

# Capital Structure and Financial Performance of Commercial Banks in Nigeria

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## Abstract

Capital Structure is an important concept in business which have accounted for financial performance of businesses in literature. Thus, this study was conducted to examine the relationship between capital structure and financial performance of commercial banks in Nigeria for the period of (2010 to 2019). Five (5) commercial banks were selected using Judgmental sampling technique. Data were collected from financial statements of selected banks. The data was analyzed using E-View 2010. Unit root test, Granger causality test and panel regression Analysis was conducted in this study. We concluded that, capital structure variables used are good predictor and significant with financial performance of commercial banks in Nigeria. In addition, we concluded that, Debt to Equity Ratio, Total Debts and Total Equity over the period under study, do not contributed to the financial performance (Return on Assets) of commercial banks in Nigeria. Furthermore, Equity to Capital Ratio and Debts to Capital Ratios improves the financial performance (Return on Assets) of commercial banks over the years. We therefore, recommended that, the bank managers should ensure that, capitals are spent on productive assets in other to improve financial performance of the banks, among others.

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## *Index terms—*

## 1 Capital Structure and Financial Performance of Commercial Banks in Nigeria

Aliyu Ahmed Alhaji businesses are brought into existence with aid of finance. As such, finance, can be said to be the money used to established businesses. Businesses require money to acquire assets which are used to provide relevant goods and services conceived in the business. Finances are sourced either as equity (contributions made by the owners of the business) or debts (contributions accrued from the creditors). Therefore, business finance ideally, is the combination of equity and debts, which is referred to as capital structure.

Firm's combination of debt and equity results in a given capital structure Brealey, Myers & Allen, (2011); Nirajini & Priya, (2013). Capital structure represents the proportion of funds attributed to the firm through different sources, which may comprise of internal and external financiers, Martis, (2013). Capital structure explains the owners' rights and interests of creditors' proportional relationship; it indicates the ratio between the corporate structure and the various sources of financing, and their mutual combinations Bauer (2004). The capital structure theory is an essential theory in finance as it addresses sources of finance available to Author: B.Sc, Accounting, M.Sc in Finance in View. e-mail: Aliyuahmed458@gmail.com.

available to business organizations wishing to raise funds to finance their operations. Myers (2001) explains capital structure as an attempt to explain the mix of securities and financing sources used by corporations to finance real investment. Capital structure is a combination of the ratio of debt and equity for the firm to finance it assets. Pandey (2010) posits that capital structure decision is significant managerial decisions that represent the proportionate relationship between debt and equity. Debt comprises of long term debt such as debenture while equity is made up of ordinary share capital, share premium, reserves and retained earnings.

### 3 A) FINANCIAL PERFORMANCE

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44 The impact of capital structure on either financial or productive business performance cannot overlook simply  
45 because, it is essential to assets accumulations, production of either goods or services that enhances wealth  
46 maximization and profit realization by the business organization. The goal of capital structure is to minimize  
47 the cost of capital and maximize the firm's value. This suggests that an optimal capital structure decision is  
48 essential for firm's survival Ganiyu, (2015).

49 Banks as a financial sector deals with services of collecting money as deposits and giving out money in form of  
50 loans to the people in the society. The banking institutions are financial institutions that play the intermediation  
51 role between the surplus and deficit sectors in any economy. Banking sector enhances the flow of funds for  
52 productive purposes. It is possible that the amount given as loan is less than the total sum paid by the deficit  
53 sector and in that case, the banking institution is supposed to payback the surplus sector from the equity of the  
54 banks Al-Mutairi&Naser, (2015).

55 From the forgoing, the bank managements are tasks to make use efficiently the business funds because, the  
56 shareholders as well as the creditors are expecting returns on their respective investment in banks. The decision of  
57 the banks management in Nigeria concerning optimal capital structure level in other to achieved organizational  
58 goals is a crucial factor on the banks financial performance. Financial performance expresses the optimum  
59 utilization of resources and the ability to make a profit Aymen, (2013). The roles of banks in the Nigerian  
60 economy are enormous, as such; banks financial performance is an essential factor that should be recon with from  
61 the bank's management. The successes achieved on financial performance increases shareholders, creditors

## 62 2 Introduction

63 Abstract-Capital Structure is an important concept in business which have accounted for financial performance  
64 of businesses in literature. Thus, this study was conducted to examine the relationship between capital structure  
65 and financial performance of commercial banks in Nigeria for the period of (2010 to 2019). Five (5) commercial  
66 banks were selected using Judgmental sampling technique. Data were collected from financial statements of  
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68 regression Analysis was conducted in this study. We concluded that, capital structure variables used are good  
69 predictor and significant with financial performance of commercial banks in Nigeria. In addition, we concluded  
70 that, Debt to Equity Ratio, Total Debts and Total Equity over the period under study, do not contributed to  
71 the financial performance (Return on Assets) of commercial banks in Nigeria. Furthermore, Equity to Capital  
72 Ratio and Debts to Capital Ratios improves the financial performance(Return on Assets) of commercial banks  
73 over the years. We therefore, recommended that, the bank managers should ensure that, capitals are spent on  
74 productive assets in other to improve financial performance of the banks, among others. and potential investors'  
75 confidence on banks. Hence, financial performance brings about stakeholders' confidence in banks. A favorable  
76 bank financial performance engenders creditors' confidence in terms of the ability of the banks to meet their  
77 obligations, gives assurance to depositors about the safety of their deposits, rewards shareholders with return for  
78 their invested funds, to managers it is an assurance of their jobs security and to the state it shows bank's ability  
79 to pay tax Aymen, (2013).

80 However, the Central Bank of Nigeria (CBN) capitalization policy regulations that mandated banks to have  
81 capital structure of tune of 25Billion Naira makes it a demanding task for banks management to determine optimal  
82 capital structure. Aremuet al. (2013), opines that, banks needed to mix both debt and equity strategically to  
83 attain capital structure at an optimal level. Thus, banks are left with decisions on what optimal capital structure  
84 mix between debts and equity accounted to success in financial performance? What mix of equity and debts  
85 will ensures lower cost of capital and subsequently improves the financial performance? From the forgoing, many  
86 researches had been carried out on capital structure and financial performances of banks in Nigeria. This study  
87 aim to examine the capital structure and financial performances of commercial banks in Nigeria for the period  
88 of ten (10) years, that is, from 2010-2019. This period was chosen because, it best examine the capital structure  
89 mix of commercial banks in Nigeria after the 2010 capital structure regulation by Central Bank of Nigeria (CBN).  
90 Many studies do not make use of this period for their studies, thus, making this research a step ahead of other  
91 researches. In addition, the study shall focus on five (5) commercials banks. These banks were selected randomly  
92 from listed commercial banks in the Nigerian Stock Exchange (2020)

## 93 3 a) Financial Performance

94 Financial performance simply refers to the potential returns made from the transactions of goods and services  
95 rendered by the business organization. Financial performance is a yardstick to measure the used of equity finance  
96 and debts finance, as well as general wellbeing of the business organization. Bhunia et al. (2011), defined financial  
97 performance as firm's overall financial health over a given period of time. They added that analysis of financial  
98 performance is aimed at assessing the feasibility, solidity and fertility of a business. Similarly, Nyor and Yunusa  
99 (2016) see financial performance as the level of performance of a firm over a specified period of times, expressed  
100 in terms of overall profit or losses during that time. It is measuring the results of a firm's policies and operation  
101 in monetary terms.

102 Financial managers use ratios from company financial statement to assess its financial performance Watson &  
103 Head, (2007), Bhunia et al., (2011). One of the key factors used in measuring financial performance of an entity is

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104 its profitability. (K.D Mihajlov 2014) said, profitability is the unique measure of corporate success and essential  
105 indicator of financial performance. Profits are generators of retained earnings within a firm. Moreover, they are  
106 often used as components of the businesses overall income and competitiveness appraisal. Business Organization  
107 profitability affects the decision of shareholders and creditors, its ability to invest and provide sustainable growth  
108 rates as well as its capability to boost returns on equity and debts. Even though profitability is a sufficient  
109 indicator of the current competitiveness of a company, it is better if it is measured over an extended period of  
110 time.

## 111 4 b) Theories of Capital Structure

112 For the purpose of this study, Tradeoff theory, Agency Cost theory and Pecking Order theory will be discussed.

113 i. Pecking Order Theory This theory explains the decision hierarchy to be followed by the banks managers when  
114 determining the sources of additional finances to the business. This theory was postulated by Myers and Majluf  
115 in 1984. The theory stated that, asymmetric information increases the cost of financing. Because of information  
116 asymmetries between the firm and potential investors, the firm will prefer retained earnings to debt, short-term  
117 debt over long-term debt and debt over equity. Myers and Majluf (1984) suggest that the problem of information  
118 asymmetric can be solved if firms did not issue new security but rather use only its retained earnings to support  
119 the investment opportunities at its disposal. This presupposes that issuing equity becomes more expensive as  
120 asymmetric information insiders and outsiders increases. Priority is then given to the internal fund because it is  
121 the easiest fund to obtain. Thus, the theory concluded that, it is less costly when sourcing for additional finances  
122 when retained earnings are used, then followed by debts and lastly equity.

## 123 5 ii. Tradeoffs Theory

124 This theory propounded from the works of Myer and Majluf (1973), Miller (1977), Scott (1977) and Kim (1978)  
125 among others. This theory of capital structure gives an assumption that the management of a company will  
126 always choose how much debt and equity to use in financing the operations of the entity and that this is obtained  
127 by balancing off the cost and benefits associated with each source of finance. According to the theory, firms  
128 should select an optimum capital structure that balances the benefits and risks of both debt and equity.

## 129 6 Review of Literatures iii. Agency Cost Theory

130 This theory assumed that, the manager as an agent may not act in the best interest of the shareholders and he  
131 determines the best optimal capital structure for the organization. This theory was postulated by Jensen and  
132 Meckling (1976). They define the agency relationship inside the firm as: "A contract under which one or more  
133 person (the principal) engages another person (the agent) to perform some service on their behalf which involves  
134 delegating some decisionmaking authority to the agent". According to this theory, the agent manager may pursue  
135 his personal objective or deliberately act in such a way that portrays lack of commitment, self-centeredness which  
136 may lead to firm losing its value significantly in contrast with the overall firm's objectives that will maximize  
137 its value. Consequently, conflict of interest may arise between the manager and the firm's owners. Taking up  
138 more debt financing may reduce agency cost problems, apart from meeting up the expectation of shareholders,  
139 managers must strive hard to redeem the fixed obligation of debt. Therefore, managers are motivated to act in  
140 such a way that will protect their interest in terms of job security and welfare.

## 141 7 c) Empirical Reviews

142 The following are researches that establish the impact or relationship between capital structure and financial  
143 performance of banks in Nigeria.

144 Ningi S. I. and Usman H. A. (2017) examined the effect of capital structure on financial performance of deposit  
145 money banks in Nigeria. It was observed that capital structure has direct impact on financial performance of  
146 Deposit Money Banks (DMBs). It is one of the important financing decisions of banks that is closely related to its  
147 survival. Taken into consideration the advantages of using debts, such as monitoring the conducts of managers as  
148 well as tax shielding ability, it is imperative for banks managers to explore less costly debt financing opportunities  
149 to finance their operations. DMBs should ensure optimum mix of debt and equity in their capital structures to  
150 maximize financial performance.

151 Adeniyi, A. J., Marsidi, A., Babatunji, A. S. (2020) study capital Structure and Commercial Banks  
152 Performance in Nigeria. This study used profit after tax and earnings per share as a measure of performance and  
153 employed panel regression technique to analyze data collected from a sample of fourteen quoted commercial banks  
154 between 2009 and 2016. The result shows a significant relationship between debt and profitability of commercial  
155 banks in Nigeria. The study concludes that debt can be significantly influenced by liquidity and shareholders'  
156 wealth. Consequently, the study recommends that commercial bank managers should not depend on debt capital  
157 as a source of financing the organization capital structure but rather use retained earnings of the business and  
158 consider debt as the least alternatives.

159 Adeoye and Olojede (2019) examined the effect of capital structure on the performance of some selected banks  
160 in Nigeria. The objectives were to examine the relationship that exists between capital structure and financial

161 performance and to investigate the effect of capital structure on the financial performance of quoted deposit  
 162 money banks in Nigeria.

163 To achieve these, a cross sectional time series secondary data covering the period of seven years (2012-2018)  
 164 was extracted from the audited financial statement of ten (10) banks listed on the floor of stock exchange. The  
 165 descriptive statistics, Pearson moment correlation and multiple linear regressions were used. The correlation  
 166 results showed that capital structure is negatively correlated with financial performance (ROA and ROE). Result  
 167 from panel regression revealed that debt to equity though significant, impacted negatively on return on assets  
 168 and return on equity, asset tangibility significantly impacted return on asset but insignificantly impacted return  
 169 on shareholder's assets. Also Age have a significant impact on return on asset and insignificant effect on return  
 170 on equity. They therefore concluded that capital structure have a negative effect on the financial performance  
 171 of deposit money banks in Nigeria and recommended that appropriate proportion of capital should be tailored  
 172 towards viable investment opportunities for maximum return of shareholders wealth and increase in value of  
 173 the firm. More so, while finance manager is alert to the movement in the stock market, banks should take  
 174 precautionary measures for mitigating credit risk associated with lending and borrowing.

175 E Chuke Nwude and Kenneth Chikezie Anyalechi, (2018), examine Impact of Capital Structure on Performance  
 176 of Commercial Banks in Nigeria. The study evaluated the influence of financing mix on the performance of  
 177 commercial banks, and the causal link between debt-equity ratios. Data collated were analyzed using correlation  
 178 analysis, pooled OLS regression analysis, fixed effect panel analysis, random effect panel analysis, granger  
 179 causality analysis, as well as post estimation test such as restricted f-test of heterogeneity and Hausmantest.  
 180 The findings show that while debt finance exert negative and significant impact on return on asset, the debt-  
 181 equity ratio has positive and significant influence on return on equity. There was neither unidirectional nor  
 182 bidirectional relationship between capital structure and performance of commercial banks in Nigeria.

183 Hafiz U. A, (2018), studied capital structure and performance of deposit money banks in Nigeria. Accordingly,  
 184 the general objective of this study is to assess the impact of capital structure on the financial performance of  
 185 Bank in Nigeria with specific reference to how debt ratio and equity ratio affect return on equity The study  
 186 recommends that more incentives need to be given to STD suppliers to effectively adjust the maturity structure  
 187 of STDs. Similarly, debt should be used with caution in order to explore its tax shield and managerial efficiency  
 188 benefits.

### 189 8 III.

## 190 9 Methodology a) Research Design and Sources of Data

191 The study adopted a descriptive research design. A descriptive approach in data collection is able to collect  
 192 accurate data on and provide a clear picture of the phenomenon under study. In addition, the principal method  
 193 common to this kind of research is empirical method. This method entails the use of quantitative, statistical or  
 194 regression techniques in evaluating the research issues or problems.

195 The judgmental sampling design was used to select five banks from the Nigerian Stock Exchange to carry  
 196 out the empirical analysis. These banks are First Bank plc, First City Monument Bank; Guarantee Trust Bank  
 197 (GTB), Union Bank, and Zenith Bank. Ten years, between 2010 and 2019 were used for the empirical analysis.  
 198 Data were sourced from the Nigeria stock exchange and annual report of the respective banks.

## 199 10 b) Regression Model and Variables

200 The financial performance that is the dependent was proxy by Return on Equity (ROA), which simply means the  
 201 returns accrued from the use of business assets. Thus, this was used in proxy of financial performance because,  
 202 both equity and debt finances are used to purchase assets of the business. On the other hand, independent  
 203 variable, which is capital structure, is proxy by: Debt to Equity Ratio (DTER), the leverage ratio showing  
 204 how the business uses its debt and equity to finances its assets, Debt to Total Capital Ratio (DTCR), which  
 205 shows the quantum of debts in total capital of the business, Equity to Total Capital Ratio (EQCR), the ratio  
 206 of equity in total capital structure of the business, Total Equity (TEQ), the total amount of equity contributed  
 207 by shareholders and lastly, Total Debts (TDBT), the total liabilities or debts finance in the business i. Model I  
 208  $ROA_{it} = \alpha_0 + \alpha_1 DTER_{it} + \alpha_2 DTCR_{it} + \alpha_3 EQCR_{it} + \alpha_4 TEQ_{it} + \alpha_5 TDBT_{it} + \epsilon_{it}$   
 209 Where;  $\alpha_0$  = intercept ROA = Return on Equity DTER = Debt to Equity Ratio DTCR = Debt to Total Capital  
 210 Ratio EQCR = Equity to Total Capital Ratio TEQ = Total Equity TDBT = Total Debts

211 In the equation,  $i$  is the individual dimension and  $t$  is the time dimension. The  $\alpha_i$  and  $\epsilon_i$  parameters represent  
 212 the overall constant in the respective model.

213 ii. Model II In other to achieve the first objective of the study, the study employs the granger causality test  
 214 so as to see the direction of causality between capital structure and financial performance of banks. The model  
 215 takes the form as specified below:  $ROA_{it} = \alpha_0 + \alpha_1 DTER_{it-1} + \alpha_2 DTCR_{it-1} + \alpha_3 EQCR_{it-1} + \alpha_4 TEQ_{it-1} + \alpha_5 TDBT_{it-1} + \epsilon_{it}$   
 216

217 It is assumed that the error terms are uncorrelated. Model II is used to determine the causality between  
 218 ROA and other independent variables used for the capital structure. The null hypothesis is that ROA does not  
 219 granger cause independent variables. The Fstatistics is compared. If the F-statistics is significant for any of the  
 220 coefficient then the null hypothesis is rejected.

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## 11 c) Method of Data Analysis

Unit root test was conducted to establish if there is stationarity in the data used for this research. Since time series data are prone to spurious regression thus, a way out of this is to test for stationarity of all variables using the Augmented Dickey Fuller Unit Root Test. The null hypothesis is that, the data has unit test root. If the P-value is less or (0.05 or 5%), the null hypothesis will be rejected and vice versa.

In addition, in other to check if there is multicollinearity, that is if there is correlated relationship between the dependent and independent variables, correlation Matrix table will be used to examine the relationship between the variables.

## 12 Where;

IV. The Granger Causality Test carried out to examine if there is a causal relationship between the dependent variable and independent variables. The Table 4.2 above show that, Return on Asset (ROA) don not have a causal relationship with Debt to Equity Ratio (TDER). This was in line with the study of Adeoye and Olojede (2019). In the same vein, Return on Assets (ROA) does not have causal relationship with Total Equity (TEQ), Total Debts (TDBT), and Total Debts to Capital Ratio (DTCR) and Equity to Capital Ratio (EQCR). The p-values of all the variables as shown in the table 4.2 are less than (0.05), thus, there is unidirectional or bidirectional relationship between capital structure and financial performance of commercial banks in Nigeria. This was in line with the study of E Chuke Nwude and Kenneth Chikezie Anyalechi, (2018). Therefore, we reject the null hypothesis which says the dependent variable Granger caused the independent variables. 4.4 which show the result of unit root test carried out to examine if the data used for the variables are stationarity over the period of the study. This test was carried out using E-View 10, thus, revealed that, the P-value ( $0.0149 < 0.05$ ), there is no unit root in the data, thus, at the first difference; the Return on Assets (ROA) is stationary. Therefore, we reject the null hypothesis which says there is unit root in the data over the years. This result is line with the study of Adeoye and Olojede (2019). (ROA). Debt to Equity Ratio (DTER) with coefficient of (0.07), shows negative insignificant relationship with Return on Assets (ROA). And lastly, Equity to Capital Ratio (EQCR) with coefficient of (-0.55) also revealed a negative insignificant with Return on Assets (ROA). From the foregoing; we can conclude that, there is no multicollinearity between the variables, because independent variables are insignificant with the Return on Assets (ROA).

## 13 Global Journal of

## 14 a) Panel Regression Results

From the above table, R-squared (0.915) means that, the independent variables together explained 91.5% of the Return on Assets (ROA), thus, the remaining (8.5%) are other factors not captured in this study.

In addition, the Prob (F-statistics,  $0.028 < 0.05$ ), shows that, there is a significance relationship between capital structure and financial performance of commercial banks in Nigeria. This result is line with the study of Adeoye and Olojede (2019), Ningi S. I. and Usman H. A. (2017) and Hafiz et al (2018).

The regression result also shows the coefficient relationship between the independent variables and Return on Assets (ROA). Debts to Equity Ratio (DTER), was statistically insignificant (coefficient -0.6345, p-value 0.3036) and have a negative relationship with the Return on Assets (ROA). This implies that, the Debt to Equity Ratio over the years do not improve the financial performance of commercial banks in Nigeria over the years. This was in line with the study of E. ChukeNwude and Kenneth Chikezie Anyalechi, (2018),. Equity to Capital Ratio (EQCR) and Debts to Capital Ratio(DTCR)shows a negative but statistical significant relationship (coefficient -4.7365, p-value 0.0110 and (coefficient -18.6211, p-value 0.05 respectively) with the Return on Assets (ROA). This mean Equity to Capital Ratio (EQCR) and Debts to Capital Ratio (DTCR) has positive influence on the financial performance. The negative coefficient may be as result of Equity and debts capital incurred on non-performing Assets. This was in line with researches conducted by Ronoh and Ntoiti (2015) and Ramadan and Ramadan (2015). Total Debts (TDBT) is positively insignificant (coefficient 1.1137, p-value 0.3748) with the Return on Assets (ROA). This implies that, the Total Debts (TDBT) is irrelevant to the financial performance of commercial banks in Nigeria. Total Equity (TEQ) shows negative insignificant relationship (coefficient -1.0833, p-value 0.3027) with Return on Assets (ROA). Therefore, it is immaterial and do not improves financial performance of commercial banks in Nigeria.

## 15 V. Conclusions and Recommendations

This study carried out to examine the relationship between capital structure and financial performance of banks in Nigeria. The study used five (5) commercial banks and financial statements of the 10 years period form (2010-2019). From the study, we concluded that, capital structure variables used are good predictor of financial performance of commercial banks in Nigeria. In addition, we concluded that, Debt to Equity Ratio, Total Debts and Total Equity over the period under study, do not contributed to the financial performance of commercial banks in Nigeria. From the foregoing, we recommended that:

1. The statistical insignificant of Debts to Equity Ratio to Financial performance: thus, we recommended that, the bank managers should ensures adequate and robust capital structure mix between equity and debts

279 finances in other to yield favorable outcome in the future. 2. We also, recommend that, the commercial banks  
 280 should not depend highly on the debts finances, thus, they should make use of their retain earnings to boost their  
 281 capitalization, as this is in line with pecking order theory. 3. The bank managers should ensure that, capitals are  
 282 spent on productive assets in other to improve financial performance of the banks. 4. Finally, the government  
 283 should put in place relevant policies that will improve performance of capital markets where finances are source  
 284 from, and also, put in place polices that will make commercial banks find retain earnings more attractive than  
 debts.<sup>1</sup>

4

1: Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
ROA	10	.07	.22	.1480	.04517
DTER	10	23.21	33.60	28.1980	3.59973
DTCR	10	4.00	4.31	4.1880	.09414
EQCR	10	.69	.96	.8170	.08015
TEQ	10	1122336	2443981	1750909.30	484129.744
TDBT	10	5294135	15531117	9845646.60	3221889.668
Valid N (listwise)	10				

Author's Computations, 2020.

Null Hypothesis:			
	Obs	F-Statistic	Prob.
DTCR does not Granger Cause ROA	8	0.65444	0.5809
ROA does not Granger Cause DTCR		2.74412	0.2101
DTER does not Granger Cause ROA	8	1.19583	0.4150
ROA does not Granger Cause DTER		3.02217	0.1910
EQCR does not Granger Cause ROA	8	1.65610	0.3276
ROA does not Granger Cause EQCR		5.10023	0.1083
TDBT does not Granger Cause ROA	8	0.97585	0.4716
ROA does not Granger Cause TDBT		0.18175	0.8424
TEQ does not Granger Cause ROA	8	0.29607	0.7632
ROA does not Granger Cause TEQ		0.32148	0.7473

Author's Computations 2020.

Figure 1: Table 4 .

42

Figure 2: Table 4 . 2 :

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		3: Multicollinearity Test. Correlation Matrix				
	ROA	TDBT	TEQ	DTCR	DT	
ROA	0.001836					
	1.000000					
TDBT	0.169337	9.34E+12				
		1.000000				
TEQ	-0.017695	1.28E+12	2.11E+11			
		0.915220	1.000000			
DTCR	0.051219	213823.4	21900.20007976			
		0.783305	0.533915000000			
DTER	-0.073287	5472200.	45636208201246		11.	
		0.524250	0.290962659847		1.0	
EQCR	-0.554345	-173441.0	-	-	-	
		-0.746309	-	-	-	
			0.477228818216		0.4	

Author's Computations 2020.

Table 4.3 above show the results of correlation relationship between the viable which is used to examine if there is multicollinearity among the variables used in the study. Total Debts (TDBT) with coefficient of (0.169) exhibits positively insignificant relationship with Return on Assets (ROA). Total Equity (TEQ) with coefficient of (-0.017) shows negative significant relationship with Return on Assets (ROA). Debt to Capital Ratio (DTCR) with coefficient of (0.05) shows positive significant relationship with Return on Assets

Table 4.4: Unit Root Test

		t-Statistic
Augmented Dickey-Fuller test statistic		-4.125697
Test 1% level		-4.420595
critical values:		
5% level		-3.259808
10% level		-2.771129

\*MacKinnon (1996) one-sided p-values.

Warning: Probabilities and critical values calculated for 20 observations and may not be accurate for a sample size of 9

Figure 3: Table 4 .

45

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	23.50160	6.081689	3.864321	0.0181
LOG(EQCR)	-4.726575	1.055664	-4.477350	0.0110
LOG(DTCR)	-18.62110	6.940146	-2.683100	0.0551
LOG(DTER)	-0.634583	0.538052	-1.179409	0.3036
LOG(TDBT)	1.113754	1.116107	0.997891	0.3748
LOG(TEQ)	-1.083294	0.916618	-1.181839	0.3027
R-squared	0.915320	Mean dependent var		-1.957468
Adjusted R-squared	0.809470	S.D. dependent var		0.334952
S.E. of regression	0.146206	Akaike info criterion		-0.723897
Sum squared resid	0.085504	Schwarz criterion		-0.542346
Log likelihood	9.619487	Hannan-Quinn criter.		-0.923058
F-statistic	8.647338	Durbin-Watson stat		1.433486
Prob(F-statistic)	0.028758			
Author's Computations, 2020.				

Figure 4: Table 4 . 5 :



- 286 [ Faculty of Social Sciences] , *Faculty of Social Sciences* 54 (1-2) p. . Charles University Prague
- 287 [Pandey ()] , I Pandey . 2010. New Delhi: Vikas Publishing House PVT Ltd. (10 th edition)
- 288 [Kim ()] ‘A mean-variance theory of optimal capital structure and corporate debt capacity’. E Kim . *Journal of*  
289 *Finance* 1978. 33 p. .
- 290 [Ningi and Usman ()] ‘A Review on the Effect of Capital Structure on Financial Performance of Deposit Money  
291 Banks in Nigeria’. S I Ningi , H Usman . *Nigerian Journal of Management Technology and Development* 2017.  
292 8 (1) .
- 293 [Kraus and Litzenberger ()] ‘A statepreference model of optimal financial leverage’. A Kraus , R H Litzenberger  
294 . *Journal of Finance* 1973. 28 p. .
- 295 [Scott ()] ‘Bankruptcy, secured debt and optimal capital structure’. J Scott . *Journal of Finance* 1977. 32 p. .
- 296 [Myers ()] ‘Capital structure’. S C Myers . *Journal of Economic Perspectives* 2001. 15 (2) p. .
- 297 [Adeniyi et al. ()] ‘Capital Structure and Commercial Banks Performance in Nigeria’. A J Adeniyi , A Marsidi  
298 , A S Babatunji . *International Journal of Academic Research in Accounting, Finance and Management*  
299 *Sciences* 2020. 10 (1) p. .
- 300 [Martis ()] *Capital Structure and Firm’s Financial Performance: An Empirical Analysis of the S and P500*, R  
301 N Martis . 2013. New Zealand. Master Finance, University of Van Tilburg
- 302 [Ramadan ()] ‘Capital Structure and Firm’s Performance of Jordanian Manufacturing Sector’. Z S Ramadan ,  
303 RamadanI . *International Journal of Economics and Finance* 2015. 7 (6) p. .
- 304 [Nyor and Yunusa ()] ‘Capital Structure and Operating Performance of Listed Conglomerate Firms in Nigeria’.  
305 Nyor , A Yunusa . *International Journal of Finance and Accounting* 2016. 5 (2) p. .
- 306 [CBN scope, conditions and minimum standards for Commercial Banks Regulations CBN ()] ‘CBN scope, con-  
307 ditions and minimum standards for Commercial Banks Regulations’. *CBN* 2010. (01) .
- 308 [Central Bank of Nigeria (CBN) 2020, List of Commercial banks in Nigeria] *Central Bank of Nigeria (CBN)*  
309 *2020, List of Commercial banks in Nigeria*, 01/09/2020. [www.cebanc.gov.ng](http://www.cebanc.gov.ng)
- 310 [Myers and Majluf ()] ‘Corporate Financing and Investment Decisions when firms have information that investors  
311 do not have’. S C Myers , N S Majluf . *Journal of financial economics* 1984. 13 p. .
- 312 [Kraus et al. ()] ‘Determinants of Banks’capital structure in Asia:acomparison amongst developed and develop-  
313 ing countries’. Kraus , H Litzenberger ; Nguyen , Z Kayani . *Master of Science in Business and Economics*  
314 1973. 2013.
- 315 [Aremu et al. ()] ‘Determinants of Capital Structure in Nigerian Banking Sector’. M A Aremu , I C Ekpo , A  
316 M Mustapha , S I Adedoyin . *International Journal of Academic Research in Economics and Management*  
317 *Sciences* 2013. 2 (4) p. .
- 318 [Al-Mutairi and Naser ()] ‘Determinants of capital structure of banking sector in GCC: An empirical investiga-  
319 tion’. A Al-Mutairi , K Naser . *Journal of economic and financial review* 2015. 5 (2) p. 972.
- 320 [Bauer ()] ‘Determinants of Capital Structure: Empirical Evidence from the Czech Republic’. P Bauer . *Czech*  
321 *Journal of Economics and Finance* 2004.
- 322 [Adeoye ()] ‘Effect of Capital Structure on Financial Performance of Listed Banks in Nigeria’. Olejede Adeoye .  
323 *Asian Journal of Economics* 2019. 12 (2) p. 51124. (Business and Accounting)
- 324 [Ronoh and Ntoiti ()] ‘Effect of Capital Structure on Financial Performance of Listed Commercial Banks in  
325 Kenya, A Case Study of Kenya Commercial Bank Limited’. C Ronoh , J Ntoiti . *The Strategic Journal of*  
326 *Business & Change Management* 2015. 2 (72) p. .
- 327 [Bhunia et al. ()] ‘Financial Performance Analysis-A Case Study’. A Bhunia , S Mukhuti , S Roy . *Current*  
328 *Research Journal of Social Sciences* 2011. 3 (3) p. .
- 329 [Ganiyu ()] Y O Ganiyu . *Dynamic Analysis of the Impact of Capital Structure on Firm Performance in Nigeria*  
330 *1 st edition*, (DeMontfort, United Kingdom) 2015.
- 331 [Ayman ()] *Impact of capital on financial performance of banks: the case of Tunisia. Banks and Bank Systems*,  
332 B M Ayman . 2013. 8 p. .
- 333 [Hafiz ()] ‘Impact of Capital Structure on Financial Performance of listed Deposit Money Banks in Nigeria’. U  
334 A Hafiz . *NDIC Quarterly* 2018. 33. (3 and 4)
- 335 [Chukenwude and Chikezieanyalechi ()] ‘Impact of capital structure on performance of commercial banks’. E  
336 Chukenwude , Kenneth Chikezieanyalechi . *International Journal of Economics and Financial Issues* 2018. 8  
337 (2) .
- 338 [Nirajini and Priya ()] ‘Impact of Capital Structure on the Financial Performance of the listed trading companies  
339 in Sri Lanka’. A Nirajini , K B Priya . *International Journal of Scientific and Research Publications* 2013. 3  
340 (5) .

## 15 V. CONCLUSIONS AND RECOMMENDATIONS

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- 341 [Brealey and Myers ()] *Principles of Corporate Finance*, R A Brealey , S C Myers , Allen , F . 2011. New York:  
342 McGraw-Hill Irwin. (10 th edition)
- 343 [Jensen and Meckling ()] 'Theory of the firm: Managerial behavior, agency costs and ownership structure'. M  
344 Jensen , W Meckling . *Journal of Financial Economics* 1976. 2 (3) p. .