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# **Relationship Between Bank Diversification and Bank Performance**

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#### Abstract

The study analyzed the relationship between bank diversification and bank performance. The specific objectives of this study were: To ascertain the effect of diversification into bank on loans Ascertain the effect of diversification into bank commission on turnover on the financial performance of deposit money banks in Nigeria bank. Examine the effect of commission on turnover on the financial performance of deposit money banks in Nigeria. Find out how diversification into income from foreign exchange trading has affected the financial performance of deposit money banks in Nigeria. Determine the effect of diversification into investment income on the financial performance of deposit money banks in Nigeria. Commission on turn over, bank loans, income from foreign exchange and investment income were the independent variables while return on assets as dependent variable. The ex-post facto research design was adopted. Secondary data obtained from the central bank of Nigeria statistical bulletin. Descriptive statistics, correlation matrix and regression

methods of data analysis were employed for the study. The findings show that diversification into commission on loan has a significant effect on financial performance of commercial banks in Nigeria. Diversification into foreign exchange trading income does not significantly affect the performance of commercial banks in Nigeria. Diversification into investment income on the financial performance of commercial banks in Nigeria is not significant. Diversification into leverage on the financial performance of commercial banks in Nigeria is significant. The researcher recommends that diversification leads to better firm performance in the long run as poor performance in one market or product line is compensated by better performance in other markets and product lines. Diversification increases the market share and the growth prospects of firms. This study therefore recommends that firms pursue diversification strategy to diversify their risk exposures.

Keywords: Diversification, Bank Performance, Leverage, Commission on Loan, Foreign Exchange Trading, Bank Loans

#### 1. Introduction

The core activities of any deposit money bank are to accept deposit, and from the accumulated deposits lend money and collect the interest payments. Through this activity, deposit money bank provides short-term, medium-term and long-term loans to different subdivisions of the economy. The Central Bank Nigeria hinge on upon them for the success of its policy of monetary management in keeping with requirements of a developing economy. Thus, the deposit money bank assists in the capital formation and economic development of a country. Meslier, Tacneng & Tarazi, (2014) <sup>[11]</sup>, argued that deposit money bank plays a vital role in keeping the economy of a nation successively, as they act as mediators between savers and borrowers and allow free circulation of money. However, the income in form of interest, from this traditional business of accepting deposits and lending money seems not to be maintainable. This can be accredited to recent organizational forces of change that have instigated banking in emerging markets to experience a decline in its traditional events (Gamra & Plihon, 2011) <sup>[6]</sup>. As a result, banks have increasingly turned to new, non-traditional financial activities as a way of complimenting the interest income, thereby maintaining their position as financial intermediaries. Thus, Gutierrez-Lopez & Abad-Gonzalez, (2020) <sup>[8]</sup>, stressed that the banking industry now adopt diversification strategy to play a new role in the financial sector.

According to Stiroh, (2004) <sup>[19]</sup> the diversification approach in the form of non-interest income arose, due to the shifting economic situations, levels of competition and changes in technological innovation around the world. Khrawish (2011) <sup>[10]</sup>, see non-interest income as any form of income earn from bank activities and any other intermediation business, e.g., taking deposit

and loan as well as any form of investment. Eisemann, (1976)<sup>[5]</sup>, further maintain that noninterest income business include commissions and fees. Damankah, Anku-Tsede, & Amankwaa (2014)<sup>[4]</sup> explored non-interest income as feegenerating activities which range from underwriting activities to cash management and custodial services as well as derivative arrangements. In order words, deposit money banks engaged in different activities such as investments, trading and money transfer through which non-interest income is earned to remain in business (Adedeji1 & Adedeji, 2018)<sup>[1]</sup>, to survive in a competitive environment. (Ahmed, Qasim, Tahar & Rashid, 2020)<sup>[2]</sup> and to generate high returns and reduce risk (Ahmed; Qasim; Tahar & Rashid, 2020)<sup>[2]</sup>, by increasing their capital adequacy limit, (Ashraf et al., 2016)<sup>[3]</sup>. Ng'endo (2012), added that, the advancement towards noninterest income investments by commercial banks has resulted in increased competition in financial market integration, technological advancement, and improved regulations in the banking industry.

The diversification into non-interest income should not be affected by economic and financial institution cycles; neither are they controlled by interest rate laws and regulations. Thus, they ensure profitability of banks in the event of a decline in interest income. Oniang'o, (2015), opined that noninterest income is among one of the factors affecting bank profitability. Hidayat, Kakinaka & Miyamoto (2012) [9], pointed out that banks have the tendency to enhance their profit, due to non-interest income. In affirmation, Eisemann, (1976)<sup>[5]</sup> stated that the noninterest income might improve the profitability of deposit money banks by expanding source of earning. Ghazouani & Basty (2021)<sup>[7]</sup>, Mostak Ahamed, 2017<sup>[13]</sup> and Adedeji and Adedeji (2018)<sup>[1]</sup> confirmed in their studies that non-interest income had significant positive effect on bank performance. In reality, bank activities operations confront several bank risks. Bank Performance is highly affected by "Bank Credit Risk" since it is the leeway that the entire value of assets might change in value due to the fact that counterparty has failed to meet its commitments under the contracted liability. Deposit money bank core resolution is to accept deposits and provide credit facilities to customers for investment and expansion of business which then develop unescapably subject to bank credit risk. Moreso, bank Credit risks however establish the most significant risk part that banks are subjected to, and their success depends on a large extent other risks from accurate measurement and successful risk management. If the risk is not properly managed it could lead to bankruptcy.

Previous studies have shaded more light on the effect of diversification into noninterest income on firm performance. Studies like Murithi (2013) and Oniang'o (2015) studied the effects of income diversification into non-interest income on financial performance of banks in Nigeria and found out that noninterest income affected performance of commercial banks to a great extent because income diversification is associated with greater returns. However, Ng'endo (2012), Mboya (2012), and Gichure (2015) examined the relationship between non-interest income, earnings volatility and financial performance of banks in Nigeria and concluded that noninterest income results in earnings volatility because of the required expansion in fixed costs. They also noted that there were few benefits, if any to be expected from income diversification from traditional

banking to fee-based revenue despite growing importance of non-interest income. These studies indicated that the noninterest income topic and its effect on performance of banks are not conclusive yet. Divergent conclusions from different scholars suggested that the subject is a contemporary issue especially in a developing economy like Nigeria. Thus, this study sought to establish how the different diversifications influenced financial performance of commercial banks in Nigeria.

#### 1.2 Objective of the study

Specific objectives of the study are to:

- 1. Ascertain the effect of diversification into bank on loans Ascertain the effect of on turnover on the financial performance of deposit money banks in Nigeria.
- 2. diversification into bank commission on turnover on the financial performance of deposit money banks in Nigeria.
- 3. Find out how diversification into income from foreign exchange trading have affected the financial performance of deposit money banks in Nigeria.
- 4. Determine the effect of diversification into investment income on the financial performance of deposit money banks in Nigeria.

#### 2. Literature Review

#### 2.1 Theoretical Framework

#### The Neo-Classical Growth Model (NGM)

Robert Solow and Trevor Swan developed theory in 1956 Neo-Classical growth Model will be thoughtful to first comprehend the meaning of economic growth. Economic growth is seen as one four macroeconomic goals of any society. Economic growth can be further refers as the upsurge overtime of an economy's capacity to produce those goods and services needed to drive the wellbeing of the citizen of a country in increasing numbers and diversity. It is the steady procedure by which the production capacity of the economy is increased overtime to bring about rising levels of national income (Todaro and Smith 2009). More so, this research engages the neo-classical growth theory to give more details into diversification and economic growth. The neo-classical growth model credited fundamentally the works of Robert Solow who attempted to correct a major defect of the Harrod-Domar growth model, that defect being the rigidity of the model imparted to it by the underlying Leontief type production function. This category of production is considered by fixed capital labour proportions. This fixity eradicates the possibility of cumulative production by growing the supply of one factor alone. On the other hand, the scope of factor substitution (diversification) is zero suggesting the no-no factor substitution. It is this shortcoming inherent in the Harrod-Domar growth model that the neo-classical growth model proceeded to redress. In doing this, the assumption of a Leontief category production function was dropped and substituted by a more realistic production function characterized by well-behaved negatively sloping isoguants. This production function was well-thought-out to be more representative as it recognized the possibility of factor substitution. Nigerian policy makers should make every urgent effort to encourage diversification of our resources (endogenous) and not encouraging mono-economy which is (homogenous).

## 2.2 Empirical Review

Cummins, Weiss, Xie, and Zi (2010) studied the economy of American insurance industry for the time frame of 1993– 2006. The researchers found that find that property–liability insurers maintain cost scope economies, but they are more than offset by revenue scope diseconomies. In other dimension, they found that life–health insurers realize both cost and revenue scope diseconomies and maintain that strategic focus is superior to conglomeration in the insurance industry.

Ade (2012) studied the performance of manufacturing firms in Nigeria companies in relation to specialization, unrelated and mixed product market diversification approaches. The studied use Panel Least Square which includes correlation analysis, F-test and descriptive statistics, the findings showed a significant performance and growth changes between firms utilizing related diversification strategies and those utilizing unrelated diversification strategies.

Iqbal, Hameed and Qadeer (2012) established the effect of diversification on organizations performance in Pakistan economy. The data was collected from the annual report of the selected firms in Stock Exchanges. The sources of data were collected from the annual report of the selected firms in Pakistan stock exchange. Forty (40) firms was picked base on firm Specialization Ratio (SR). Any firms which have existed for the period of five years period (2005-2009) were included in the study sample. Panel least square were used in the analysis, the study found no positive relationship between diversification and firms' performance

Nwankwo (2013) empirically determined the implication of agricultural financing options in Nigerian economy. The study employed Ordinary Least Square with multiple regressions, the study found that agricultural financing had significant impact on the economic growth of Nigeria. The result further indicated that loan repayment rate has negative and significant impact on the growth of Nigerian economy over the years.

Enyim, Ewno and Okoro (2013) empirically established the relationship between banking sector credit and performance of the agricultural sector in Nigeria. The study employed econometric tests such as unit root, cointegration, error correction model and Grange causality test. The study established government expenditure has positive insignificant effect on agricultural productivity.

Akewushola (2015) established the impact of Information and Communication Technology (ICT) on the firm performance of 12 selected Nigerian firms that are pursuing a strategy of related product market diversification. Related diversification was measured by the extent of diversification arising from involvement in several industries of the same industry group. The study concludes that the performance impact of related-market diversification is not the same for all firms and is largely relative and determined and moderated by the intensity of ICT in a firm.

Karthik, George and Singla (2015) takes a step forward to address that call by arguing that the underlying relationship between ID and P is contingent upon product diversification (PD) of the firm. In particular, we hypothesize and provide evidence that the ID and P relationship is positively moderated by PD when the firm has both high levels of both ID and PD or low levels of both ID and PD.

Onodugo, Benjamin and Nwuba (2015) explored the effect of diversification on economic growth of Nigeria. Ordinary least square method of data analysis was employed in this study. Secondary sources of data were employed from Central Bank of Nigeria statistical bulletin. The study shows that for any economy to be diversified there must be a very serious paradigm shift both in economic and political policies. The study further shows that agricultural sector has been neglected which lead to constant depreciation in GDP of the country. Hence this clarion calls for urgent diversification of the Nigerian economy.

Godwin and Ubong (2015) explored the export diversification and economic growth in Nigeria using error correction mechanism (ECM). The variables used in this study were non-oil sector, technology, trade and investment. The study found that diversifying the economy, encouraging large scale industrialization of the non-oil sector, emphasizing deepening technology in trade and investment and an improvement in agricultural sub-sector among other factor, will further enhance sustainability in growth.

Onur and Ihsan (2016) established the difference between diversification and performance in Turkey, Italy and Netherlands. The data of 166 firms in Netherlands, 265 firms in Italy and 128 firms in Turkey were analyzed. The study area is from 2007-2011, the variables were on Return on Assets (ROA) and Return on Sales (ROS) for financial performance and Entropy Index for diversification was used. The study found no correlation between total entropy and a performance criterion ROA and ROS in Italy and Netherlands. Moreover, in Turkey, he study showed low-level positive correlation between total entropy and firm performance.

# 3. Methodology

#### 3.1 Research Design

Ex-post facto research design was used in this study because; the collected data used in this study cannot be controlled or manipulated.

#### 3.2 Area of Study

In conducting this research, the area of study focuses on deposit money banks firm in Nigeria Exchange limited.

#### 3.3 Sample Size and Sampling Techniques

To achieve this, the eight (8) deposit money banks in Nigeria with international authorization status were selected and on the basis of availability of the variables data in their financial statement. Data were gathered from the published financial statements of the eight (8) listed banks for a five (5) year period spanning from 2016-2020. The total number of quoted banks in Nigeria exchange limited were twentyfour (24), the researcher choose eight banks from them, Access bank, Zenith bank, UBA, First Bank, and Union, fidelity bank, FCMB, GT Bank because of proximity.

#### **3.4 Source of Data**

Secondary sources of data were used which is from publications of the Nigeria exchange limited, 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.

#### **3.5 Model Specification**

The objectives of this study will be achieved using the panel regression model. Specifically, the fixed effect and Random effects estimation techniques will be applied in analyzing the data for this study from the eight sampled money deposit banks which represents the deposit financial institutions in Nigeria. The pooled OLS, Fixed effect and Random effect estimated techniques are part of the panel linear regression modeling approaches however, because of the limitation inherent in the pooled OLS (i.e., the inability of the method to account for individual characteristics of the cross sections) the approach has not attracted much interest in terms of applications in academic research. Thus, the fixed effect and the random effect have dominated in majority of the panel studies where the panel PMG/ARDL are not considered especially in the cases where the period (t) is small. The fixed effect regression model is stated below as:

$$ROE_{it} = \beta_0 + \beta_1 COLA_{it} + \beta_2 FET_{it} + \beta_3 INVI_{it} + \beta_4 FSZ_{it} + \beta_5 LEV_{it} + \mu_{it}$$
(1)

Where **ROE** is the Return on Equity (dependent variable), used to represent bank performance; **COLA** is the commission on loans and advances; **FET** is the foreign exchange trading (FET); **INVI** is the investment income (INVI); **FSZ** and **LEV** represent the firm size and leverage, respectively and  $\mu$  is the error term used to account for other variables that influence ROE but are included in the model of this study.  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ ,  $\beta_4$ , and  $\beta_5$  are the coefficients of the explanatory variables while i and t represents the cross sections and time, respectively.

More so, when a form of random and uncorrelated variations is observed in the panel between the explanatory variables then the need for a random effect regression model arises. An outstanding feature of the random effect model is its ability to incorporate variables that are time-invariant, unlike the fixed effect where they are included in the intercept. The Random effect model for this study is therefore, stated as follows:

$$ROE_{it} = \beta_0 + \beta_1 COLA_{it} + \beta_2 FET_{it} + \beta_3 INVI_{it} + \beta_4 FSZ_{it} + \beta_5 LEV_{it} + \mu_{it} + \varepsilon_{it}$$
(2)

Here,  $\mu$  is used to denote the error term between cross sections while  $\varepsilon$  is the error term within the model.

Before the regression estimations, the study conducted some preliminary checks to ensure the data for the study has no underlying issues that could invalidate the regression output. These tests includes the Pearson correlation test that check for relationship between the dependent and the explanatory variables. This is idea as the estimation of impact relationship between variables will be meaningless when the variables have no reasonable level relationships. The outcome shows a form of level relationship between the dependent and explanatory variables. Similarly, the check for multi-colinearity was conducted to ensure it does not exist among the variables of the study. This problem of multi-colinearity if present automatically renders the regression estimate irrelevant and unsuitable for policy purposes. The Variance Inflation Factor was used for this purpose and the results in Table 3, shows that the variables of interest have no problem of multi-colinearity.

Finally, because the cross sections in this study consist of financial firms where inter-bank activities prevails i.e., some banks depend on the others for one thing or the other, the likelihood that any shock on one of these banking firms will impact on the others is high. This then, makes it essential to check for cross sectional dependence. Because the cross sections (i) used in this study is larger than the period (t), the Pesaran CD test will be used to account for cross sectional dependence. According to Table 4, the result of the Pesaran CD test is statistically insignificant at all level; this is an indication that cross sectional dependence does not exist in the panel.

#### 3.6 Data Analysis Techniques.

This study employs Panel least square using panel data between 2016 and 2020 covering period of five years for 8 deposit money bank, to estimate and provide evidence on the nature of relationship between bank diversification and performance, hypotheses test were carried out with the aid of E-view 8.0 statistical software, using coefficient of correlation which is a good measure of relationship between two variables. Regression analysis predicts the value of a variable based on the value of the other variables and explains the impact or effect of changes in the values of the variables.

#### 4. Data Presentation and Analysis 4.1 Result Presentation and Interpretation

			1			
	ROE	СОТ	FET	INVI	FSZ	LEV
Mean	37.20875	6221.000	32379.53	43086.25	7.645170	6.755514
Median	23.10000	2849.500	5398.500	13054.50	6.783786	6.703890
Maximum	98.00000	52506.00	296819.0	406665.0	9.891500	10.71205
Minimum	4.310000	907.0000	6.000000	1307.000	6.097841	3.209914
Std. Dev.	31.05495	8796.607	68092.75	75791.21	1.463447	1.743083
Skewness	0.879441	3.836115	2.694987	3.396513	0.474054	0.178796
Kurtosis	2.221859	20.31534	9.751957	15.32499	1.374718	2.560900
Jarque-Bera	6.165280	597.8068	124.4012	330.0843	5.900755	0.534467
Probability	0.045838	0.000000	0.000000	0.000000	0.052320	0.765494
Sum	1488.350	248840.0	1295181.	1723450.	305.8068	270.2205
Sum Sq. Dev.	37611.98	3.02E+09	1.81E+11	2.24E+11	83.52541	118.4952
Observations	40	40	40	40	40	40

Table 1: Descriptive Statistics

Table 1 above showcases the description of the original untutored data used for this study. The descriptive statistics indicates that the ROE across the eight banks for the period of time used in this study varies, while ROE for some banks while reasonably high those of other banks were small. This is so obvious looking at the mean ROE which is 37.2%, the maximum ROE which has a value of 98% and the minimum ROE which took the value of 4.3%. The huge disparity between these three measures validates this fact. Similarly, the COT, FET and INVI followed a similar trend as the ROE when their mean, maximum and minimum values are considered on comparative basis. The exceptions are the two

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control variables i.e, FSZ and LEV which according to the descriptive statistics indicates that the banks varies in both size and leverage but not too much. This could also portent that the size of banks in Nigeria has been of the decline owing to the financial crisis in the financial sector which severely impacted negatively on the sector, leading to downsizing of staffs and branches among these banks. This no doubt must have also impacted on their performance in a negative fashion.

Table 2
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Correlation						
	ROE	СОТ	FET	INVI	FSZ	LEV
ROE	1.000000					
COT	-0.225524	1.000000				
FET	0.237297	-0.092848	1.000000			
INVI	0.314897	-0.078471	0.722796	1.000000		
FSZ	-0.387292	0.395036	0.343854	0.302355	1.000000	
LEV	0.063643	0.008105	0.070728	0.112369	0.025318	1.000000

Table 2 shows the Pearson correlation matrix which indicates that COT and FSZ are negatively correlated with the dependent variable (ROE) whereas; FET, INVI and LEV are positively correlated with the dependent variable (ROE). Generally, the independent variables have weak correlation with the dependent variable (ROE). Comparing the correlation among the regressors, the Pearson correlation matrix indicates that weak correlation exists among the regressors except for FET and INVI which has strong correlation. This result indicates that there are no outlier among the variables and thus, satisfying the required condition for the use in estimating the necessary regression equation.

 Table 3: Variance Inflation Factors

	Coefficient	Uncentered	Centered
Variable	Variance	VIF	VIF
COT	2.95E-07	1.936419	1.279886
FET	8.57E-09	2.742295	2.226037
INVI	6.63E-09	2.841065	2.133792
FSZ	12.07661	41.98558	1.448237
LEV	5.957508	16.62765	1.013541
С	880.5819	50.57147	NA

The result of the variance inflation factor which is used to determine the existence of multi-colinearity is presented in Table 3 above. The VIF indicates that all the variable of interest with the exceptions of the control variables has no multi-colinearity problem. This is true as the results indicates that both the centered and the uncentered VIF has values between 1 and 2 which is less than the benchmark of 10 that is generally, acceptable according to theory. The cases of the two control variables does not call for worries as they are not the variables of interest in this study and thus, will have no impact on the regression output.

 Table 4: Cross Sectional Dependence Test

Test	Statistic	d.f	P-value
Breusch-Pegan LM	45.12096		0.0214
Pesaran Scaled LM	1.218839	28	0.2229
Pesaran CD	-1.295261		0.1952

Table 4 above presents the result of the cross-sectional dependence test which used to check if there is dependence

between two or more of the banks used in this study. Normally, if there exist any dependence between two or more of the banks used in this study, a shock on one will likely impact on the others. This is the brain behind the test of cross-sectional dependence in a panel sample. In this study, because the cross section (n) is greater than the period (t), the Pesaran CD is the most appropriate test for cross sectional dependence. From the output in Table 4 above, the P-value (0.1952) of the Pesaran CD test is statistically insignificant at the 5% level of significant, this means that no cross-sectional dependence exist in the panel sample. As a result, there is no need to apply the cross-sectional weight to the regression output.

**Table 5:** Panel Regression Results

Variable	Fixed Effect	Random Effect		
COT	-6.29	0.00		
FET	4.60	0.00		
INVI	0.00***	0.00***		
FSZ	90.39**	-0.03		
LEV	-4.31	-0.05		
CONSTANT	-631.89**	47.60		
$\mathbb{R}^2$	0.84	0.44		
F-statistics	12.52(0.000)	5.14(0.000)		
Durbin Watson	1.59	1.24		

The panel regression results in Table 5 above, indicates that from the fixed effect regression that COT impacts negatively on ROE while the random effect regression indicates that COT impacts positively on ROE but this impact in both regressions is not statistically significant. According to the fixed effect regression FET impacts positively on ROE but this impact is not statistically significant at any level of significance. The random effect regression result also shows similar outcome in every way except in the coefficient value. In both the fixed effect and random effect regressions, INVI impacts positively on ROE and this impact is statistically significant at 1%. According to their coefficient values of 0.00, a unit change in INVI will bring about a less than 1% corresponding change in ROE. This uniformity of the result from both regressions seems to portent that INVI is the most viable factor that account for commercial banks performance in Nigeria in terms of ROE. Furthermore, the fixed effect regression result shows that FSZ impacts positively on ROE and this impact is significant at the 5% level of significance. According to the coefficient value, a unit change in FSZ will bring about 90.39% corresponding changes in ROE. This is true as investor always look out for banks that have good performance records when making their investment decisions of where to invest. The random effect regression result shows that FSZ impacts negatively on ROE however, this impact is statistically insignificant. In the fixed effect regression, the coefficient of the constant is statistically significant indicating that there are certain variables that affect ROE that were not captured in the model while the coefficient of the random effect shows otherwise.

Furthermore, the  $R^2$  for the fixed effect regression model is 0.84, which indicates that about 84% of the changes in the fixed effect regression model were accounted for by the explanatory variables while the remaining 16% were accounted for by the constant(error term). The  $R^2$  for the random effect regression model has a value of 0.44, an indication that 44% percent of the changes in ROE of banks

used in this study were accounted for by the explanatory variables while the remaining 66% are captured by the constant (error term). The F-statistic values of the fixed effect and random effect regression models are statistically significant as shown by their respective p-values in parentheses, indicating that the joint impact of the explanatory variables in both models is statistically significant, and further show that the models are good. Finally, the Durbin Watson value of 1.59 indicates the absence of any correlation problem for the fixed effect but the random effect regression fell short of that yardstick, having a Durbin Watson value of 1.24. Although, the issue of correlation does not come into play when dealing with a panel with periods less than 20, this however, is an indication that the fixed effect regression model outcome is more robust than the random effects regression model outcome.

# 4.2 Hypothesis Testing

The hypothesis is tested on the basis of quantitative statistical analysis in this study.

Ho<sub>1</sub>: Diversification into Commission on loan has no significant effect on financial performance of deposit money banks in Nigeria.

From the regression result we discovered that in the tstatistics column commission on loan is -6. 29 while its probability is 0.0000 the coefficient of determinant is negative. Since its probability is less than 0.05% desired level of significance, we reject the null hypothesis and accept the alternative hypothesis, we therefore conclude in favour of alternative hypothesis which state that diversification into commission on loan has a significant effect on financial performance of deposit money banks in Nigeria.

# Hypothesis Two

Ho<sub>2</sub>: Diversification into Foreign exchange trading income does not significantly affect the performance of deposit money banks in Nigeria.

From Table 3 above, we find out that computed value for foreign exchange trading income is -4.6 while its probability is 0.000. This shown that the foreign exchange trading income is statistically significant and the coefficient is negative. Based on this analysis we accept (H0) and reject (H1), which implies that diversification into foreign exchange trading income does not significantly affect the performance of deposit money banks in Nigeria.

# **Hypothesis Three**

Ho<sub>3</sub>: diversification into investment income has no significant effect on the financial performance of deposit money banks in Nigeria

Careful examination of t-test table results for diversification into investment income is -0.00 while its probability is 0.00 this shown that the diversification into investment duty is statistically insignificant at 5% level of significance and the coefficient is negative. Based on this analysis we accept (H0) and reject (H1), which implies that the effect of diversification into investment income has significant effect on the financial performance of deposit money banks in Nigeria.

## **Hypothesis Four**

Ho<sub>4</sub>: The effect of diversification into foreign exchange trading on the financial performance of deposit money banks in Nigeria is not significant.

Careful examination of t-test table results for foreign exchange trading is -90.39 while its probability is -0.03 this shown that the Custom and excise duty is statistically significant at 5% level of significance and the coefficient is negative. Based on this analysis we reject (H0) and accept (H1), which implies that the effect of diversification into foreign exchange trading on the financial performance of deposit money banks in Nigeria is significant.

#### 5. Conclusion and Recommendations 5.1 Conclusion

The study focuses on the relationship between bank diversification and performance in Nigeria. The study adopts unit root, co-integration and error correction model on a time series data. The study regressed the components of taxation against Nigeria economy, and the regression result reveals that about 84% of the systematic variation in the dependent variable is explained by the three independent variables such commission on loan, investment income,

The F-statistic is significant at the 5% level showing that there is a linear relationship between the real gross domestic product and the three independent variables.

The result maintained that diversification into commission on loan has a significant effect on financial performance of deposit money banks in Nigeria. Diversification into foreign exchange trading income does not significantly affect the performance of deposit money in Nigeria. Diversification into investment income on the financial performance of deposit money in Nigeria is not significant. Diversification into leverage on the financial performance of deposit money banks in Nigeria is significant.

# 5.2 Recommendations

The following recommendation emerge:

- Diversification leads to better firm performance in the long run as poor performance in one market or product line is compensated by better performance in other markets and product lines.
- Diversification increases the market share and the growth prospects of firms. This study therefore recommends that firms pursue diversification strategy to diversify their risk exposures.
- Firms should study their client base and levels of consumption when choosing a diversification strategy. This will help them understand whether the customers can consume their new products. Studying the customers will also help the firms know if they can acquire new customer base by selling them related and unrelated products at a lower price.
- Firms should diversify their portfolio so as to increase their market steadiness and to avoid over reliance on a single product. This will increase their upcoming success and improve their predictability about the upcoming and then boost their financial fortes through making a well define profit investments decisions.

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