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Research Paper

An Analysis of the Relationship between Credit Risk Management and Bank Performance in Nigeria: A Case Study of Fidelity Bank Nigeria PLC

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ABSTRACT

One of the recommendations of Basel Committee on Banking Supervision was credit risk management which is the optimization of the bank's risk-adjusted rate of return by maintaining credit risk exposure within acceptable level. This research therefore is set to analyse the relationship between credit risk management and bank performance in Nigeria, using Fidelity Bank Nigeria PLC as a case study. Descriptive survey research was used and data were collected via Annual reports of the sampled bank within the period of 2010-2016. The populations of the research were the Deposit Money Banks. Pearson Coefficient of Correlation was the statistical tool used to analyse the hypotheses and that was done with the aid of Statistical Package for Social Sciences (SPSS). The researcher concluded that there is no significant relationship between credit risk management and bank performance in Nigeria. However there were traces of weak negative relationships which keen interest should be given to because of sensitive nature of the banking sector.

Keywords: Credit Risk Management, Bank Performance

1. INTRODUCTION

In every financial intermediation, risk is always a major factor to be considered. In attaining performance, a great threat to financial business and its effective management should also be considered. In making most decisions as regards credit in financial institutions, management is exposed to some level of risk, hence the need for effective and timely risk management policy. It involves identification, quantifying and managing the uncertainties that firm faces as outcomes of financial intermediation activities are uncertain which in turn result to risk (Adesugba & Bambale, 2016). Risk comes to play as a result strategic failure, operational failure, financial failure, market failure and disruptions, environmental disaster and regulatory violations. Risk is usually measured using statistical concepts that are related to the unknown future. Credit risk arises when the financial borrower defaults in his obligations in accordance with agreed terms. The objective of credit risk management is to optimize the bank's risk-adjusted rate of return by maintaining credit risk exposure within acceptable level (Basel Committee on Banking Supervision, 2000).

The existence of banks is not only to accept deposits, they also grant credit facilities. Business world largely depends on banks to fulfill their running finance requirements as well as the payment or receiving the amount of transactions or to make up the shortage of funds for the completion of transaction or performing any other business operation, therefore inevitably exposed to credit risk. One of the

most significant risks faced by banks is credit risk and the success of their business depends on accurate measurement and efficient management of this risk (Gieseche, 2004). Credit creation can be said to be the main income generating activity of banks which at the same time exposes the banks to credit risk. Credit risk plays an important role on banks' profitability among other risks faced by banks. This is so because a large amount of banks' revenue comes from loans which interest is derived. However, interest rate risk is directly linked to credit risk implying that high or increment in interest rate increases the chances of loan default (Kolapo, Ayeni&Oke, 2012).

Credit risk according to Luy (2010) arises whenever a lender is exposed to loss from a borrower, counterparty, or an obligatory who fails to honour their debt obligation as they have contracted. According to Colquitt (2007), loss from credit risk may also be derived from deterioration in the counterparty's credit quality, which consequently leads to a loss to the value of the debt, or according to Crouhy, Galai & Mark (2006), the borrower defaults when he is willingly to fulfil the obligations. Credit failure in banks is not new or a rare occurrence, they affect their liquidity position as well as cash flows and profits (Adeusi, Akeke, Obawale & Oladunjoye, 2013). Hence, Greuning & Bratanovic (2009) maintain that it is a biggest threat to any bank performance and the principal cause of bank failures. According to Owojori, Akintoye, & Adidu (2011), available statistics from liquidated banks clearly showed that inability to collect loans and advances extended to customers and creditors or companies related to directors or managers majorly contributed to the distress of liquidated banks in Nigeria.

Failures in deposit money banks in Nigeria can be attributed to poor credit risk management resulting from nonperforming loans (NPLs) (Adesugba & Bambale, 2016). In Nigeria, banks have been known to be accommodating loads of toxic assets that rose progressively from year to year without being reported through good credit risk management (Ugoani, 2012). These has resulted to the liquidation of 33 banks between 1994 to 2002 resulting to a loss of over N200 billion (Nwaze, 2006). Such non-performing loans came into existence as a result of giving out credits indiscriminately without proper credit risk appraisal and management which further resulted to the mismanagement of funds and then bad and irrecoverable loans. Philip (2007) cited in Ugoani (2012), consequently loan assets quality degenerated and contributed to bank failures. Despite various prudential measures employed to wage the tide, the rising profile of non-performing loans (NPLs) continued unabated into the 2000s, hence the need for effective credit risk management.

Credit management which is one of the most important activities in any company that cannot be overlooked by any economic enterprise engaged in credit irrespective of its business nature is the process that ensures that customers pay for the products delivered or the services rendered. Myers and Brealey (2003) describe credit management as the methods and strategies adopted by a firm to ensure that they maintain an optimal level of credit. It can be viewed as an aspect of financial management which involves credit analysis, credit rating, credit classification and credit reporting. According Nelson (2002) credit management is simply the means by which an entity manages its credit sales. It is a prerequisite which is necessary for any entity dealing with credit transactions since it is almost impossible to have a zero credit.

Myers & Brealey (2003), describes credit management as the method and strategy adopted by a firm to ensure that they maintain an optimal level of credit and its effective management. The maximization of bank's risk-adjusted rate of return is the very essence of credit risk management which can be achieved by maintaining credit risk exposure within acceptable parameters. According to Kagoyire & Shukla (2016), a key requirement for effective credit

management is the ability to intelligently and efficiently manage customer credit lines. The important of credit risk management to banks cannot be overemphasis and it also form an integral part of the loan process. Credit risk management maximizes bank risk, adjusted risk rate of return by maintaining credit risk exposure with view to shielding the bank from the adverse effects of credit risk. It is expedient to then ask; what is the relationship between credit risk and performance of banks in Nigeria? The study hence seeks to provide answers to the question.

1.1 Statement of Problem

It is evident that the global financial crisis has left a scar on global economy which Nigeria economy was not an exception. This calls for the protection of investors and shareholders possible through regulation of the financial market, and to ensure strict adherence to effective risk management by the issuers of securities. For Nigeria to achieve this, the country's financial sector must be strengthened. The financial sector has been one of the hardest hit sectors in the current economic downturn caused by unforeseen slump in global oil prices. In the report released by Nigeria Stock Exchange (NSE), all the indexes at the NSE (including the benchmark All Shares Index and consumer goods index) declined seriously in 2015 (Salaudeen, Atoyebi & Oyegbile, 2018).

Iwedi, & Onuegbu, (2014)reported that the banking industry had been hit by low quality loan assets as a result of poor economic and financial conditions in the country following the great financial recession of 2008. This led to low debt recovery which hindered banks from extending further credit into the economy and this adversely affected productivity. The country witnessed a consolidation and clean-up of the banks under former Central Bank of Nigeria CBN governors: Charles Soludo and SanusiLamido, because most of the banks were substantially under-capitalized, arising mainly from non-performing loans. As at January, 2006 when the banking licenses of fourteen banks were revoked, due to their failure to meet the minimum re-capitalization directive of the CBN, some of the banks had ratios of non-performing credits that were up to 80% of loan portfolios (Kayode, Obamuyi, Owoputi & Adeyefa, 2015). As a result, the Asset Management Corporation of Nigeria (AMCON) was then established in 2010 as a monetary policy response to solve the aching problem of non-performing loans troubling the commercial banks, which they succeeded in buying off about 95% of the non-performing loans with a caveat not to buy new non-performing loans.

Unfortunately, non-performing loans is becoming cyclical in Nigeria as the Deposit Money Banks recorded a N56.31 billion increase in non-performing loans from August 2013 to August 2014. A study carried out by Kayode, Obamuyi, Owoputi & Adeyefa (2015), showed that increase in non-performing loans from N344.26 billion as at August, 2013, to N400.57 billion, as at August 2014, represents a 16.36% increase and gross loans by the banks increased by 21.03%, from N9.278 trillion in August, 2013 to N11.229 trillion as at August, 2014.

However, in spite of the alarming credit risk exposures, the performance of the Nigeria banks seems not be adversely affected because some banks with high level of Non-Performing Loans which was occasioned by poor credit risk policies, declared positive performances as reflected by good profit margin on the profit and loss account and balance sheet. In the light of the seemingly contradiction, it is therefore necessary to study the relationship between credit risk management and bank performance, using ratio of Non-Performing Loans to Total Loans (NPLTL), Total Loans to Total Deposits (TLTD) and Capital Adequacy (CA) as proxies for credit risk and Return on Equity (ROE) and Return on Asset (ROA) as proxies for performance.

1.2 Objective of the Study

The objective of the study is to analyse the relationship between credit risk management and performance of Deposit Money Banks (DMBs) in Nigeria. In specific sense, the study seeks to ascertain:

- If there is a significant relationship between ratio of non-performing loan to total loan and performance of DMBs in Nigeria;
- If there is a significant relationship between total loan to total deposit percentage and performance of DMBs in Nigeria;
- If there is a significant relationship between capital adequacy and performance of DMBs in Nigeria.

1.3Statement of Research Hypotheses

The following hypotheses are relevant to the stated objective above and shall be tested in this study:

Hypothesis One

Ho: There is no significant relationship between ratio of non-performing loan to total loan and performance of DMBs in Nigeria.

Hypothesis Two

Ho: There is no significant relationship between total loan to total deposit percentage and performance of DMBs in Nigeria.

Hypothesis Three

Ho: There is no significant relationship between capital adequacy and performance of DMBs in Nigeria.

2.1 Conceptual Framework

2.1.1 Credit Risk

Obalemo (2007) defined credit risk as the risk that is based on the assumption that a borrower would default in repayment to the lender. Credit risk according to Basel Committee of Banking Supervision BCBS (2001) and (Gostineau 1992 as cited in Kargi, 2011) is the possibility of losing the outstanding loan partially or totally, due to credit events (default risk). Chin (2010) explains Credit risk as the possibility of loss due to a debtor's non-payment of a loan or other line of credit (either the principal, interest or both). The default can be in the form of delay in repayments or restructuring of borrower repayments or even bankruptcy. Credit risk can be defined as the probability that some of the bank's assets will decline in value and perhaps become worthless (Rose & Hudgins, 2005). Joan, Anthony & Anthony (2009) view credit risk as the probability that some of a bank's assets, especially its loans, will decline in value and possibly become worthless. Sources of credit risk may include, limited institutional capacity, inappropriate credit policies, volatile interest rates, poor management, inappropriate laws, low capital and liquidity levels, directed lending, massive licensing of banks, poor loan underwriting, reckless lending, poor credit assessment, laxity in credit assessment, poor lending practices, government interference and inadequate supervision by the central bank (Nwanna & Oguezue, 2017).

Kayode, Obamuyi, Owoputi & Adeyefa (2015), noted that in addition to direct accounting loss, credit risk could also be viewed in the context of economic exposures. This encompasses opportunity costs, transaction costs and expenses associated with a non-performing asset over and above the accounting loss. It can be further broken down on the basis of reasons responsible for default such that a default could be due to country's exposure or problems in settlement of financial transaction. A bad portfolio may attract liquidity problem which means that credit risk does not necessarily occur in isolation, as the same source that brings about credit risk for the banks may also expose it to other risk. According to Basel committee on Banking Supervision (1999), loans are the largest and the most obvious source of credit risk for most banks. Other sources of credit risk are likely to include, inappropriate credit policies, poor management, volatile interest rates, low capital and liquidity levels, massive licensing of banks, poor lending practices, poor loan underwriting, laxity in credit assessment, government interference and inadequate supervision by the central bank

(Kithinji, 2010). Credit risk may also rise if the bank lends to borrowers it does not have adequate knowledge about. Increase in bank credit risk will gradually lead to liquidity and solvency problems.

2.1.2 Credit Risk Management

Credit risk management helps in maintaining credit risk exposure within acceptable limit in order to provide framework for understanding the impact of credit risk management on banks' profitability (Kargi, 2011). According to Idowu & Awoyemi (2014), credit risk management arises any time bank funds are extended, committed, invested, or otherwise exposed through actual or implied contractual agreements, whether reflected on or off the balance sheet. However there are strategies for credit risk management.

Nwanna & Oguezue (2017) defined credit risk management strategies as procedures banks adopt in the mitigation or reducing the negative effect of credit risk. A comprehensive credit risk management structure is vital because it helps increase the revenue and survival. The main ideologies in credit risk management strategies take the following form: formation of a clear structure, delegation of powers, discipline, and communication at all level and holding people accountable. (Kolapo, Ayeni & Oke, 2012). A sound credit risk management framework as stated above is crucial for banks so as to enhance profitability guarantee survival (Nwanna & Oguezue, 2017). The key principles in credit risk management process as sequenced by Gestel (2009) are as follows:

Selection: which requires a sound credit risk management begins with a proper choosing of borrowers and the products that suit them. A competent loan officers and Operative models of estimating risk should be in place for this to be possible. At this stage, borrowers that are very likely to default in repayment are either denied or asked to secure the loan with more collateral to limit the effect of default.

Limitation: this aids the bank by reducing the amount of loss suffered from a borrower. It prevents a situation whereby the failure of borrower to meet his or her obligation will heavily affect the financial performance of the bank. The number of riskier transactions is limited.

Diversification: here, banks should deal with different counterparties ranging from individuals, industries to assist in spreading the risk across various borrowers in order for banks to reduce the impact of credit loss. This is much workable for large and international banks. That is, managing credit risk through risk diversification or spread.

Credit Enhancement: when a bank realizes it is exposed to too much risk when dealing with a particular kind of borrower; it solves this by acquiring an insurance policy to cover for the any future losses. By so doing, the quality of the loan facility is improved. It is called credit risk mitigation.

Basel committee on Banking Supervision magnifies the procedures through which a bank can manage its exposure to credit risk. One of such procedures is constantly changing and reviewing their credit risk policies to fit the prevailing economic trend in the country. Secondly, banks should investigate their borrowers properly as such will lead to a better understanding of the customer they are dealing with (Basel Committee on Banking Supervision, 1999). These strategies do not prevent credit risk totally but can reduce the level of credit risk the banks are exposure to which will in turn increase the profitability performance of the banks.

The Basel II is built on three pillars:

1. Minimum Capital requirement
2. Supervisory Review
3. Market Discipline

Pillar 1 addresses the minimum capital requirement, which is the rule by which banks calculate their regulatory capital. As to the Pillar 2 of Basel II, it concerns with the supervisory review process and has been a supplement to the minimum capital requirement. Therefore, it requires a regular interaction between banks

and supervisors in the assessment and planning of capital adequacy (Lind, 2005). The last pillar seeks to complement these activities through a stronger market discipline by disclosure of bank's key information of risk assessment procedures and capital adequacy (Ferguson, 2003). This, to some extent, could enable market participants to assess the bank's risk profile and level of capitalization.

2.2 Theoretical Framework

This research was anchored on the theory of Commercial loan which states that a commercial bank should make available only short-term self-liquidating loans to business organizations. It also states that anytime commercial banks make short term self-liquidating productive loans, the central bank should lend to the banks on the security of such short-term loans. This principle makes for appropriate degree of liquidity for each bank and appropriate money supply for the whole economy. Advantages of these short-term self-liquidating productive loans are that automatically liquidate themselves, they mature in the short run and are for productive ambitions hence there is no risk of them running into bad debts, and finally, such loans are high on productivity and they earn income for the banks. The general drawback of this theory is that no loan is self-liquidating meaning that a loan given to a retailer is not self-liquidating if the items purchased are not sold to the final consumer. Simply put, for a loan to be successful it has to engage a third party andin this situation the consumer is the third party, besides the lender and the borrower.

2.3 Empirical Review

Taiwo, Ucheaga, Achugamonu, Adetiloye, Okoye & Agwu (2017), empirically investigated the quantitative effect of credit risk management on the performance of Nigeria's Deposit Money Banks (DMBs) and Bank lending growth over the period of 17 years (1998-2014). Secondary data were used for the empirical analysis. The study made use of multiple linear regressions to analyze the data. The result of the analysis showed that sound credit management strategies can boost investors and depositors confidence in banks and also lead to a growth in funds for loans and advances which ultimately leads to increased bank profitability. Findings from the study showed that credit risk management has an insignificant impact on the growth of total loans and advances by Nigerian Deposit money banks. The study therefore recommended that DMBs in Nigeria should strictly adhere to their credit appraisal policies which ensures that only credit worthy borrowers have access to loanable funds, and that banks are to ensure that funds are allocated to borrowers with decent to high credit ratings.

Achou & Tenguh (2008) conducted a study to find the answer of the question that how credit risk is managed by the banks. They analyzed the five years financial data of Qatar Central Bank. The results of regression model exposed that credit risk management and bank performance have significant relationship. Moreover, findings revealed that the ratio of Non-Performing Loans/Total Loans has significant negative association with profitability which was measured by return on assets (ROA) and return on equity (ROE).

Kolapo, Ayeni&Oke (2012) carried out an empirical investigation into the quantitative effect of credit risk on the performance of commercial banks in Nigeria over the period of 11 years (2000-2010) in five commercial banks. The traditional profit theory was employed to formulate profit, measured by Return on Asset (ROA), as a function of the ratio of Non-performing loan to loan & Advances (NPL/LA), ratio of Total loan & Advances to Total deposit (LA/TD) and the ratio of loan loss provision to classified loans (LLP/CL) as measures of credit risk. Panel analysis was employed. The results from the analysis showed that the effect of credit risk on bank performance measured by the Return on Assets of banks was cross-sectional invariant. That is the effect is

similar across banks in Nigeria, though the degree to which individual banks were affected was not captured by the method of analysis employed in the study. Based on the findings, it is recommended that banks in Nigeria should enhance their capacity in credit analysis and loan administration while the regulatory authority should pay more attention to banks' compliance to relevant provisions of the Bank and other Financial Institutions Act and prudential guidelines.

Kayode, Obamuyi, Owoputi & Adeyefa (2015) investigated the impact of credit risk on banks' performance in Nigeria. A panel estimation was carried out on the six selected banks using the random effect model framework. Findings from the study showed that credit risk is negatively and significantly related to bank performance, measured by return on assets (ROA) which means that an increased exposure to credit risk will reduce bank profitability. The study also found that total loan has a positive and significant impact on bank performance. Therefore, they suggested that in order to stem the cyclical nature of non-performing loans and increase their profits, the banks should adopt an aggressive deposit mobilization to increase credit availability and also develop a strongly reliable credit risk management strategy with adequate punishment for loan payment defaults.

Nwanna & Oguezue (2017) examined the nexus between credit management and profitability (ROA) of Deposit Money Banks (DMBs) in Nigeria context for the period of 2006 to 2015. Secondary data used were sourced from Central Bank of Nigeria Statistical Bulletins and the Annual Reports of all the existing DMBs studied. Multiple regression technique was used in analyzing the data. The study found that loans and advances and loan loss provision have positive and insignificant effect on profitability, while non-performing loan has a negative and insignificant effect on profitability. The overall estimates of the two regressions have good fit and are adequate statistically. The R2squared which measures the overall goodness of fit of the entire regression shows the value of 84% and 79% in models one and two respectively. While the Durbin Waston statistic with value of 2.808450 and 2.499545 shows that there was no auto correlation among the considered variables and the overall regression was statistically significant. Thus, the study concluded that sound credit management heightens profitability and holds the financial strength of the DMBs.

Kagoyire & Shukla (2016)studied the effect of credit management on the financial performance of commercial banks in Rwanda. The study adopted a descriptive survey design. The target population of study consisted of 57 employees of Equity bank in credit department. Entire population was used as the sample giving a sample size of size of 57 employees. Purposive sampling technique was used in sampling where the entire population was included in the study. Primary data was collected using questionnaires which were administered to the respondents by the researcher. Descriptive and inferential statistics were the research methodology used. The study found that client appraisal; credit risk control and collection policy had effect on financial performance of Equity bank. The study established that there was strong relationship between financial performance of Equity bank and client appraisal, credit risk control and collection policy. The study recommended that Equity bank should enhance their collection policy by adapting a more stringent policy to a lenient policy for effective debt recovery.

Adeusi, Akeke, Adebisi & Oladunjoye (2013) studied the association of risk management practices and bank financial performance in Nigeria. Secondary data sourced was based on a four (4) year progressive annual reports and financial statements of 10 banks and a panel data estimation technique adopted. The result implied an inverse relationship between financial performance of banks and doubt

loans, and the capital asset ratio was found to be positive and significant. Similarly it suggested the higher the managed funds by banks the higher the performance. The study concluded a significant relationship between banks performance and risk management thus emphasizing the need for banks to practice prudent risks management in order to protect the interests of investors.

Ali (2015) examined the effect of credit risk management on financial performance of the Jordanian commercial banks during the period (2005-2013), thirteen commercial banks were chosen to express on the whole Jordanian commercial banks. Two mathematical models were designed to measure this relationship; the research revealed that the credit risk management has effect on financial performance of the Jordanian commercial banks as measured by ROA and ROE. The research further revealed that the credit risk management have a significant effect on financial performance of the Jordanian commercial banks. Based on findings, the researcher recommended that banks should improve their credit risk management to achieve more profits, and that banks should take into consideration, the indicators of Non-performing loans/Gross loans, provision for facilities loss and the leverage ratio that were found significant in determining credit risk management. The study further recommended that banks should establish adequate credit risk management policies by imposing strict credit estimation before granting loans to customers.

Ogunlade & Oseni (2018) examined the influence of credit management practices on financial performance of Nigerian banks with specific reference to First bank Plc. Data was collected from thirty (30) respondents with the aid of a questionnaire. Descriptive and inferential statistics such as frequency, percentage, weighted mean score, and multiple regressions were adopted in analysing the data. The result from the analysis revealed that credit management practices have a significant positive influence on the financial performance of First bank. The study concluded that client appraisal, credit risk control, and collection policy are major predictors of financial performance of First bank. The study then recommended that management of other banks should learn from First bank by enhancing their client appraisal techniques, credit risk control and adopting a more stringent policy to improve their financial performance.

Uwalomwa, Uwuigbe & Oyewo (2015) critically assessed the effects of credit management on banks' performance in Nigeria. The study covered the period of 2007-2011. Purposive sampling method was used to select ten banks for the analysis. The study adopted descriptive statistics using the panel linear regression. Findings from the study revealed that while ratio of non-performing loans and bad debt do have a significant negative effect on the performance of banks in Nigeria, while there was no significant relationship between secured and unsecured loan ratio and bank's performance. Hence, the study recommended that banks management should put in place or institute sound lending framework, adequate credit administration procedure and an effective and efficient machinery to monitor lending function with established rules.

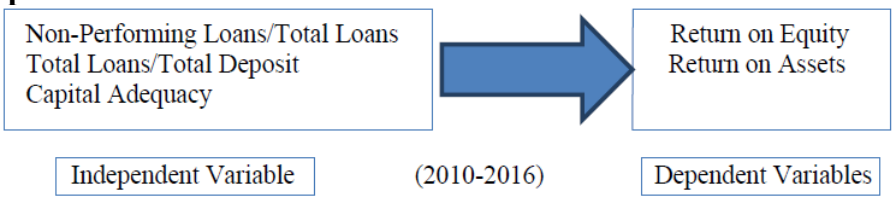
3.0 METHODOLOGY

The population of this study was made up of the sixteen (16) commercial banks currently listed on the Nigeria Stock Exchange. Judgmental sampling technique was used to select Fidelity Bank Nigeria PLC as the sample for the study. The data used for this study were secondary data derived from the audited financial statements and annual reports of the bank for the period of 2010-2016 (post financial crisis period).The Pearson product coefficient of correlation (r) was used in analysing and interpreting data connected with the main variables of the hypothesis.

3.1 Definition of Variables/Proxies

PERFORMANCE VARIABLES	DEFINITION
Return on Equity (ROE)	Profit Before Interest and Tax (PBIT) / Total Equity
Return on Asset (ROA)	Profit Before Interest and Tax (PBIT) / Total Asset
CREDIT RISK MANAGEMENT VARIABLES	
Non-Performing Loans/Total Loan	Gross Non-Performing Loans / Gross Total Loan to Customers & Banks
Total Loans/Total Deposit	Gross Total Loans to Customers & Banks / Total Deposit from Customers & Banks
Capital Adequacy	Shareholders' funds / Total Assets

3.2 Model Specification



4.0 DATA PRESENTATION AND ANALYSIS

4.1 Presentation of Data

Year	NPL/TL	TL/TD	Capital Adequacy	ROE	ROA
2010	22.91	62.83	28.13	5.67	1.67
2011	5.48	69.45	19.79	1.01	0.20
2012	3.03	63.74	17.66	13.22	2.33
2013	3.72	54.90	15.12	5.52	0.83
2014	4.36	68.18	14.58	8.96	1.31
2015	4.61	77.83	14.90	7.64	1.14
2016	6.64	93.71	14.28	5.97	0.85

4.2 Test of Hypotheses

Hypothesis One

Ho: There is no significant relationship between ratio of non-performing loan to total loan and performance of DMBs in Nigeria.

Figure 1: Correlations for Hypothesis One

		NPLTL	ROE	ROA
NPLTL	Pearson Correlation	1	-.242	.200
	Sig. (2-tailed)		.601	.667
	N	7	7	7
ROE	Pearson Correlation	-.242	1	.884**
	Sig. (2-tailed)	.601		.008
	N	7	7	7
ROA	Pearson Correlation	.200	.884**	1
	Sig. (2-tailed)	.667	.008	
	N	7	7	7

**. Correlation is significant at the 0.01 level (2-tailed).

From the correlation result, percentage of non-performing loans to total loans has a weak negative correlation of -.242 with return on equity, and a positive weak correlation of .200 with return on asset. This implies that an increase in percentage of non-performing loan to total loan will lead to a less than proportionate decrease in return on equity and less than proportionate increase in return on asset.

DECISION: Since the computed correlation coefficient r -.242 and .200 is less than the critical r value .765 for two-tailed test at 0.01 level of significance, we therefore accept the null hypothesis and reject the alternate hypothesis, meaning that, there is no significant relationship between percentage of non-performing loans to total loans and bank performance.

Hypothesis Two

Ho: There is no significant relationship between total loan to total deposit percentage and performance of DMBs in Nigeria.

Figure 2: Correlations for Hypothesis Two

		TLTD	ROE	ROA
TLTD	Pearson Correlation	1	-.095	-.259
	Sig. (2-tailed)		.840	.575
	N	7	7	7
ROE	Pearson Correlation	-.095	1	.884**
	Sig. (2-tailed)	.840		.008
	N	7	7	7
ROA	Pearson Correlation	-.259	.884**	1
	Sig. (2-tailed)	.575	.008	
	N	7	7	7

**. Correlation is significant at the 0.01 level (2-tailed).

From the correlation result, a total loan to total deposit has a weak negative correlation of -.095 & -.259 with return on equity, and return on asset respectively. This implies that an increase in total loans to total deposit

will lead to a less than proportionate decrease in return on equity and return on asset.

DECISION: Since the computed correlation coefficient r -.095 and -.259 is less than the critical r value .765 for two-tailed test at 0.01 level of significance, we therefore accept the null hypothesis and reject the alternate hypothesis, meaning that, there is no significant relationship between total loans to total deposit and bank performance.

Hypothesis Three

Ho: There is no significant relationship between capital adequacy and performance of DMBs in Nigeria.

Figure 3: Correlations for Hypothesis Three

		CA	ROE	ROA
CA	Pearson Correlation	1	-.243	.234
	Sig. (2-tailed)		.600	.614
	N	7	7	7
ROE	Pearson Correlation	-.243	1	.884**
	Sig. (2-tailed)	.600		.008
	N	7	7	7
ROA	Pearson Correlation	.234	.884**	1
	Sig. (2-tailed)	.614	.008	
	N	7	7	7
**. Correlation is significant at the 0.01 level (2-tailed).				

From the correlation result, capital adequacy has a weak negative correlation of -.243 with return on equity, and a positive weak correlation of .234 with return on asset. This implies that an increase in capital adequacy will lead to a less than proportionate decrease in return on equity and less than proportionate increase in return on asset.

DECISION: Since the computed correlation coefficient r -.243 and .234 is less than the critical r value .765 for two-tailed test at 0.01 level of significance, we therefore accept the null hypothesis and reject the alternate hypothesis, meaning that, there is no significant relationship between capital adequacy and bank performance.

5.0 SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Findings

From the results of the correlation coefficient of the different hypotheses, the study found the following:

i. There is no significant relationship between percentage of non-performing loans to total loans and bank performance in Nigeria.
ii. There is no significant relationship between total loans to total deposits and bank performance in Nigeria.
iii. There is no significant relationship between capital adequacy and bank performance in Nigeria.

5.2 Conclusion

Despite the volume of the empirical work, there is no consensus on the impact of credit risk management on bank performance. Consequently, this lack of consensus has produced a variety of ideas on how credit risk management influences bank performance.

The study showed that credit risk management variables such as percentage of non-performing loans to total loans, total loans to deposits and capital adequacy have no significant relationship with bank performance. The study established a weak negative correlation between percentage of non-performing loans to total loans with return on equity, and a positive weak correlation of with return on asset, which implied that an increase in percentage of non-performing loan to total loan will lead to a less than proportionate decrease in return on equity and less than proportionate increase in return on asset. The study further revealed that total loan to total deposit has a weak negative correlation with return on equity, and return on asset respectively, which by implication means that an increase in total loans to total deposit will lead to a less than proportionate decrease in return on equity and return on asset. Capital adequacy on the other has a weak negative correlation with return on equity, and a positive weak correlation with return on asset. This implies that an increase in capital adequacy will lead to a less than proportionate decrease in return on equity and less than proportionate increase in return on asset.

From the foregoing, the researcher concluded that there is no significant

relationship between credit risk management and bank performance in Nigeria. However there were traces of weak negative relationships which keen interest should be given to because of sensitive nature of the banking sector.

5.3 Recommendations

The following recommendations were made based on the findings of the study:

i. Deposits Money Banks should establish a sound and competent credit risk management units which should be run by best practices in risk management with strict adherence to clear loan policy, underwriting authority and credit limits.
ii. Staff of credit units such as project and advance managers, credit/loan officers and field officers should perform a range of functions from project appraisals through credit disbursement, loan monitoring to loans collection.
iii. The banks should engage in proper credit risk assessment before giving out loans and promote a reliable loan recovery process with adequate punishment for loan payment defaulters.

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