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## AN ANALYSIS OF FINANCIAL LEVERAGE AND FINANCIAL PERFORMANCE OF LISTED DEPOSIT MONEY BANKS IN NIGERIA

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### **Abstract**

*This paper is an investigation of the relationship between financial leverage and financial performance in deposit money banks in Nigeria. Financial performance was measured using Return on Assets (ROA) while long-term debts (LTD), short-term debts (STD), and total debts served as the variables for financial leverage. The data for the analysis was extracted from the financial statements and annual reports of the 5 banks in the sample for the ten-year period 2011-2020. The study adopted the multiple regression analysis and adopted panel data regression estimation technique. Descriptive statistics and correlation analysis were employed. In addition, the unit root test, Hausman test, and residual normality test were used for diagnosis. Our results indicated that long-term debt has a negative and insignificant effect on return on asset, short-term debt is negative and significant with return on asset, and total debt is positive and insignificant with return on asset. Thus, it is recommended that bank management give more incentives to STD suppliers, observe due diligence in borrowing for investment, and consider a tradeoff between STD and LTD in deciding on debt capital to optimize their performance.*

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## Introduction

An organization's capital structure is the combination of long-term financing securities consisting of debts and equities. The decision of a firm's financial structure is one which is crucial as the determination of the optimum capital mixture would improve the firm's value.

This crossroad requires organizations to understand their structure and financing needs when faced with the options of either debt or equity financing or a combination of both using a specified ratio or percentage. However, some firms neglect the role of planning and control in determining an adequate capital structure but rely on the manager's money-related decisions (Pandey, 2004). This act tends to cripple the firm's financing activities in the long-run as they find it difficult to raise capital to fund operations.

The term financial leverage refers to the use of debts or borrowed capital for investment with the aim of expanding a firm's asset base and generating returns (Hayes, James, & Schmitt 2021). It describes the capacity of an organization to utilize capital debt in its financial structure and use it to its advantage. Every financial decision in an organization is important and should not be undermined.

This is because the implementation of appropriate financial decisions helps to drive growth and assist management in solving problems towards the attainment of a corporate objective. Also, some schools of thought opine that finance is the life-wire of an organization for the fact that it aids managers to decide where, how, and when funds needed for investment would be obtained; and these decisions facilitate every other activity in the organization. It is the most important decision of all corporate decisions.

However, inadequate financial decisions, most often than not, is associated with the failure of most corporate bodies when these wrong decisions lead to non-beneficial financial structures; therefore, it should be properly executed. Between 1994 and 2003, the Nigerian banking sector witnessed a wave of bank failures which saw the likes of Allstates Trust Bank, Citi Express Bank and Hallmark Bank being wound up and revoked off their license by the Central Bank of Nigeria. This led to studies which showed that inadequate capital structure was one of the several factors responsible for the failure of these banks (Adeyemi, 2011). Over time, the Nigerian banking sector has grown to be highly competitive and strategic where players take careful and well-informed financial decisions. With this competition, banks tend to stand out by efficiently employing their resources as they constitute an important component of growing and developing the economy. By acting as intermediaries between the surplus and deficit units in the economy, banks play an important major role in providing funds to players that can create economic value for productive and developmental purposes.

The valuation of banks and the prices of their stocks are impacted by the interplay of debt and equity. Again, this highlights the essential nature of the choice of capital structure. With an optimal capital structure, banks strive to achieve sustainable development through steady profitability and effective utilization of assets; this serves as a measurement of performance. In this study, the leverage-financial performance nexus of Nigerian deposit money banks would be examined. This would give insight to how Nigerian banks use borrowed capital to attain results.

In this context, debt would be assessed as a catalyst of financial performance. To contribute to the findings on this topic, this study would separate the debt elements into long-term and short-term as most past works combine these elements. With this, the individual impact of these elements on financial performance can be examined.

## **Review of Related Literature**

### **Conceptual Review**

#### **Capital Structure**

In financial terms, capital structure refers to the way a firm finance its assets through the combination of equity and debt (Saad, 2010). It is the composition of debts, equity, and hybrid securities issued by the firm to finance its operations. Researchers generally believe that organizations should adopt the best combination of debt and equity because it influences profitability (Uwalomwa&Uadiale, 2012, Otekurin, 2020).

This is referred to as the “optimal capital structure”. Besides equity and debt issuance, a capital structure can also be significantly affected by merger and acquisition (M&A) activity, which can be financed by cash, borrowing, share assumption, and/or debt assumption in addition to proceeds from divestitures and asset sales.

#### **Equity and Debt**

Equity represents shares of ownership in a company and can be exchanged with investors for capital. It comprises of common stocks, preference shares, reserves, surpluses, and retained earnings. Equity is a component of the capital structure which could be in the form

of contributed capital and retained earnings (Iheanyi, Sotonye & Ejiodamen 2016). The listed deposit money banks in Nigeria have the legal status to issue their shares to the public for subscription. From a corporate perspective, equity represents a more expensive, permanent source of capital with greater financial flexibility.

On the other hand, debt refers to borrowed capital either in the form of bonds or loans. Unlike equity, debt comes with the advantage of allowing a company to retain stakes of ownership but comes at the cost of future repayments, as well as accrued interest. Debt financing comprises of bonds, debentures, and long-term loans (Pandey, 2005). Debt represents a cheaper, finite-to-maturity capital source that legally obligates the company fixed, promised cash outflows with the need to refinance at some future date at an unknown cost. These instruments are sourced from the capital market which trades long-term securities and links the deficit unit with the surplus unit. Since our focus is on leverage, debt would be further categorized into long-term debts and short-term debts.

#### **Long-term Debts**

Long-term debts are debts that have a maturity period exceeding a year. They are liabilities a company owes a creditor, payable beyond 12 months. They are also referred to as non-current liabilities. Long-term debts are employed mostly for capital-intensive purposes which are expected to yield returns over time. Entities choose to issue long-term debt with various considerations, primarily focusing on the timeframe for repayment and interest to be paid. Investors invest in long-term debt for

the benefit of interest payments and consider the time to maturity a liquidity risk. Overall, the lifetime obligations and valuations of long-term debt will be heavily dependent on market rate changes and whether a long-term debt issuance has fixed or floating rate interest terms (Tuovila and Boyle, 2022). Examples of long-term debts include bonds, debentures, lease obligations, long-term loans.

### **Short-term Debts**

Conversely, short-term debts are debts with a maturity period of a year. They are liabilities a company owes a creditor, payable within 12 months. They are also referred to as current or operating liabilities. Operating debt arises from the primary activities that are required to run a business, such as accounts payable, and is expected to be resolved within 12 months, or within the current operating cycle, of its accrual. Examples of short-term debts include commercial papers, treasury bills, treasury certificate, account payables, accrued expenses, and tax payable.

### **Financial Leverage**

Financial leverage refers to how much debt a company has used to finance their assets (Sturesson&Källum, 2017). It also refers to the use of debt (borrowed funds) to amplify returns from an investment or project. The concept of leverage is used by both investors and companies. Investors use leverage to significantly increase the returns that can be provided on an investment. They leverage their investments by using various instruments, including options, futures, and margin accounts. Companies like banks can use leverage to finance their assets. In other words, instead of issuing stock to raise capital, banks can use debt financing to invest in business operations to increase shareholder value.

### **Financial Performance – Return on assets**

Financial performance is the measure of a company's effectiveness in using assets and equity to generate revenue. It is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. Financial performance is the extent to which a company's financial health over a period is measured (Bello, Pembi & Fande, 2020). Financial performance tells investors about the general well-being of a firm. It's a snapshot of its economic health and the job its management is doing.

The financial statements are used in evaluating overall financial performance as metrics and ratios are derived from the balance sheet, the income statement, and the statement of cash flows. No single measure should be used to define the financial performance of a firm because it is a broad term that covers all areas of an organization's financial health including profitability, liquidity, efficiency, and leverage.

### **Long-term Debts on Return on Assets**

Long term-debts tends to influence returns on assets when it used to acquire assets. However, it is important to know the amount of a company's assets financed through long-term debts to understand its impact on return on assets. Therefore, the long-term debts to total assets ratio is used to determine the percentage of a corporation's assets financed with long-term debt, which encompasses loans or other debt obligations lasting more than one year (Kenton and Berry-Johnson, 2020). This ratio provides a general measure of the long-term financial position of a company and suggests if the company is becoming progressively less dependent on debt to grow its business. Basically, this ratio determines the amount

of a company's leverage. If a business has a high long-term debt-to-assets ratio, it suggests the business has a relatively high degree of risk, and eventually, it may not be able to repay its debts.

In contrast, if a business has a low long-term debt-to-assets ratio, it can signify the relative strength of the business (Kenton and Berry-Johnson, 2020). However, the assertions an analyst can make based on this ratio vary based on the company's industry as well as other factors, and for this reason, analysts tend to compare these numbers between companies from the same industry. Nevertheless, the impact of long-term debts on the return on assets of Nigerian Deposit Money Banks will be investigated in this study using this ratio.

#### **Short-term Debts on Return on Assets**

Short-term debts have impact on a company's return on assets; either positive or negative. The Nigerian banking industry may respond differently to the use of short-term debts for leverage purposes; therefore, the short-term debts to total assets ratio will reveal how leverage is attained using short-term debts. Short term debts to total assets ratio is the short-term debt obligation of deposit money banks to total assets. Short term debt obligations are liabilities that fall within one year and are a component of the debt structure of deposit money banks.

#### **Total Debts on Return on Assets**

It is generally believed that debt has a detrimental effect on the health and performance of corporate bodies. Nevertheless, some companies are highly leveraged as most of their assets are financed through debts; both long-term and

short-term. The total debts to assets ratio will reveal the percentage of a company's assets financed through borrowed capital. It will also tell if Nigerian DMBs are financially stable.

The higher the ratio, the higher the degree of leverage (DoL) and, consequently, the higher the risk of investing in that company (Hayes and Kindness, 2021). The debt-to-total-assets ratio shows how much of a business is owned by creditors (people it has borrowed money from) compared with how much of the company's assets are owned by shareholders. Nevertheless, total debt has a significant effect on return on assets depending on the size, industry, and internal factors.

#### **Theoretical Framework**

##### **Walking-Back Theory**

This theory explains the detriments that the presence of abundant resources and advantages could have on the performance of an entity. This theory was postulated by Dibia and Onwuchekwa (2019). According to Dibia and Onwuchekwa, an entity or nation tends to regress when there is unlimited availability of resources due to mismanagement and misuse of these resources. For instance, the Nigerian economy has suffered regression and backward growth for decades despite having sufficient mineral resources and endowments. This backwardness is attributed to the misuse of these minerals and the inability to effectively harness it because of the mindset that it will always be there. This theory can be related to leverage and its effect on the performance of firms. Leverage can be likened to a resource that is

supposed to be used for the advancement and growth of an entity.

The presence of borrowed capital in the capital structure can be used to the advantage of the firm through asset acquisition and acting as a substitute for entity. However, when borrowed capital is abundant to a firm it becomes detrimental due to the organization. A highly leveraged firm is open to heavy risks and will scare investors and other stakeholders (Anderson and Li, 2017). Also, the firm tends to get pressured with meeting obligations in the long run which could lead to liquidation. In this context, it opines that the abundance of borrowed capital to a firm is not best for driving financial performance as it would hinder its progression and growth in the long-run. Nevertheless, an organization should ensure that there is a balance between equity and debt in its capital structure and not utilize the option which is easily available to avoid over-dependence on an option which could result in backward progression of the entity against its anticipated target.

**Pecking order theory**

The pecking order theory which was brought to fore by Myers and Majluf (1984), this forms the basis of the theoretical framework as it explains why the research

problem exists. Today, firms are faced with capital structure decisions and seek sources that offer the best relative advantage considering the cost and convenience of usage.

The cost and risk of using internal funds for capital differs from the cost and risk associated with acquiring debts or issuing new equity. This is centered on the concept of asymmetric information. Company managers typically possess more information regarding the company’s performance, prospects, risks, and outlook than external users such as creditors (debt holders) and investors (shareholders). Therefore, to compensate for information asymmetry, external users demand a higher return to counter the risk that they are taking. In essence, due to information asymmetry, external sources of finances demand a higher rate of return to compensate for higher risk (Corporate Finance Institute, 2015).

Therefore, the pecking order theory explains the order of preference which managers have regarding their source of finance. Firstly, managers will opt for retained earnings, before debt finance and lastly equity issue. This order is depicted below in the diagram:



This theory will guide this study as it explains the benefit which debt financing has

on an entity and how equity serves a last resort. To Khan, Sajid, and Waseem (2016),

one of the implications of this is that firms have no debt-equity ratio that is targeted since their needs for finance determine the choice of their leverage ratio. Following on and echoing Ferreira and Vilela (2004), cash is used as a buffer between the need for investment and the need for retained earnings. This would then mean that leverage falls automatically as a company increases its internal financing.

### Empirical Review

Thaddeus and Chigbu (2012) studied the effect of financial leverage on bank performance using 6 banks from Nigeria. The study utilized secondary data from Nigerian Stock Exchange fact book and the financial statements of the sampled banks. Debt-equity and coverage ratios were taken as proxies for financial leverage, while earning per share (EPS) was proxy for performance indicator. Multiple regression technique was used to establish whether relationship exist between financial leverage and performance of sampled banks. The findings showed mixed results. While some banks report positive relationship between leverage and performance, others revealed negative relationship between leverage and performance.

Gweyi and Karanja (2014) examined the effect of financial leverage on firm performance of deposit taking savings and credit co-operative in Kenya, using secondary data sourced from financial statements of 40 savings and credit co-operative societies (SCCOS) sampled for the study from 2000 to 2012. Descriptive and analytical designs were both adopted. The result showed perfect positive correlation between financial leverage proxies by debt-equity ratio with ROE and profit after tax at 99% confidence interval, and a weak positive

correlation between debt-equity ratio with ROA and income growth.

Similarly, Nwaolisa and Chijindu (2016) used a sample of fifteen companies in the agricultural and healthcare sectors of the Nigerian economy for twenty-one-year period 1993-2013. The results of the regression analysis suggested that short term debt did not impact ROE, ROA and NPBT. Dasuki (2016) was a study of one hundred and eighty manufacturing firms listed on the Borsa Stock Exchange for the ten-year period 2004 to 2013. The study reported that the ratio of long-term debt to total debt has negative and significant effects on financial performance on ROA but was not significantly as regards ROE. Another study was that of Uwalomwa and Uadiale (2012) which was based on the data of a sample of thirty-one firms listed on Nigerian stock exchange for the period 2005-2009. The method of analysis was Ordinary Least Squares (OLS) technique. It was reported that financial performance was affected positively by short-term debt in the period of study.

Ajibola, Wisdom and Qudus (2018) examined the impact of capital structure on financial performance of quoted manufacturing firms in Nigeria in the period 2005 to 2014. The study revealed a statistically insignificant effect of short-term debt ratio on ROE and ROA. Abdulkarim, Ahmadu, and Sulaiman (2019) explored the impact of financial leverage on the financial performance of quoted agricultural firms in Nigeria for period 2005-2017. The report showed that long-term debt ratio had significant impact on the profitability of the sampled firms and concluded strongly that long-term debt may not be ideal as a source of fund firms in Nigeria's agricultural sector.

Mathewos (2016) conducted a study on the impact of capital structure on

financial performance of selected commercial banks in Ethiopia over the past five (5) year period from 2011 to 2015 using secondary data collected from financial statements of the commercial banks. Data was then analyzed on quantitative approach using multiple regression models. The study used two accounting-based measures of financial performance (i.e. return on equity (ROE) and return on assets (ROA) as dependent variable and five capital structure measures (including debt ratio, debt to equity ratio, loan to deposit, bank's size and asset tangibility) as independent variable. The results indicate that financial performance, which is measured by both ROA, is significantly and negatively associated with capital structure proxies such as DER, SIZE whereas DR have negative impact.

Enekwe, Agu and Eziedo (2014) conduct research on the effect of financial leverage on financial performance: evidence from quoted pharmaceutical companies in Nigeria for the period 2001- 2012. They used debt ratio (DR), debt-equity ratio (DER), and interest coverage ratio (ICR) proxies for financial leverage (independent variable) while ROA was used as proxy for financial performance (dependent variable). The study used secondary data sourced from financial statements of 3 pharmaceutical companies quoted on the Nigerian Stock Exchange. Descriptive statistics, Pearson correlation and multiple regressions were applied in the study to establish the relationship between financial leverage indicators and financial performance measure ROA. The results showed that debt ratio and debt-equity ratio have negative but

insignificant relationship with ROA, while interest coverage ratio has a positive relationship with ROA.

### Methodology

The study investigates the effect of financial leverage on the performance of listed deposit money banks in Nigeria. The researchers employed the quasi-experimental design. Nachmias and Nachmias (1996) explained that quasi-experimental design takes a number of measures, at least three, such that the relationship between the dependent and independent variables over a period of time is established. Our study made use of four variables, three of which are independent and the other dependent. They are; short-term debts, long-term debts, total debts, and return on assets. Sample size five deposit money banks were selected for a period of ten years (2011 to 2020), giving us a total of fifty observations. Correlational analysis and Ordinary least square multiple regression statistics was employed as the tool of analysis for this study with the aid of SPSS analysis package. Multiple regressions are justified because there are more than 2 independent variables in the study. The functional and mathematical relationship between the dependent variable (Return on Asset) and independent variables (short-term debts, long-term debts, and total debts) are expressed as follows as a linear model:

$$ROA_{it} = \beta_0 + \beta_1 STD_{it} + \beta_2 LTD_{it} + \beta_3 TD_{it} + \epsilon_{it}$$

### Where

ROA = return on asset

$\beta_0$  = the intercept



$\beta_1, \beta_2, \beta_3$  = parameters to be estimated in the equation

STD = short-term debt

LTD = long-term debt

TD = total debt

$\varepsilon$  = error term

$t$  = time dimension

The emphasis of this paper is to empirically test the relationship between variables of financial leverage (short-term debt, long-term debt, and total debt) and financial performance (ROA) in order to agree or disagree whether leverage is an instrument of financial performance in Nigeria banks.

### Measurement of Variables

This study will use three independent variables (short-term debt, long-term debt, and total debt) and one dependent variable (ROA) to conduct this analysis.

S/N	Variables	Codes	Indicators/Measurement
<b>Dependent</b>			
1	Return on Asset	ROA	This is the dependent variable for the study and would be extracted from the annual report and financial statement of the selected banks.
<b>Independent</b>			
2	Short-term Debt	STD	This is an independent variable for the study and would be extracted from the annual reports and financial statement of the selected banks indicating the extent to which short term debts impacts bank performance.
3	Long-term Debt	LTD	This is an independent variable for the study and would be extracted from the annual reports and financial statement of the selected banks indicating the extent to which long term debts impacts bank performance.
4	Total Debt	TD	This is an independent variable for the study and would be extracted from the annual reports and financial statement of the selected banks indicating the extent to which total debts impacts bank performance.

### Data Presentation, Analysis And Discussion Of Findings

#### Data Presentation

This research work seeks to analyze the impact which debt capital has on the financial performance of deposit money banks on Nigeria. The first section covers the presentation of data on debt capital and financial performance of deposit money

banks listed in the Nigeria stock exchange. The data are as shown below from 2011 to 2020 for five (5) deposit money banks in Nigeria which were collected from the annual report of these banks under study.

**Table 2: Descriptive Statistics**

	ROA	STD	LTD	TD
Mean	0.018149	75086570	10318916	84992730
Median	0.011770	2999779.	327503.0	3388294.
Maximum	0.266150	8.47E+08	62416375	9.09E+08

Minimum	-0.020510	591760.0	15138.00	591760.0
Std. Dev.	0.037643	1.72E+08	20461182	1.89E+08
Skewness	5.843037	2.776446	1.666720	2.590110
Kurtosis	39.28978	10.94715	4.047200	9.828602
Jarque-Bera	3028.151	195.8162	24.41690	153.0510
Probability	0.000000	0.000000	0.000005	0.000000
Sum	0.907430	3.75E+09	4.95E+08	4.25E+09
Sum Sq. Dev.	0.069431	1.45E+18	1.97E+16	1.75E+18
Observations	50	50	48	50

Source: Authors Computation Using Eviews 10

### Descriptive Statistics

From table 1 above, we observed that the average value of return on asset (ROA), short term debt (STD), long term debt (LTD) and total debt (TD) are 4 0.018149, ₦75086570 million, ₦10318916 million and ₦84992730 million respectively. The variability in the distributions as captured by the standard deviation, suggests that the standard deviations of ROA, STD, LTD and TD were found to be slightly dispersed from its mean with values of 0.037643, ₦1.72E+08 million, ₦20461182 million and ₦1.89E+08million below their respective mean values. Moreover, the skewness values ROA (5.843037), STD (2.776446), LTD (1.666720) and TD (2.590110) indicates that

all the variables were positively skewed. In conclusion, the Jarque-Bera statistic suggests that all the variables were normally distributed, since the probability of the Jarque-Bera statistic p-value exceeds the 5% significance threshold.

### Correlation Analysis.

Correlation measures the degree of linear association between two or more variables. From Table 2, a negative association was observed amongst the between the dependent variables and the independent variables. However, none of the correlation were observed to be significant at 5%.

Table 2: Correlation analysis

Covariance				
Correlation	ROA	STD	LTD	TD
ROA	0.001443 1.000000			
STD	-1115579. -0.169517	3.00E+16 1.000000		
LTD	-186502.1	2.85E+15	4.10E+14	

	-0.242493	0.812780	1.000000	
TD	-1302081.	3.29E+16	3.26E+15	3.61E+16
	-0.180344	0.998073	0.847367	1.000000

Source: Authors Computation Using Eviews 10

**Unit Root Test**

Stationarity implies that the mean, variance, and covariance are constant across different periods. Existence of unit roots can lead to serious issues such as spurious regressions and errant behavior variables due to econometric assumptions for analysis not being valid. This study tested for the

stationarity of all variables used by applying two different panel unit root test namely, the Im, f Pesaran& Shin Test and f Levin, Lin &Chuf Test. According to table 4 below, all variables were stationary at levels; thereby indicating that all variables were integrated of order zero, i.e. I(0).

**Table 3: Unit Root Test Results**

Variable	LL&C	IPS	ADF FISHERS	HADRI	ORDER OF INTEGRATION	REMARK
ROA	0.0000	0.0000	0.0001	0.0000	I(0)	Stationary
STD	0.0000	0.1342	0.0099	0.0000	I(0)	Stationary
LTD	0.0019	0.0346	0.0213	0.0042	I(0)	Stationary
TD	0.0000	0.0000	0.0000	0.0000	I(0)	Stationary

Source: Author’s Computation Using Eviews 10

**Hausman Test**

The Hausman specification test (1978) was conducted to determine whether either fixed or random effect model is suitable for the study. Fixed effect model is applied to dominate for omitted variables that are constant over time but vary between observations. While the Random

effect model is used when some omitted variables constant between observations but vary over time. From the table 5 below, the Hausman’s specification test with a probability value of 0.0178 suggests that the fixed effect model is appropriate, thereby we therefore reject the null hypothesis.

H<sub>0</sub>: Random effect model is appropriate

H<sub>1</sub>: Fixed effect model is appropriate

**Table 4: Hausman’s Test**

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random	10.095816	3	0.0178

Source: Author’s Computation Using Eviews 10

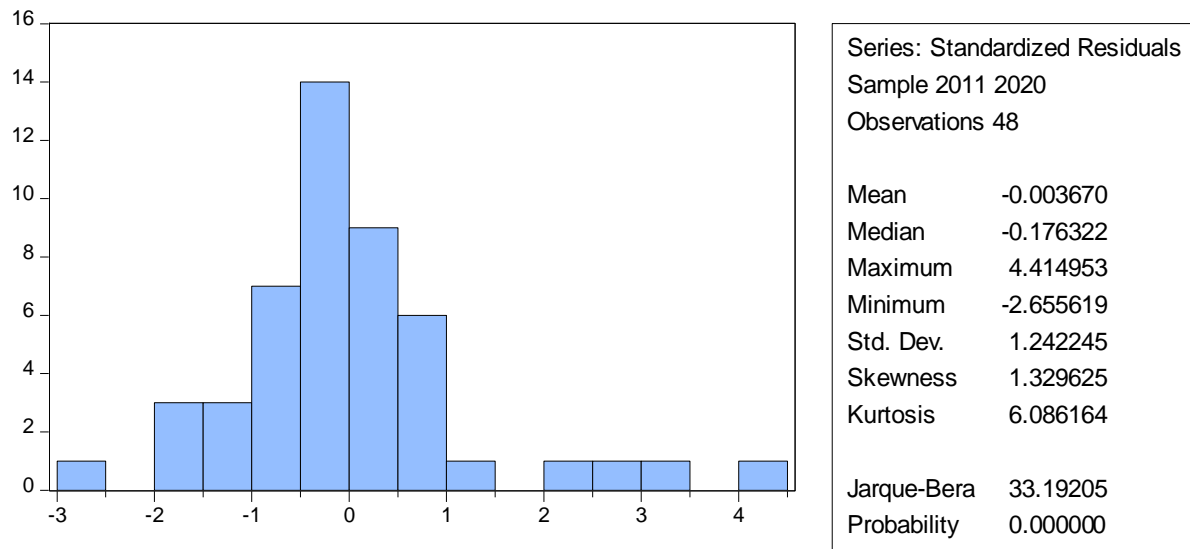
**Normality Test**

The Jarque-Bera test is a statistical process used to determine if a sample or any

group of data fits a standard normal distribution. The result of the Jarque-Bera

normality test (33.19205) with a probability value of 0.000000 indicates that the model residuals are normally distributed.

**Figure 1. Residual Normality Tests**



**Source:** Author’s Computation Using Eviews 10

**Table 5: Panel Least Square Estimation**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LSTD	-6.108390	2.968591	-2.057673	0.0471
LLTD	-0.080266	0.359105	-0.223517	0.8244
LOGTD	6.111716	3.258977	1.875348	0.0691
C	-3.788490	1.152966	-3.285864	0.0023
R-squared	0.464463	Mean dependent var	-6.250691	
Adjusted R-squared	0.280850	S.D. dependent var	3.938309	
S.E. of regression	1.161313	Sum squared resid	47.20269	
F-statistic	2.529579	Durbin-Watson stat	1.919631	
Prob(F-statistic)	0.016175			

**Source:** Author’s Computation Using Eviews 10

From table 5 below, the co-efficient of determinant (R Square) of 0.464463 indicates that about 46.4% of the variation in dependent variable; LOP is explained by the independent variables (LAR, SLR and CAR).

While the 53.6% variance in LOP is explained by other factors not captured in this study. While the standard error of 1.161313, indicates that on the average, 1.16% of

changes in the dependent variable will not be explained by the independent variables.

Furthermore, the F-statistic of 2.529579 with a p-value of 0.016175 suggests that the model is significant at a 5% level. While the Durbin-Watson statistic of 1.919631 indicates the absence of autocorrelation in the model.

### **Discussion of Findings**

#### **Short term debt (STD) variable**

With a coefficient of -2.057673 the results indicate that short term debt negative affects credibility of the financial performance, while the probability value of 0.0471 indicates that the negative impact is significant. This leads to the acceptance of the alternative hypothesis, thus rejection of the null hypothesis. The researcher accepts that short term debt significantly affects the financial performance of the listed deposit money banks in Nigeria, and that such effect is negative.

#### **Long term debt (LTD) variable**

With a coefficient of -0.223517 the results indicate that long term debt negatively affects financial performance, while the probability value of 0.8244 indicates that the negative impact is insignificant. This leads to the acceptance of the null hypothesis, thus rejecting the alternative hypothesis that long term debt does not significantly affect financial performance of the listed deposit money banks in Nigeria, and that such effect is negative.

#### **Total debt (TD) variable**

With a coefficient of 1.875348 the results indicate that total debt positively affects the financial performance, while the probability value of 0.0691 indicates that the positive impact is insignificant because it is greater than 0.05. This leads to the rejection of the alternative hypothesis, thus accepting

the null hypothesis. The researcher accepts that total debt does not significantly affect financial performance, and such effect is positive.

### **Summary of Findings, Conclusion and Recommendation**

#### **Summary of Findings**

#### **Conclusion**

We investigated the effect of debt capital and financial performance of deposit money banks in Nigeria with specific reference to how debt at different levels affects the return on asset. The population of the study is the entire 22 licensed deposit money banks in Nigeria. The sample size of 5 banks was determined using a convenience sampling technique for a period of ten (10) years from 2011- 2020. The study utilizes panel design to analyze the data based on feasible generalized least square (FGLS).

The study finds that debt has a significant negative impact on ROA. The study recommends that more incentives need to be given to short term debt (STD) suppliers to adjust the maturity structure of STDs effectively. Conclusively, banks should use debt with caution to explore its tax shield and managerial efficiency benefits.

#### **Recommendation**

Based on the findings obtained, the following recommendations are at this moment offered:

1. Bank management should give more incentives to STD suppliers, especially the depositors; this will motivate them to allow their deposits to stay with DMBs for a more extended period than the present practice. The adjustment in the maturity structure of STDs will provide DMBs with likely additional assets financing vehicle that could possibly enhance their performance.

2. Due diligence needs to be undertaken whenever the bank decides to borrow funds for investment. This will ensure that managerial discipline enforced by debt on managers' performance may not be outweighed by financial distress envisaged from excessive leverage.
3. Bank management should consider a tradeoff between STD and LTD in deciding on debt capital to optimize their performance.

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