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**CAPITAL STRUCTURE DETERMINANTS: EMPIRICAL EVIDENCE FROM  
QUOTED DEPOSIT MONEY BANKS IN NIGERIA**

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**ABSTRACT**

The objective of this study is to ascertain the determinants of Capital Structure with a focus on quoted deposit money banks in Nigeria from 2010-2017. This study made use of secondary data obtained fact books, annual reports and account of quoted banks under study. The relevant data were subjected to statistical analysis using Pearson coefficient of correlation, ordinary least square (OLS), variance inflation factor, multicollinearity and heteroskedasticity test. The result of this study revealed that there is a positive and significant relationship between tangibility, bank size, profitability and Capital Structure (proxy by leverage). It is also empirically verified that tangibility, bank size and profitability have a statistically significant effect on Capital Structure (proxy by leverage) of banks quoted on the floor of Nigerian Stock Exchange at 5% level of significance. The researchers recommend that managers of firms should be cautious when seeking loan advances from the money market. This is more important when considering the appropriate capital mix that optimizes firm value, because a wrong mix may significantly raise their level of operational and financial risks.

**Keywords:** *Tangibility, Bank Size, Profitability and Leverage*

**Background of the study**

A business concern can go for different levels of the mixture of equity, debt and other financial facilities with equity having the emphasis on maximizing the firm's value and the decision's on the capital structure corporate organizations adopts in providing the necessary value it desires (Amahalu, Okoye, Nweze, & Okika, 2017). Therefore, it should be planned and budgeted for future operations and if the firm issues more equity, the increasing amount of outstanding shares imposes the pressure on the firm to pay higher dividends in the future.

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Determinants of capital structure in financial institutions differ from non-financial institutions due to some certain issues peculiar to these institutions. For banks, which constitute the largest portion of financial institutions in Nigeria, the liabilities relating to legal capital regulations are the most important factors determining the capital structure (Aremu Mukaila Ayanda, 2013). Banks generally holds more capital than the minimum capital ratio required by capital regulations that banks are obliged to meet. In general, this is explained by the fact that banks tend to operate in a potential manner against probable stocks. However, recent studies demonstrate that factors that determine the capital adequacy ratio are not only limited to legal liabilities, but variables specific to banks are important in determining the level of capital. There is no doubt that the banking sectors play a significant role in the economy of Nigeria. Banks should choose and adjust their strategic mix of capital in order to maximize the value of the firm and ensure that their operations achieve optimum capital structure, thus the determination of appropriate capital requirement and sources of raising funds are highly important.

### **Statement of the Problem**

In recent times, organizations are faced with the financing decision of their capital expenditure (Onaolapo, Kaloja & Nwidobie 2015). These financing choices are noted by is occasioned by certain variables such as size, profitability, tangibility, risk, dividend payout, growth, taxation amongst others. Thus the issue of what truly determines capital structure has remained a contentious issue in the Nigeria banking sector (Ogbodo, Amahalu, & Abiahu, 2017). This is true because, capital is considered as the bedrock of a bank's financial strength since it has the tendency to support bank's operations by providing a buffer to curtail unanticipated losses from banking activities (Aremu, Ekpo & Mustapha 2013). The choice of an appropriate financing mix constitutes a critical decision for the survival and continuous growth of any business organization not only because of the need to maximize returns to the various interest holders, but also because of the impact the such informed decision has on performance of the organization (Amahalu, Abiahu, Okika, & Obi, 2016). This study seeks to investigate the determinants of capital structure using the banking sector in Nigeria.

### **Objectives of the Study**

- 1) To determine the extent to which Tangibility (TANG) relates with leverage of quoted deposit money banks in Nigeria.
- 2) To determine the extent to which Size (SIZE) associates with leverage of quoted deposit money banks in Nigeria
- 3) To determine the relationship between (PROF) and leverage of quoted deposit money banks in Nigeria.

### **Research Hypotheses**

The following null hypotheses guided this study:

**H<sub>01</sub>:** There is no significant relationship between Tangibility (TANG) and leverage of quoted deposit money banks in Nigeria.

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**H<sub>02</sub>:** There is no significant relationship between Bank Size (SIZE) and leverage of quoted deposit money banks in Nigeria.

**H<sub>03</sub>:** There is no significant relationship between Profitability (PROF) and leverage of quoted deposit money banks in Nigeria.

## REVIEW OF RELATED LITERATURE

### Capital Structure

Capital structure simply refers to the various financing options of the available to a corporate organization. Pandey (2010) defined “capital structure as the various means of financing a firm, that is, the proportionate relationship between debt and equity. Pandey also stated that capital structure is an important managerial decision tool because it influences the shareholder’s return and risk as the market value of the share may be affected by the capital structure decisions. Furthermore, Kennon (2010) defined capital structure as the percentage of capital (money) at work in a business by type, he also stated that two forms of capital namely; equity capital and debt capital.

### Tangibility

The tangibility of a firm plays a very critical function in determining its capital structure. According to Titman and Wessets (1988) in Amahalu, Obi, Abiahu and Ezechukwu (2017) and Harris and Ravin (1991), the degree to which assets of a firm are tangible should result to greater liquidation value for the firm. Also, Bradley, Jawel and Hankim (1984) in Amahalu, Okeke and Obi (2017) opine that firms that invest maximally in intangible assets stand to have a greater financial leverage because they borrow at lower interest rate, if their assets serve as collateral for such loans.

### Size

The size of the firm has been viewed as one of its specific characteristics that determine its capital structure. The effect of size on the leverage is so ambiguous, (Bauer, 2004). Rejar and Zingalas (1995) in Amahalu, Okeke and Obi (2017) states that larger firms tend to be more diversified and ail less often, so size (computed as the logarithm of net sales) may be an inverse proxy for the probability of bankruptcy. However, size may also be proxy for the information outside investors have, which should increase their preference for equity relative to debt.

### Leverage

Financial leverage is a measure of how much firm’s uses equity and debt to finance its assets. A company can finance its investment by debt and equity. The company may also use preference capital (Ezechukwu & Amahalu, 2017). The rate of interests and debt is fixed irrespective of the company’s rate of return on assets. The financial leverage employed by a company is intended to earn more on the fixed charges funds than their costs. As debt increases, financial leverage increases too.

$$LEV = \frac{\text{TOTAL LIABILITY}}{\text{EQUITY}}$$

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TOTAL ASSET

## METHODOLOGY

The research design adopted in this study is the ex-post facto research design, in order to establish a meaningful relationship between determinants of capital structure (measured by Tangibility, Size and Profitability) and Leverage (the proxy for capital structure).

## POPULATION OF THE STUDY

The population of the study is centered on the performance indices of the fifteen (15) commercial banks listed on the floor of the Nigerian Stock Exchange from 2010 to 31<sup>st</sup> December 2017 (See Appendix 1).

## SAMPLE SIZE AND SAMPLING METHOD

The fifteen (15) deposit money banks will represent the sample size for this study. Data were gathered from the published financial statements of the fifteen (15) quoted service firms for a eight (8) year period spanning from 2010-2017, using Panel sampling method (that is all the service firms that filed their annual financial statements with NSE from 2010-2017 without missing any year will be selected for this study).

## SOURCE OF DATA

This study made use of secondary data precisely. The data were sourced from publications of the Nigerian stock exchange (NSE), fact books and the annual report and accounts of the quoted banks, particularly the comprehensive income statement and statement of financial positions of these banks as well as their respective notes to the accounts. Both the dependent and independent variables were computed from the data extracted from publications of the Nigerian stock exchange (NSE), the annual report and accounts of the quoted banks and ratios were computed from the figures as reported in the annual reports.

## RESEARCH VARIABLES

### Independent Variables

The proxy variables used to measure determinants of capital structure in this study are; Tangibility, Size and Profitability.

- Tangibility (TANG): This is defined as the ratio of firm's non-current asset (fixed asset) to total asset (Dessi and Roertson 2003), Weill (2007) and (Margarates and Psillaki (2010).

$$\text{Tangibility} = \frac{\text{non-current assets (fixed asset)}}{\text{total assets}}$$

- Bank Size (SIZE): This is defined as natural log to total assets Bevan and Danbolt (2002).

- Profitability (PROF): This is defined as the ratio of earnings before tax to total assets (Wald,1999).

$$\text{Profitability} = \frac{\text{earnings before tax}}{\text{total assets}}$$

**Dependent Variable**

The dependent variable that was calculated in this study is capital structure. The index used to measure capital structure is Leverage.

- (a) Leverage (DER): is measured as a ratio of debt to equity.

$$\text{DER} = \frac{\text{Total debt}}{\text{Total equity}}$$

**Control Variables:**

The following control variables were used in this study:

- Growth Revenues (GR)

$$\text{GR} = [(\text{current year's revenues}/\text{last year's revenues}) - 1] \times 100\%$$

GR is the most traditional measure that indicates the growth of an organization.

- **DIVIDEND PAYOUT (DPO):** Dividend payout is the percentage of earnings paid to share holders in dividends. The dividend payout provides an indication of how money a company is returning to the share holders versus how much money it is keeping on hand to reinvest in growth, pay off debt or add to cash reserves. This latter portion is known as retained earnings.

$$\text{Dividend payout} = \frac{\text{yearly dividend per share}}{\text{Earnings per share}}$$

**MODEL SPECIFICATION**

The following models were used to test the hypotheses as follows:

$$\text{DER}_{it} = \beta_0 + \beta_1 \text{TANG}_{it} + \beta_2 \text{GR}_{it} + \beta_3 \text{DPO}_{it} + \mu_{it} \quad - \quad - \quad - \quad - \quad (1)$$

$$\text{DER}_{it} = \beta_0 + \beta_1 \text{SIZE}_{it} + \beta_2 \text{GR}_{it} + \beta_3 \text{DPO}_{it} + \mu_{it} \quad - \quad - \quad - \quad - \quad (2)$$

$$\text{DER}_{it} = \beta_0 + \beta_1 \text{PROF}_{it} + \beta_2 \text{GR}_{it} + \beta_3 \text{DPO}_{it} + \mu_{it} \quad - \quad - \quad - \quad - \quad (3)$$

**Legend:**

- $\beta_0$  = Constant term (intercept)
- $\beta_{it}$  = Coefficients to be estimated for firm i in period t
- $\mu_{it}$  = Error term/unexplained variable(s) for firm i, in period t

**Table 1: Correlation Matrix of Variables in Banking Sector**

. correlate der tang size prof gr dpo  
(obs=120)

	der	tang	size	prof	gr	dpo
der	1.0000					

```
tang | -0.0909 1.0000
size | -0.0251 -0.1645 1.0000
prof | 0.2926 0.5563 -0.2598 1.0000
gr | 0.0798 0.0684 0.7470 0.1984 1.0000
dpo | -0.0336 0.7252 -0.3469 0.5800 -0.0803 1.0000
```

Source: Researcher's computation using STATA 13, 2018

It is indicated in table 1 that DER has a weak negative relationship with TANG (-0.0909); (-0.0251) and DPO (-0.0336) since the degree of relationship is less 0.1. DER has a moderate positive relationship with PROF (0.2926) and a weak positive relationship with GR (0.0798).

**Table 2: Multicollinearity Test in Banking Sector  
Varaiance Inflation Factor (VIF)**

. estat vif

```
Variable | VIF 1/VIF
-----+-----
size | 3.79 0.263777
gr | 3.63 0.275391
dpo | 2.55 0.391837
prof | 2.35 0.425636
tang | 2.30 0.434948
-----+-----
Mean VIF | 2.92
```

Source: Researcher's computation using STATA 13, 2018

Table 2 shows the non existence of multicollinearity, since the Mean VIF of the variables is less than 10.

**Test of Null Hypothesis 1**

**H<sub>0</sub>:** There is no significant relationship between tangibility and leverage of quoted banks in Nigeria

**Model Specification:**

$$DER_{it} = \beta_0 + \beta_1 TANG_{it} + \beta_2 GR_{it} + \beta_3 DPO_{it} + \mu_{it} \quad H_{01}$$

**TABLE 3:** OLS Regression Analysis showing the relationship between DER and TANG, GR, DPO in Banking Industry.

. regress der tang gr dpo

```
Source | SS df MS Number of obs = 90
-----+----- F( 3, 86) = 0.58
Model | 1367024.71 3 455674.905 Prob > F = 0.0295
Residual | 67533660.8 86 785275.126 R-squared = 0.4198
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	Adj R-squared = 0.3144
G Total   68900685.6    89    774165.006	Root MSE    = 886.16

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	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
tang	206.9189	195.8034	1.06	0.094	596.1631	182.3254
gr	109.0094	120.1739	0.91	0.067	-129.8884	347.9072
dpo	486.1546	806.0129	0.60	0.548	-1116.146	2088.455
_cons	-891.2154	1193.564	0.75	0.457	-3263.941	1481.51

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Source: Researcher's computation using STATA 13, 2018

### Interpretation of Regressed Result

The regressed coefficient correlation result in table 3 shows the existence of a positive relationship between DER and TANG ( $\beta_1=206.9189$ ) also, a positive relationship between GR ( $\beta_2=109.0094$ ) and DPO ( $\beta_3=486.1546$ ). The coefficient of determination obtained is 0.42 (42%), which is commonly referred to as the  $R^2$ . The cumulative test of hypothesis using  $R^2$  to draw statistical inference about the explanatory variables employed in this regression equation, shows that R-Squared value shows that 42% of the systematic variations in the dependent variable can be jointly predicted by all the independent variables. 58% was explained by unknown variables that were not included in the model. The overall significance of the model (F-statistic) is statistically significant at 5%.

The predictive power of this model is very high and good for users of financial statement for investment decision making.

### Model Specification:

$$DER = -891.2154 + 206.9189TANG$$

The implication is that for there to be a unit/one naira increase in DER, there must be 206.9189 multiplying effect of TANG.

### Decision Rule:

Reject  $H_0$  if the P-value of the test is less than  $\alpha$ -value (level of significance) at 5%, otherwise accept  $H_1$ .

### Decision:

The P-value of the test (Prob > F = 0.0295) is less than 0.05. In view of the rule of thumb,  $H_1$  will be accepted and  $H_0$  rejected.

### Conclusion:

It would be concluded that TANG has a positive statistically significant relationship with DER of Banking Industry at 5% level of significance.

### Test of Null Hypothesis II

**H<sub>0</sub>:** There is no significant relationship between size and leverage of quoted banks in Nigeria

**Model Specification:**

$$DER_{it} = \beta_0 + \beta_1 SIZE_{it} + \beta_2 GR_{it} + \beta_3 DPO_{it} + \mu_{it} \quad H_0$$

**TABLE 4:** OLS Regression Analysis showing the relationship between DER and SIZE, GR, DPO in Banking Industry.

. regress der size gr dpo

Source	SS	df	MS	Number of obs = 90		
-----+-----				F( 3, 86) = 0.92		
Model	2133490.15	3	711163.383	Prob > F = 0.0367		
Residual	66767195.4	86	776362.737	R-squared = 0.3310		
-----+-----				Adj R-squared = 0.2028		
Total	68900685.6	89	774165.006	Root MSE = 881.11		

  

der	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
-----+-----						
size	365.2226	251.0236	1.45	0.049	864.2409	133.7957
gr	291.3224	183.8142	1.58	0.017	-74.08815	656.733
dpo	-519.6148	603.1192	0.86	0.391	-1718.576	679.3465
_cons	1539.184	1929.37	0.80	0.427	-2296.276	5374.644

Source: Researcher’s computation using STATA 13, 2018

**Interpretation of Regressed Result**

The regressed coefficient correlation result in table 4 shows the existence of a positive relationship between DER and SIZE at a statistically significant level of 5%. DER associates positively with GR at a statistically significant level of 5%, but has a negative and insignificant relationship with DPO. The coefficient of determination obtained is 0.33 (33%), which is commonly referred to as the R<sup>2</sup>. The cumulative test of hypothesis using R<sup>2</sup> to draw statistical inference about the explanatory variables employed in this regression equation, shows that R-Squared value shows that 33% of the systematic variations in the dependent variable can be jointly predicted by all the independent variables. 67% was explained by unknown variables that were not included in the model. The overall significance of the model (F-statistic=0.0367) is statistically significant at 5%.

**Model Specification:**

$$DER = 1539.184 + 365.2226SIZE$$

The implication is that for there to be a unit/one naira increase in DER, there must be 365.2226 multiplying effect of SIZE.

**Decision Rule:**

Reject H<sub>0</sub> if the P-value of the test is less than 0.05, otherwise accept H<sub>1</sub>.

**Decision:**

The P-value of the test ( Prob > F = 0.0367) is less than the critical value 0.05. In view of the rule of thumb, H<sub>1</sub> will be accepted and H<sub>0</sub> rejected.

**Conclusion:**

It would be concluded that Bank Size has a positive statistically significant relationship with DER 5% level of significance.

**Test of Null Hypothesis III**

**H<sub>03</sub>:** There is no significant relationship between profitability and leverage of quoted banks in Nigeria

**Model Specification:**

$$DER_{it} = \beta_0 + \beta_1 PROF_{it} + \beta_2 GR_{it} + \beta_3 DPO_{it} + \mu_{it} \quad H_{03}$$

**TABLE 5:** OLS Regression Analysis showing the relationship between DER and PROF, GR, DPO in Banking Industry.

. regress der prof gr dpo

Source	SS	df	MS	Number of obs = 90		
Model	10300641.1	3	3433547.02	F( 3, 86) =	5.04	
Residual	58600044.5	86	681395.866	Prob > F =	0.0029	
				R-squared =	0.1495	
				Adj R-squared =	0.1198	
Total	68900685.6	89	774165.006	Root MSE =	825.47	

  

der	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
prof	6765.702	1783.057	3.79	0.000	3221.102	10310.3
gr	-46.50288	115.399	0.40	0.688	-275.9084	182.9027
dpo	-1627.27	642.7325	2.53	0.013	-2904.98	-349.5601
_cons	569.3616	1146.87	0.50	0.621	-1710.541	2849.264

Source: Researcher’s computation using STATA 13, 2018

**Interpretation of Regressed Result**

The regressed coefficient correlation result in table 5 shows the existence of a positive relationship between DER and PROF ( $\beta_1=6765.702$ ). The probability value of the slope of coefficient obtained is  $P(x_1=0.000<0.05)$ . This implies that DER and PROF associate positively at 5% significance level. The coefficient of determination obtained is 0.15 (15%), which is commonly referred to as the R<sup>2</sup>. The cumulative test of hypothesis using R<sup>2</sup> to draw statistical

inference about the explanatory variables employed in this regression equation, shows that R-Squared value shows that 15% of the systematic variations in the dependant variable can be jointly predicted by all the independent variables. 85% was explained by unknown variables that were not included in the model. The overall significance of the model (F-statistic=0.0029) is statistically significant at 5%.

**Model Specification:**

$$DER = 569.3616 + 6765.702PROF$$

The implication is that for there to be a unit/one naira increase in DER, there must be 6765.702 multiplying effect of PROF.

**Decision Rule:**

Reject  $H_0$  if the P-value of the test is less than 0.05, otherwise accept  $H_1$ .

**Decision:**

The P-value of the test (Prob > F = 0.0029) is less than the critical P-value of 0.05. In view of the rule of thumb,  $H_1$  will be accepted and  $H_0$  rejected.

**Conclusion:**

It would be concluded that PROF has a positive and statistically significant relationship with DER of Banking Industry at 5% level of significance.

**Table 6 Regression Analysis showing Breusch-Pagan / Cook-Weisberg test for heteroskedasticity between DER and TANG,GR,DPO of banks in Nigeria**

. regress der tang gr dpo

Source	SS	df	MS	Number of obs = 90
Model	1367024.71	3	455674.905	F( 3, 86) = 0.58
Residual	67533660.8	86	785275.126	Prob > F = 0.0295
				R-squared = 0.4198
				Adj R-squared = 0.3144
Total	68900685.6	89	774165.006	Root MSE = 886.16

der	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
tang	206.9189	195.8034	1.06	0.094	-596.1631 182.3254
gr	109.0094	120.1739	0.91	0.067	-129.8884 347.9072
dpo	486.1546	806.0129	0.60	0.548	-1116.146 2088.455
_cons	-891.2154	1193.564	-0.75	0.457	-3263.941 1481.51

. estat hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance

Variables: fitted values of der

chi2(1) = 31.84  
 Prob > chi2 = 0.0000

Source: Researcher's computation using STATA 13, 2018

**Interpretation of Post Regressed Result**

Heteroskedasticity test is used to show the degree of homogeneity of companies or variables used in a study.

Table 6 indicates that the p-value (prob > chi2) of 0.0000 is less than the critical value of 5%. Therefore, H<sub>1</sub> will be accepted and H<sub>0</sub> rejected.

Hence TANG has a positive and statistically significant relationship with DER of banks quoted on the floor of the Nigerian Stock Exchange at 5% level of significance.

**Table 7 Regression Analysis showing Breusch-Pagan / Cook-Weisberg test for heteroskedasticity between DER and SIZE,GR,DPO of banks in Nigeria**

. regress der size gr dpo

Source	SS	df	MS	Number of obs =	90
-----+-----				F( 3, 86) =	0.92
Model	2133490.15	3	711163.383	Prob > F =	0.0367
Residual	66767195.4	86	776362.737	R-squared =	0.3310
-----+-----				Adj R-squared =	0.2028
Total	68900685.6	89	774165.006	Root MSE =	881.11

der	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
-----+-----						
size	365.2226	251.0236	1.45	0.049	-864.2409	133.7957
gr	291.3224	183.8142	1.58	0.017	-74.08815	656.733
dpo	-519.6148	603.1192	0.86	0.391	-1718.576	679.3465
_cons	1539.184	1929.37	0.80	0.427	-2296.276	5374.644

. estat hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance  
 Variables: fitted values of der

chi2(1) = 31.09  
 Prob > chi2 = 0.0000

Source: Researcher's computation using STATA 13, 2018

**Interpretation of Post Regressed Result**

Since table 7 indicates that the p-value (prob > chi2) of 0.0000 is less than the critical value of 5%. Therefore, H<sub>1</sub> will be accepted and H<sub>0</sub> rejected.

Hence Bank Size has a positive and statistically significant relationship with DER of banks quoted on the floor of the Nigerian Stock Exchange at 5% significance level.

**Table 8 Regression Analysis showing Breusch-Pagan / Cook-Weisberg test for heteroskedasticity between DER and PROF,GR,DPO of banks in Nigeria**

. regress der prof gr dpo

Source	SS	df	MS	Number of obs =	90
Model	10300641.1	3	3433547.02	F( 3, 86) =	5.04
Residual	58600044.5	86	681395.866	Prob > F =	0.0029
				R-squared =	0.1495
				Adj R-squared =	0.1198
Total	68900685.6	89	774165.006	Root MSE =	825.47

der	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
prof	6765.702	1783.057	3.79	0.000	3221.102	10310.3
gr	-46.50288	115.399	0.40	0.688	-275.9084	182.9027
dpo	-1627.27	642.7325	2.53	0.013	-2904.98	-349.5601
_cons	569.3616	1146.87	0.50	0.621	-1710.541	2849.264

. estat hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance

Variables: fitted values of der

chi2(1) = 4.79

Prob > chi2 = 0.0287

Source: Researcher's computation using STATA 13, 2018

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### Interpretation of Post Regressed Result

Table 8 indicates that the p-value ( $\text{prob} > \chi^2$ ) of 0.0287 is less than the critical value of 5%. Therefore,  $H_1$  will be accepted and  $H_0$  rejected.

Hence PROF has a positive and statistically significant relationship with DER of banks quoted on the floor of the Nigerian Stock Exchange at 5% significance level.

### FINDINGS, CONCLUSION AND RECOMMENDATIONS

The findings of the study are as follows :

- 1) Table 3 shows that  $F\text{-statistic} = 0.0295 < 0.05$ , which was confirmed with heteroskedasticity test in table 6 to be  $\text{Prob} > \chi^2 = 0.0000 < 0.05$ . These values are lower when compared with A priori alpha level (level of significance for the statistic) 0.05. Hence,  $H_0$  is rejected. It is therefore found that asset tangibility is an important factor of corporate capital structure. This implies that Tangibility has a positive and statistically significant relationship with DER at 5% level of significance.
- 2) Table 4 shows that  $F\text{-statistic} = 0.0367 < 0.05$ , which agrees with heteroskedasticity test in table 7 to be  $\text{Prob} > \chi^2 = 0.0000 < 0.05$ . These values are lower when compared with A priori alpha level (level of significance for the statistic) 0.05. Hence,  $H_0$  is rejected. It is therefore found that bank size is an important factor of corporate capital structure. This implies that size has a positive and statistically significant relationship with DER of banks quoted on the floor of Nigeria Stock Exchange at 5% level of significance.
- 3) Table 5 shows that  $F\text{-statistic} = 0.0029 < 0.05$ , which is consistent with heteroskedasticity test in table 8 to be  $\text{Prob} > \chi^2 = 0.0287 < 0.05$ . These values are lower when compared with A priori alpha level (level of significance for the statistic) 0.05. Hence,  $H_0$  is rejected. It is therefore found that profitability is an important factor of corporate capital structure. This implies that profitability has a positive and statistically significant relationship with DER of banks quoted on the floor of Nigeria Stock Exchange at 5% significance level.

### RECOMMENDATIONS

1. Managers of firms should be cautious when seeking loan advances from the money market. This is more important when considering the appropriate capital mix that optimizes firm value, because a wrong mix may significantly raise their level of operational and financial risks.
2. The regulators of the money market and capital market should improve in their efforts toward the development of the capital market; especially the bond sector of the Nigerian Stock Exchange, because it is through this that firms can source truly long term funds that significantly reduces cost of funds, create opportunities for firms to take advantage of expanding markets and improve firm value.
3. Policymakers in Nigeria should take appropriate steps to lengthen the maturity structure of corporate debt.

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## **APPENDIX I NIGERIA STOCK EXCHANGE**

### **BANKS**

- 1) Access Bank Plc
- 2) Diamond Bank Plc
- 3) Eco Bank Plc
- 4) FCMB Bank Plc
- 5) Fidelity Bank Plc
- 6) First Bank Plc
- 7) Guaranty Trust Bank Plc
- 8) Skye Bank Plc
- 9) Stanbic IBTC Plc
- 10) Sterling Bank Plc
- 11) Union Bank Plc
- 12) United Bank of Africa Plc
- 13) Wema Bank Plc
- 14) Zenith International Plc
- 15) Unity Bank Plc