constant Parameter
$\beta1$- $\beta5$ = Coefficient of Regression

## 4. Data Analysis and Interpretation

A battery of empirical tests examined Nigerian bank ownership and performance in this research. This research uses secondary data from five Nigerian non-bank financial organizations. The 2017-2021 research will span four years. This research examined data using panel regression, specifically ordinary least square. For the most accurate conclusion, the study employed ordinary pooled regression, fixed effects, random effects, and the Hausman test. This research used return on asset (ROA) as the dependent variable and foreign, managerial, institutional, and debt ratio (DR) as independent variables.

Table 1
Regression estimation result

| Variable | Coefficient | Std. Error | T-Statistic | Prob. |
|---|---|---|---|---|
| LNFOWN | 0.132908 | 0.248806 | 0.534182 | 0.6010 |
| LNMOWN | -0.432445 | 0.288195 | -0.1500529 | 0.1542 |
| LNINOW | -0.785338 | 0.175055 | -4.486240 | 0.0004 |
| LNDR | -0.147133 | 0.128337 | -1.146465 | 0.2696 |
| C | -3.448469 | 0.469350 | -7.347327 | 0.0000 |
| R-Squared | 0.688727 | | | |
| Adjusted R-Square | 0.605721 | | | |
| F-Statistics | 8.297315 | | | |
| Prob(F-Statistics) | 0.000974 | | | |
| Durbin-Watson Stat | 1.550877 | | | |

Dependent variable: ROA
*Source: Author's Computation (2024)*

The table 1 indicates the correlation between the dependent variable (ROA) and the independent variables (LNFOWN, LNMOWN, LNINOW, and DR). A value of -3.448469 units was discovered for the constant parameter coefficient. A drop of -3.448469 units in return on equity is observed if all other variables keep the same (i.e., at zero level). With a coefficient of 0.132908, the link between foreign ownership and return on assets is positive, as expected theoretically. This indicates that a one-unit gain in foreign ownership will result in a comparable increase in return on assets by the same units. In contrast, there was a negative association between management ownership and return on asset, with a value of -0.432445. This suggests that for every unit rise in management ownership, return on asset would reduce by the equivalent number of units.

Furthermore, it was discovered that there is a negative

connection between institutional ownership and return on assets, with a value of -0.785338. This means that a one-unit increase in institutional ownership will result in an improvement in return on assets by the same number of units. Furthermore, it was determined that there is a negative association between the debt ratio and the return on assets, with a value of -0.147133. This shows that for every unit increase in the debt ratio, the return on assets will improve by the equal number of units.

Table 2
Fixed effect

| Variable | Coefficient | Std. Error | T-statistics | Prob. |
|---|---|---|---|---|
| LNFOWN | -0.440082 | 0.186383 | -2.361164 | 0.0399 |
| LNMOWN | 0.263892 | 0.222290 | 1.187152 | 0.2626 |
| LNINOW | -0.161205 | 0.191485 | -0.841868 | 0.4195 |
| LNDR | -0.174431 | 0.085863 | -2.031504 | 0.0696 |
| C | -2.995670 | 0.310795 | -9.638743 | 0.0000 |
| Fixed effect (cross) | | | | |
| ECO-C | -2.995670 | | | |
| FBN-C | -2.995670 | | | |
| GTB-C | -2.995670 | | | |
| IBTC-C | -2.995670 | | | |
| UNION-C | -2.995670 | | | |
| ZENITH-C | -2.995670 | | | |
| R-Squared | 0.939130 | | | |
| Adjusted R-Squared | 0.884347 | | | |
| F-Statistics | 17.14274 | | | |
| Prob (F-Statistics) | 0.000060 | | | |
| Durbin-Watson Stat | 1.353024 | | | |

Dependent Variables: ROA
*Source: Author's Computation (2024)*

The table 2 shows ROA's connection to FOWN, MOWN, INOW, and DR. The constant parameter coefficient was -2.995670 units. If all other variables remain zero, ROA will climb by -2.995670 units. Foreign ownership negatively correlated with return on assets (-0.440082 units), as predicted. Every unit increase in foreign ownership lowers asset return by the same amount. But management ownership and return on asset were positively connected (r=0.263892). Every unit of management ownership increases return on asset by the same amount.

Institutional ownership and return on asset are negatively correlated (-0.161205). Each unit increase in institutional ownership would reduce return on asset by the same amount. Debt ratio and return on assets correlated -0.174431. For every unit rise in debt ratio, return on assets falls by the same amount.

The table shows that ECO, FBN, GTB, IBTC, and ZENITH have cross-sectional variability coefficients of -2.995670 units. This shows that firms normally raise earnings regularly as long as other factors remain constant. These coefficients show no difference in banks' leverage and profitability responses. Since all of these corporations are in financial services, they affect banks. Banks have adopted a uniform position on the topic.

The table 3 demonstrate the independent variables (ECO, FBN, GTB, IBTC, and ZENITH) and their relationship to ROA. Constant parameter coefficient was -3.410877 units. Assuming all other variables remain zero, the return on asset will rise by -3.410877 units. Theory predicted a negative link between foreign ownership and return on equity (-9.48E-06 units). An increase in foreign ownership decreases return on asset by one unit. However, management ownership inversely linked with return on assets (-0.272516). Every unit increase in management ownership lowers return on assets by the same amount. Additionally, institutional ownership and return on asset were -0.696011 related. Each unit increase in institutional ownership would reduce return on asset by the same amount. Debt ratio value and return on asset were likewise negatively correlated by -0.146535 units. For every unit rise in debt ratio, return on assets falls by the same amount.

Table 3
Random effect model

| Variable | Coefficient | Std. Error | T-Statistics | Prob. |
|---|---|---|---|---|
| LNFOWN | -0.014560 | 0.152188 | -0.095670 | 0.9250 |
| LNMOWN | -0.272516 | 0.174063 | -1.565623 | 0.1383 |
| LNINOW | -0.696011 | 0.117411 | -5.927980 | 0.0000 |
| LNDR | -0.146535 | 0.075380 | -1.943962 | 0.0709 |
| C | -3.410877 | 0.317936 | -10.72818 | 0.0000 |
| Random Effect (cross) | | | | |
| ECO-C | 0.425363 | | | |
| FBN-C | 0.425363 | | | |
| GTB-C | 0.425363 | | | |
| IBTC-C | 0.425363 | | | |
| UNION-C | 0.425363 | | | |
| ZENITH-C | 0.425363 | | | |
| R-Squared | 0.549302 | | | |
| Adjusted R-Squared | 0.429116 | | | |
| F-Statistics | 4.570426 | | | |
| Prob(F-Statistics) | 0.012984 | | | |
| Durbin-Watson Stat | 1.476181 | | | |

Dependent Variables: ROA
*Source: Author's Computation (2024)*

Table 4
Hausman test

| Chi Sq. Statistics | Prob. |
|---|---|
| 26.870825 | 0.0000 |

*Source: Author's Computation, (2024)*

The Hausman test is used to test for the best effect model between the fixed effect and the random effect model.

The table 5 data suggests the random effect model suits the research best. Hausman test probability values are below the 5% significance threshold, hence we may conclude. Thus, just the random effect model will be examined.

*Coefficient of Multiple Determination:*

The fixed effect model's R-value is 93%, indicating that independent variable changes explain 93% of dependent variable variation. Error word accounts for 7%. With modest adjustments, independent variables may explain for 93% of dependent variable variation.

*Tests for Statistical Significance of Parameters (Probability -Test):*

This test determines how effectively the accepted model's explanatory factors predict ROA behavior. The p-value for each independent variable coefficient in the OLS regression result indicates the statistical significance or reliability of the parameters. The test uses a 95% confidence level and 5% significance criterion.

Table 5
Summary of probability test-random effect

| Variable | Probability Value | Decision |
|---|---|---|
| LNFOWN | 0.0001 | significant |
| LNMOWN | 0.0001 | significant |
| LNINOW | 0.0004 | significant |
| LNDR | 0.4975 | insignificant |

*Source: Author's Computation, (2024)*

According to the table above, all explanatory factors greatly explain the ROA dependent variable's behavior (P-values > 0.05).

*Test for the Overall Significance of the Research Model (F-Test):*

The Test for the viability and significance of the research model adopted for this study is done using the Probability Test. The hypothesis for the test is formulated as:

H0: There is no overall significance in the model

H1: There is overall significance in the model

Table 6
F-Test

| F-Statistics | Prob (F-statistics) |
|---|---|
| 17.14274 | 0.000060 |

Source: Author's Computation, (2024)

If the F-statistics probability value is more than 0.05, then the whole model is likely to be statistically significant in explaining the changes in ROA.

*Implications of Findings:*

This research examined Nigerian bank performance and ownership structure. Data research demonstrated that institutional, foreign, and managerial ownership affected bank performance. Debt ratio and ROA, the dependent variable, were negatively correlated. The ownership structure of Nigerian banks seems to affect their performance. The model fits the data well since the random effect coefficient of many determinants (R) is evaluated at 0.939130. This suggests that explanatory variables explain 93% of the sample firms' ROA variance. ROA's remaining 7% is due to an erroneous term. The combination of components used to define the dependent variable captures 93% of the endogenous variable's activity. Overall, the research demonstrates that Nigerian bank ownership structure strongly impacts performance.

## 5. Summary

This research examined Nigerian bank performance and ownership structure. The 2017 to 2020 research will span five years. A panel regression study examined how foreign ownership, managerial ownership, institutional ownership, and debt ratio influenced return on asset (ROA), the dependent variable. The findings revealed that institutional ownership, foreign ownership, and managerial ownership were adversely connected with bank performance metric return on asset. The debt ratio has a slight but negative association with bank performance. The debt ratio was statistically irrelevant, but all other components were significant.

## 6. Conclusion and Recommendation

The examination focused on Nigerian bank ownership and performance. This experiment's dependent variable is return on asset (ROA), whereas the independent variables are debt ratio, institutional ownership, foreign ownership, and managerial ownership. The study also collected 2017 to 2021 cross-sectional data. But ownership structure has a big influence on Nigerian banks' performance. The government should promote management ownership, restrict foreign investment in Nigerian banks, and reduce debt to minimize bank liquidations.

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