

## **Effect of Risk Management on the Financial Performance of Commercial Banks in Nigeria**

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**ABSTRACT** - *This study seeks to establish the degree to which banks risk management (credit and liquidity risk) have impacted profitability of Nigerian commercial banks. Commercial banks face a number of risks such as credit, liquidity risk and Operational risks. The actual relationship between risk management (credit and liquidity) and banks performance is yet to be settled and researchers do not necessarily split these risk factors into categories while embarking on finding a solution. It therefore creates a necessity to investigate the Nigerian case using current market conditions given that the country is just recovering from a recession which riled all sectors in the country. In analyzing the relationship between risk management and performance of Nigerian commercial banks, panel data regression is employed. This is ideal for time series and cross – sectional data sets. It helps understand the magnitude of the independent variable on dependent variables. Data collection was done using ordinary least squares regression. Conclusion was made that there is a significant and positive relationship between risk management and banks return on assets. This suggests that effective and efficient risk management strategy plays a key role in commercial banks financial performance in Nigeria. To that end, this study recommended that Banks need to develop and design a credit strategy that ensures that in the event of defaults or bad debts they can still remain solvent.*

**Keywords:** *Risk, Risk management, financial performance and commercial banks*

## 1. INTRODUCTION

The Banking industry in Nigeria can be said to have gone through periods of significant downturn as banks which had appeared to have favorable balances in terms of profitability and liquidity, suddenly started to report losses in their books owing to negative effects of credit risk.

Aruwa, et al (1989), said that the role of commercial banks is to collect money from customers in form of deposits which in turn is used to finance the immediate needs of individuals and organizations in need of credit by lending the deposited cash to such customers. It is essential that a bank is characterized by these functions in order to be able to access the financial instruments that are being used in capital generation.

The New Capital Accord was recommended by the Basel committee which was subsequently implemented in 2007. According to Owojori et al (2011), the New Capital Accord required capital charges to be added on credit, market and operational risks. This is in line with the objective of protecting depositors, consumers, and the citizens against losses emerging from bank failures. Key stakeholders in the Nigerian banking industry have been keen since 1988 to see that commercial banks refine their risk, how their risk can be measured and ultimately mitigating eventual risk. Soludo, (2004) stated that policies relating to the operations of commercial banks in Nigeria were well structured to ensure that the banks meet credit and liquidity requirements in line international financial standards regarding commercial banking operations.

For commercial banks to successfully continue providing the service of lending to customers in need of credit, their ability to militate against potential and actual risk is essential. Many Nigerian banks have gone into depression in the past for failing to adequately deal with risks existing in the market environment. Banks would always be vulnerable to anticipated and unanticipated risk, hence the need to have the right measures to limit the effects it would have on the soundness of the banks.

The issue of risk management is widely discussed in the banking industry because customers and investors alike have access to more information about the banks and the systems they have put in place to protect them, thus before customers decide on their choice of bank or investors decide

where to put their money; they usually assess their own potential risk exposure and subsequently, what the underlined bank's risk management policy is before making their choice.

Commercial banks face a number of risks such as credit, liquidity risk and Operational risks. Over the years' banks have explored the financial services sector by adding new financial instruments to their portfolio. These new financial instruments have underlying risks which are usually unknown to the banks because they are not usually equipped with exhaustive information regarding the instrument before adding it to their portfolio. This subsequently means that the banks become more vulnerable to the inherent risk of the new instruments which have not been identified and assessed enough to develop a robust risk mitigation plan.

## **2. STATEMENT OF THE PROBLEM**

Commercial banks are key in economic growth. They play a critical role in distribution of financial resources. Thus there is the need for banks to be profitable. Banks that perform well are subject to high shareholder returns which would peak interest of potential investors possibly leading to new investment which may include local and Foreign Direct investment (FDI) for the economy. Non-performing banks can lead to depression in the financial services sector leading to economic distress for an entire economy. Thus the effects of banks that are not profitable does not affect the underlined banks only but the economy of the country as a whole.

Credit and liquidity problems may adversely affect the financial performance of a bank as well as its solvency if not properly managed. Credit risk management has been an essential part of the loan process in the banking sector. Deposit money banks continue to spend huge resources in credit risk management modeling with the objective of maximizing profits. Unfortunately, existing research which investigated the effect of risk management on banks performances have produced mixed results. Credit risk management has a positive relationship with banks performance. Also, several other studies have concluded that credit risk management has helped banks improve on their profitability.

The actual relationship between risk management (credit and liquidity) and banks performance is yet to be settled and researchers do not necessarily split these risk factors into categories while embarking on finding a solution. It therefore creates a necessity to investigate the Nigerian case using current market conditions given that the country is just recovering from a recession which riled all sectors in the country.

### **3. OBJECTIVE OF THE STUDY**

This study seeks to establish the degree to which banks risk management (credit and liquidity risk) have impacted profitability of Nigerian commercial banks. However the specific objective is

- i. To determine the relationship between credit risk management and financial performance

### **4. RESEARCH HYPOTHESIS**

The hypothesis of this study is;

H<sub>0</sub>: There is no significant relationship between credit risk management and financial performance.

### **5. LITERATURE REVIEW**

#### **1.5.1 The Concept of Risk**

Advocates of risks have defined what risk means from different perspectives; such as Hansel (1999), sees risk as likelihood of loss and probability of casualty. Nwite, (2015) posits risk to be the chances of inaccuracy, probability of an event occurring or not. These two definitions have something in common which is loss. In case of this study, risk is viewed in terms of financial loss.

#### **1.5.2 Types of Risks Associated with Operations of Commercial Banks in Nigeria**

##### **i. Liquidity Risk**

When a commercial bank is not solid enough to meet the credit needs of its customers as at when due, it is seen as liquidity risk. If the bank is unable to source for credit at the right time to meet the demands of customers, this could invariably lead to loss of customers. This may significantly result to a fall in the bank's earning and thus threatening profitability. If this persists the bank would eventually be forced to close down.

**ii. Credit Risk**

When bank customers (debtors) are unable to pay back money given to them as loans by their banks as well as the accompanying interests, it is referred to as credit risk. A loan default depletes the bank’s capital base subsequently threatening the bank’s operations. According to Sanusi, (2010), whenever banks lend money to customers there is always a potential risk of defaults. There are other risks that a bank can face such as operating risk, interest rate risks, exchange rate risks, crime risk.

**6. EMPIRICAL LITERATURE REVIEW**

Scholars	Objective of Study	Methodology	Findings
Mwangi. M et al (2013)	Investigate the effects of liquidity risks on how profitable banks in Kenya would be.	Data collected for the period beginning from 2010 to 2013 using 43 Banks as sample. Data retrieved was analyzed using	Indicated that there was negative relationship between liquidity risk and bank’s performance in Kenya
		descriptive statistics	
Hallunovi. A (2017)	Analyze the relationship between liquidity risk and bank performance.	Data was collected for 2003 to 2010. Data was analyzed using Ordinary Least Squares regression.	Shows negative correlation between liquidity risk and the financial position of banks.
Getahun. M (2015)	Looking at the link between credit risk management and performance of banks.	Data was collected from 2009 – 2014 from banks in Ethiopia. Data retrieved was analyzed using panel data regression	Shows significant relationship between credit risk management and the performance of banks in Ethiopia.
Davies et al (2015)	Investigate if the factors that determine liquidity risk have any effects on the performance of banks.	Data was collected from 2011 to 2015 for various companies listed on the Nairobi Stock Exchange. Data was analyzed using multiple regression and correlation matrix	Results show that there is a positive relationship between liquidity and how well the companies performed. It was noted that companies with sizeable liquidity

			performed significantly better in terms of profitability
David (2015)	Evaluating the connectivity between liquidity management and returns received by shareholders in commercial banks in Nigeria	Data was collected for 2000 to 2014. Ordinary Least Squares regression was used to analyze data.	Indicated that there was a two way correlation between liquidity management and how well Nigerian banks performed and the returns shareholders receive at the end of the fiscal year.
Ajibike. J , O et al (2015)	Investigate the link between liquidity risk and how well a bank can perform financially	Panel Data Regression	Results showed that the liquidity of banks had positive correlation but no significant effect on the banks' profitability
Alzorqan (2013)	Measure the effect of liquidity risk management on the performance of banks	Data was retrieved for 2008 to 2012 and was analyzed using Panel data regression	Indicated that liquidity risk is a key determinant of how well a bank performs in a fiscal year.
Idowu & Olausi, (2012)	Study the relationship between credit risk management and the performance of Nigerian Banks.	Data was collected from 2005 to 2011. Panel Data Regression was used to analyze retrieved data.	Credit risk management plays a significant role in determining the profitability of Nigerian Banks.

## 7. METHODOLOGY

In analyzing the relationship between risk management and performance of Nigerian commercial banks, panel data regression is employed. This is ideal for time series and cross – sectional data sets. It helps understand the magnitude of the independent variable on dependent variables. Data collection was done using ordinary least squares regression. Thereafter the collected data was analyzed using panel data regression, through the use of the Eviews software.

In determining the model to be used for the regression, the Hausman test was carried out.

The Hausman Principle is as follows:

- i. If the P-value is statistically significant, accept the alternative hypothesis (Fixed Effect Model)
- ii. If the P-value is not statistically significant, accept the null hypothesis (Fixed/Random Effect Model).

The correlation matrix was used to check for the relationship between the independent and dependent variable.

## 8. RESULTS AND DISCUSSIONS

For data analysis, regression is carried out using the Eviews software, to determine the model to be used for regression. The Hausmann test was employed.

**Table 2:** Hausmann Test Results

Test Summary	Chi – Square Stat	Degree of Freedom	Prob
Cross – Sectional Random	4.369749	4	0.3583

Referring to earlier stated Hausmann principles that if the P value is not statistically significant accept to the null hypothesis and chooses the fixed/random effect. The P value for this test been 0.3583 is not statistically significant so we accept the null chose to use the fixed effect model.

To investigate the relationship between risk management (credit and liquidity risk) and how well Nigeria banks can perform using return on assets (ROA) as proxy. The panel regression results are shown below:

### Regression Results Dependent Variable – ROA Method – Panel Least Squares

Variable	Coefficient	Std Error	t-Statistic	Prob	

<b>NPL</b>	2.8519	0.759520	3.754965	0.0003	
<b>CAR</b>	6.3711	1.738714	3.664269	0.0005	
<b>LEV</b>	-1.1942	0.604882	- 1.974291	0.0519	
<b>LDR</b>	0.2367	1.152440	0.205419	0.8378	
<b>C</b>	0.0348	0.743059	0.046904	0.9627	

**R<sup>2</sup>** – 0.561063

**F- Stat** – 4.473804

**Adjusted R<sup>2</sup>** – 0.435562

**Prob (F-Stat)** - 000000 **Durbin Watson Stat** – 1.787967

This study looks at the impact of risk management on the profitability of commercial banks in Nigeria using credit risk management (CAR and NPL ratio); liquidity risk management (LDR and LEV ratio) and firm’s financial performance (ROA). The result for the goodness fit test as presented in table shows a coefficient of determination of  $R^2 = 0.56$  (56%) and adjusted  $R^2$  is 0.43 (43%); this shows that 56% variation in the dependent variable (ROA) is explained by the independent variables (NPL, CAR, LDR, LEV).

The p-value of the F statistics is 0.000000 indicating that it is statistically significant implying that we get to reject the null hypothesis. It also explains that the independent variables are significantly linked with the dependent variable. Given that the F- stat is significant we can say that the underlined model is sufficient which brings to bare the predictive ability of the independent variables. The Durbin Watson is 1.787967, indicating that it is falls under reasonable bounds making the probability of autocorrelation at significantly low levels. Overall, the underlined model has proven to be viable. The results clearly show a strong impact of risk management on how well Nigerian Commercial banks perform in a fiscal year.

### 1.8.1 Hypothesis Testing

**H<sub>01</sub>** - there is no significant relationship between credit risk management and firm’s financial performance.

From, the regression analysis, credit risk management was captured using non-performing loan and capital adequacy ratio, while return on assets was taken as proxy for how well the commercial banks perform. From the result, the relationship between NPL and ROA has a coefficient (r) of



2.851973, signifying a positive link between the two variables with a p- value of 0.0003 significant at 5%. This shows a positive effect of non-performing loans ratio on the financial performance of the commercial banks. Thus, the null hypothesis of there been no relationship between credit risk management and how profitable commercial banks can be is rejected implying that there is actually significant impact of risk management on the profitability of commercial banks. Consequently, from the analysis, the correlation between CAR and ROA has a coefficient (r) of 6.371115, indicating a positive correlation between the two variables with a p- value of 0.0005 significant at 5%. This indicates a positive effect of credit risk management on the financial performance of the commercial banks.

## 9. SUMMARY OF MAJOR FINDING

The study was undertaken to study the relationship between risk management and financial performance of commercial banks in Nigeria. This study used secondary data in examining the link between risk management and financial performance of 10 deposit commercial banks listed on the Nigerian Stock market. The result of the estimated coefficient of the variables which are non-performing loans, capital adequacy ratio, and leverage ratio shows significant relationship with performance of commercial banks but loan deposit ratio has no significant effect on banks financial performance in Nigeria. The result of this study indicates a significant direct relationship between risk management and financial performance of commercial banks in Nigeria. Except for leverage (LEV) all other variables suggest a positive relation with the performance of the banks.

## 10. CONCLUSION

There is a significant and positive relationship between risk management and banks return on assets. This suggests that effective and efficient risk management strategy plays a key role in commercial banks financial performance in Nigeria. Hence, Proper management of risk will result in higher returns for the commercial which translates into increased profitability. These risk factors are vital in estimating the performance of commercial banks in Nigeria. In the event a banks fails to mitigate risk there would be inconsistency in how well such underlined bank performs financially. Policies that can subsequently help banks adequately manage credit and liquidity risk is essential to make sure the commercial banking system does not go into depression. Loans to

customers are one of the most volatile forms of assets for the bank because there is high risk of default by the customer. Banks must however internally ensure that they have the right mechanisms in determining the right customers to give out loans to so as to have stop gaps that can help insulate part of the assets as well keep investor confidence high.

## 11. RECOMMENDATIONS

To that end, this study will make some recommendations as follows:

- i. Banks need to develop and design a credit strategy that ensures that in the event of defaults or bad debts they can still remain solvent.
- ii. It is essential to be aware and understand the credit and liquidity policies of the Central Bank of Nigeria (CBN) regarding operations of commercial banks so as to make sure to align the bank's operations accordingly.
- iii. The Central Bank of Nigeria (CBN) should carry out periodic reviews of lending history as well as current lending patterns of the commercial banks.
- iv. Institutions tasked with regulating the operations of commercial banks should put a mechanism in place to ensure that the banks comply with underlined regulatory obligations.
- v.

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