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Article

Capital Structure and Financial Performance of Deposit Money Banks in Nigeria

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Abstract: This research examined the correlation between capital structure and financial performance of Nigerian deposit money institutions. The performance criteria used were return on equity, return on assets, and the debt-to-equity ratio. Two well-defined questions and hypotheses guided the investigation. The study's methodology was based on a quasi-experimental setup. From 2012 to December 31, 2022, fourteen (14) deposit money institutions were part of the study population on the Nigerian Exchange Group (NGX).A large portion of the research was based on agency theory. Fact books, yearly reports of publicly traded deposit banks in Nigeria, and publications of the Nigerian Exchange Group (NGX) were the sources of secondary data utilized in the study. Mean, median, and standard deviation were some of the descriptive statistics used to examine the data. The impact of predictor variables on criteria measurements was examined by multiple regression analysis, and the association between independent and dependent variables was assessed using the product moment coefficient of correlation (PPMC). The analyses were conducted using version 23 of the Statistical Package for the Social Sciences. The analysis identified a significant negative association between debt to return on equity (ROE) and return on assets (ROA) among Nigerian publicly listed deposit money institutions. The study's results indicated a significant negative correlation between debt capital structure and both ROE and ROA. The data revealed a robust positive correlation between Equity (E) and both Return on Equity (ROE) and Return on Assets (ROA) concerning the financial performance of DMOs. Equity capital structure improves deposit-taking banks' financial performance, according to the study. It is recommended that DMOs refrain from using debt financing due to the negative impact it has on their financial performance measured by ROE and ROA, as shown in the research. Research indicates that Destination Marketing Organizations (DMOs) aiming to optimize returns via capital structure should choose equity financing over debt financing to enhance financial performance. The research recommended that the government must provide a conducive environment that fosters an equitable capital structure for the development of banks and other financial institutions

Keywords: Banks, Performance, Return on Assets, Return on Equity, Debt, Equity, Capital, Government.

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1. Introduction

The capital structure of a business delineates the use of equity, debt, and other financing mechanisms to manage daily operations and enhance returns for stakeholders while minimizing their risk exposure. The management of a company's capital structure profoundly affects its profitability (Usman, M. 2019). The capital structure of a corporation comprises its internal financing sources, external funding sources, or a combination of both

(Sharon & Celani, 2019). The configuration of a company's obligations is a crucial element of its capital structure (Uremadu & Onyekachi, 2019). The amalgamation of debt and equity serves as a mechanism to fund a company's activities (Aramvalarthan, Kannadhasan, & Babu, 2018). The organization's operations are financed by a combination of loans and equity, as noted by Aziz and Abbas (2019). Capital requirements escalate as a firm expands, irrespective of the sector, necessitating more liquidity. This financing may originate from debt, equity, or a mix thereof.

Shubita et al. (2019) contend that a company's capital structure essentially represents the combination of stock and debt used to fund its activities. The concept of capital structure encompasses several characteristics beyond just debt and equity (Erhomosele, 2021). It is a consolidation of many securities (Abor, 2018). The corporation has many alternatives and adjustments (Shubita et al., 2012). Examples of these instruments include warrants, convertible bonds, lease financing, forward contracts, and trade bond swaps (Abor, 2005). Managers has the ability to choose the financing of their business assets; nevertheless, they must possess a comprehensive understanding of how each option may impact the company's financial performance (Githire, 2015). No economy can be deemed whole without the banking industry. The scrutiny of national governments over the banking sector demonstrates this phenomenon. The real sector of an economy obtains financing from several sources, with banks being the most significant (Velnampy & Niresh, 2012).

Statement of the Problem

Financial institutions and enterprises must consider funding for capital projects and structural modifications (Onaolapo, Kaloja & Nwidobie 2019). Factors including company size, profitability, physical assets, risk, dividend distribution, growth, and taxes influence these funding options. The determinants of capital structure constitute a nuanced issue within Nigeria's banking system. Determining the optimal financing mix poses challenges for deposit money banks; yet, it is essential for the long-term viability of any enterprise or institution, since it influences performance and aims to optimize returns for various stakeholders.

Kochar (2017) asserts that inappropriate capital structure decisions may lead to a decline or complete loss of significant asset value. Deposit money institutions in Nigeria have had financial difficulties owing to inadequate proficiency in corporate financial policy and structural management, which are crucial for optimizing a company's distinctive resources. Enhancing the operational financial performance of the firm is achievable via securing suitable finance from the organization's capital structure. Annual reports indicate that several banks have procured loans from external sources, significantly exceeding the financial capacity of most enterprises, potentially disrupting their operations and profitability. This study sheds light on the many obstacles that Nigerian deposit money banks face, which in turn influence their capital structure and profitability.

Aim and Objectives of the Study

This study sought to determine the relationship between capital structure and financial performance of deposit money banks in Nigeria. Specifically to: Investigate the relationship between Debt (D) and Return on Equity (ROE) of deposit money banks in Nigeria and Determine the relationship between Equity (E) and Return on Assets (ROA) of deposit money banks in Nigeria.

Literature Review

Concept of Capital Structure

Several materials exist that might enhance your comprehension of capital structure. The sustainability and growth potential of a firm are significantly influenced by its financial structure (Oyedokun et al., 2018). To finance operations and development, a company utilizes several financial instruments, including equity, debt, and hybrid

securities. This configuration is referred to as its capital structure. Capital structure is a crucial factor in corporate finance, as it affects the organization's value and risk, specifically concerning the financial performance of deposit-taking institutions. Riahi-Belkaoni (1999), as referenced in Olokoye (2012), asserts that a company's capital structure comprises various forms of equity and liabilities, which constitute the primary claims on the company's assets. A company's capital structure encompasses all funding sources, including retained profits, equity, and debt financing, used for corporate operations. Capital structure is regarded as a vital element of corporate finance strategy due to its significant impact on organizational performance (Gambo, Ahmad & Musa, 2016). Every firm must meticulously evaluate its capital structure to enhance profitability, optimize shareholder wealth, generate value, and improve financial decision-making. All of these factors influence the company's market competitiveness.

The capital structure of a firm indicates its strategy for funding operations via debt and equity. The objective is to optimize earnings while minimizing risk, with the aim of satisfying stakeholders (Dada & Ghazali, 2016). Martis (2013) asserts that a company's financial structure affects its capacity to navigate the competitive environment. Ganiyu (2015) asserts that selecting an appropriate financial structure is crucial for the company's sustainability. The optimal capital structure of a corporation is its debt-to-equity ratio that optimizes value generation while reducing capital costs. The firm's sustainability may be jeopardized by suboptimal capital structure decisions, such as an imbalance between debt and equity, potentially resulting in elevated capital costs, heightened financial risk, and worse financial performance (Anarfo, 2015). A corporation is very likely to fail if its financing structure is inefficient. Pandey (2010) asserts that capital structure choices significantly impact shareholder returns and risk, thereby influencing the market value of shares.

Lemmon et al. (2008) performed an extensive analysis of the capital structure of banks., examining the variables that influence their financing choices and the subsequent impact of those decisions on their performance and stability. Owing to regulatory mandates, asset attributes, and the fundamental financing function of deposits, they emphasized that banks' capital structures differ from those of non-financial enterprises. Research indicates that banks exhibit more leverage than non-financial firms due to the deposit insurance system and their capacity to secure substantial deposits at reduced interest rates. This is attributable to the very low cost of debt. It contends that banks cannot enhance their financial performance without establishing an optimal capital structure.

A study by Lemmon et al. (2008) investigated the influence of the Basel Accords' regulatory capital requirements on banks' capital structures. These rules seek to guarantee that banks have sufficient liquidity to absorb losses and safeguard consumer funds by affecting the equity-to-debt ratio and asserting that various capital structures yield distinct impacts on banks' financial performance. Market participants, including investors and rating agencies, exert pressure on banks to maintain certain capital levels and risk profiles, which was the central focus of the research examining the influence of market discipline on banks' capital structures. Lemmon et al. (2008) examine the distinctive features of deposit money banks' capital structures, emphasizing the interaction among regulatory frameworks, market dynamics, and the intrinsic characteristics of banks' financing sources. Their results underscored the need of comprehending these aspects to accurately assess banks' financial stability and performance.

A crucial aspect of a bank's financial management is its capital structure. According to Titman and Wessels (1988), larger enterprises are less prone to bankruptcy and may operate with less debt due to their superior reputation and capability. Empirical data substantiates this concept by demonstrating that analogous constraints influence the formation of capital structures in both major banks and non-financial corporations. As to Titman and Wessels (2012), who examined bank capital structure, major corporations may

sustain reduced financial leverage due to their reputation and expertise, which diminish their bankruptcy risk. The capital structure of banks is affected by elements such as growth potential, profitability, asset tangibility, issuance costs, tax consequences of debt financing, risk and expenses associated with financial crises, and profits per share. The study's findings underscore the intricacy and variability of capital structure choices as a critical element of financial performance, given that the drivers of capital structure in banks vary by company and nation. This research highlights the significance of asset composition in leverage choices, illustrating that collateral value is a crucial factor in ascertaining the extent of debt financing in non-financial entities such as industrial groupings.

Components of Capital Structure.

a. **Debt (D):**

In this framework for short-term capital financing, instruments such as commercial paper and short-term loans have maturities of less than one year. Long-term debt comprises bonds and loans with maturities beyond one year, set interest rates, and regular repayment schedules. Bonds, mortgages, and loans represent several types of debt that a company may use to fund its activities. Major corporations use these instruments to get funding for their initiatives and operations. In 2020, Xu and Li conducted a study. Let us assume that a firm secures a loan (the principal) and commits to repaying it (the interest) at a future date. A key characteristic of debt financing is the obligation to repay, which mandates a deadline for returning the borrowed principle together with interest to the creditors. Interest rates on loans, corporate income tax rates, withholding taxes, costs related to financial distress, and covenant restrictions in financial agreements are all determinants of a firm's debt use for operational funding (Floarea, 2008). The corporation is more inclined to choose that option if long-term debt interest rates decrease. According to Sagwa (2013), companies with an appropriate level of debt in their financial structure enhance their value via increased efficiency.

b. **Equity:**

Common stock is a component of the capital structure that signifies equity. It signifies ownership in the business and gives shareholders the right to receive dividends from the firm's residual profits. Preferred stock not only provides monthly dividend payments and precedence over common stock during asset liquidation but also functions as a hybrid instrument, including characteristics of both debt and equity. Equity entails generating capital via the issuance of stock shares, whether common or preferred. Equity financing is a prevalent option for organizations when retained profits are insufficient or when more capital is required to meet their debt obligations. Nevertheless, accountants mostly operate with the assumption that equity capital is an unencumbered resource (Lukayu & Mukanzi 2015). Abor (2008) asserts that publicly traded firms more readily get equity financing via the securities market, whereas big unlisted companies often secure equity funding from institutional investors via private placements. Equity finance, in conjunction with debt, is a fundamental element of every organization's capital structure. An increasing number of organizations are opting for stock investments as a funding source due to the decreased risk associated with equity financing relative to debt financing.

Bloom et al. (2015) defines equity financing, in contrast to debt financing, as the capital acquired via an initial public offering. A less risky method for corporations to fund their investments is via the use of retained earnings for internal purposes. An increase in retained profits signifies a reduction in the cash available for dividend payments to shareholders, as seen by the inverse relationship between retained earnings and dividends declared to shareholders (Drover et al, 2017).

c. **Hybrid Instruments:**

Convertible bonds and other financial instruments that may be converted into a certain number of common shares constitute the hybrid capital structure.Mezzanine finance, consistent with a company's capital structure, integrates debt and equity investment, allowing the lender to convert to an equity stake in the event of default.

Factors that Influence Capital Structure.

a. **Cost of Capital:**

Corporations strive to reduce their total cost of capital. Although there are tax benefits associated with incurring debt, it is crucial to refrain from jeopardizing your financial stability by assuming excessive obligations. Maintaining a cost-effective capital structure is essential for financial managers, particularly in banking, to optimize wealth, profit, and value.

b. **Risk and Financial Leverage:**

The objective of any enterprise is to optimize shareholder value, necessitating the undertaking of calculated risks with their resources. Excessive debt elevates financial leverage, so amplifying both possible gains and hazards; hence, it is crucial to recognize and evaluate this factor. Organizations must weigh the advantages of debt against the potential danger of financial instability.

c. **Control:**

Increasing the number of shares sold may diminish the power of existing shareholders, and although incurring debt does not affect ownership, it might adversely effect profitability due to interest rates; hence, capital structure control is crucial.

d. **Market Conditions:**

Numerous market elements influence the attractiveness of different financing options, including interest rates, investor sentiment, and economic conditions.

e. **Company's Operational Performance:**

The ideal capital structure of a corporation is profoundly influenced by the attributes and functions of its performance. Companies with steady and predictable cash flows find debt levels more manageable, but those with revenue volatility may opt for equity to avoid the fixed commitments associated with debt.

Importance of Capital Structure

a. **Value Maximization:**

Effective capital structures enhance a company's value by evaluating the advantages and disadvantages of different financing methods, including debt and equity.

b. **Agency Costs:**

A well-structured capital framework may enhance collaboration between shareholders and management about agency costs. A regulatory function of debt is to constrain free cash flow, so diminishing the risk of managerial overinvestment.

c. **Financial Flexibility:**

Attaining an optimal equilibrium between debt and equity enables a firm to mitigate excessive risk exposure while preserving the capacity to pursue supplementary finance if necessary.

Concept of Financial Performance

The financial success of a corporation reflects its expertise and effectiveness. Nkwoji released a publication in 2021. According to Sohail et al. (2011), a corporation can only achieve success by generating profit from investments in assets that possess a positive net present value. An economically advantageous activity is one that produces revenue for shareholders, as shown by a positive net present value. A company's financial performance

may serve as a metric for its overall financial health during a certain period. This success is predicated on the efficacy with which the corporation transformed its assets into revenue via its core business activities (Okeke, 2015).

Financial profitability pertains to elements directly associated with financial reporting, whereas non-financial profitability relates to other performance dimensions (Iswaita, 2017). Financial performance, as stated by Dwivedi (2017), is an evaluation of a company's effectiveness in transforming its fundamental business assets into revenue. The phrase is advantageous for comparing analogous enterprises within the same industry or across other sectors regarding competitiveness, as it offers a comprehensive evaluation of a company's financial condition over a specified duration. (Stewart, 2019).

a. Return on Assets (ROA):

Return on assets (ROA) is a commonly used metric for evaluating a company's profitability, according to Penman (2010). The return on assets (ROA) of a company is its profitability represented as a percentage of its total assets. It illustrates the returns generated by debt and equity investors per dollar of assets (Brealey et al., 2011). One method to calculate ROA is by use the accompanying formula:

$$\text{Return on Asset (ROA)} = \frac{\textbf{Net Income}}{\textbf{Average Total Asset}}$$

b. Return on Equity (ROE):

A further indication of a company's financial health is its return on equity (ROE) (Bodie et al., 2011). Analysts use it as a criterion to evaluate a company's success. Equity, representing the money contributed by shareholders, is the basis for a company's return on equity (ROE) (Alexander & Nobes, 2010). Berk and DeMarzo (2011) suggest that this may indicate a company's efficacy in identifying lucrative investment possibilities. Li and Simerly (1998) used return on equity (ROE), which is defined as net income divided by shareholders' equity, as a performance indicator to illustrate the influence of capital structure on performance. The researchers validated ROE as a reliable indicator of financial performance across several sectors.

Theoretical Framework.

Agency Cost Theory: This concept posits that managers and shareholders have reduced agency costs when debt and its financing structure limit managers' access to free cash flow, hence decreasing the likelihood of overinvestment. The agency cost technique capitalizes on the oversight of prior capital structure theories, which neglect the conflict that emerges in corporate environments when ownership and control are distinctly separated. We agree with Ganiyu (2015) that the idea is founded on the research of Jensen and Meckling (1976) on their trade-off theory. Contrary to assumptions, it contends that managers may not consistently operate in the best interests of shareholders. Shaba et al. (2016) discovered that leverage is favorably correlated with business performance within the agency cost theoretical framework. This occurs because managers' capacity to allocate funds for personal use is restricted when debt levels are high.

2. Materials and Methods

Research Design:

The research looked at the relationship between financial performance measures (ROA and ROE) and capital determinants (total debt and total equity) using an ex-post facto descriptive-survey approach. Fourteen (14) deposit money banks that were members of the Nigerian Exchange Group (NGX) from 2012 to 2022 were included into the study.

Several banks are involved in this initiative, including Access Bank Plc, Eco Bank Plc, First Bank Plc, First City Monument Bank Plc, Fidelity Bank Plc, Guaranty Trust Bank Plc, Jaiz Bank Plc, Stanbic IBTC Bank Plc, Sterling Bank Plc, United Bank for Africa Plc, Union Bank Plc, Wema Bank Plc, Unity Bank Plc, and Zenith Bank Plc. Over a decade, the research examined data from every bank registered on the Nigerian market. We examined the financial statements and annual reports of the selected Nigerian deposit money banks for this study.

Descriptive Analysis:

Descriptive statistics were used to analyze the structure and nature of this data. Table 4.1 below presents the descriptive findings generated using the Statistical Package for Social Sciences (SPSS V.23) software.

Table 1: Descriptive Statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
ROA	154	0.19	54.03	3.731	6.47767
ROE	154	0.22	80.04	12.8722	11.03467
DEBT	154	6.91274282	22.79444798	16.13716023	3.783757696
EQUITY	154	11.1237716	20.58566918	14.59494869	2.776657944
TA	154	11.19145218	22.99133821	16.88653608	3.263618692
Valid N (listwise)	154				

Source: Generated from the data obtained from the financial statement of the studied firms (2022) using SPSS V.23

Averages, standard deviations, minimums, and maximums were part of the descriptive statistics that were first presented with the study data. We then went on to examine how publicly listed Nigerian deposit money banks fared financially in reference to their capital structure. The Return on Assets (ROA) had a mean of 3.731 and a standard deviation of 6.48, with values spanning from 0.19 to 54.03. The Return on Equity (ROE) results varied from 0.22 to 80.04, with a standard deviation of 11.03 and a mean of 12.87. The debt figures exhibited a mean of 16.134 and a standard deviation of 3.78, with a range from 6.91 to 22.79. The averages for equity and total assets were 14.59 and 16.88, respectively, with standard deviations of 2.77 and 3.26. The range for equity was 11.12, while total assets exhibited a range of 20.58 and a total assets range of 22.99.

Correlation Analysis

Correlations

		ROA	ROE	DEBT	EQUITY	TA
ROA	Pearson Correlation	1	.483**	-.257**	-.246**	-.206*
	Sig. (2-tailed)		.000	.001	.003	.010
	N	154	154	154	154	154
ROE	Pearson Correlation	.483**	1	.124	-.139	.121
	Sig. (2-tailed)	.000		.128	.091	.134
	N	154	154	154	154	154
DEBT	Pearson Correlation	-.257**	.124	1	.569**	.844**
	Sig. (2-tailed)	.001	.128		.000	.000
	N	154	154	154	154	154
EQUITY	Pearson Correlation	-.246**	-.139	.569**	1	.783**
	Sig. (2-tailed)	.003	.091	.000		.000

	N	154	154	154	154	154

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Source: Generated from the financial report of the studied Deposit Money Banks (2022) using SPSS V.23

Table 2 shows the relationship between the components that were evaluated. The Pearson product-moment correlation coefficient, used to assess the strength of the relationship between two variables, ranges from -1 to 1. Kurtz and Mayo (2012) pointed out that when both variables are written as standard scores, this may be seen as an indication of the extent of variation in one variable typically associated with a one-unit alteration in the other..

The elements of capital structure, namely debt (D) and equity (E), had a little negative connection with Return on Assets (ROA), with correlation coefficients of -.257 and -.246, respectively. Return on Equity (ROE) had a marginal positive correlation of 0.124 with Debt and a negative correlation of -0.139 with Equity.

3. Results

Multiple Regression Result

This study used the Statistical Package for the Social Sciences to calculate codes, data, and regression metrics. Multiple regression analysis was used to ascertain the influence of independent variables. All years of the study, spanning from 2012 to 2022, were included into the analysis.

Regression Analysis on ROA

$$ROA_{it} = \beta 0 + \beta_1 D_t + \beta_2 E_t + \beta_3 TA_t \quad \text{.....(1)}$$

Table 3: Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.258[a]	0.066	0.06	6.38075	0.066	10.308	1	145	0.002	1.607

a. Predictors: (Constant), DEBT& EQUITY

b. Dependent Variable: ROA

Source: Generated from the financial report of the studied Deposit Money Banks (2022) using SPSS V.23

Table 4: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	419.689	3	419.689	10.308	.002[b]
	Residual	5903.520	145	40.714		

a. Dependent Variable: ROA

b. Predictors: (Constant), DEBT & EQUITY

Source: Generated from the financial report of the studied Deposit Money Banks (2022) using SPSS V.23

To what degree do changes in the independent variables account for variations in the dependent variable? The Adjusted R^2 measures this. The findings are shown in Table 3, exhibiting an Adjusted R2 value of 0.06 for the period from 2012 to 2022. At a 95% confidence interval, variations in the dimensions of the moderating factors—Debt, Equity, and Total Assets—accounted for 6% of the variance in the financial statement (ROA) of publicly listed deposit money institutions. This signifies that for the specified deposit money institutions, Debt and Equity comprise just 6% of the overall value of ROA. The correlation coefficient, R, reflects the extent of link between the two study variables. From 2012 to 2022, the findings demonstrated a modest positive correlation (r=.258a) between the variables analyzed.

The data is suitable for inferring population parameters, as shown by the ANOVA findings in Table 4, where the significance value is below 5%. During the specified time frame, the revised data, representing the population parameters, yielded a significant value of .002b. The anticipated results for the periods surpassed the key threshold (2.47<10.308), indicating that Debt and Equity substantially influenced the financial performance (ROA) of publicly listed Deposit Money Banks in Nigeria. The regression model demonstrated significance at (3;145) = 2.47, P < 0.05, constantly reflecting statistical significance with a p-value below 0.05.

Table 5. Coefficientsa

TA	**-0.092**	**0.117**	**-0.08**	**-0.787**	**0.034**

Source: Generated from the financial report of the studied Deposit Money Banks (2023) using SPSS V.23

$Y= 10.969-.45X_1-.145X_2-.092X_3$ ..... for the period (2012-2022)

The projected return on assets (ROA) for listed deposit money banks in Nigeria is 10.969 during the specified period, maintaining a constant value of zero, according to the previously referenced regression equation. Between 2012 and 2022, the ROA for these banks declined by 0.45 points due to increasing debt levels. Additionally, the financial performance (ROA) of these banks deteriorated with rising equity, indicated by a factor of -0.145. The debt level during this era is documented as 0.002, with a 95% confidence interval and a 5% significance threshold. A significance level of 0.037 is considered appropriate for this period. Equity has the most significant impact on the ROA of Nigerian listed deposit money banks (0.037 effect), followed by total assets (0.034) and debt (0.002), all at a significance level of 0.034. Statistical significance was observed for all variables at P<0.05.

Regression Analysis on ROE

$ROE_{it}= \beta 0 + \beta_1 D_t + \beta_2 E_t + \beta_3 TA_t$ ……..(2)

Table 6: Model Summary[e]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.177[a]	0.031	0.025	10.30594	0.031	4.714	1	145	0.032	

a. Predictors: (Constant), DEBT, EQUITY & TA

e. Dependent Variable: ROE

Source: Generated from the financial report of the studied Deposit Money Banks (2022) using SPSS V.23

The Adjusted R^2 measures the degree to which variations in the independent variables account for changes in the dependent variable. Table 6 displays the results for the period 2012–2022, indicating an Adjusted R2 value of 0.025. Variations in equity and debt led to a 2.5% change in the return on equity (ROE) of publicly listed deposit money institutions. The entire ROE of listed deposit money institutions is 2.5%, with Debt and Equity being just 2.5% of the total value. The correlation coefficient, R, reflects the extent of link between the two study variables. Between 2012 and 2022, the studied variables had a moderate positive correlation, indicated by a coefficient of .177a.

Table 7: ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	500.714	1	500.714	4.714	.032[b]
	Residual	15400.8	145	106.212		

a. Dependent Variable: ROE

b. Predictors: (Constant), DEBT and EQUITY

Source: Generated from the financial report of the studied Deposit Money Banks (2023) using SPSS V.23

The revised data, representing the population parameters, yielded a significant result of .032b over the specified time, as shown by the ANOVA statistics presented in Table 7. The data is appropriate for inferring population parameters as the significance value is below 5%. Debt and equity significantly influence the financial performance (ROE) of publicly listed deposit money institutions in Nigeria, as the calculated results for the periods surpassed the key criterion (2.47<500.714). The whole regression model was significant at (3;145) = 2.47, $P < 0.05$, continually demonstrating statistical significance with a p-value below 0.05.

Table 8: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
3	(Constant)	14.552	4.299		3.385	0.001
	DEBT	-0.106	0.389	-0.038	-0.273	0.038
	EQUITY	-2.73	0.459	-0.728	-5.942	0.043

a. Dependent Variable: ROE

Source: Generated from the financial report of the studied Deposit Money Banks (2022) using SPSS V.23

$Y= 14.552-.106X_1-2.73X_2+2.385X_3$ ..... for the period (2012-2022)

The aforementioned regression equation, which assumes a constant zero, produces a financial performance (ROE) of 14,552 for the selected deposit money institutions in Nigeria throughout the designated time. The increase in debt levels resulted in a decline of -0.106 percentage points in the return on equity (ROE) of Nigeria's publicly listed deposit money banks from 2012 to 2022. A ratio of -2.73 indicates that the financial performance (ROE) of these banks diminished as equity rose.

From 2012 to 2022, Debt has a significance level of 0.038 at the 5% significance threshold and within the 95% confidence range. Equity is statistically significant at the 0.043 threshold for the designated period. Thus, across Nigeria's publicly traded deposit money institutions, equity has the most significant impact on ROE (.043), followed by debt (.038). All variables had statistical significance at P<0.05.

Test of Hypothesis

1. **Hypothesis 1**

   $H0_1$: There is no significant relationship between Debt (D) and Return on Equity (ROE) of deposit money banks financial performance in Nigeria for the period 2012 - 2022.

   Table 4.9 illustrates the correlation between debt and return on equity (ROE) in publicly traded Nigerian deposit money institutions. The research identified a little negative association between debt and return on equity (ROE) among publicly listed deposit money banks in Nigeria from 2012 to 2022, shown by a coefficient of -0.106 and a p-value of 0.038. The results indicate that, everything else being equal, the Return on Equity (ROE) would decline by 0.106 percentage points for every unit rise in Debt. The p-value of 0.038 is below the 0.05 significance level, therefore corroborating the link. The null hypothesis is rejected in favor of the alternative, indicating a statistically significant association between the debt levels of publicly listed deposit money banks in Nigeria and their return on equity (ROE) from 2012 to 2022.

2. **Hypothesis 2**

   $H0_2$: There is no significant relationship between Equity (E) and Return on Assets (ROA) of deposit money banks financial performance in Nigeria for the period 2012 - 2022.

   Table 4.6 illustrates the correlation between equity and return on assets (ROA) for publicly listed deposit money banks in Nigeria. The analysis indicated that listed deposit money banks in Nigeria had a substantially negative association between equity and ROA from 2012 to 2022. The coefficient is -0.145, and the p-value is 0.037. With each unit increase in equity, the Return On Assets (ROA) declines by 0.145 (P-value: 0.037 at the 0.05 significance level), assuming all other variables remain constant. The findings indicate that the publicly listed deposit money banks in Nigeria demonstrated a robust link between equity and return on assets (ROA) from 2012 to 2022, hence validating the alternative hypothesis and refuting the null hypothesis.

4. Discussion

Debt and Return on Equity (ROE) of listed Deposit Money Banks in Nigeria.

Research indicates a negative correlation between debt and return on equity (ROE) among listed deposit money banks in Nigeria (-0.106, P=0.38). Thus, debt and ROE seem to have a negative correlation; specifically, ROE declines as debt increases. The financial performance of the publicly traded Nigerian deposit money banks decreased by '-0.106'.

Equity and Return on Assets (ROA) of listed Deposit Money Banks in Nigeria.

The research indicated a negative correlation between equity and return on assets (ROA) in Nigerian listed deposit money banks (coefficient = -0.145, p = 0.037). Considering that ROA decreases as equity increases, we may deduce that equity and ROA have an inverse connection. The NSE-listed deposit money institutions in Nigeria had a decline of '-0.145' units in financial performance.

Summary of Findings

The research analysis produced the following results:

1. The Loan (D) and Return on Equity (ROE) of Nigerian deposit money banks exhibit a significant negative correlation.
2. A reduction in equity would lead to an increase in return on equity, as shown by the findings that reveal a significant inverse relationship between the two variables for deposit banks in Nigeria.

5. Conclusion

This study utilizes financial statement data from fourteen publicly traded deposit money banks in Nigeria, covering the period from 2012 to 2022, to investigate the relationship between capital structure and financial performance. All paired linkages in the study, except for one, were statistically significant, thereby refuting the null hypothesis that the variables were independent. Both positive and negative correlations were identified among the associated variables. The inverse relationships between debt and both ROE and ROA indicate that decreasing debt enhances financial performance. The significant inverse relationships between equity and both ROE and ROA indicate that a reduction in equity enhances financial performance. The results demonstrate a correlation between Equity and Return on Equity (ROE) and Return on Assets (ROA), two indicators of financial success, and Capital Structure (D&E), representing debt and equity. Consequently, we believe that the previously listed deposit money institutions should enhance their debt and equity to improve their financial performance.

Recommendations

Following the outcomes of this investigation, it was advised that:

1. Given the substantial negative association between the two variables, deposit money banks in Nigeria should consider reducing their debt (D) to enhance their return on equity (ROE). Moderate indebtedness reduces interest expenditures.
2. The findings indicate a robust negative correlation between Equity and the Return on Equity of Nigerian deposit banks, suggesting that a reduction in Equity will lead to an increase in Return on Equity. Consequently, ordinary shares have to comprise the majority of total equity.

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