
OPERATIONAL RISK AND PERFORMANCE OF LISTED DEPOSIT MONEY BANKS IN NIGERIA: MODERATING EFFECT OF RISK MANAGEMENT COMMITTEE STRUCTURE

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ABSTRACT

The study examined the moderating effect of risk management committee structure on the relationship between operational risk and performance of listed deposit money banks in Nigeria using panel data obtained from the annual financial statements of 16 listed deposit money banks in Nigeria from 2018-2022. An ex-post facto research design was used. Generalized Least Squares (GLS) method of Panel Regression, Fixed and Random Effects was employed in its estimations with the aid of STATA Software Version 14. Performance was proxied by Return on Assets (ROA), operational risk was proxied by cost income ratio (CIR) while the moderating variable, risk management committee structure was proxied by risk management committee size, risk management committee composition and risk management committee meetings and bank size is the control variable. The study found that operational risk has significant negative effect on performance of listed DMBs while risk management committee structure (RMCS, RMCC and RMCM) moderate the effect of operational risk on performance of listed DMBs in Nigeria. The thus study recommends that boards and managements of deposit money banks in Nigeria should on annual basis, estimate likelihood of operational loss event occurring and its potential effect on banks' performance and institute effective internal reporting practices that are in line with the scope of operational risk defined by Nigeria banking industry while considering risk management committee structure in order to mitigate negative effect of operational risk on banks performance.

Keywords: Deposit money banks, operational risk, performance, risk management committee structure

INTRODUCTION

The banking sector is critical to the development and growth of an economy because it facilitate businesses and ensure prudent allocation of idle funds. Financial institutions, including banks, control a large portion of the world's economy (Mendoza & Rivera, 2017). However, to survive market competition and complexities, financial ordeals and constraints, Financial institutions are prone to taking risks they rarely understand (Enofe et al., 2015). These risks, if not properly managed, have the potential to negatively affect their performance and, in extreme cases, lead to failure (Aruwa & Musa, 2014). Nonetheless, when well-managed, these risks are critical to survival and success of financial organizations (Khan & Ahmed, 2001).

Operational risk is one of the risks banks face, and which often result in loss owing to inadequate or failed internal processes and external threats (Owojori et al., 2011). Frauds and forgeries by bank employees and

external threats to systems and databases are common operational risks. It is crucial banks take proper measures to mitigate these risks (Gadzo et al., 2019; Samuel & Samuel, 2018, Muriithi, 2017).

Despite the Central Bank of Nigeria's (CBN) crackdown on fraudulent bank executives in 2010, cases of fraud in the banking sector are on the rise in Nigeria. Between 2014 and 2017, the banking industry lost N12.30 billion to various frauds (Okogba, 2018). In 2014, there were 1,461 fraud cases, 10,743 in 2015, 19,531 in 2016, and 25,043 in 2017. In fraud cases pertaining to mobile and payment-related frauds, the industry lost N6.22 billion in 2014, N2.26 billion in 2015, and N2.19 billion in 2016 (Okogba, 2018).

According to reports, there was a 28 per cent increase in 2017 compared to 2016, but with less financial loss. However, Automated Teller Machine (ATM) fraud was the most prevalent in 2017, accounting for a total loss of N497.64 million and a fraud volume of 9,823 (Okogba, 2018). Oputah (2019) reported that cases of bank fraud and forgery increased to 25,029 at the end of December 2018 from 20,774 at the end of June 2018, with the total amount involved falling to N18.94 billion from N19.77 billion in the same period.

The CBN sanctioned four Nigerian DMBs (Standard Chartered bank, Stanbic IBTC bank, Citibank, and Diamond bank) between 2007 and 2015 for various forgeries in foreign exchange transactions. They are required to refund N5.87 billion to the CBN as a result of these violations (Nelson, 2018). According to Nelson (2018), the investigations specifically revealed that Standard Chartered Bank repatriated \$3.45 billion on the basis of illegally issued Certificates of Capital Importation (CCIs). Between 2007 and 2015, Stanbic IBTC Nigeria, Citibank Nigeria, and Diamond Bank Plc repatriated \$2.63 billion, \$1.76 billion, and \$348.9 million, respectively.

In addition, in 2018 the Nigerian banking industry lost N15.15 billion due to cybercrime and forgeries and this was 539 per cent more than the N2.37 billion recorded in 2017 (Adesoji, 2019). However, despite the enormous amount of money lost as a result of poor or ineffective operational risk management practices and policies of DMBs in Nigeria and series of intervention, regulatory guidelines and others from the Basel committee on banking supervision and the CBN, operational risk has continued to be a source of major threat to DMBs in Nigeria.

Previous studies on the effect of operational risk on financial performance of banks were mixed. Olalere et al. (2018), Muriithi and Waweru (2017), Al-Tamimi et al. (2015), and Maytham (2013), Kamau (2010) found that operational risk has significant negative effect on financial performance of banks while Epetimehim and Obafemi (2015), Fadun and Oye (2013) reported a significant positive relationship between operational risk and performance of banks.

Also most prior studies on operational risk and banks performance have focused on the direct relationship, and have not considered the moderating effect of other variables. As a result, it is worthwhile to investigate what has been overlooked by previous studies in order to gain new insights on operational risk beyond the narrow perspective.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Operational risk and Performance of Banks

Operational risk is the risk that arises from the implementation of a company's business activities. It is a broad term that considers risks an organization face as a result of employees, structures, and processes (Goodhart, 2001). Cristina et al. (2008) see operational risk as the risk of direct income loss resulting from internal events such as insufficient personnel, structures and processes, errors, or unlawful actions as a result of the errors; or external events where the losses are not protected by credit, market, or interest rate risk.

However, studies on operational risk and bank performance report mixed results. AL-kiyumi et al. (2021), Gadzo et al. (2019), Simamora and Oswari (2019), Ebenezer et al. (2018), Alsyahrin et al. (2018), Muriithi and Waweru (2017), Muriithi (2016), Al-Tamimi et al. (2015), Maytham (2013), Nair and Fissaha (2010), Kamau (2010) and Chen et al. (2009) found that operational risk has significant negative effect on bank performance while studies by Fadun and Oye (2020), Ali et al. (2018), Ng'aari (2016), Lyambiko (2015), Epetimehim and Obafemi (2015), Bekele (2015) found that operational risk has significant positive effect on bank performance. Ali and Oudat (2020) reported no relationship between operational risk and bank performance. In view of these inconsistencies, the following null hypothesis is formulated:

Ho₁: Operational risk has no significant effect on performance of listed deposit money banks in Nigeria

Risk Management Committee Structure as Moderator

Ng et al. (2012), Karatzias (2011), and Pathan (2009) highlighted the efficacy of risk management committee structure (RMCS) on firms' performance. However, prior research on effect of RMCS on firms' performance is scant. This is consistent with Ng et al. (2012)'s claim that studies on risk management committee are few and inconclusive. In terms of risk management committee size, agency theory proposes that a larger board committee size will hinder CEO's domination of the board because directors will be in a more upright position to exercise their powers and rights in governing the firm, thereby improving the firm's performance (Zahra & Pearce, 1989).

Furthermore, the higher the number of board members on risk management committee, the more likely it is to find directors with requisite skills to coordinate and participate in risk management sub-committees. The percentage of executive (inside) and non-executive (outside) directors on a company's board is referred to as RMC composition (Akbar, 2015). According to Fama and Jensen (1983), boards with significant outside directors would successfully perform their duties and make better decisions than boards dominated by inside directors. Non-executive director involvement on the board also boosts board independence, objectivity, and expertise (Jones & Goldberg, 1982).

According to agency theory, a board dominated by a large number of nonexecutive directors is in a better position to act in the best interests of shareholders and improve firm performance through effective management oversight functions (Hermalin & Weisbach, 1988; Jones & Goldberg, 1982). The board of directors meet on behalf of the firm to address issues from the company's past, present, and future, and resolutions are passed during board meetings (Kakanda et al., 2017). So, the more frequently a board meets, the more likely it is to achieve greater results (Lipton & Lorsch, 1992). Also, the higher the number of risk management committee meetings, the better a firm's performance.

Despite the scarcity of empirical studies on impact of risk management committee meetings on firm performance, the few that have been conducted have yielded inconsistent results. According to Aebi et al. (2012), frequency of risk committee meetings has significant positive effect on performance of banks in the United States. Pantamee (2014) discovered that risk management committee meetings have significant positive effect on corporate social responsibility disclosure in Nigeria's petroleum marketing sector. Contrarily, Ng et al. (2012) found that the frequency of risk management committee meetings has no significant relationship with risk taking. In view of these, the following null hypotheses are formulated:

Ho₂: There is no significant moderating effect of RMC size on the relationship between operational risk and performance of listed deposit money banks in Nigeria.

Ho₃: There is no significant moderating effect of RMC composition on the relationship between operational risk and performance of listed deposit money banks in Nigeria.

Ho₄: There is no significant moderating effect of RMC meetings on the relationship between operational risk and performance of listed deposit money banks in Nigeria.

METHODOLOGY

Ex post facto research design was used. The population of the study is the 16 listed DMBs on the floor of Nigerian stock exchange as at 31st December, 2022. Also, a census of listed deposit money banks in Nigeria was taken in order to generate sufficient number of observations that will facilitate the conduct of data analysis. The study extracted panel data from the financial statements of all the 16 listed DMBs in Nigeria that have the required data available for the period 2018–2022. The choice of this period is based on the fact that the Nigerian banking industry lost billions of Naira due to cybercrime and forgeries in this period. The variables of the study comprise the dependent, independent, moderating and control variables. The definition and measurements of the study variables are presented in Table 1 below:

Table 1: Measurement of Variables

	Variable Name	Symbol	Measurement	Source
Dependent Variable	Return on Assets	ROA	Ratio of net income to total assets	Ghardallou (2022), Mishra (2020), Kaur (2014), Saibaba and Ansari (2013), Khan (2012)
Independent Variable	Cost Income Ratio	CIR	Ratio of operating Cost to operating income	Fadun, and Oye (2020) Hassan et al. (2015)
Moderating Variables	Risk Management Committee Size	RMCS	The number of directors serving on the RMC.	Pantamee (2014),Michelon and Parbonetti (2012),SEC (2011).
	Risk Management Committee Composition	RMCC	The number of non-executive directors serving on the risk management committee	Pantamee (2014), Tao and Hutchinson (2013), SEC (2011).
	Risk Management Committee Meetings	RMCM	The number of meetings held by RMC during a financial period	Pantamee (2014), Aebi et al. (2012), Alhaji (2011), SEC (2011)
Control Variable	Bank Size	BAS	Natural logarithm of total assets	Mishra (2020), Ying & Mei (2014),

Source: Researcher Computation 2023

In order to examine the moderating effect of risk management structure on the relationship between operational risk and performance of listed deposit money banks in Nigeria, the following original regression model is specified as follows:

$$Y_{it} = \alpha + \alpha_1 X_{it} + \alpha_2 Z_{it} + \alpha_3 X_{it} * Z_{it} + \epsilon_{it} \text{-----} (1)$$

Where the dependent variable is denoted by Y_{it} of bank i at time t , α is the constant, the coefficients of the independent variable and the moderating variables are denoted by α_1 and α_2 for bank i at time t while α_3 is the coefficient of the interaction effect between X and Z which measures the moderation effect and ϵ_{it} is the disturbance or error term.

From the above general form of the regression equation, the following models are specified as:

$$ROA_{it} = \alpha_0 + \alpha_1 CIR_{it} + \alpha_2 RMCS_{it} + \alpha_3 RMCC_{it} + \alpha_4 RMCM_{it} + \alpha_5 BAS_{it} + \epsilon_{it} \text{-----} (2)$$

The hierarchical regression analysis technique will be used to test the moderation effect of the risk management structure as moderator which will be presented in the function of the model. When the moderator is introduced into the regression model, the hierarchical regression models are as follows:

The moderating effect of risk management committee size on the relationship between operational risk and performance of listed DMBs in Nigeria:

$$ROA_{it} = \alpha_0 + \alpha_1 CIR_{it} + \alpha_2 RMCS_{it} + \alpha_3 CIR * RMCS_{it} + \alpha_4 BAS_{it} + \epsilon_{it} \text{-----} (3)$$

The moderating effect of risk management committee composition on the relationship between operational risk and performance of listed DMBs in Nigeria:

$$ROA_{it} = \alpha_0 + \alpha_1CIR_{it} + \alpha_2RMCC_{it} + \alpha_3CIR*RMCC_{it} + \alpha_4BAS_{it} + \epsilon_{it} \dots\dots\dots (4)$$

The moderating effect of risk management committee meetings on the relationship between operational risk and performance of listed DMBs in Nigeria:

$$ROA_{it} = \alpha_0 + \alpha_1CIR_{it} + \alpha_2RMCM_{it} + \alpha_3CIR*RMCM_{it} + \alpha_4BAS_{it} + \epsilon_{it} \dots\dots\dots (5)$$

Where:

ROA denotes return on assets, CIR denotes cost income ratio; RMCS denotes risk management committee size; RMCC denotes risk management committee composition; RMCM denotes risk management committee meetings; and BAS denotes Bank Size, α_0 represents the fixed intercept element; α_{1-5} represents the ratio of change in DV to a unit change in each explanatory variable and moderating variable; and ϵ_{it} is the error term that is factored to satisfy the linear regression model assumption.

RESULTS AND DISCUSSIONS

Table 2: Summary of Descriptive Statistics of Sampled firms

Variable	Obs.	Mean	Std. Dev.	Min.	Max.
ROA	80	0.381	0.224	0.253	0.462
CIR	80	0.223	0.218	0.314	0.521
RMCS	80	6.247	1.245	4.014	14.226
RMCC	80	0.481	0.241	0.352	0.726
RMCM	80	3.142	2.241	2.412	6.318
BAS	80	3.824	1.532	0.375	7.341

Note: ROA = Return on Assets, CIR= Cost Income Ratio, RMCS = Risk Management Committee Size; RMCC= Risk Management Committee Composition, RMCM = Risk Management Committee Meetings; BAS = Bank Size
 Source: STATA Output 2023

Table 2 shows a total of 80 observations per variable. The descriptive statistics show mean value of 0.381 for ROA while 0.253 and 0.462 are the corresponding minimum and maximum values for the variable. However, the standard deviation from the mean ROA is 0.22%, which is considered a reasonably large standard deviation given the modest mean value. However, the mean value of 0.381 for ROA shows that 38% of profits of the sample listed DMBs was generated from the banks’ assets. This shows that the management of these banks are using their available resources judiciously in generating returns.

The mean value of CIR is 0.223 with a minimum and maximum of 0.314 and 0.521 respectively, and a standard deviation of 0.218. The high standard deviation of the CIR relative to its mean indicates a great variation in management’s ability in managing expenses for the listed DMBs. Also, from Table 2, the risk management committee size shows an average value of 6.24, with a minimum and maximum of 4.01 and 14.22 respectively, and a standard deviation of 1.24. The Nigerian Code of Corporate Governance 2011 encourages companies on the establishment of risk management committee but does not stipulate the exact size the committee should be. However, the size of the committee is based on the size and requirements of the bank.

Table 2 shows that the mean value of risk management committee composition is 0.48, a minimum score of 0.35, with a maximum value of 0.72, and a standard deviation of 0.24. However, the risk management committee of banks in Nigeria comprises both executive and non-executive directors. The result shows that non-executive directors on the committee comprises an average of 48%, a minimum of 35%, and a maximum of 72%. Regarding risk management committee meeting, the result in Table 2 shows that it has

an average value of 3.1, a minimum and maximum score of 2.4 and 6.3 respectively, with a standard deviation value of 2.2. This means that the committee meets averagely 3 times per annum, while some of the banks in the sample meet only twice in the study period. However, the maximum time that the risk management committee of listed DMBs in Nigeria meets is 6 times per annum. Although, the NCCG 2011 does not specifically state the number of meetings required to be held by the committee. Finally, considering control variable, result in Table 2 shows that the Bank size has a mean value of N3.8 trillion with the minimum and maximum values of N0.37 trillion and N7.3 trillion respectively. The standard deviation is N1.5 trillion indicating that the assets of the listed DMBs varied widely.

Table 3: Pearson Correlation Matrix of Research Variables

	ROA	CIR	RMCS	RMCC	RMCM	BAS	VIF	Tolerance
ROA	1.000							
CIR	-0.423	1.000					2.64	0.47
RMCS	0.352	0.541	1.000				1.71	0.58
RMCC	0.384	0.017	0.318	1.000			2.14	0.61
RMCM	0.334	0.214	0.244	0.176	1.000		3.17	0.45
BAS	0.281	0.085	0.022	0.357	0.161	1.000	1.58	0.63
Mean VIF							2.07	

Source: STATA Output 2023

A correlation coefficient between two independent variables above ± 0.8 is deemed as excessive and may indicate the existence of multicollinearity (Gujarati & Porter, 2009). However, from Table 3, the performance variable (ROA) is significant and negatively associated with cost income ratio (CIR) ($r = -0.423$). Also, performance variable (ROA) is significant and positively associated with the RMCS ($r = 0.352$), RMCC ($r = 0.384$) and RMCM ($r = 0.334$). The highest explanatory variables correlation is ($r = 0.541$) for RMCS and CIR. The performance variable (ROA) is also correlated with BAS ($r = 0.281$), a control variable.

However, from the correlation matrix in Table 3, all the correlation coefficients between the pairs of the independent variables are less than ± 0.8 suggesting absent of multicollinearity, as recommended by Gujarati and Porter (2009). Also, Table 3 shows that the VIF values range from 1.58 – 3.17 with a mean VIF of 2.07. Menard (1995) indicates that a tolerance value < 0.20 is cause for concern and a tolerance value < 0.10 reflects severe collinearity. Therefore, there is no multicollinearity issues among the variables. In order to ensure the robustness of the regression results and satisfy the assumptions of linear regression model, the following diagnostic tests were conducted. They are Normality Test, Multicollinearity Test, Heteroscedasticity Test, and Model Specification.

Table 4: Normality Test

Variables	Obs.	W	V	Z	Prob>z
resid	80	0.75421	10.284	4.428	0.00000

Source: STATA Output 2023

The Shapiro Wilk test was used to determine data normality and the result from Table 4 shows that the Prob>z for all the variables were found to be less than 0.05 (significant). Consequently, the null hypothesis (study data are normally distributed) was rejected. However, when working with financial data, it is practically impossible to use normally distributed data because the distribution is unsystematically randomly distributed within and between banks (Wooldridge, 2013).

Table 5: Diagnostic Tests Results for ROA Model

Test	_hat	_hatsq	chi2(1)	Prob>chi2
Model Specification Test	0.01**	0.61		
Heteroscedasticity Test			31.47	0.024
Hausman Specification Test			21.15	0.000

Source: STATA Output, 2023. **Note:** ***, ** denotes 1% and 5% level of significance.

The link test was used to perform the model specification test. The link test is based on the assumption that if a regression is properly specified, the inclusion of an additional independent variable should not be significant, except by chance. From Table 5, the **_hat** value, which is the model's predicted value, is significant, as expected for ROA. Similarly, the **_hatsq** value for ROA (0.61) model is insignificant, indicating that the model is correctly specified. Heteroscedasticity occurs when the variance of the error terms is not constant (Brooks, 2008).

However, the Breusch-Pagan/Cook-Weisberg test was used check for heteroskedasticity. The result of the test reveal chi2 value of 31.47 which is significant for ROA model. This indicated that homoscedasticity assumption was violated in the dataset. Since the pooled panel result violated the assumption of homoscedasticity, as verified by the Breusch-Pagan test, which returned chi2 value of 31.47 for ROA, which is significant at 5%, we re-ran a pooled panel regression using the Robust Standard Error (RSE) as recommended by Gujarati and Porter (2009) to correct the problem of heteroskedasticity.

Also, both fixed effects (FE) and random effects (RE) tests were run using the Generalized Least Squares (GLS) method. The result revealed a significant difference between FE and RE, allowing the Hausman specification test to be used to determine which model was superior. However, in Table 5, the Hausman test revealed a chi² statistics of 21.15 which is significant at 5% for ROA model. Therefore, at the 5% level of significance, the null hypothesis that the regressors and individual heterogeneity are strictly exogenous is rejected. Therefore, the FE model is favoured over the RE model and the fixed effect model should be interpreted.

Table 6: Fixed Effects Regression Results for all the Models

	Direct Relationship		Indirect Relationship	
	Coef.	t-value	Coef.	t-value
CIR	-.247***	-1.42	-.284***	- 5.21
RMCS	.344**	2.35	.321**	3.04
RMCC	.201***	1.67	.214***	2.53
RMCM	.112***	1.36	.289***	4.64
CIR*RMCS			.318**	0.81
CIR*RMCC			.286**	1.91
CIR*RMCM			.354***	0.11
BAS	.306***	0.52	.232**	.1.17
CONS	5.324	3.578	6.682	6.451
R-Squared: Within	0.5514		0.5942	
Between	0.4427		0.4635	
Overall	0.4175		0.4026	
F- statistics (model)	12.14***		15.33***	

Source: STATA Output 2023

Table 6 shows that the F-statistic produces statistically significant value of 15.33 at 1 per cent level of significance. This supports the model's overall significance. The overall R-square is 0.402, meaning that

the variables considered in the model explain about 40.2 percent change performance, while the remaining 59.8 per cent could be due to other variables not included in the model.

The result of direct effect models in Table 6 present a significant negative coefficient ($\beta = -0.247$; $p < 0.01$) of cost income ratio (CIR), a proxy for operational risk. This means that holding other factors constant, a percentage increase in cost income ratio (CIR) decreases profitability of listed DMBs by 24.7% measured by ROA. This shows that fraud cases have grown dramatically in Nigeria's listed DMBs, prompting the banks to incur the most significant losses resulting in decrease in profitability.

These findings are consistent with those of Olalere et al. (2018), Alsyahrin et al. (2018), Muriithi and Waweru (2017), Al-Tamimi et al. (2015), Maytham (2013), Kamau (2010) who found significant negative effect of CIR on banks profitability while it contradicts the reports of Siminyu et al. (2016) Epetimehim and Obafemi (2015) and Fadun and Oye (2013) who found a significant positive effect of CIR on banks profitability. Also, results from Table 6 present positive and statistically significant coefficients ($\beta = 0.344$; $p < 0.05$), ($\beta = 0.201$; $p < 0.01$), ($\beta = 0.112$; $p < 0.01$) of risk management committee structure variables, Risk Management Committee Size (RMCS); Risk Management Committee Composition (RMCC), and Risk Management Committee Meetings (RMCM).

Looking at the moderating effect when risk management committee size (RMCS) was introduced, it is found that RMCS not only has significant positive direct effect on DMBs performance, it also moderates the relationship between operational risk and listed DMBs performance. Therefore, the results in Table 6 reveal a significant positive effect of the interaction between risk management committee size (RMCS) and operational risk. The coefficient of the interaction is ($\beta = 0.318$; $p < 0.05$). Therefore, we reject H_{02} . This means that when the proportion of members on risk management committee increases, the effect of operational risk on listed DMBs performance will be positive. This result may be attributed to the fact that, the larger the number of members on risk management committee, the greater the opportunity to find members with the requisite skills, knowledge and ideas to coordinate and be involved in effective risk management.

With regard to risk management committee composition (RMCC), it also moderates the relationship between operational risk and listed DMBs performance. Therefore, the results in Table 6 reveal a significant positive effect of the interaction between risk management committee composition (RMCC) and operational risk. The coefficient of the interaction is ($\beta = 0.286$; $p < 0.05$). Therefore, we reject H_{03} . This implies that when risk management committee has a larger number of non-executive (outside) directors, the effect of operational risk on listed DMBs performance will be positive. This may be due to the fact that boards with significant outside directors will effectively perform their duty and have better decisions than a board that is dominated by inside directors.

Finally, risk management committee meetings (RMCM) moderates the relationship between operational risk and listed DMBs performance. From Table 6, the result reveals a significant positive effect of the interaction between risk management committee meetings (RMCM) and operational risk proxied by cost income ratio (CIR). The coefficient of the interaction is ($\beta = 0.354$; $p < 0.01$). Therefore, we reject H_{04} . This means that as risk management committee meetings increase, the effect of operational risk on listed DMBs performance will be positive. This may be due to the fact that the frequency of RMC meetings shows the extent of the committee commitment in performing their predetermined functions and in solving risk-related issues. With regard to the control variable, bank size (BAS), it has significant positive association with performance of listed DMBs. It has significant positive coefficient ($\beta = 0.306$; $p < 0.01$). The results support the theory that larger banks may incur lower costs for efficient information gathering, processing, and analysis due to economies of scale.

CONCLUSION AND RECOMMENDATIONS

The study examined the moderating effect of risk management committee structure on the relationship between operational risk and performance of listed DMBs in Nigeria. The study found that operational risk measured by cost income ratio (CIR) has significant negative effect on performance of listed DMBs while the moderator, risk management committee components (RMCS, RMCC and RMCN) have significant positive effect on performance and they also moderate the effect of operational risk on performance of listed DMBs in Nigeria.

Therefore, the study recommends that the Boards and Managements of these banks should on annual basis estimate the likelihood of an operational loss event occurring and its potential effect on banks performance and put in place effective internal reporting practices that are in line with the scope of operational risk defined by Nigeria banking industry while considering the risk management committee structure in order to mitigate the negative effect of operational risk on banks performance.

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