

Effect of Economic Recession on the Performance of Selected Deposit Money Banks in Nigeria

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Abstract

The paper examined “Effect of Economic Recession on the Performance of Selected Deposit Money Banks in Nigeria”. It used secondary data; the secondary data used are textbooks, articles, journals, manuals and annual reports from the year 2012 to 2017. The population size used for this study was the entire 15 Deposit Money Banks in Nigeria during the period under review, while only 5 was adopted as sample size because they were identified by Moody's Investors Service as the most affected banks in Nigeria during the recession. Judgmental sampling technique was adopted for the study while regression and correlation analyses using E-views 9.0 statistical software packages were used to analyze the data and tested the formulated hypotheses at 5% level of significance. The paper revealed that there is a significant relationship between the volume of transactions and deposit growth in Nigeria's deposit money banks and concluded that economic recession has a serious negative effect on the volume of transaction and tax rate which affects banks' performance variables like deposit growth and profit margin. It was recommended that Deposit Money Banks in Nigeria should increase their volume of transactions by going into merger and acquisition or leverage social advertising to target prospects and existing customers on content marketing i.e. products or services valuable to customers.

Keywords: *Economic recession, Volume of Transaction, Tax Rate, Customers' Patronage, Performance, Deposit Growth and Profit Margin*

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Background to the Study

In the past three and half decades, hardly would a year pass without reports of the terrible economic crisis in many countries of the world, particularly in the United States, China and the United Kingdom. The global economic crisis has been accompanied by a recession of several magnitudes in the affected countries. Consequently, in the past decades, for instance in the 1990s and early 2000s, recessions have occurred simultaneously in advanced economies several times (Claessens and Kose, 2009). However, Claessens and Kose (2009; 2012), noted that there is general recognition that the term refers to a period of decline in economic activity.

Banks perform various roles in the economy, they ameliorate the information problems that exist between investors and borrowers, thereby, monitoring the borrowers and ensuring proper use of the depositors' funds, provisioning of intertemporal smoothing of risk that cannot be diversified at a given point in time as well as insurance to depositors against uncertainty, which is due to maturity mismatches between the bank's assets and liabilities. The collective importance of the different roles of banks varies extensively among different world, countries and times but banks are always critical to the growth of the economy and financial system. Banks play a crucial and significant role in the financial system in capital formation, due to the inherent nature of banks, they should be given more financial attention than any other type of economic unit in an economy. Evaluation of the financial performance of the banking sector is necessary to check the soundness of financial activities of any economic system. The banking sector's performance is seen as the replica of the financial activities of the economy. The development of the banking industry is a good indicator of economic development. It is worth to add that applying these methods alone to evaluate banks performance will reflect the efficiency degrees but unable to give any details upon the factors related to inefficiency as most of these factors are non-numeric variables such as operating style, management hierarchy, or governance principles in banking sector (Emrouznejad and Anouze, 2010).

The strategic position Nigerian banks occupy in the financial system calls for adequate appraisal of the industry especially in the light of the last global financial crisis as well as the restructuring of affected banks after taking into cognizance contributions of Soludo (2009) and Aluko (2008). For instance, while Soludo attributed the causes of the global financial crisis to pressure to raise funds and credit contraction, Aluko pointed out that it was due to liquidity problem and the inaccessibility of the stock market to raise fresh funds.

There are remote and immediate causes of the last economic recession in Nigeria. Globally, there is geopolitical tension around the world, causing the global crisis and commodity prices dropping, the drop in crude oil prices, Brexit, crucial American election in 2016, South China Sea issues, Russia-Syria crisis, ISIS, illegal migration and refugee crisis which are remote but important causes of the recession as Nigeria is an integral part of the global economy. Amongst the immediate causes, the last recession in Nigeria is a symptom of mono-product economic structure and unwillingness to add value to the single product the economy depends on as well as lack of economic diversification and over-reliance on imports.

The Nigerian economy contracted due to global oil price shocks and volatility, worsened by oil pipeline vandalism and depletion of foreign reserves by the previous governments. Nigeria's recession was triggered by a sharp drop in government revenues and /or a drop in consumer spending (Adelmann, 2011, quoted by Agri, Mailafia and Umejiaku (2016). A drop in global oil prices (which Nigeria cannot control), triggered a drop in revenue and government spending due to Nigerian government not being able to earn what it used to earn before the drop. The mono-product economy structure, heavily dependent on crude oil export and official corruption are the root- causes of the economic recession. In Nigeria, where federal and state governments are the highest spenders in the economy, a drop in Government spending can dovetail into a drop in consumer spending which in turn means businesses cannot invest in products and services, and also cannot employ. Instead, there is lay off of workers and high rate of job losses. What Nigeria should realize is that, by allowing the importation of goods that can be produced locally, we export wealth and jobs to those countries and import recession, unemployment and poverty to Nigeria. Nigeria has had no control over its economy, the price and output of oil at the domestic and international market. The structure of the economy has not only been export-dependent but also on a non-renewable resource (Agri, Mailafia and Umejiaku, 2016).

The financial crisis which began late in 2007 showed that Nigerian deposit money banks were not resilient enough to withstand liquidity shocks and continued to rely on significant liquidity support from the monetary authorities. According to Fadare (2011:203), “between August and December 2009 for example, the Central Bank of Nigeria injected the equivalent of US\$4.1 billion into 10 Nigerian banks adjudged to be facing a grave liquidity crisis, sacked 8 bank CEOs, introduced a plethora of regulations and took other direct actions deemed necessary to safeguard the Banking Sector from systemic collapse and to ensure the stability and soundness of Nigeria's banking sector”.

This paper examined the effect of economic recession on the performance of selected deposit money banks in Nigeria because there have been growing debates on the causes of economic recessions in Nigeria and its consequences in recent times by different scholars despite its resultant effects on Nigeria's Deposit Money Banks. Brenner, 2006; Bauer, 2009; believed that deficiencies in effective demand cause unemployment, inflation, increasing taxation and economic recession. Biafore (2009) was of the views that while compounding the problem of the economy, “recessions lead to the lower interest rate on savings because the Federal Reserve Board cuts the federal funds rate to boost the economy. Nigeria has been a mono-product economy state of which the present economic recession in Nigeria is a manifestation of long-term ills in the structure of the economy that became full-blown under the present government (Adelman 2011, quoted by Agri, Mailafia and Umejiaku 2017); while Iweala (2016) posited that “it was as a result of certain drastic actions taken to solve perennial domestic economic problems such as the failure of our government to plan during the period of economic boom”.

Invariably, the economic recession in Nigeria results to the poor performance of Banks due to low volume of the transaction as a result of low customers' patronage and high tax rate, which in turn could affect the bank deposit growth as well as profit margin of Deposit Money Banks in Nigeria, as a result of mono-product economy nature due to long term structural illness in our economy.

Several studies (Orabi, Seymeh and Muhammed, 2016; Kwan, 2010; Corcoran et al 2015; Vassallo, 2016) have been conducted in the area of economic recession and banks' performance in the developed countries, but very few studies have been conducted in developing countries like Nigeria in the field of economic recession and banks' performance. This paper covered the aforementioned structural problem.

Research Questions

To actualize the objectives of this study, the following research questions were observed:

- i. To what extent does volume of the transaction affects deposit growth of Deposit Money Banks in Nigeria?
- ii. How does the tax rate affect the profit margin of Deposit Money Banks in Nigeria?

Objectives of the Study

The main objective of this study is to examine the effect of economic recession on the performance of selected deposit money banks in Nigeria. The specific objectives are to:

- i. Examine the effects of the volume of the transaction on the deposit growth of Deposit Money Banks in Nigeria.
- ii. Assess the effects of the tax rate on the profit margin of Deposit Money Banks in Nigeria.

Statement of Hypotheses

The hypotheses that were used and tested are formulated below:

- H_{01} : Volume of the transaction has no significant effects on the deposit growth of DMBs in Nigeria.
- H_{02} : Tax rate has no significant effects on the profit margin of Deposit Money Banks in Nigeria.

Literature Review and Theoretical Framework

Conceptual Issues

National Bureau of Economic Research (NBER, 2012) defined economic recession as "a significant decline in economic activity spread across the macro economy, lasting more than a few months, normally visible in the real gross domestic product (RGDP), real income, employment, industrial production and wholesales & retail sales". CBN, (2012) defined economic recession as a decline in certain macroeconomic indicators such as GDP, employment, investment spending, capacity utilization, household income, business income, and inflation, with the attendant increase in the rate of unemployment. Mazurek and Mielcova, (2013), in practical terms, defined economic recession as a period when a nation's gross domestic product (GDP) declines for at least two consecutive quarters in a quarter-to-quarter comparison. Rather, the paper now sees economic recession as an economic crisis in the business cycle when the economy declines for at least six months, which means there is a drop in GDP, Income, Employment, Manufacturing, and retail sales.

Volume of Transactions

Patrick (2009) reviewed by Michelle (2019), "defined a business transaction as an event involving an interchange of goods, money or services between two or more parties". The

transaction can be as brief as a cash purchase or as long-lasting as a service contract extending over years. The business transactions can be between two parties engaged in business and conducting the transaction for their mutual benefits, or between a business entity, like a retail shop, and a customer. MyAccountingCourse.com (2019) defined transaction in accounting as a business event, an exchange of economic consideration that can be reasonably measured and affects the firm's financial position. In other words, transactions are events that change the accounting equation during a period. If assets, liabilities or equity are changed or affected, chances are there is a transaction of some kind; while Steven, (2017), defined accounting transaction as a business event having a monetary impact on the financial statement of a business.

Tax Rate

Julia, (2017), defined the tax rate as the percentage at which an individual or corporation is taxed. The tax rate is the tax imposed by the federal government and some states based on an individual's taxable income or a corporation's earnings. The money could be income earned from salary, capital gains from investment, dividends received as additional income, payment made for goods and services, etc. The percentage of the taxpayer's earnings or money is taken and remitted to the government. When it comes to income tax, the tax rate is the percentage of an individual's income or a corporation earning that is owed to the state, federal and in some cases, municipal government. Ali-Nayea (2008) defined tax as a charge levied on the citizens by a country or state. It is an obligatory payment which the country imposes on its citizens, firms, and organizations not as a penalty for any offence or immediate exchange of goods but income to enable government to meet its expenditure. With this process, tax policies are aimed at bringing all taxable adults into the tax bracket with a graduated rate that should ensure that the well-off pay their share while the low- income earners are given savings incentives. An effective and efficient tax administration system should be integral to any country's well-being (Atawodi and Ojeka, 2012).

Customer Patronage

Adiele, Grend and Chinedu (2015), opined that people patronize organizations products/services at one time or the other. Patronage is burnt out of a desire to be committed to an organization either based on its service quality or perceived service quality. Hence, the extent to which a customer will patronize the services of a bank depends on how the customer perceives the bank's physical environment (services cape) and how the customer also thinks and feels that the condition of the service environment is consistent with his/her personality. Goddard et al. (2015), viewed customer patronage as the means of a respondent's rating for his or her firm's volume of transactions, profit margin and customer retention level.

Concept of Banks' Performance

Ricardo and Wade (2001), defined organizational performance as the ability to achieve organizational goals and objectives. They later confirmed that there was a difference between performance and productivity. He explained that productivity is a ratio indicating the volume of tasks performed in a given amount of time, while performance is a broader pointer that could include productivity as well as quality, consistency and other factors. However, productivity measures were often considered in a result-oriented evaluation.

The authors Lebans and Euske (2006), provided a set of definitions to illustrate the concept of organizational performance: Performance is a set of financial and non-financial indicators which offer information on the degree of achievement of objectives and results.

Kaplan and Norton, (1992), Performance is dynamic, requiring judgment and interpretation. Performance may be illustrated by using a causal model that describes how current actions may affect future results. Performance may be understood differently depending on the person involved in the assessment of the organizational performance (e.g. performance can be understood differently from a person within the organization compared to one from outside). To define the concept of performance is necessary to know its elements characteristic to each area of responsibility. To report an organization's performance level, it is necessary to be able to quantify the results. Having reviewed the different meaning of performance by different authors, the paper now sees performance as an outcome of proper, effective and efficient management of organizational resources in terms of financial and non-financial, to achieve an increasing result, subject to organizational goals and objectives.

Deposit Growth

Cannan (1921), said that the term “deposit” seems very appropriate as the name of the verb which we use to describe the action of placing an article with some person institution for safe custody. We "put things down" anywhere-our spectacle-case and our gloves, and often fail to find them again, and to "deposit" a thing is etymologically nothing more than to put it down, but the Latinity of the word seems to give it a tinge of solemnity suggestive of the rites we go through when we entrust our bag to the cloakroom clerk instead of "putting it down" on the platform.

Profit Margin

Amadeo, (2017) defined profit margin as a ratio of a company's profit divided by its revenue. It's always expressed as a percentage. It tells you how well a company uses its income. A high ratio means the company generates a lot of profit for every dollar of revenue. A low percent means the firm's high costs reduce the profit for each dollar of income. Frank & Sangster (2008), defined profit margin to mean the profit shown as a percentage of or fraction of selling price or the result of selling goods or services for more than they cost while Narayanaswamy (2010) defined profit margin as the amount of profit per rupee of sales

Theoretical Review and Framework

Classical Theory of Economic Recession: The classical theory was the main body of economic theory (Say's Law and the Quantity Theory of Money) accepted by Economists from the 18th Century until 1936 when Keynes published his book, the General Theory of Employment, Interest and Money. In the Classical theory, market forces operated in the system such as to maintain full employment and productive resources and consequently keep the aggregate output at the level producible under conditions of full employment. The factors which determine the productive capacity of an economy are the quantity and quality of available resources in the economy, skill and efficiency (technology) with which these resources are combined.

Keynes Theory of Economic Recession: However, Keynes disagrees with the Classical on the concept of self-regulatory equilibrium. The focal points of the Keynesian theory are increasing aggregate demand, money supply, planned spending, interest rates regulation, devaluation, increasing government spending stimulus. Deficiencies in effective demand cause unemployment, inflation and economic recession. Unemployment is not just a short-run voluntary issue as claimed by the classical theory, but a problem caused by ineffective demand and bad economic planning, (Brenner, 2006; Bauer, 2009; UNESAP, 2009; Markard, Raven and Truffer, 2012; Jackson and Victor, 2011). Others are decreasing taxation and stabilization policy in compliance with expansionary monetary policy, (Pells, 2008; Barber, 2009; Onyesiku, 2009 and Frank, 2013). Macroeconomic Equilibrium Theory of Economic Recession by Léon Walras. In economics, general equilibrium theory attempts to explain the behaviour of supply, demand, and prices in a whole economy with several or many interacting markets, by seeking to prove that the interaction of demand and supply will result in an overall general equilibrium. General equilibrium theory contrasts to the theory of partial equilibrium, which only analyzes single markets. General equilibrium theory both studies economies using the model of equilibrium pricing and seeks to determine in which circumstances the assumptions of general equilibrium will hold. The theory dates to the 1870s, particularly the work of French economist Léon Walras in his pioneering 1874 work *Elements of Pure Economics*. The Theoretical Base for this study is on Keynesian Theory of economic recession; the focal points of the Keynesian theory are increasing aggregate demand, money supply, planned spending, interest rates regulation, devaluation, increasing government spending stimulus during the recession. It says that deficiencies in effective demand cause unemployment, inflation and economic recession. Unemployment is not just a short-run voluntary issue as claimed by the classical theory, but a problem caused by ineffective demand and bad economic planning. Others are decreasing taxation and stabilization policy in compliance with expansionary monetary policy which is in line with this paper.

Empirical Review

Kwan, (2010), conducted a study on the Financial Crisis and Bank Lending of Federal Reserved Bank of San Francisco. He sampled four Federal Reserve Banks of San Francisco and used secondary sources of data while cross-sectional regression tools were used to analyze the data collected. In his findings, it was discovered that in cross-section of Banks, certain Banks characteristics are found to have significant effects on loan prices, including loan portfolio quality, capital ratios, and the number of unused loans. Olaniyi and Olabisi, (2011), conducted a study on the causes and impacts of the Global Financial Crisis on the performance of Nigerian banks (a case study of Access Bank). They sampled 3 banks out of the 21 selected, while they later added 2 more banks to make the work robust, of which secondary data was used in the study. Ordinary least square of Multiple Regression Analysis was used to compute the time series data into Econometric Model of inflation, while the F-test was also used to the formulated hypotheses. In their findings, the study reveals that the Global Financial Crisis hurts the performance of Nigerian banks despite in defiance of high liquidity possessed by these banks immediately after the consolidation exercise of 2005. Corcoran et al. (2015) conducted a study titled “Impact of the economic recession and subsequent austerity on suicide and self-harm in Ireland: An interrupted time series analysis”. The study used

secondary data in which data were collected from 1980-2012. An interrupted time-series analyses were used to assess the impact of economic recession and austerity in Ireland on national rates of suicide mortality and self-harm presentations to hospital. The findings have shown that both sexes were affected in terms of medically serious non-suicidal behaviour, but again the effect on men was greater. Orabi, Saymeh and Mohammad (2016), the effect of the 2008 Financial Crisis on Jordan Banks Profit (reviewed). The populations used were selected set of Jordanian commercial banks and tests used were the correlation coefficient test and simple regression in analyzing this effect. The study results revealed that there was no significant impact of the late global financial crisis on the net income of Jordan banks. Vassallo, (2016), conducted a study on “The Impact of the Economic Recession on Protest Participation in Europe”. He sampled 24 European Union member states from 2006, 2008 and 2014 European Social Survey to test the importance of national-level objective economic indicators as well as individual-level evaluations of financial wellbeing to study the link between confrontational activism and economic variables. The study used both primary and secondary data in the study and the samples were analyzed with weight variable DWEIGHT (design weights), when available. The finding suggests that objective economic predictors are more relevant to understand protest in 2014 than before the crisis.

Study Gap

Several studies (Orabi, Seymeh and Muhammed, 2016; Kwan, 2010; Corcoran et'al 2015; Vassallo, 2016) have been conducted in the area of economic recession and banks' performance in the developed countries, but very few studies have been conducted in developing countries like Nigeria in the field of economic recession and banks' performance. This study concentrates only on Nigeria's economy and its banking system, not the global Banks. Finally, this study focused on bank deposit growth, profit margin as proxies to measure performance because they are mostly affected in the banking sector during the last economic recession in Nigeria.

Research Methodology

The paper adopted an Ex-post facto research design because it is a past event; regression analysis as well as explanatory variables, and/or descriptive research designs or inferential statistics. More precisely, The Sampling Techniques adopted in this study is a typical case of purposive/judgmental sampling technique. It was adopted because the researcher studies a phenomenon or trend as it relates to what is considered “typical” or “average” of the affected population which was based on the five Nigeria's Banks that were seriously affected by the economic recession, according to Moody's Investors Service. The model yielded five banks namely - Zenith Bank Plc, Access Bank Plc, Guaranty Trust Bank, United Bank for Africa and First Bank of Nigeria.

Recession variables such as volume of transaction, tax rate, and bank performance variables like deposit growth, profit margin were collected from the financial statements of some selected deposit money banks on Nigerian Stock Exchange, as at the end of each financial year for the period under review. The null hypotheses stated in this study were tested at 5% level of significance using the f-statistic which is derived through the E-Views 9.0 statistical software

package. This technique of statistic is appropriate because it shows the Mean, Median, Maximum, Minimum, Standard Deviation, Skewness, Kurtosis, Jacque-Bera and Probability of each of the variables. The Augmented Dickey-Fuller test is used to test for unit root.

Result and Discussion

The relationship among the study variables is captured as follows:

Economic recession - Volume of Transaction (VOT)
 Tax Rate (TAX)
 Bank Performance - Deposit Growth (DEG)
 Profit Margin (PRM)

Models:

Hypothesis 1:

$$DEGi = \alpha_0 + \beta_1 (VOTi) + \beta_2 (TAXi) + ei$$

Hypothesis 2:

$$PRMi = \alpha_0 + \beta_1 (VOTi) + \beta_2 (TAXi) + ei$$

Where α_0 = Intercept

β_1, β_2 are the coefficient of the independent variables

ei – Error Term, Stochastic Variable.

Data Analysis

This paper commenced its empirical analysis by first providing the descriptive statistics of the variables under study.

Descriptive Statistics

The descriptive statistics as derived through E-Views 9.0 shows the Mean, Median, Maximum, Minimum, Standard Deviation, Skewness, Kurtosis, Jacque-Bera and Probability of each of the variables as presented below:

Table 1: Descriptive Statistics

	DEG	PRM	TAX	VOT
Mean	2296280.	107985.0	13552.50	56708906
Median	2292651.	97500.55	15551.45	54247672
Maximum	2778450.	165092.8	21163.86	82442940
Minimum	1745571.	81923.49	-121.3661	43084273
Std. Dev.	316694.1	25591.40	6304.075	11980066
Skewness	-0.149482	1.164008	-0.977041	0.761464
Kurtosis	2.078756	3.029200	2.876863	2.533703
Jarque-Bera	0.938071	5.420509	3.833597	2.536739
Probability	0.625605	0.066520	0.147077	0.281290
Sum	55110708	2591640.	325260.0	1.36E+09
Sum Sq. Dev.	2.31E+12	1.51E+10	9.14E+08	3.30E+15
Observations	24	24	24	24

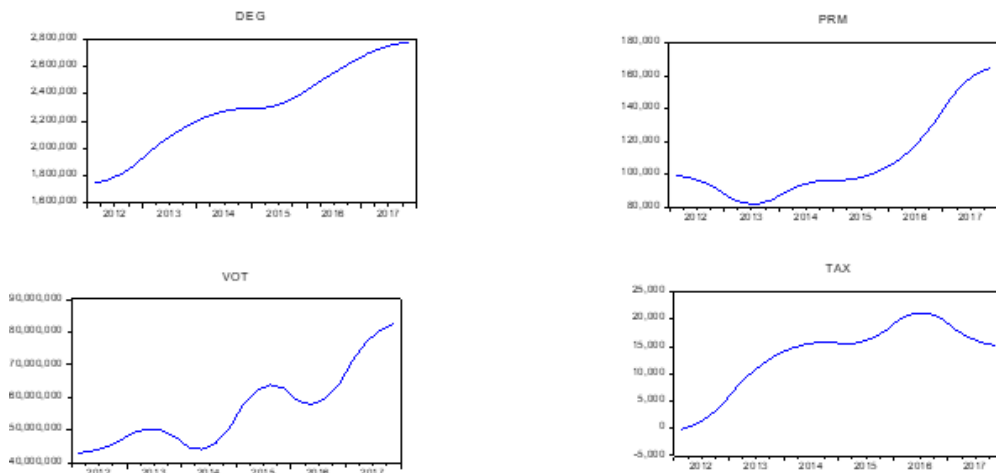
Source: Author's computation using E-Views 9.0 (2020)

From table 1, all variables consist of twenty-four (24) observations. The table clearly shows the descriptive statistics of the variables indicating their mean, variance and distribution. All the variables are normally distributed as shown by the Jarque-Bera statistics with its probability value higher than 0.05 (5% level of significance) for all the variable s.

Trend Analysis

Graphically, the trend analyses showed that the variables fluctuate at one point or the other during the period under review. This was attributed to the effects of government policy and economic conditions that would have had attendant effects on some of the variables. These are presented graphically below:

Fig. 1



Unit Root Test

The Augmented Dickey-Fuller test is used to test for unit root. All the variables were regressed on-trend and intercept to determine if they have trend, it was discovered that the four variables have trend and intercept, hence the unit root test involves trend and intercept. The result is presented:

Stationarity Result

Table 2: Unit Root Stationarity Result

Variable	ADF Statistics	Critical Value	Stationary Status
DEG	-4.401054	-4.571559(1%) -3.690814(5%) -3.286909(10%)	Stationary at Level I(0)
PRM	-5.860210	-4.571559(1%) -3.690814(5%) -3.286909(10%)	Stationary at Level I(0)
TAX	-5.860211	-4.571559(1%) -3.690814(5%) -3.286909(10%)	Stationary at Level I(0)
VOT	-5.860321	-4.571559(1%) -3.690814(5%) -3.286909(10%)	Stationary at Level I(0)

The critical values for rejection of the hypothesis of unit root were from MacKinnon (1991) as reported in E-views 9.0.

Source: Author's Computation (2020)

The four variables (DEG, PRM, TAX and VOT) underwent a unit root test using the Augmented Dickey-Fuller (ADF) test. All the variables were found to be stationary at a level as the ADF statistics were higher than the critical values in absolute terms.

Test of Hypotheses

However, to substantiate explicitly the analysis given so far above, the regression result or output obtained using E-View 9.0 software is presented thus below:

Model 1

Table 3: Dependent Variable: DEG

Independent Variables	Coefficient	Standard Error	t-Statistic	Pr Value
C	1089186.	72373.32	15.04956	0.0000
VOT	0.014653	0.001494	9.807290	0.0000
TAX	27.75345	2.839356	9.774558	0.0000
R ²	0.953746	F Statistic	216.5051	(00000)
Adjusted R ²	0.949340	D-W Statistic	2.321217	

Source: Author's Computation (2020)

From the regression result the following interpretation can be inferred; one percent (1%) change in Tax Rate on the average holding other independent variables constant will lead to a 27.75345% change increase in Deposit Growth. However, this effect is statistically significant due to the low probability value of the parameter of 0.0000 which is lower than 0.05 (that is 5% level of significance). This shows that about 95% of variations in the dependent variable (Deposit Growth) were explained by changes in the explanatory variables of the estimated model therefore the estimated model exhibits good fit. It further shows that 2% of the

fluctuations in Deposit growth are caused by random disturbances or exogenous variables outside the regression therefore R^2 is significant.

A unit change in Volume of Transaction (VOT) on the average holding other independent variables constant will lead to an increase in Deposit Growth by 0.014653 units. However, this effect is statistically significant due to the low probability value of the parameter of 0.0000 which is lower than 0.05 (that is 5% level of significance).

This shows that about 98% of variations in the dependent variable (Deposit Growth) were explained by changes in the explanatory variables of the estimated model therefore the estimated model exhibits good fit. It further shows that 2% of the fluctuations in Deposit growth are caused by a random disturbance or exogenous variables outside the regression therefore R^2 is significant.

The high value of the f-statistics (i.e. $F^c = 216.5051$) indicates that the parameters of the estimated model are jointly simultaneously statistically significant. This implies that the estimated model is good for forecasting, predicting policy formulation and analysis purposes. Given that the F- statistics probability is given as 0.0000000 which is less than 0.05 (5% level of significance) and as such the f –statistics is highly significant. This implies that we reject the null hypothesis that all the parameters are insignificant (are zero) and accept our alternative hypothesis that all the parameters are significant (different from zero).

Model 2

Table 4: Dependent Variable: PRM

Independent Variables	Coefficient	Standard Error	t-Statistic	Pr Value
C	-980.3403	12256.82	-0.079983	0.9370
VOT	0.002054	0.000253	8.116122	0.0000
TAX	-0.553098	0.480861	-1.150226	0.2630
R^2	0.796837	F Statistic	41.18267	(00000)
Adjusted R^2	0.777488	D-W Statistic	2.370180	

Source: Author's Computation (2020)

From the regression result the following interpretation can be inferred; a unit change in the Volume of Transaction (VOT) on the average holding other independent variables constant will lead to an increase in Profit Margin by 0.002054 units. However, this effect is statistically significant due to the low probability value of the parameter of 0.0000 which is lower than 0.05 (that is 5% level of significance).

One percent (1%) change in Tax Rate on the average holding other independent variables constant will lead to a 5.66% decrease in Profit Margin. However, this effect is statistically insignificant due to the high probability value of the parameter of 0.2630 which is higher than 0.05 (that is 5% level of significance).

This shows that about 79% of variations in the dependent variable (Profit Margin) were explained by changes in the explanatory variables of the estimated model; therefore, the estimated model exhibits good fit. It further shows that 4% of the fluctuations in Profit Margin are caused by a random disturbance or exogenous variables outside the regression therefore R^2 is significant.

The high value of the f-statistics (i.e. $F^c = 41.18267$) indicates that the parameters of the estimated model are jointly simultaneously statistically significant. This implies that the estimated model is good for forecasting, predicting policy formulated and analysis purposes.

Given that the F- statistics probability is given as 0.0000000 which is less than 0.05 (5% level of significance) and as such the f –statistics is highly significant. This implies that we reject the null hypothesis that all the parameters are insignificant (are zero) and accept our alternative hypothesis that all the parameters are significant (different from zero).

Major Findings

H₀₁: Volume of Transaction has no significant effect on deposit growth of deposit money bank.

From the model, one the probability value of Volume of Transaction is 0.0000 which is lower than 0.05 (5% level of significance). This implies that the Volume of Transaction (VOT) is statistically significant, thus we reject the null hypothesis.

H₀₂: Tax rate has no significant effect on the profit margin of deposit money bank.

From model two the probability value of the tax rate is 0.0000 which is lower than 0.05 (5% level of significance). This implies that the tax rate is statistically significant, thus we reject the null hypothesis.

Discussion of Findings

From the outcome of the data analysis, it is obvious that Economic Recession (resulted from a low volume of transaction and high tax rate charged) has a significant negative effect on the performance (deposit growth and profit margin) of Deposit Money Banks in Nigeria. The data from the annual financial statement of the banks and the performance of Deposit Money Banks in Nigeria during the recession have reviewed the economic recession activities and banks' performance - deposit growth and profit margin in Deposit Money Banks in Nigeria.

The tested hypotheses showed that there is a negative significant relationship between the independent variables (economic recession) and the dependent variables (banks' performance) and these findings are in tandem with the findings of Kwan, (2010), Olaniyi and Olabisi (2011), Corcoran, (2015), Vassallo, (2016), who found a statistically significant relationship but was not in collaboration with the findings of Orabi, Saymeh and Mohammad (2016), who found no statistically significant impact of the late global financial crisis on the net income of Jordan banks. The study is also in conformity with the Keynesian Theory of economic recession which says that “deficiencies in effective demand cause unemployment, inflation and economic recession. Others are decreasing taxation and stabilization policy in compliance with expansionary monetary policy which is in line with this study”.

Conclusion and Recommendations

Conclusion

From the findings above, the economic recession has a significant effect on the performance of selected deposit money banks in Nigeria. An economic recession in Nigeria is caused by both internal and external factors, of which the internal factor is due to the mono-economic system of Nigeria's economy, while the external factor is the global financial crisis that rocked other nations of the world in 2007/2008. The study found out that the volume of the transaction during the economy has a significant negative effect on the deposit growth of Deposit Money Banks in Nigeria. This is true because, the low volume of the transaction during the recession due to low customers' patronage caused low deposit growth in Deposit Money Bank at a specific period. Also, tax charges during the recession have a major significant effect on the profit margin of Deposit Money Banks most especially the period under review. Different types of Taxes like profit tax, tenement rate, property tax, value-added tax etc all tend to lower the profit margin of Deposit Money Banks in Nigeria.

Recommendations

Based on the objectives and the findings of the paper, the following recommendations are made:

1. Deposit Money Banks in Nigerian order to increase the bank's deposit growth during the recession should increase their volume of transactions by going into merger and acquisition or leverage social advertising to target prospects and existing customers on content marketing i.e. products or services valuable to customers.
2. The Federal Government of Nigeria through the central bank should decrease tax rate or introduce tax-free investment during the recession so that Deposit Money Banks can maximize profit to increase its profit margin. Decreasing tax rates allows Deposit Money Banks to keep more of their income during recession thereby increasing its profit margin for bank's performance.

Contributions to Knowledge

The paper has added to the knowledge of government, policymakers, academic, school(s), depositors and other researchers to further research in the area of economic recession to pursue stimulus policies that work while acting as effective indicators to the banks to check the soundness of its financial activities of an economic system. The study has shown that the last 2015 recession in Nigeria, affects negatively the performance of Deposit Money Banks'-deposit growth and profit margin in this Country. Furthermore, the paper has given a different opinion to the meaning of economic recession (as an economic crisis in the business cycle when the economy declines significantly for at least six months, which means there is a drop in GDP, Income, Employment, Manufacturing, and retail sales.) and organizations' performance (as an outcome of proper, effective and efficient management of organizational resources in terms of financial and non-financial, to achieve increasing result, subject to organizational goals and objectives).

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