

# Empirical Investigation into the Effect of Enterprise Risk Management on Financial Performance of Banks: Evidence from Deposit Money Banks in Nigeria

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**Abstract:** Deposit money banks are the bedrock of Nigerian economy through provision of financial intermediary services to the various sectors, thereby supporting the economic development and growth of the nation. Globalization and the unpredictable business environment have increased the risks facing banks in Nigeria leading to dwindling financial performance. Evidence from literature showed that not many banks have integrated enterprise risk management into their operations. The study adopted ex-post facto research design. The population of the study was all the 12 deposit money banks in Nigeria for the period 2007 – 2021. Total enumeration sampling techniques was used. Data were sourced from the annual reports of the deposit money banks selected for the study. Data were analyzed using descriptive and inferential statistics. Enterprise risk management has significant effect on Net profit margin,  $\text{Adj.R}^2 = 0.1791$ ,  $F(7, 172) = 142.80$ ,  $P < 0.05$ . Enterprise risk management has significant effect on Net Interest Income,  $\text{Adj.R}^2 = 0.3702$ ,  $F(7, 172) = 142.80$ ,  $P < 0.05$ . The study concluded that enterprise risk management affect the financial performance of deposit money banks in Nigeria. The study recommended that the policy makers should implement robust enterprise risk management frameworks with special focus on combination of leadership control variables with traditional risk management strategies as its effective implementation enhances the overall financial performance of banks.

**Keywords:** Enterprise Risk Management, Net Profit Margin, Net Interest Income, Financial Performance

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## 1. Introduction

Deposit money banks globally confront several challenges, like any other corporate entities. These problems include but not limited to its financial performance, regulatory compliance and service delivery including how to minimize areas of possible losses with a view of posting strong performance annually especially in Nigeria, where the business environment is highly unpredictable. As engine of economic growth, banking is a backbone of Nigerian's economy [30]. Financial performance of deposit money banks in a developing economy like Nigeria have been negatively affected by frequent government interferences, unprofessional practices, insufficient human capital, lack of performance appraisal, and poor enterprise risk management practices [4]. The performance of banking sector is often affected by external factors beyond the control of management as

documented in an article by Joris Luyendijk [19].

In Nigeria, the problem of banks' failures and liquidations have been a recurrent issue since 1894 following the establishment of first deposit money bank in the country known as Bank of British West Africa. The Bank of British West Africa later became First Bank of Nigeria in 1979 as a result of Federal Government indigenous policy. As at 1998, the authorized share capital of a bank was N2b, as a result of which many banks were licensed by the Central Bank of Nigeria (CBN). Unfortunately, both the promoters and managements of these banks lacks requisite expertise, poor governance structure coupled with little or absence of robust enterprise risk management framework. The resultant effect was that weak risk culture, insiders' abuse and fraudulent practices became the norm, and subsequently the banks were unable to meet their contractual obligations with its attendant negative impact on the affected banks' financial performance.

Consequently, banks' share capitals were eroded, while there was decline in every aspect of the banks financial performance. The resultant effect was liquidation of 26 banks by Central Bank of Nigeria in 1998 resulting to loss of depositors' fund, non-payment of dividend to shareholders, non or partial settlement of creditors, job losses and disruption of various ongoing corporate social responsibilities earlier initiated by the affected banking institutions, while different forms of taxes usually paid to various levels of government were also affected. The collapse of these institutions created confidence crisis in the banking sector and resulted to loss of interest by the banking public [37].

Furthermore, the high percentage of non-performing loans in the banks' books resulted to high loan provisioning leading to reduction on net interest income, which leads to decrease in profitability of banks [39, 29, 20]. High levels of non-performing loans, inadequate or nonexistent loan collateral, bad loan processing, poor and ineffective credit risk management are all factors that impair banks' financial performance [11].

Besides, the rate of non-performing loans in Nigeria's deposit banks reached up to 35% between 1999 and 2009, despite the existence of risk management departments in most deposit money banks, whose job it is to manage the banks' risks, including credit risk [16]. However, the failure of risk management to checkmate the above ugly trend, may not be unconnected to the practice of segmented risk management approach, where risks are managed in silos as against the holistic approach which enterprise risk management stands for, which is bedrock of this study.

In view of the financial crises of 2008/2019 in the banking sector and the declining financial performance of deposit money banks which necessitated the need for the introduction of enterprise risk management framework by Central Bank of Nigeria to the banking sector as a matter of necessity. Enterprise risk management (ERM) which has become a global phenomenon centered on adoption of a systematic and holistic approach to management of all risks associated with businesses [21]. Therefore, whole essence of ERM is to grow banks' revenue and other performance indices in a sustainable manner while ensuring regulatory compliance.

Meanwhile, unidentified hazards inside banks have been attributed to failure of many banks coupled with absence of ERM that allows comprehensive risk assessment, identification, proper categorization and assignment of risk factors to appropriate owners for easy and effective management of risks [23]. Every industry or enterprise seeks to maximize profit while operating as easily and effectively as feasible. Deposit Money Banks are no exception. Banks play financial intermediation roles with objective of maximizing value for their stakeholders as well as ensuring sound liquidity and solvency positions. Profitability through excellent service delivery is critical for deposit money institutions as it serves as evidence of favorable performance and means of earning trust by investing public [11].

Also, deposit money banks utilize variety of risk management processes, depending on whether the bank is

private, public, or foreign owned, the regulatory environment, the bank's risk strategy, as well as the quality of its management. It is critical to understand how each component of enterprise risks influence banks in general [40].

Banks are confronted with numerous sorts of risk, and it has become necessary for banks to have a management risk system known as an Enterprise Risk Management System. Enterprise Risk Management has grown in popularity as an approach for comprehensively evaluating and managing all types of risk connected with any organization. The risk appetite of a bank is used to evaluate whether risks should be accepted, reduced, or avoided [12].

#### *Statement of the Problem*

The continuous existence and survival of banks is central to the country's economic growth and development as banks through its financial intermediary roles serves as an engine of the nation's economy.

The financial performance of banks especially the listed deposit money banks is vital to both government, shareholders and other stakeholders as the consequence of its failure is usually unimaginable with its attendant negative consequences on the stakeholders as well as on the economy [13]. The country has witnessed reoccurring several incidences of collapse of banks since the first banking institution was established in Nigeria in 1894. Therefore, conscientious efforts must be made by the regulators and the management of these institutions to forestall bank's failure thereby enhancing the confidence of the banking public, resulting to economic growth.

Consequently, Deposit money banks face several risks in course of its operations. These risks ranges from liquidity, operational, market to credit risks. The inability of banks to effectively manage these risks often results to low net interest income and net profit margin respectively. Banks often deplore various risk management techniques in order to manage the aforementioned risks [31, 33]. The risk management strategies adopted will largely dependent on the banks' risk appetite, as well as the applicable regulation in its operating environment. Studies showed that while some institutions adopt traditional risk management approaches where risks are identified, assessed and mitigated in silos in areas of credit, operational and liquidity risks, others adopted integrated risk management strategies otherwise known as enterprise risk management (ERM) in addressing both traditional and emerging risks confronting the institution [40].

Meanwhile, despite all efforts by financial sector regulatory authorities in Nigeria and across the globe to curb the incidence for poor financial performance, that often results to collapse of banks, the issue of inconsistent financial performance remains unabated. The latest be the collapse of Silicon Valley Bank SVB in 2023 [8]. The resultant negative consequences on the economy in form of job losses, disruption of dividend payment and loss of investment as well as disruption of ongoing corporate social responsibility projects. Unfortunately, not serious attention has been paid efficient and effective implementation of enterprise risk management as against the traditional risk management approach. The

adoption of the old risk management methods by banks has not able to address emerging risks facing today's banking in Nigeria. This informed the CBN decision in 2010 directing banks to establish bank wide risk management framework, known as enterprise risk management system, as banks can no longer continue to management risks in silos [7].

Scholars have documented the relationship between risk management and firms'/banks' performance, which focuses mainly on traditional approach to risk management through credit risk, liquidity risk and operational risk proxies. The some of the above studies adopted primary data, while others used secondary sources of data [3, 6, 18, 31, 33, 34, 38].

Unlike the previous studies, this study centered on enterprise risk management and uses the combination of leadership control variables (BRMC, RMC, CRO) including market risk in addition to the traditional risk management measurement variables of Credit Risk, Operational Risk and Liquidity Risk respectively. Therefore, this study intends to bridge this gap, by examining the relationship between ERM and financial performance of DMBs in Nigeria, through an integrated and comprehensive approach (ERM) of identifying, assessing and managing risk, rather than the traditional silo approach.

#### *Hypotheses*

H<sub>01</sub>: Enterprise risk management does not have significant effect on net profit margin of deposit money banks in Nigeria.

H<sub>02</sub>: There is no significant effect between enterprise risk management and net interest income of deposit money banks in Nigeria.

## **2. Literature Review**

### **2.1. Conceptual Review**

#### **2.1.1. Financial Performance**

Bank performance refers to the institution's ability to achieve long-term profitability. Managers must consider complicated trade-offs between growth, return, and risk in order for a bank to be successful in its operations. The adoption of risk-adjusted measures, traditional, economic, and market-based performance measures are available as tools for measurement of banks' financial performance. Stern and Stewart, for example, developed a model called Economic Value Added (EVA) that considers the opportunity cost for stockholders to hold equity in a bank, determining whether a company generates an economic rate of return greater than the cost of invested capital in order to increase the company's market value [35]. Banks' financial success is represented in terms of profitability, and profitability is defined in a variety of ways [32]. There have been many empirical studies on bank financial performance across the globe, particularly on commercial banks, but relatively little on banks' financial performance in Nigeria using combination of variables as adopted in this study.

Profitability is an ability of a financial institution to generate an acceptable profit or return on its investments. Profitability in the banking industry is crucial in ascertaining its stability and

survivor of the sector [2]. Profitability may also be defined as the difference between costs and revenues over a specified period of time, usually a fiscal year. It is critical for banks to earn a substantial amount of revenue from its core revenue sources, which is interest income as it will pave the path for sustainable growth and expansion. The management of the bank is in the most difficult position since several elements are involved in the choice of its performance metrics [1]. Profit planning and management are increasingly complicated in today's highly competitive economic climate. Financial performance of banks was chosen as dependable variable this study, in view of its important role for survival of financial institutions especially the deposit money banks and the consequence of its failure on the economy. There are several indicators of bank's financial performance, but this research will focus on Net Profit Margin, and Net Interest income.

#### **2.1.2. Enterprise Risk Management**

The Committee of Sponsoring Organizations of the Treadway Commission (COSO) defines ERM as "a process, effected by an entity's board of directors, management, and other personnel, applied in strategic setting and across the company, designed to identify likelihood and consequences that may affect the entity, and mitigate risks to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives" [10]. Enterprise risk management is a systematic risk management method [24]. It necessitates that a corporation discover, assess, and evaluate significant important risks that may influence the organization's value. The organisation adopts an enterprise-wide strategy to controlling and reducing important risks based on the identified hazards. The enterprise-wide approach to risk management helps the organisation to fulfil its strategic goals. ERM's major qualities are integrated and holistic approaches in evaluation and assessment of risks including possible mitigants. Essentially, ERM manages an enterprise's risks by taking a comprehensive picture of all hazards inside the business and integrating the risks into the organization's goals [36]. In contrast, a traditional risk management (TRM) method employs a silo or isolation basis approach.

### **2.2. Theoretical Framework**

#### *Stakeholder's Theory*

The introduction of stakeholders' theory in 1970 by Freeman (1984) expanded the theory's scope to include a broader spectrum of stakeholders. The stakeholder theory posits and maintains that a corporation has a stewardship obligation toward a range of stakeholders other than shareholders, including consumers, suppliers, workers, the government, community, the environment, and future generations [15]. Therefore, stakeholder's theory highlights the relevance of integrated sustainability reporting in strengthening the relationship between a firm and the society in which it operates, and being insensitive to the interests of stakeholders may affect the firm's reputation, which would negatively affect operational and financial performance.

Its assumption goes on to say that there are seen as a system

that accommodates not just the interests of the owners, but also the interests of other groups within the environment in which the organization functions. This viewpoint contradicts agency theory's understanding of companies as a system of relationships between shareholders and management [22]. The theory argued that because organizations cannot operate and exist in isolation from their immediate surroundings, the interests of other stakeholders such as employees, customers, suppliers, government agencies, and local communities should be heavily weighted in the strategic decision-making process. As a result, businesses should consider not just the expectations of their shareholders, but also the expectations of other stakeholders.

According to the theory, firms should engage in sustainability practices and reporting in order to satisfy ethical and social commitments to stakeholders while also increasing shareholder value. The firm's capacity to manage its stakeholders will assure its long-term development and survival. The only way for stakeholders to learn about a company's performance is via its financial performance indicators. A firm's development and survival are dependent on its capacity to produce value for stakeholders, which cannot be done if stakeholders' requirements are disregarded [9,17]. In other words, a company will be able to survive provided its stakeholders' expectations are satisfied, which can be communicated to the stakeholders through banks financial performance indicators. This is in line with enterprise risk management principles, which its effective and efficient implementation by banks, will enhance sustainable financial performance of the institutions, thereby creating values for the various stakeholders.

### 2.3. Empirical Review

A study was conducted on the whether bank ownership mattered in the management of liquidity and the results revealed that ownership concentration has a significant and favourable influence on liquidity generation [27].

Also, investigated was bank's risk and performance in the MENA area, focusing on the significance of capital needs. This study explores the influence of different risk- and non-risk-based regulatory capital ratios on bank risks and performance in the Middle East and North Africa (MENA) area [26]. According to the findings, meeting Basel capital standards improves bank risk management while also increasing efficiency and profitability. Capital requirements have a greater influence on bank performance for too-big-to-fail banks, institutions in times of crisis, and banks in nations with solid governance. Endogeneity checks, alternative risk and performance metrics, principal component analysis, and other estimation approaches were used to validate the findings.

Furthermore, Performance, risk, and "busy" board of directors of bank holding companies were interrogated and the findings showed that board's activities impact banks' performance, while workload of directors had negative effect on the bank's risk matrix (market, credit, operational and liquidity risks) [14].

In a related development, the influence of systematic risk management on the profitability of selected Sri Lankan financial institutions from 2007 to 2011 was investigated, which revealed that systematic risk management has a positive relationship with financial profitability [28].

Consequently, the effect of net stable funding ratio requirement on banks' choice of debt maturity was evaluated which was tailored towards Brunner Meier and Oehmke model of 2013 on seniority of long-term and short-term creditors and found that it supports better credit risk management [41]. Literatures argued that making high profits by banks through charging of high interest rates on loan may disrupt the intermediary roles of banks [5]. This may be reasonable, while some banks focused mainly on high network individuals and large corporates, thereby excluding low income segment of the society their financial intermediary roles.

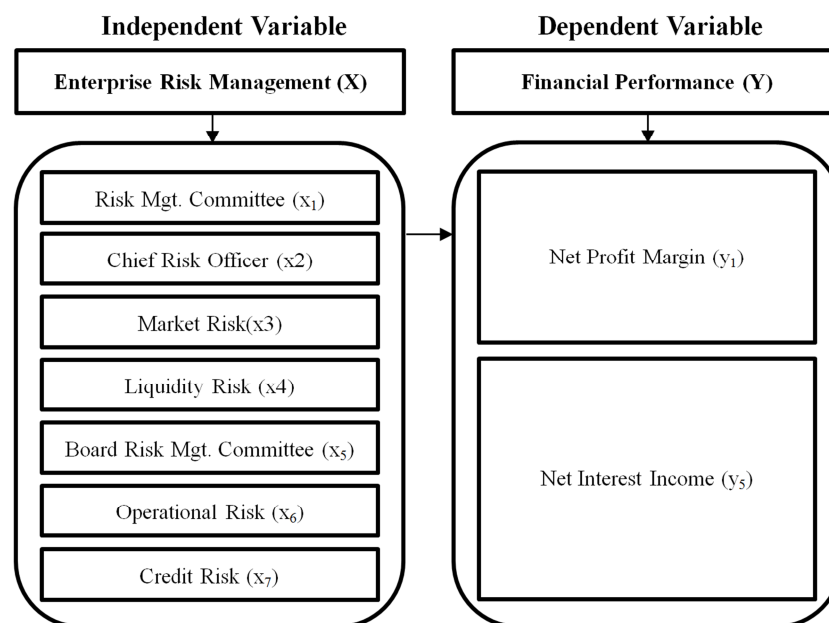


Figure 1. Researcher's Conceptual Model (2023).

### 3. Methodology

The paper adopted *ex-post facto* research design and content analysis. Total enumeration was employed from the population of the 12 listed deposit money banks from 2007 to 2021 in Nigerian Exchange group as at December 31, 2021. The population was selected in view of the Bank's strategic importance to the survival of Nigerian economy. Therefore, the performance of these institutions will have serious implication on the economy. The descriptive and inferential statistics were used in the study to measure the effect of enterprise risk management on financial performance of the list deposit money banks in Nigeria.

#### Model Specification

Model 1:

$$NPM_{it} = \alpha_0 + \beta_1 RMC_{it} + \beta_2 CRO_{it} + \beta_3 MR_{it} + \beta_4 OR_{it} + \beta_5 LR_{it} + \beta_6 BRMC_{it} + \beta_7 CR_{it} + \mu_{it}$$

Model 2:

$$NII_{it} = \alpha_0 + \beta_1 RMC_{it} + \beta_2 CRO_{it} + \beta_3 MR_{it} + \beta_4 OR_{it} + \beta_5 LR_{it} + \beta_6 BRMC_{it} + \beta_7 CR_{it} + \mu_{it}$$

Where:

$Y_1$  = Net Profit Margin (NPM)

$Y_2$  = Net Interest Income (NII)

$x_1$  = Risk Management Committee (RMC)

$x_2$  = Existence of Chief Risk Officer (CRO)

$x_3$  = Market risk (MR)

$x_4$  = Operational Risk (OR)

$x_5$  = Liquidity Risk (LR)

$x_6$  = Board Risk Management Committee (BRMC)

$x_7$  = Credit Risk (CR)

$\alpha_0$  is the intercept for the models

$\beta_1 - \beta_{10}$  is the coefficient of the explanatory variables

$\mu$  is the error term of the proxies

$i$  represents the Bank

$t$  represents the period of study

### 4. Results and Analysis

#### Descriptive statistics

Table 1. Descriptive Statistics.

Variable	Obs	Mean	SD	Min	Max
year	180	2014	4.33	2007	2021
NPM	180	19.022	37.415	-338.91	127.190
NII	180	17.904	1.006	15.280	19.620
RMC	180	0.822	0.383	0.000	1.000
CRO	180	0.883	0.321	0.000	1.000
MR	180	0.088	0.043	0.040	0.550
OR	180	63.604	21.969	21.190	175.100
LR	180	62.740	20.084	3.550	138.000
BRMC	180	0.966	0.180	0.000	1.000
CR	180	10.450	21.786	0.000	235.360

Source: Researchers Computation (2023)

#### Test of Hypotheses

#### 4.1. Regression Result of Model 1 - Random Effect GLS Regression

Table 2. Regression Analysis of model 1.

Dependent – NPM	Regression with Driscoll-Kraay standard errors			
	Coeff	SE	t-stat	Prob
CONSTANT	100.505	38.555	2.61	0.021
RMC	0.538	7.287	0.07	0.942
CRO	7.911	11.300	0.700	0.495
MR	-199.036	53.691	-3.710	0.002
OR	-0.627	0.362	-1.730	0.105
LR	-0.252	0.173	-1.460	0.168
BRMC	-14.227	15.730	-0.900	0.381
CR	-0.166	0.140	-1.190	0.255
AdjR2	0.1791			
F-Stat/Wald Stat	Chi2 (7) = 142.80 (0.000)			
Hausman Test	Chi2 (7) = 4.88 (0.6748)			
Testparm/LM Test	chibar2 (01) = 8.56 (0.0017)			
Heteroskedasticity Test	Chi2 (1) = 649 (0.000)			
Serial Correlation Test	F (1, 11) = 1.132 (0.3101)			
Cross sectional Dep	6.123 (0.000)			

Source: Researchers Computation (2023)

#### Interpretation of regression result

Model 1:

$$NPM_{it} = 100.505 + 0.538RMC_{it} + 7.911CRO_{it} - 199.036MR_{it} - 0.627OR_{it} - 0.252LR_{it} - 14.227BRMC_{it} - 0.166CR_{it} + \mu_{it}$$

Table 2 showed the regression output for model 1 that evaluated the effect of Enterprise Risk Management on Net Profit Margin of Deposit Money Banks in Nigeria. The result showed that only Risk Management Committee (RMC), and Chief Risk Officer (CRO) exerted positive effects on Net Profit Margin of Deposit Money Banks in Nigeria, this is indicated by their coefficients (0.538 =  $RMC_{it}$ , and 7.911 =  $CRO_{it}$ ) respectively. This result is consistent with the a priori expectation for the study as it was expected that Enterprise Risk Management proxied by Risk Management Committee (RMC), Existence of Chief Risk Officer (CRO), Board Risk Management Committee (BRMC), Market risk (MR), Operational Risk (OR), Liquidity Risk (LR) and Credit Risk (CR) should all exert a positive effect on Net Profit Margin of deposit money banks in Nigeria. However, Market Risk (MR), Operational Risk (OR), Liquidity Risk (LR), Credit risk (CR) and Board Risk Management Committee (BRMC) exerted a negative effect on net profit margin of deposit money banks in Nigeria which is not consistent with our a priori expectation, as the study expect all the proxies of enterprise risk management to exert a positive effect.

The result implies that having efficient and effective Risk Management Committee (RMC), with functional and independent Chief Risk Officer (CRO) can result to increase in Net Profit Margin of Deposit Money Banks in Nigeria while existence of Market Risk (MR), Operational Risk (OR), Liquidity Risk (LR), Credit Risk (CR) and Board Risk Management Committee (BRMC) may not bring any significant improvement in the net profit margin of deposit

money banks in Nigeria. The study also revealed that when proxies of Enterprise Risk Management is considered individually, does not have any significant effect on the net profit margin of banks judging by the probability values of each Coefficient t-statistics (Risk Management Committee (RMC) = 0.942, Existence of Chief Risk Officer (CRO) = 0.495, Board Risk Management Committee (BRMC) = 0.381, Operational Risk (OR) = 0.105, Liquidity Risk (LR) = 0.168, and Credit Risk (CR) = 0.255 except for Market Risk (MR) = 0.002 that exerted a significant effect on Net Profit Margin of Banks. This may be connected with the impact of movement in prices of fixed income portfolios and exchange rate movements.

The Adjusted R-square which measure the proportion of the changes in Net Profit Margin of deposit money banks Nigeria as the result of changes in Enterprise Risk Management stood at 0.1791%. This implies that about 18% changes in net profit margin of deposit money banks in Nigeria can be explained by changes in Enterprise Risk Management while the remaining 82% were attributable to other factors not captured in the model.

Furthermore, the result revealed that at 5% level of significance, the F-statistic was 142.80, while the P-value of the statistics is 0.000 which is lower than the adopted level of significance for the study. Consequently, the study failed to accept the null hypothesis which state that Enterprise Risk Management has no significant effect on net profit margin of deposit money banks and accepted the alternative implying that Enterprise Risk Management has significant effect on net profit margin of deposit money banks.

#### 4.2. Regression Result of Model 2 - Fixed-Effects Regression

Table 3. Regression Analysis of Model 2.

Dependent – NII	Regression with Driscoll-Kraay standard errors			
	Coeff	SE	t-stat	Prob
CONSTANT	16.713	0.432	38.660	0.000
RMC	0.119	0.120	0.990	0.338
CRO	0.242	0.181	1.330	0.204
MR	-0.187	1.969	-0.100	0.926
OR	-0.007	0.002	-3.050	0.009
LR	0.003	0.003	0.840	0.417
BRMC	1.230	0.304	4.050	0.001
CR	-0.004	0.001	-3.020	0.009
AdjR <sup>2</sup>	0.3702			
F-Stat/Wald Stat	Chi2 (7) = 142.80 (0.000)			
Hausman Test	Chi2 (7) = 61.43 (0.000)			
Testparm/LM Test	chibar2 (01) = 27.07 (0.000)			
Heteroskedasticity Test	Chi2 (1) = 393 (0.000)			
Serial Correlation Test	F (1, 11) = 73.238 (0.000)			
Cross sectional Dep	-2.169 (0.031)			

Source: Researchers Computation (2023)

##### Interpretation of Regression Result

Model 2:

$$NII_{it} = 16.713 + 0.119RMC_{it} + 0.242CRO_{it} - 0.187MR_{it} - 0.007OR_{it} + 0.003LR_{it} + 1.230BRMC_{it} - 0.004CR_{it} + \mu_{it}$$

Table 3 showed the regression output for model 2 that evaluated the effect of Enterprise Risk Management on Net Interest Income of deposit money banks in Nigeria. The result showed that Risk Management Committee (RMC), Chief Risk Officer (CRO), Liquidity Risk (LR), and Board Risk Management Committee (BRMC) exerted positive effects on Net Interest Income of deposit money banks in Nigeria. This is indicated by their coefficients ( $0.119 = RMC_{it}$ ,  $0.242 = CRO_{it}$ ,  $0.003 = LR_{it}$ , and  $1.230 = BRMC_{it}$ ) respectively. This result is consistent with the a priori expectation for the study as it was expected that Enterprise Risk Management proxied by Risk Management Committee (RMC), Existence of Chief Risk Officer (CRO), Board Risk Management Committee (BRMC), Market Risk (MR), Operational Risk (OR), Liquidity Risk (LR) and Credit Risk (CR) should all exert a positive effect on Net Interest Income of deposit money banks in Nigeria. However, Market Risk (MR), Operational Risk (OR), and Credit risk (CR) exerted a negative effect on net interest income of deposit money banks in Nigeria which is not consistent with our a priori expectation, as the study expect all the proxies of enterprise risk management to exert a positive effect.

The result implies that having a functional and effective Risk Management Committee (RMC), Board Risk Management Committee (BRMC) and Chief Risk Officer (CRO) with a robust Liquidity Risk (LR) policies, can lead to increase in Net Interest Income of Deposit Money Banks in Nigeria while the existence of weak Market Risk (MR), Operational Risk (OR), and Credit Risk (CR) policies may not bring any significant improvement in the net profit margin of banks in Nigeria. The results also revealed that all the Enterprise Risk Management proxies, when considered individually does not have any significant effect on the net profit margin of banks in Nigeria judging by their probability values of each Coefficient t-statistics (Risk Management Committee (RMC) = 0.338, Existence of Chief Risk Officer (CRO) = 0.204, Liquidity Risk (LR) = 0.417 and Market Risk (MR) = 0.926 with the exception of Board Risk Management Committee (BRMC) = 0.001, Operational Risk (OR) = 0.009, and Credit Risk (CR) = 0.009 that exerted a significant effect on Net Interest Income of Banks.

The Adjusted R-square which measure the proportion of the changes in Net Profit Margin of deposit money banks Nigeria as the result of changes in Enterprise Risk Management stood at 37.02%. This implies that about 37% changes in net interest income of deposit money banks in Nigeria can be explained by changes in Enterprise Risk Management while the remaining 63% were attributable other factors not included in the model.

The result revealed that at a level of significance 0.05, the F-statistic was 142.80, while the P-value of the statistics is 0.000 which is lower than the adopted level of significance for the study. Consequently, the study failed to accept the null hypothesis, which state that Enterprise Risk Management has no significant effect on net interest income of deposit money banks and accepted the alternative implying that the adoption of Enterprise Risk Management has significant effect on net interest income of banks.

## 5. Conclusion and Recommendations

The study concluded that enterprise risk management has a significant effect on the financial performance of selected deposit money banks in Nigeria. It was recommended that the regulators in the financial services sector in Nigeria –Central Bank of Nigeria (CBN), Nigerian Deposit Insurance Corporations (NDIC), and Securities and Exchange Commission (SEC) should re-emphasize the need for effective adoption of enterprise risk management practices by financial institutions as its effective implementation will promote appropriate risk culture, enhance regulatory compliance as well as improve the financial performance of the affected institutions, thereby creating a sustainable value for the stakeholders.

In addition, management and board of various banks should implement robust enterprise risk management frameworks with special focus on combination of leadership control variables and the traditional risk management strategies as its effective implementation will enhance the overall financial performance of banks.

## 6. Contribution to Future Research

The study contributed in the following areas:

**Theory:** This study has laid credence to the theoretical framework that has been adopted as it relates to the study and its variables which is stakeholders' theory.

**Concept:** The various concepts discussed in this study has enhanced the understanding of the conceptual framework of enterprise risk management and its applications on firms.

**Policy:** The research contributed to the central bank of Nigeria's regulations and policies on capital adequacy monitoring and in development of a comprehensive enterprise risk management framework that promotes appropriate risk culture among financial institutions in Nigeria. The study will further assist management of various entities especially financial institutions on implementation of effective ERM in their respective institutions, with a view of enhancing banks' financial performance through promotion of risk culture operating environment.

**Investors:** This research has helped investors and shareholders make better judgments by advising them on crucial characteristics to consider while conducting investment proposals in financial institutions.

**Academia:** This research has helped academics understand how enterprise risk management influences financial performance in Nigerian deposit money banks. The results will be utilized as a source of literature in the library and will add to the body of knowledge in this field.

**Empirics:** The research has added to the current literature on the performance of certain banks, as they continue to deteriorate despite many reforms implemented by Nigeria's central bank. This research will assist the government in developing necessary skills and putting in place sufficient institutions to supervise and monitor the financial sector's exceptional performance and safety. It will let academics create further studies comparing enterprise risk and performance across

various banks, adding to the current body of knowledge.

**Accounting Practice:** The study helped in establishing the relationship that exist between the two variables of study to have significant impact on the accounting profession.

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