



RESEARCH PAPER

Moderating Role of Risk Management Committee on Risk and Financial Performance of Listed Deposit Money Banks in Nigeria

¹Titus Wuyah Yunana*, ²Yusuf Junior Gwamna and ³Hannah Kashi Aroyewun

1. Lecturer, Department of Economics, Nigeria Police Academy, Wudil - Kano
2. M.Sc. Student, Department of Accounting, Kaduna State University, Kaduna, Nigeria
3. Staff, First Bank Nigeria Plc. Kaduna, Kaduna State Nigeria

*Corresponding Author: titusyunana@polac.edu.ng

ABSTRACT

The study examined the moderating role of risk management committee on risk and financial performance of listed deposit money banks (DMBs) in Nigeria for the period of ten years from 2011-2020. The study adopted the correlation research design and a sample of 13 out of a population of 14 listed DMBs listed on the floor of the Nigerian Stock Exchange as at 31st December, 2020 was used for the study. Secondary data of the sampled banks was extracted from the annual audited financial reports of the sampled banks. The data was analyzed using the multiple regression technique where in the unmoderated relationship, the generalized least square (GLS) model revealed that credit risk, capital adequacy risk and risk management committee have a significant relationship with financial performance while liquidity risk and interest risk shows an insignificant relationship with financial performance of DMBs. On the other hand, the heteroskedastic panels corrected standards errors (PCSEs) regression result revealed that the moderating effect of risk management committee has significant impact on capital adequacy risk and liquidity risk, while an insignificant relationship was found between credit risk and interest risk and financial performance of DMBs in Nigeria. For both models, the study concluded that there is significant relationship between the risk and financial performance of listed DMBs in Nigeria. Based on the findings, the study recommended thus: listed DMBs in Nigeria should do more in their monitoring ability to keep in check its credit level to avoid being out of operations as a result of high non-performing loans or illiquidity.

KEYWORDS Capital Adequacy, Credit Risk, DMBs, Financial Performance, Liquidity, Risk

Introduction

Financial performance of companies globally serves a pillar for every nation's economic and financial system, hence, its stability and the underlying economic performance of firms is vital and paramount to the economic development of a nation (Mehomood, Hunjra & Chani, 2019). There is a usually high agitation from the stakeholders of banks that includes depositors, investors, shareholders and policy makers, on the financial performance of the deposit money banks (DMBs) because of the risk that is associated with not getting adequate returns on their investment. The lengthy history of corporate failure proven that the poor banks financial performance is linked to banks risks with worrisome impact that has led to steady losses in banks' investment, credibility and confidence of stakeholders in the ability of banks handling of deposit's funds and credit risk. Banks faced many of these risks due to their dynamic structure and the complex nature of the business activities in which they are into. These risks faced by banks can be classified into credit risk, liquidity risk, market risk, operational risk and legal risk. Each of these risks may lead to negative impact on banks financial performance, market value, liabilities and equity.

Therefore, credit risk is one of the most important risks face by banks. The impact of credit risk on financial performance has been a topic of interest to many scholars since credit risk has been identified as one of the major factors known to impact the financial performance of banks (Isanzu, 2017). Li and Zou (2014) also asserted that credit risk is one of the significant risks that banks face, considering that granting credit is one of the main business activities perform by DMBs. However, it was reported that the non-performing loans of the Big Five banks: Zenith bank, United bank for Africa, Access Bank, First bank of Nigeria and Guaranty Trust bank rose by 5.3%, (Premium Times, 2021) an indication of how borrowers are unable to fulfill repayment obligation. In the same vein, the non-performing loans of the Big five banks in Nigeria within 2021 revealed a rise from 6.1% in 2020 to 6.3% in 2021 (Vanguard, 2021).

The goal of any business unit is to achieve the highest level of efficiency and effectiveness, which is called financial performance. Profit maximization has always been the primary goal of every business firm, and it is the yardstick for measuring their financial performance (Ogungbade, 2021). Given the intermediation role that DMBs played in the economy, means a large financial risk is involved as a result of sourcing from surplus sector and lending to deficit sector of the economy. There is the fear that these risks may negatively or positively affect their financial performance. Consequently, the Central Bank of Nigeria (CBN) in its First Quarter Economic Report provided evidence of a declining trend in the financial performance of the DMBs (Vanguard, 2021). The trend presented a general perception about credit repayment in banks, where the Monetary Policy Committee (MPC) among others, extended the moratorium on loans by an additional 1 year to ease pressure on loan repayments, reduces interest rates from 9.0 percent to 5.0 percent on its existing intervention programs a result of the impact of COVID-19 on borrowers (individuals and enterprises), to ease loan repayment by these borrowers which is capable of reducing the financial performance of the banks. Additionally, over the same period, banks liquidity also decreased to 65.1 percent at the end of the first half of 2020, form 73.0 percent at the end of June 2019, reflecting the decrease in the stock of liquidity assets held by the banks. Borrowing increased by N170.25 billion at end-June 2020, compared with N153.40 billion at end-December 2019 (CBN, 2020) which also constitute a serious risk to banks. The main objective of this study is to investigate the moderating role of risk management committee on the relationship between risk and financial performance of listed deposit money banks in Nigeria.

Literature Review

Conceptual Issues

Concept of Financial Performance

Hidayat, Malik, Siregar and Munawaroh (2021) defined financial performance as an analysis carried out to see the extent to which a company has properly implemented its financial rules properly. According to Waweru and Kalani (2019) the main financial measures are; the return on assets (ROA), return on equity (ROE) and Tobin's Q among others.

Concept of Credit Risk

Rao and Suresh (2021) define credit risk as the probability that a bank borrower may default on a debt by failing to make required payment in as per the agreed terms and the lender may loss the principal of the loan or the interest. Rafique, et al. (2020) describe credit risk as a counter party or default risk on loans/advances by the banks which is very critical for the banks' financial performance as it is dependent upon the

advances-base of the banks which if the advances are not collected properly it can degenerate to a genuine danger to the operations of banks.

Concept of Interest Risk

Hastalona (2020) defined interest rate risk as the risk of bank losses caused by the difference/gap in interest rates. Interest rate risk is one of the models used to detect in general bank sensitivity to interest rate movement. This ratio shows the risk that measures the amount of interest received by the bank to the interest paid.

Empirical Review

Afolabi (2021) examined the effect of credit risk management on the financial performance of microfinance banks in South – west Nigeria. The population of the study consisted of 180 microfinance banks. Data was sourced through responses to a research questionnaire. Multiple regression was used for data analysis and the finding revealed a significant but negative relationship between non-performing loans and financial performance. The study concluded that there is significant relationship between credit risk and financial performance of the microfinance banks.

Waitherero, Muchina and Machara (2021) examined the interaction between liquidity risk and firm's value of firms in Kenya. A sample size comprising 115 respondents was selected using the stratified random sampling techniques. The data was extracted from the annual financial reports of the firms. The inferential analysis of the data revealed a statistical significant effect between liquidity and firm value of the firms.

Ahamed (2021) studied the determinants of liquidity risk of Bangladesh commercial banks. The study was conducted using 23 banks as sample size of the study with data from 2005-2018, and a panel data was use to conduct the regression analysis. The result of the analysis revealed that liquidity and assets size shared a negative relationship. Return on equity and capital adequacy ratio shared a positive insignificant relationship with each other.

Safitri, Rahmati, Jayadi and Affandi (2021) assessed the role of liquidity and capital adequacy risk on the financial performance of Islamic banks in Indonesia. Data were collected from a sample of 14 banks in the period 2013-2019. The data was analyzed using the structural equation model. The result indicates that liquidity was significant with performance while capital adequacy was insignificantly related to financial performance of Indonesian banks.

Nguyen (2020) explored the impact of capital adequacy on bank profitability of commercial banks in Vietnam. 22 commercial banks formed the population of the study and data for the period 2010-2018 was extracted through secondary means of data collection. The findings revealed that capital adequacy, net interest margin and non-interest income are positively related with the profitability of the banks while non-performing loans shows a negative influence over profitability.

Theoretical Review

Uncertainty Theory

The uncertainty theory was developed by Berger and Calabress (1975). Uncertainty theory lies at the crossroads between uncertain sets, probability and non-monotonic reasoning. The theory can be cast either in an ordinal financial reporting in a numerical setting. Theory of uncertainty is applied in the study and analysis of risks,

ranking alternatives, decision making and even in investment among other interesting applications. Financial risk and every other risk are interlinked with uncertainties. Financial performance of the deposit money banks hangs on the balance of insolvency and uncertainties and this could create unstable environment for present and potential investors and customers of banks in Nigeria. Consequently, this theory is considered appropriate and suitable for this study.

Material and Methods

For this study, a positivism research philosophy was adopted. According to the principles of positivism, it depends on quantifiable observations that lead themselves to statistical analysis (Kothari, 2004). A correlational research design was adopted for this research. This design is chosen because it provides how two or more variables are related to one another, what they share or have in common, while at the same time, predicting a particular outcome based on certain information provided (Salkind, 2012). The population of the study consists of the fourteen (14) listed deposit money banks on the floor of the Nigerian Stock Exchange (NSE) as at 31st December, 2020. However, JAIZ Bank Plc. was not selected as it does not have the data required to measure one of the study’s variable, interest risk because of the nature of the bank’s operation which is an interest-free banking. The study used secondary data extracted from the audited financial reports of the sampled banks listed on the NSE for the periods of ten (10) years (2011-2020). The data was extracted based on the parameters of the variables and the respective ratios taken from the sampled banks. The study employed a multiple regression technique of analysis to analyze the collected data and to establish the relationship between the dependent variable and the independent variables. Multiple regression is considered appropriate in view of the fact that it helps in not only establishing relationship between variables but also shows the effect and cause between the variables. To make better the validity of all statistical inferences drawn from the study, the study conducted a diagnostic test that includes multicollinearity test, heteroskedasticity test and hausman test. Table 1 below presents the summary of how the individual variables (dependent and independent) were measured in the study.

Table 1
Variable Measurement and Sources

Variables	Measurement	Source
Return on Assets (ROA)	Earnings Before Interest and Taxes (EBIT) / Total Assets	Iyinomen et al. (2019)
Credit Risk (CR)	Non-Performing Loans / Total Loans and Advances	Hosna et al. (2009) and Tam (2020)
Capital Adequacy Risk (CAR)	Equity / Total Assets	Akomeah et al. (2020)
Liquidity Risk (LQR)	Total Loans and Advances / Total Deposits	Kathini and Ochere (2020)
Interest Risk (INTR)	Interest Income / Total Loans and Advances	Hastalona (2020)

The model designed for the study given below present both the direct and the indirect relationship thus:

$$ROA_{it} = \beta_0 + \beta_1 CR_{it} + \beta_2 CAR_{it} + \beta_3 LQR_{it} + \beta_4 INTR_{it} + \beta_5 RMC_{it} + \epsilon_{it} \dots\dots\dots (1)$$

$$ROA_{it} = \beta_0 + \beta_1 CR_{it} + \beta_2 CAR_{it} + \beta_3 LQR_{it} + \beta_4 INTR_{it} + \beta_5 RMC_{it} + \beta_6 CR \times RMC_{it} + \beta_7 CAR_{it} \times RMC_{it} + \beta_8 LQR_{it} \times RMC_{it} + \beta_9 INTR_{it} \times RMC_{it} + \epsilon_{it} \dots\dots\dots (2)$$

Where:

ROA	= Return on Assets
CR	= Credit Risk
CAR	= Capital Adequacy Risk
LQR	= Liquidity Risk
INTR	= Interest Risk
RMC	= Risk Management Committee
β_0	= Constant Term
$\beta_1 - \beta_4$	= Coefficients of Independent Variables
ε	= Error Term
i	= Firms (Bank)
t	= Period (2011-2020)

Result and Discussions**Correlation Matrix**

Table 2 below presents the correlation matrix result of the study where the degree of association between the dependent variable and the independent variables is determining as well as the association the independent variables among themselves.

Table 2
Correlation Matrix

	ROA	CR	CAR	LQR	INTR	RMC
ROA	1.0000					
CR	-0.3469*	1.0000				
	0.0001					
CAR	0.5319*	-0.0237	1.0000			
	0.0000	0.5514				
LQR	0.3288*	-0.2259*	0.4306*	1.0000		
	0.0001	0.0097	0.0000			
INTR	-0.4095*	0.2173*	-0.6240*	-0.1404	1.0000	
	0.0000	0.0130	0.0000	0.1110		
RMC	0.2257*	0.2304*	-0.0224	-0.2419*	-0.0095	1.0000
	0.0000	0.0084	0.8002	0.0056	0.9149	

(< ± 0.29 = Weak Correlation, $\leq \pm 0.49$ = Moderate Correlation, $\leq \pm 0.99$ = Strong Correlation, ± 1 = Perfect Correlation, $\leq \pm 0$ = No Correlation)

It can be observed from table 2 that a moderate negative association exists between return on assets and credit risk of the listed DMBs in Nigeria evident by the coefficient value of -0.3469. This signifies that credit risk is significantly correlated with financial performance of the banks for the period under review. However, a strong positive and significant correlation exists between capital adequacy risk and financial performance of the listed banks in Nigeria. The coefficient value and the p-value of capital adequacy is 0.5319 and 0.0000 respectively. More so, the analysis revealed a moderate positive and significant correlation between liquidity risk and financial performance at 1% level of significance. The table revealed a coefficient value of 0.3288 and a p-value of 0.0001 for liquidity risk. Furthermore, the coefficient value of -0.4095 indicates that interest risk is moderately and negatively significant with return on assets of the banks in Nigeria. However, the relationship between risk management committee return on assets of the banks is weak and negatively significant for the period under review. On the interaction of the moderating variable, risk management committee with the independent variables, the relationships of the variables with return on assets is

moderate except for the interaction with liquidity risk which shows a very weak correlation with coefficient value of 0.1227. Similarly, on the significances levels shown, all the independent variable except liquidity risk again revealed significant effect with return on assets at different level of relationship. The liquidity risk variable shows an insignificant effect on return on assets of the banks for the period with a p-value of 0.1476.

Diagnostic Test

Table 3
Diagnostic Test Result

Variables	Un-Moderated		Moderated
	VIF	Tolerance	
CR	1.19	0.837535	-
CAR	2.15	0.464899	-
LQR	1.44	0.695955	-
INTR	1.86	0.540264	-
RMC	1.11	0.901040	-
Mean VIF	1.55	-	-
Hettest Chi²	-	11.90	12.15
Hettest Sig	-	0.0006	0.0005
Hausman	-	0.5079	0.0000
Autocorrelation	-	-	0.0003
Lagr. M. Test	-	0.0000	-

Multicollinearity test is administered to determine whether or not there is correlation among the independent variables which can distort the findings of the study. The tolerance values and also the variance inflation factor (VIF) are competent measures of assessing the presence or not of multicollinearity. The test as indicated by the VIF in table 3 shows that there is absence of extreme association as all the tolerance values are smaller than 1.0 and all the factors are below 10. The VIF mean was 1.55. The test for heteroskedasticity was also administered in order to assess whether or not the variability of error terms is constant. The findings as indicated in table 4 above revealed an existence of heteroskedasticity both for the moderated and un-moderated models revealing a 1% significant probabilities of 0.0005 and 0.0006 respectively. This implies that the original ordinary least square (OLS) is not suitable for the study which leads this study to conduct a Prais-Winsten regression of heteroskedastic panel corrected standard errors (PCSE) that correct for the existence of the heteroskedasticity in the moderated model as further confirmed by 1% significant p-value result (0.0000) of the Hausman test that support the choice of the fixed effect model as the appropriate model over the random effect model. However, the insignificant p-value of 0.5079 suggests that the random effect model is suitable for the un-moderated model. This is so because the significant p-value (0.0000) of the Langrangian Multiplier (LM) test suggests that the generalized least square (GLS) model is appropriate for the study and hereby applied.

Regression Analysis

Table 4
Moderated and Un-Moderated Regression Results

Variables	Un-Moderated			Moderated			Hypothesis
	Coefficients	Z-Values	P-Values	Coefficients	Z-Values	P-Values	
CR	-0.5900	-3.67	0.000	-	-	-	Reject
CAR	0.0399	4.75	0.000	-	-	-	Reject
LQR	0.0027	0.26	0.792	-	-	-	Accept

INTR	-0.0353	-0.60	0.547	-	-	-	Accept
RMC	-0.0017	-2.08	0.038	-	-	-	Reject
(Constant)	0.0275	2.79	0.005	-	-	-	Reject
CR	-	-	-	-0.0915	-0.10	0.921	Accept
CAR	-	-	-	0.3766	3.36	0.001	Reject
LQR	-	-	-	-0.1078	-2.82	0.005	Reject
INTR	-	-	-	0.5216	1.96	0.050	Reject
RMC	-	-	-	-0.0013	-0.41	0.678	Accept
CRRMC	-	-	-	-0.0507	-0.44	0.663	Accept
CARRMC	-	-	-	-0.0423	-2.96	0.003	Reject
LQRMCMC	-	-	-	0.0134	2.68	0.007	Reject
INTRMC	-	-	-	-0.0529	-1.61	0.108	Accept
(Constant)	-	-	-	0.0211	0.84	0.400	Accept
R²	-	-	0.4074	-	-	0.5108	-
Wald Chi²	-	-	89.38	-	-	98.15	-
Prob. Chi²	-	-	0.0000	-	-	0.0000	-

In table 4 above, it was reported that the estimates from the regression analysis that was first carried out by regressing the direct relationship with return on assets on the independent variables shows a Wald-Chi² value of 89.38 and p-value of 0.0000 indicating that the model is statistically significant and fitted. Additionally, the R-square (R²) of the direct relationship model is 0.4074 implying that about 40.74% of the risk variables jointly explained the variations in return on assets of the listed DMBs in Nigeria while, the remaining 59.26% are explain by other variables not captured in the model. On the other hand, when the result of regression analysis carried out by regressing return on assets on risk variables moderated by risk management committee (RMC) as presented in table 4 above, the Wald-Chi² shows a coefficient value of 98.15 and a p-value of 0.0000 which suggests that the model is again statistically significant and fitted. Again, the R² of the regression model is 0.5108 indicating that 51.08% of the variations in financial performance of the banks are jointly explained by risk variables as moderated by RMC. Comparing the R-square of the Un-moderated Model to R-square of the Moderated Model, it is clear that the R-square in the Moderated Model has improved. In other words, Moderated Model has more explanation power than the Un-moderated Model.

Discussion

The estimated parameters of credit risk as indicates in table 5 is negative but statistically significant with financial performance of listed deposit money banks in Nigeria as indicated by a coefficient of -0.5900 and a p-value of 0.0000 which is significant at 1% level of significance. Table 5 shows a positive coefficient vale of 0.0399 and p-value of 0.0000 which is significance at 1% level between capital adequacy risk and financial performance. On the contrary, the relationship between liquidity risk and financial performance of the listed DMBs in Nigeria shows a positive but statistical insignificant association as indicated by a beta coefficient value of 0.0027 and p-value Of 0.792. The result also shows that the amount of interest received by the bank to the interest paid has a negative insignificant influence on financial performance of the listed DMBs in Nigeria. Risk management committee, the analysis reveals a negative beta coefficient of -0.0017 and a statistically significant p-value of 0.037 which is at 5% level of significance. Credit risk and financial performance have a significant negative association which can be deduced from a p-value of 0.0000. Capital adequacy risk and financial performance before the interaction of the moderator has a p-value 0.0000 which is statistically significant at 1% level of significance and a beta coefficient value of 0.0399. Liquidity risk and financial performance have a statistical insignificant positive relationship; this is inferred from a p-value of 0.792 and a coefficient of 0.0027. Finally, interest risk and

financial performance before the interaction of the moderator has a p-value of 0.547 which is insignificant and a coefficient value of -0.0353.

Conclusion

The study examines for dimension of risk with and without the interaction of risk management committee on the financial performance of listed deposit money banks in Nigeria. The study concludes that credit risk is an important variable in explaining the financial performance of banks as observed by a significant negative relationship between credit risk and financial performance of the listed deposit money banks in Nigeria and an insignificant impact when the moderator was introduced.

Recommendations

The study therefore recommends that bank managers should adopt policy that ensures debtors figures does not increase at a high rate than total capital as this increases credit risk, banks should increase the increase or maintain an adequate amount of capital since capital adequacy risk was noted to have a positive and significant effect of financial performance of the banks. The bank managers should be aware of liquidity of their banks so as to help to enhance investment portfolio hence providing competitive edge in the market. Manager should also ensure that banks invest excess cash in productive assets to ensure that they do not hold excess cash at the expense of fixed assets that can improve profitability. Banks should also regularly gauge their capacity to raise funds quickly from every source to maintain maximum level of liquidity. DMBs in Nigeria should focus on forecasting the macroeconomics factors that determine fluctuations in interest rather than focusing on interest rate itself, this will enable the DMBs to protect profitable venture.

References

- Afolabi, T. S. (2021). *Credit risk management and the performance of selected rural banks in Southwest Nigeria*. (Doctorate Thesis, Federal University of Technology, Akure, Nigeria)
- Ahamed, F. (2021). Determinants of liquidity risk in the commercial banks in Bangladesh. *European Journal of Business Management Research*, 6(1), 164-169.
- Hastalona, D. (2020). Analysis of corporate social responsibility and ratio of banks health on banking financial performance. *International Journal of Research and Review*, 7(6), 96-105.
- Hidayat, T., Malik, A., Siregar, D. A. & Munawarohi, (2021). The effect of liquidity, net interest margin and good corporate governance risk on Sharia banking financial performance in Indonesia. *European Journal of Economic and Financial Research*, 4(4), 189-196.
- Isanzu, J. S. (2017). The impact of credit risk on financial performance of Chinese banks. *Journal of International Business research and Marketing*, 2(3), 14-17.
- Kathini, K. A. & Ochere, O. G. (2020). Effect of credit risk on shareholders wealth of listed commercial banks in Kenya. *European Scientific Journal*, 16(22), 205-216.
- Li, F. & Zou, Y. (2014). The impact of credit risk management on profitability of commercial banks: A study of Europe.
- Mehmood, R., Hunjra, A. I. & Chani, M. I. (2019). The impact of corporate diversification and financial structure on firm performance: Evidence from South Asian Countries. *Journal of Risk and Financial Management*, 1-17.
- Nguyen, T. H. (2020). Impact of bank capital adequacy on bank profitability under Basel II Accord: Evidence from Vietnam. *Journal of Economic Development*, 45(1), 31-46.
- Rafique, A., Quddoos, M. U., Akhtar, M. H. & Karm, A. (2020). Impact of financial risk on financial performance of banks in Pakistan: the mediating role of capital adequacy ratio. *Journal of Accounting and Finance in Emerging Economies*, 6(2), 607-613.
- Rao, V. S. & Suresh, V. (2021). Impact of credit risk on the profitability of state banks in India. *International Journal of Techno-Engineering*, 13(3), 306-312.
- Rop, E. C. & Jagongo, A. (2021). Liquidity risk management and financial performance of state owned enterprises in Kenya. *International Journal of Finance and Accounting*, 6(2), 12-28.
- Safitri, J., Rahmati, A., Jayadi, J. & Affandi, M. A. (2021). Do liquidity and capital adequacy ratio matter for Islamic banks performance in Indonesia? An analysis using financing risk as mediator. *Jurnal Ekonomi dan Keuangan Islam*, 10(1), 138-154.
- Vanguard (May 3rd, 2021). Banks are still sound but...CBN
- Waithrero, K. F., Muchina, S. & Macharia, S. (2021). Role of liquidity risk in augmenting firm value. Lessons from savings and credit cooperatives in Kenya. *International Journal of Financial Accounting and Management*, 2(4), 295-304.
- Waweru, N. M. & Kalani, V. M. (2009). Commercial banking crisis in Kenya: Causes and remedies. *Global Journal of Finance and Banking Issues*, 4(4), 12-29.