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The impact of risk management on the profitability of deposit money banks in Nigeria

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Abstract

The study carried out the impact of risk management on the profitability of Deposit Money Bank in Nigeria. Fourteen commercial banking firms were selected on a cross sectional basis for 7 years. The specific objectives are to; examine the effect of loans and advances on the profitability of deposit money banks in Nigeria and assess the effect of non-performing loans on the profitability of deposit money banks in Nigeria. The researcher used secondary sources of data analysis which was obtained from CBN annual reports and bank supervisory reports. The data obtained were analyzed using descriptive and inferential statistical methods, processed with the Statistical Packaged for Social Sciences (SPSS) version 26 software. Based on the findings, it was discovered that, the result of the regression coefficients indicates that the coefficient of Average Collection Period (NPL) is negative with (-.000) and has significant impact on ROTA (p>.05) of the sampled banks for the period of study. the result of regression also revealed a negative relationship between NPL and ROTA which is significant (p<.05) for the sampled banks during the period of study. the study therefore recommends that Banks should establish sound and competent risk management units and recruit well- motivated staff. Proper loan appraisal and follow-up, including very careful loan screening procedure and timely disbursement of approved loan should be undertaken by credit officers to reduce delinquencies and default.

Keywords: Credit, deposit money banks, profitability, risk management

1. Introduction

The financial services provided by banks is essential to economic and financial development. Their role as financial intermediary facilitates rapid economic growth. Financial ability is vital for any nation so therefore the financial institution need to be properly managed. The velocity of loan creation in an economy significantly influences the productive activities in a nation. Risk management on profitability of Deposit money banks in Nigeria is measured using Return on Asset while financial risk management as the independent variables proxy with liquidity risk, credit risk and capital adequacy risk.

The main focus in the research is the risk management on the profitability of banks which has been a challenge to many deposit money banks in Nigeria, because, despite best practice measures in credit risk management put in place by the management of these banks, customers still have strong tendencies to delay or completely stop repayment of their loan, which often lead problem of non-performing loans. However, the Central Bank of Nigeria (CBN) guidelines influence the ability of deposit money bank to give out loans and advance and also what constitute bank lending, the risk involves types of credit facilities, steps involve

before obtaining loans and general risk management strategies involve in obtaining loan.

The Basel Committee on Banking Supervision (BCBS) defined credit risk as the probability that a bank borrower will fail to meet its obligations in accordance with agreed terms or the possibility of losing the outstanding loan partially or totally due to credit events (Iwedi & Onuegdu, 2014). Poor credit administration reduces bank profitability and leads to bank distress and/or failure (Osuka, & Amako, 2015). The arm of credit risk management is to maximize a bank's risk-adjustment rate of return. This can be achieved by maintaining credit risk exposure within acceptable parameter Efficient loan portfolio diversification can ensure that credit risk is minimized but it is imperative for banks to be wary of credit risk in administering each individual loans.

In order to tackle the issues of credit risk management in the country, the Central Bank of Nigeria (CBN) entered into an agreement in 1987 known as Basel I and Basel II accords. Both accords emphasized the importance of capital adequacy for mitigating credit risks, which cautions the efforts of sudden financial losses on banks. (Iwedi, & Onueghu, 2014).

The global financial crisis, experienced between 2007 and 2008 around the world in which banks, stock markets and large financial institutions collapsed and made governments of wealthiest nations to come up with rescue packages to bail out their financial systems (Otieno & Nyagol, 2016). Many financial institutions have either collapsed and or are facing near collapse because of badly functioned subprime mortgage lending to firms and people with bad and unreliable credit. Banking crises in Nigeria have shown that not only banks often take excessive risks but the risks differ across banks (Stephen & Akele, 2014).

Risk management can decide the success or failure of bank and during the global bank crisis ineffective risk management practices was a possible cause (Purohit, & Choudhary, 2014). Financial institutions are exposed to a variety of risks among them; market risk, liquidity risk, operational risk, credit risk interest rate risk, foreign exchange risk and political risk, Solvency risk, legal/regulatory risk, counterpart risk, reputational risk, strategy risk among others (Yimka, Taofeek, & Audu, 2014).

Liquidity risk is the possibility of negative effects on the interests of owners, customers and other stakeholders of the financial institution resulting from the inability to meet current cash obligations in a timely and cost-efficient manner (Muriithi, 2016). Iwoye, (2012) defines credit risk as the possibility of losing the outstanding loan partially or totally, due to credit events (default risk). Credit risk occurs when a debtor defaults on a loan or other line of credit (Audu, 2014). Capital adequacy is the amount of money deposits money bank has to hold as required by its financial regulator. This helps to ensure that banks are not involving in or holding investments that amplify the risk of default. In addition, to guarantee that the banks have enough capital to sustain operating losses while honouring withdrawals. Kurawa and Garba (2014) concluded that capital adequacy ratio influence banks' profitability (ROA). However, every deposit money bank needs to identify measure, monitor and control financial risk and also determining how financial risks could be lowered.

The most important issues in banking industry are performance and risk issues. Risk management does not bear any meaning itself, because risk is a parameter that can Influence other conditions in firm such as profit and efficiency (Hoseininassab, Yavari, Mehregan, & Khoshsima, 2013). Soyemi, (2014) stated that risks can be described as the adverse impact on profitability of several distinct sources of uncertainty. Deposit money

banks represent the major players in Nigerian economy; its risk management practices are crucial issues that need to be examine.

Conclusively, any risk classification is subjective this study to two major categories for banking risks namely: financial risk that refers to losses arising from financial variables and operating risks concerning losses arising from variables that have impact on the operations of a business which this study considered. This research is presented to outline, find, investigate and report the impact of risk management on the profitability of banks in Nigeria, this is the crux of this research work.

1.2 Statement of the Problem

Financial institutions are piloted by human beings and therefore incur challenges for a multitude of reasons, some of the major causes of such problems continues to be directly related to tax credit standards for borrowers and counter parties, poor portfolio risk management, lack of attention to changes in economic or other circumstances that can lead to a deterioration in the credit standing of a bank's counter parties. Deposit money banks use customers deposit to generate credit for their borrowers, which in fact is a revenue generating activity for this bank. This credit creation process exposes the banks to high default risk which might lead to financial distress including bankruptcy. Banking industry is no doubt the most regulated sector in any economy because of the riskiness of its operation. As a result, risk management in deposit money banks is a discipline every participants and players in the industry need to align with.

Effective risk management seeks to maximize the benefits of a risky situation while minimizing the negative effect of the risk. Adequate management of credit risk in financial institutions is critical for their survival and growth. To accomplish this, the bank management must have a thorough knowledge of each portfolio composition or mix, industry and geographic concentrations of credits, average risk ratings, and other aggregate characteristics. According to Mwirigi (2006) which stated that loan portfolio management and operational efficiency management are the most important to consider in credit risk management (CRM) as they are the most important in enhancing the performance.

In 2015, Credit management and Bank performance of Listed Banks in Nigeria revealed that ratio of non-performing loans and bad debt have a significant negative effect on the performance of banks in Nigeria (Oyewo, 2015).

Commercial banks adopt different credit risk management policies majorly determined by: ownership of the banks (privately owned, foreign owned, government influenced and locally owned. Credit policies of the banks, credit scoring systems, bank regulatory environment and the caliber of management of the banks. Banks may however have the best credit management policies but may not have necessarily record the high profit.

Looking at the emphasis that is laid on credit risk management by commercial banks the level of contribution of this factor to profit has not been analysed. Rajan (1994) notes that expanding lending in the short-term boosts earnings; thus, the banks have an incentive to ease their credit standard in terms of rapid credit growth, and likewise to tighten standards when credit growth is slowing.

Many banks have gone distressed in Nigeria simply because of bad risk assets and its management (Ugoani, 2019). The multiplier effect of these distressed banks as a result of risk assets and its wrong management on the entire economy including all stakeholders (staff, shareholders, government and the banks) will be difficult to overcoming a short period of time.

They must be sure that the policies, processes, and practices implemented to

control the risks of individual loans and portfolio segments are sound and that lending personnel adhere to them. Many Nigerian banks had failed in the past due to inadequate management of their risk exposure. The problem has continued to affect the industry with serious adverse consequences as banks are generally subject to wide array of risks in their business operations. Against this background, the need to empirically examine the impact of risk management on the profitability of banks in Nigeria becomes necessary.

1.3 Research Questions

In order to achieve the below study objectives, the researcher aims at addressing the following questions in relation to the selected banks.

1. To what extent does loans and advances affect the profitability of deposit money banks in Nigeria?
2. What is the effect of non-performing loans on the profitability of deposit money banks in Nigeria?

1.4 Objectives of the Study

The broad objective of this study is to examine the impact of risk management on the profitability of banks in Nigeria. Specifically, the study is designed to:

1. To examine the effect of loans and advances on the profitability of deposit money banks in Nigeria.
2. To assess the effect of non-performing loans on the profitability of deposit money banks in Nigeria.

2. Literature Review

2.1.1 Concepts Risk Management

Risk management is a financial exposure resulting from a banks' dependence on another (counterparty) to perform an obligation as agreed by (Nigerian Deposit Insurance Corporation, 2014). Risk management, as defined by the Basel Committee on Banking Supervision (2019), is also the possibility of losing the outstanding loan partially or totally, due to credit events (default risk). It can also be defined as the potential that a contractual party will fail to meet its obligations in accordance with the agreed terms. Credit risk is also variously referred to as default risk, performance risk or counterparty risk (Brown and Moles, 2012).

The perspectives of risk differ and risk definition depends on and affected by the risk observer. Olajide (2013) explains that recent economic volatility gives risk management a new focus and eminence. They are of the opinion that getting rid of risk can undermine the source of value creation which truncates potential opportunities. According to Idowu and Awoyemi (2012), liquidity risk, market risk, foreign exchange risk and solvency risk are the most applicable risk to the banks. In accordance with Basel II accord, credit risk, market risk, and operational risk are types of risks usually found in the banking organization.

Nigerian Deposit Insurance Corporation (2009) stressed that insider abuse is perhaps the most significant factor that led to bank failure. Many owners and directors abused or misused their privileged positions or breached their fiduciary duties by engaging in self-serving activities. The abuses included granting of unsecured credit facilities to owners, directors and related companies which in some cases were in excess of their banks statutory lending limits in violation of the provisions of the banks and other financial institutions act (BOFIA) of 1991 as amended; granting of interest waivers on non-performing insider-credits without obtaining CBN prior approval as required by BOFIA; diversion or conversion of banks resources to service their other business interests such as allocation of foreign exchange without Naira cover to insiders which later crystallized as hard-core debts; compelling their banks to directly finance trading activities either through the banks or other proxy companies, the benefits of which did not accrue to the banks. Where losses were incurred, they were passed to the banks.

In the case of banks, according to Abdullahi (2013), the issue of credit risk is even of greater concern because of the higher level of perceived risks resulting from some of the characteristics of clients and business conditions that they find themselves in, which needs thorough empirical examinations. Sequel to this, Olalekan and Adeyinka (2013) pointed out that while banks are expected to absorb the losses from the normal earnings, there may be some unanticipated losses which cannot be absorbed by normal earnings.

2.1.2 Concepts of Banks Profitability

Elisa & Guido (2016) banking profitability may also show managers attitude toward risk. Banks that make huge profits are not scared when venturing into risky activities. In a similar fashion, banks that are not effective in their management encounter higher bad debt. Profitability measure is important to the investors. The level of profitability is very significant for shareholders of a bank because it shows how effective management has utilized their investments (Devinaga, 2010).

In determining the financial strength of a deposit money bank, the level of profitability is predominant. ROA and ROE are used as main profitability measures in most of the organizations including banks and financial institutions. The ROA demonstrates the level of net income produced by the bank and also determines how the assets utilized by banks generate profit over the years. On the other hand, the return on equity (ROE) is the ratio of net income to total equity indicating returns to shareholders on the book value of their investment. It measures the rate of return for ownership interest (shareholders)' equity of common stock owner, it tells how efficient a firm/bank is at generating profits from each unit of shareholder equity, also known as net assets or assets minus liabilities. The ranking of banks is usually based upon the higher ROA ratio and total assets. As a general view, particularly in banking sector, ROA is known as good profitability multiplier for the reason that equity multiplier does not influence it (Saeed et al., 2016).

2.1.3 Concepts of Credit

Financial institutions through their role as a financial intermediary help circulate funds deposited by the various surplus units to the deficit units. In the course of performing this role, they are confronted with risk which remains one of the topical issues of current financial studies that had attracted special attention from both scholars and professionals. One key factor that determines the success of any banking institution is sound credit management. Credit is defined as transactions involve in the transfer of money or other property on promise of repayment, usually at a fixed future date. The transferor and transferee will involve in which the former referred us a creditor, and the later as a debtor; hence credit and debt are simply terms describing the same operation viewed from opposite standpoints (Donald, 2008).

2.2 Empirical Review

Arif Hussain, Ihsan & Hussain, (2016) assess the effect of risk management on the performance of both large banking institutions and small banking institutions from 2005-2014. The result of the regression result concluded that capital adequacy ratio, non-performing loans, interest rate risk and liquidity risk are key drivers of profitability in large banks while nonperforming loans and capital adequacy ratio are the only drivers of profitability in small commercial banks of Pakistan.

Yousfi, (2014) assessed the impact of risk management practices on Jordanian Islamic banks‟ performance for the period of fifteen years from 1998 to 2012. The fixed effect results reveal that liquidity, credit and operational risk management practices have a negative and significant statistical impact on performance, and market risk management practices have a positive and

significant statistical impact on banks‟ performance (ROA and ROE).
Soyemi, (2014) study the risk management practices and financial performance: evidence from the Nigerian deposit money banks (DMBs) in the 2012 financial year. The cross-sectional data was analyzed using descriptive statistics to depict pattern and robust standard errors OLS regression to estimate significant influence between banks‟ risk management practices (credit, liquidity, operating and capital risk practices) and their financial performance. The findings appear to be largely consistent with previous works as the explanatory variables significantly accounted for variations in the financial performance (ROA-92% (71.78); ROE-84% (46.55) in both models. Additionally, Alamro & Al-soub, (2012) investigate the factors that affect financial performance of (25) Jordanian Insurance Companies listed at Amman stock Exchange during the period (2002- 2007). The results showed that the liquidity has a positive statistical effect on the financial performance of Jordanian Insurance Companies.
Ben-Naceur and Omran (2018) in attempt to examine the influence of bank regulations, concentration, financial and institutional development on commercial banks margin and profitability in Middle East and North Africa (MENA) countries from 1989-2005 found that bank capitalization and credit risk have positive and significant impact on banks‟ net interest margin, cost efficiency and profitability.

2.1 Theoretical Framework

2.1.1 Credit Risk Management Theory

Credit is the provision of goods and services to a person or entity on agreed terms and conditions where the payments are to be made later with or without interest. During the contract period, not all debtors will repay their dues as and when they fall due. When the debtor does not pay their dues on the due date, the lender is exposed to credit risks which may in turn lead to default. Credit risk is therefore the investor's risk of loss, financial or otherwise, arising from a borrower who does no pay his or her dues as agreed in the contractual terms (Driga, 2012).

2.1.2 Loan Pricing Theory

Ranks cannot always set high interest rates. e.g. trying to earn maximum interest income Ranks should consider the problems of adverse selection and moral hazards since it is very difficult to forecast the borrower type at the start of the banking relationship (Uwuigbe, 2013). If banks set interest rates too high, they may induce adverse selection problems because high risk borrowers are willing to accept these high rates. Once these borrowers receive the loans, they may develop moral hazard Behaviour or so-called borrower moral hazards since they are likely to take a highly risky projects or investments (Uwuigbe, Uwuigbe, & Daramola, 2014).

Application of the Theory to the Study

The study under pin or anchored on the risk management theory, which state that risk management is a serious threat to the performance of banks; the theory state that, there has been debate and controversies on the analysis of risk management and bank's financial performance. Some scholars amongst others have carried out extensive studies on this topic and produced mixed results; while some found out that risk management impact positively on banks financial performance, some found negative relationship and others suggest that other factors apart from impact of risk management on the profitability of banks in Nigeria. This is the gap the study intends to fill.

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Kargi (2011) evaluated the impact of credit risk on the profitability of Nigerian banks. Financial ratios as measures of bank performance and credit risks were collected from the annual reports and account of sampled banks from 2004-2008 and analyzed using descriptive, correlation and regression techniques. The findings revealed that credit risk management has a significant impact on the profitability of Nigerian banks. The findings revealed that bank's profitability is inversely influenced by the levels of loans and advances, non-performing loans and deposits thereby exposing them to great risk of illiquidity and distress.

Kolapo, Ayeni and Ojo (2016) using panel data regression for the period 2010 to 2015 for banks in Nigeria, found that the effect of credit risk on bank's performance measured by the Return on Asset (ROA) of banks is cross sectional invariant. They concluded that the nature and managerial pattern of individual firms do not determine the impact.

Ahmad and Ariff (2017) examined the key determinants of credit risk of commercial banks on emerging economy banking systems compared with the developed economies. The study found that regulation is important for banking systems that offer multi-products and services; management quality is critical in the case of loan-dominant banks in emerging economics. An increase in loan loss provision is also considered to be a significant determinant of potential credit risk.

Therefore, the study suggests that effective and efficient risk management strategy plays a determinant role in deposit money banks financial performance in Nigeria. Hence, improvement in risk management practice will yield increase returns for the

banks thereby increasing deposit money banks performance. These risk factors are vital in estimating the performance of deposit money banks in Nigeria. Where a bank does not successfully control its risks, its performance will be unsteady. This depicts that credit risk and liquidity risk of banks has been responsive to policies channeled to Nigerian banks. Banks become more alarmed because loans are usually among the most unsafe of all assets and may threaten their liquidity level and lead to financial distress.

3. Methodology

The research design adopted secondary data which involves comparative analysis of the variables of risk management on the profitability of banks and were represented with proxies such as return on total asset, nonperforming loans, and loans and advances. The data obtained from these variables were then analyzed using multiple regression analysis.
The target population of study was 14 Deposit money banks (DMB). Data was available from CBN annual reports and bank supervisory reports. The study used regression analysis to find the relationship between, withdrawals, loan repayment transactions undertaken through agents and the financial performance measured by return on equity. Regression was used to distinguish the relationship between parameters to be measured and the dependent variables using statistical package of social sciences (SPSS).

3.1 Method of Data Analysis

Data analysis was centered on selecting the right statistical tool to test the hypothesis for proper evaluation and decision making. From the financial statements, the relevant information gotten was organized into tally to form the bases of the data and their various percentages were computed. The research instrument was processed manually through coding and run electronically with the aid of Econometrics Views software (EVIEWS) to analyses the information from the annual reports. The hypotheses of the study were evaluated using Regression Analysis.

Table 1: Description of Research Variable

VARIABLE	DESCRIPTION
Return on total assets (ROTA)	This is the ratio of net operating profit that a company earns from its business operations in a given period of time.
Nonperforming loans (NPL)	These are risk which the banks perceive as possible losses of funds due to loan own.
Loans and advances (LA)	This is a facility granted to a bank customer that allows the customer make use of banks funds which must be repaid with interest at an agreed period or time

Source: Researcher

Three models were developed in the study in accordance to the objectives of the study. The first model sought to examine the effect of loans and advances on the

profitability of deposit money banks in Nigeria. The second model sought to assess the effect of non-performing loans on the profitability of deposit money banks in Nigeria.

The data are to be analyzed using the regression analysis which could be termed to be a statistical technique used to find relationships between variables for the purpose of predicting future values. Using the formula; Y=F(x) Where;

Y is the Independent Variable (Risk Management)
X is the dependent variable (profitability of banks performance measured as profit after tax) $X = X_1, X_2, X_3$
X_1 = Non performing loans
X_2 = Bad Debt
X_3 = Secured and Unsecured loans

A general panel data regression model is stated as; $Y_{it} = a + \beta x_{it} + e_{it}$
Adapting the model provided in (Jimoh and Ajayi, 2012 and Uwuigbe, 2013) the association between bank performance and risk management in this study is stated in the following functional form as:

$P_{it} = f(NPLR_{it}, BD_{it}, SLR_{it})$……………………………(1)
In an explicit form this equation can model can be written as:
$P_{it} = \beta 0 + B1NPLRit + B2BDit + B3SLRit + eit$…………………………………………… (2)

Where;
P_{it} = Performance (P) here is measured with Profit after tax for the period
NPLR = Non performing loans to Total Loans (Non-performing loans Ratios)
BD = BD here represents Bad Debt (BD)
SLR = Secured loans to unsecured loans (Secured Loan Ratio)
i = 13 banks sample
e = Stochastic or disturbance term.
t = Time dimension of the Variables
β_0 = Constant or Intercept.
B_{1-3} = Coefficients to be estimated or the Coefficients of slopen parameters. The expected signs of the coefficients (a priori expectations) are such that $\beta_1, \beta_2, \beta_3 < 0$

4. Results and Discussion

4.1 Data Presentation

The data value for all the study variables in respect to each of the sampled banks was computed using the average of extracted data, from the annual financial statement of each sampled banks.

Table 3: Summary of Ratios (2014-2018)

Year	ROTA	NL-ROTA	LA	NL-LA	NPL	NL-NPL	SIZE
2013	0.187	205.122	126.31	145.216	2.792	0.21	16.578
2014	0.168	201.842	150.100	111.554	2.816	0.243	15.830
2015	0.189	203.094	18.516	76.694	2.798	0.244	16.282
2016	0.169	207.018	150.314	118.104	2.896	0.254	16.096
2017	0.174	206.724	133.218	121.482	2.902	0.261	16.183
2018	0.188	213.004	145.772	132.763	2.887	0.298	17.035

Source: Author's Computation from NSE Publications for the Selected banks; Income Statement and financial position of Selected banks.

Table 4: DESCRIPTIVE STATISTICS

Descriptive Statistics

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	S.D
ROTA	5	.02	.17	.19	.1776	.01021	-3.091	2.000
LA-ROTA	5	11.16	201.84	213.00	2.0634E2	4.35271	.689	2.000
LA	5	131.80	18.52	150.31	1.1958E2	56.92538	4.690	2.000
NL-NPL	5	56.07	76.69	132.76	1.1212E2	21.24212	2.839	2.000
NPL	5	.10	2.80	2.90	2.8598	.04891	-2.823	2.000
NL-NPL	5	.05	.24	.30	.2600	.02251	2.892	2.000
SIZE	5	1.20	15.83	17.04	16.2852	.45157	2.834	2.000
Valid N (listwise)	5							

Source: SPSS 16

Table 4 presents the summary of the descriptive statistics of variables used in the study for the selected banks between the periods considered. The mean value of return on total asset (ROTA) is 0.1776 with standard deviation of 0.010, LA-ROTA having a mean value of 62.86 and standard deviation of 3.186, LA shows a mean value 2.063 and standard deviation of 4.352, NL-NPL with a mean value of 1.195 and standard deviation 56.925, NPL with a mean value of 1.121 and standard deviation of 21.242, NL-NPL shows a mean value of 2.859 and standard deviation 0.0489, SIZE have a mean value of 16.285 and standard deviation of 0.451.

4.2 Test of Hypotheses

Hypothesis 1

H0: There is no significant relationship between the effect of loans and advances on the profitability of deposit money banks in Nigeria.

Table 5: Regression result of the effect of loans and advances on the profitability of deposit money banks in Nigeria.

Table 5

Dependent Variable: ROTA
Method: Least Squares
Sample: 2013 2018
Included observations: 6

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ROTA	-0.000810	0.003465	-0.233749	0.0538
NPL	0.080693	0.145913	0.553022	0.6784
LA	-0.016741	0.283258	-0.059101	0.9624
SIZE	0.025588	0.028900	0.885396	0.0386
C	0.046669	0.572718	0.081486	0.9482

R-squared	0.863158	Mean dependent var	0.179167
Adjusted R-squared	0.315789	S.D. dependent var	0.009908
S.E. of regression	0.008196	Akaike info criterion	-6.895549
Sum squared resid	6.72E-05	Schwarz criterion	-7.069083
Log likelihood	25.68665	Hannan-Quinn criter.	-7.590219
F-statistic	19.57692	Durbin-Watson stat	3.131408
Prob(F-statistic)	0.529572		

Source: Computed by E-views 10

Model 1 tested the hypothesis that there is significant relationship between NPL and ROTA. The regression result indicates that the coefficient of NPL is negative with -.0008 and has significant impact on ROA (p>.05). Thus, the alternative hypothesis (H_1) is accepted that, there is a significant relationship between the effect of loans and advances on the profitability of deposit money banks in Nigeria. This implies that short NPL is good for explaining the relationship between the effect of loans and advances on the profitability of deposit money banks in Nigeria and it is a good factor to consider when taking decision about advances on the profitability of deposit money banks in Nigeria in the long run.

Other variables included such as current ratio and bank size positively influenced loans and advances on the profitability, but only the banks size is significant (p>.05). Table 6

return on total asset has an adverse and insignificant effect of loans and advances on the profitability of the banks.

The model has an R-squared of 86.3%, which implies that 86.3% variation in effect of loans and advances is explained by the independent variables included in the model. The model has an F-statistic value of 19.58 and the probability value of F as 0.529 which is greater than the standard .05. This implies that the joint influence of the independent variables on loans and advances on the profitability is not statistically significant.

Hypothesis 2

H_0: There no significant effect of non-performing loans on the profitability of deposit money banks in Nigeria.

Table 6: Regression result of the effect of non-performing loans on the profitability of deposit money banks in Nigeria.

Dependent Variable: ROTA
Method: Least Squares
Date: 07/02/19 Time: 21:55
Sample: 2013 2018
Included observations: 6

Variable	Coefficient	Std. Error	t-Statistic	Prob.
NL-NPL	-0.006481	0.003633	-1.784236	0.0352
NPL	0.161692	0.158301	1.021422	0.4933
NL-NPL	0.093733	0.113887	0.823031	0.5616
SIZE	0.061672	0.024302	2.537723	0.2390
C	0.023692	0.189705	0.124886	0.9209

R-squared	0.965503	Mean dependent var	0.179167
Adjusted R-squared	0.827514	S.D. dependent var	0.009908
S.E. of regression	0.004115	Akaike info criterion	-8.273498
Sum squared resid	1.69E-05	Schwarz criterion	-8.447032
Log likelihood	29.82050	Hannan-Quinn criter.	-8.968168
F-statistic	16.96962	Durbin-Watson stat	2.014607
Prob(F-statistic)	0.027398		

Source: Computed by E-views 10

Model 2 tested that, there is a significant effect of non-performing loans on the profitability of deposit money banks in Nigeria. The regression results show a negative relationship between NL-NPL and ROTA within the period tested, which is

significant (p<.05). Thus, the alternative hypothesis (H_1) is accepted that NL-NPL has significant impact on non-performing loans on the profitability of deposit money banks in Nigeria. This implies that maintaining high performance levels reduces the non-performing loans of the banks and loss of profitability due to non-performing loans. Return on total asset, nonperforming loans ratio and loans and advances were found to positively impact on banks profitability. The model has an R-squared of 96.5% with an F-value of 16.99 which is significant (p<.05).

4.2 Discussion of Findings

The results from the regression coefficients for the study model shown in table 4.3 and test of the research hypotheses on the significant relationship between the effect of loans and advances on the profitability of deposit money banks in Nigeria are interpreted as follows:

Effect of Loans and Advances on the Profitability of Deposit Money Banks in Nigeria: The result of the regression coefficients indicates that the coefficient of Average Collection Period (NPL) is negative with (-.000) and has significant impact on ROTA (p>.05) of the sampled banks for the period of study. The negative relationship for the present study is consistent with previous empirical studies such as Lazaridis and Tryfomidis (2006), and Ramachandran and Janakiraman (2007). This implies that short NPL is good for explaining the effect of loans and advances on the profitability of commercial banks and it is also a good factor to consider when taking decision about risk management on the profitability of banks in the long run.

Other variables included such as loans and advances positively influenced loans and advances on the profitability of deposit money banks but not significant (p>.05). Debt ratio has an adverse and insignificant effect on loans and advances on the profitability of deposit money banks. The model has an R-squared of 86.3%, which implies that 86.3% variation on loans and advances on the profitability of deposit money banks is explained by the independent variables included in the model. The model has an F-statistic value of 19.58 and the probability value of F stood at 0.529 which is greater than the standard .05. This implies that the joint influence of the independent variables on loans and advances on the profitability of deposit money banks is not statistically significant.

Effect of Non-Performing Loans on the Profitability of Deposit Money Banks in Nigeria: The result of regression also revealed a negative relationship between NPL and ROTA which is significant (p<.05) for the sampled banks during the period of study.

This implies that, it is imperative to state that the strategy of reducing non-performing loan has never been misleading. Rather, some other factors can be attributed to have rendered these policies less potent. Return on total asset, nonperforming loans and loans and advances were found to positively impact on profitability of the banks. This negative relationship between NPL and profitability (measured by ROTA) is consistent with the previous empirical findings of Dong and Su (2010) who found significant negative relationship between NPL and profitability of banks. The finding from this study however, contradicts the findings of Idnlo (2011) who found a positive relationship between NPL and profitability.

4.4 Summary of Findings

Based on the analysis of the above hypotheses, the findings are stated below;

1. The outcome of the first hypothesis reveals that NPL is negative with -.000 but has a significant impact on ROTA. This implies that short NPL is good for explaining the loans and advances of

the banks and also good factor to consider when taking decision about loans and advances in the long run.

2. The second hypothesis shows a negative relationship between NPL and ROTA, which is significant. This implies that, it is imperative to state that the strategy of reducing non-performing loan has never been misleading. Rather, some other factors can be attributed to have rendered these policies less potent.

5. Conclusion and Recommendations

From the findings of the study, For Nigeria commercial banks to achieve enhanced and sustained profitability through interest income from loans and advances, it is therefore vital that appropriate risk management strategies should be instituted. Deposit money banks need adequate and accurate information from both internal and external sources in order to access the multiplicity of credit risks they face when presented with a loan proposal. Banks are also advised to patronize credit bureaus. Risk information bureaus would bridge the information gap that exists whenever there is loan request, in commercial and consumer finance, by tracking the financial behavior of individuals over a period of time.

The issue of non-performance of assets and declaration of fictitious projects has become the order of the day in our banking system. This is a result of poor credit management in the sector causing many banks to have become distressed. The study therefore, focused on credit management in banks with particular references to thirteen Banks from Nigeria. The diversion of bank loan to unprofitable ventures affects loan repayment and the problem of poor attention given to distribution of loan has negative effect on banks performance in the economy.

Based on the findings of the study, it is recommended that:

1. Banks should establish sound and competent risk management units and recruit well- motivated staff. Credit officers are the cutting edge of credit programmes. They perform a range of functions from project appraisal through credit disbursement and deposit mobilization to loan collection. Issues restraining to their selection, training, placement, job evaluation, reward and discipline need to be tackled effectively. Proper loan appraisal and follow-up, including very careful loan screening procedure and timely disbursement of approved loan should be undertaken by credit officers to reduce delinquencies and default.
2. Precaution in credit administration is important in reducing credit risk and can be achieved through (i) demand for appropriate collateral security before granting loans, and (ii) Effective loan supervision and monitoring by credit officers. Banks in Nigeria should enhance their capacity in credit analysis and loan administration while the regulatory authority should pay more attention to bank compliance to relevant provisions of the Bank and other Financial Institution Act (1999) and prudential guidelines. There should be credit manual, which should be strictly adhered to at every stage of the credit process when credits are administered and managed in accordance with laid down policies and procedures, the occurrence of reckless un-suitable credits and poor loan administration will be drastically reduced or eliminated. Banks should ensure that the chief executive avoids approval in principle in the credit process. Approval in principle is anticipating approval given by chairman in time of exigency and it is expected to ratify by the board of directors even when the outcome of the transaction is unknown and

unfavourable. This has caused some banks" chief executives their job in the past. It is advisable to adhere to laid down credit process/procedure.

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