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Moderating Effect of Systematic Risk on the Relationship between Financial Risk and Financial Performance of Deposit Money Banks in Nigeria

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ABSTRACT

This study examined the relationship between financial risk factors (credit risk and operational risk) and financial performance in selected deposit money banks (DMBs) in Nigeria, with a focus on the moderating effect of systematic risk. The study population consisted of all DMBs listed on the Nigerian Stock Exchange. Data was collected from their annual reports and accounts for the period of 2012 to 2021. Partial Least Square Structural Equation Modeling (PLS-SEM) was used to analyse the data and assess the cause-and-effect relationships among variables. The findings revealed that credit risk had a significant negative effect on financial performance. Operational risk was also found to have a significant negative effect on financial performance. Additionally, systematic risk was found to have a significant negative effect on financial performance. Systematic risk was found to significantly moderate the relationship between credit risk and financial performance. However, systematic risk was not found to significantly moderate the relationship between operational risk and financial performance, suggesting that the impact of operational risk remained consistent regardless of market conditions. The study concluded that credit risk, operational risk, and systematic risk all played significant roles in the financial performance of DMBs in Nigeria. Based on these findings, recommendations were provided to strengthen credit risk management, improve operational risk management, enhance systematic risk monitoring and mitigation, and conduct further research to deepen the understanding of risk-performance dynamics in the banking sector. This study contributed to the literature on risk management and financial performance in the Nigerian banking industry and offered practical implications for DMBs to enhance their risk management practices and achieve better financial performance.

1.0 INTRODUCTION

Financial system is the engine room of economic growth for developing countries because of its contribution to overall growth in their economies. Hence, a good financial institution provides a safe linkage between surplus economic units and deficit economic units. Consequently, economies around the world organise their financial activities on certain parameters that are in consonance with their individual nations' needs or based on certain opportunities or threats which they are confronted with, and most likely due to the financial systems internal strengths or weaknesses (Idris, 2017).

Banking is one of the major segments of the financial system of an economy. Banks as important members of financial markets play a significant role in financial stability and economic development (Kapaya, 2019). Moreover, bank's financial performance is simply its ability to generate sustainable profits. Banks protect the profitability against unexpected losses, as it strengthens its capital position and improves future profitability through the investment of retained earnings. A bank that persistently makes a loss will ultimately deplete its capital base, which in turn puts equity and debt holders at risk and that endangers the economy as a whole. Profitability is an important indicator of the banks' financial performance (Fidanoski, et al., 2018). However, profitability is a complicated issue because higher profitability may raise concerns about the potential abuse of market power and risk- taking behaviours of banks' managers (Sarpong-Kumankoma, et al., 2018).

Recently due to the adverse effect of Covid-19 on the overall economic activities in Nigeria, the 2021 first quarterly review by CBN shows unsound fundamentals hinted by some downside risks (Credit risk, operational risk and forex risk) and weak links in the banking industry. Similarly, The Vanguard Business analyst stated that the financial performance of the leading banks in Nigeria indicated a significant drop in revenue and profitability on industry- wide scale (*Vanguard*, 2021). To the extent that due to the drop in revenue and profitability of most banks in Nigeria, the Monetary Policy Committee (MPC) of the CBN could not give a total clean bill of health but has given a near-clean bill of health to the industry, thereby pointing to some red flags in the first quarter of 2021 such as deteriorating NPL ratio, excess liquidity putting pressure on forex, and moderate declines in both return on equity and asset of bank in Nigeria (CBN, 2021).

Therefore, the focus of most banks across the globe today has been on risk management (Saunders & Cornett, 2006). Financial Risk management is that set of financial activities that maximise the performance of a bank by reducing costs associated with the cash flow volatility. Thus, it is those activities that could result to possible loss of funds by business (Oyerogba et al., 2016). Every business decision (individual or corporate) and entrepreneurial act is connected with risk, therefore, the listed deposit money banks in Nigeria today operate in a volatile environment faced with a large number of risks such as credit risk, liquidity risk, interest risk and operational risk, among others. The manager's behaviour toward risk (risk appetite and risk aversion) and monitoring attributes can affect the choice of risk management activities.

Good risk management is highly relevant in providing better returns to shareholders (Okere, et al.,2018). It has long been agreed by many finance experts that risk and return are directly correlated to each other, which means that increasing one will subsequently increase the other and vice versa (Oluwafemi, et al., 2014). Basel Committee on Banking Supervision (2015) noted that a robust risk management framework can help banks to reduce their exposure to risks and enhance their ability to compete in the market. Today, banks financial risk management is one of the most important key functions in banking operations as banks are in the risk business.

The fact that listed deposit money banks in Nigeria are currently facing economic challenges of decline in profitability, increase in nonperforming loans (CBN, 2019), increase in inflation, fluctuations in both foreign exchange and interest rate (Ironkwe & Osaat, 2019), decrease in deposit from government agencies because of the introduction of Treasury Single Account (TSA) in 2015 and also the lack of effective monitoring attribute from the board on the banks as seen in the activities of first bank Nig Plc which lead to the sacking of the bank board and instituting a new interim board by CBN. Consequently, these challenges can increase the level of risk associated with the banking business in Nigeria, thereby affecting their profitability negatively. Therefore, it is on these notes that the study investigates the moderating role of systematic risk on the relationship between financial risk and financial performance of deposit money banks in Nigeria.

The study is divided into four sections: literature review, data and methodology, results and, conclusion and recommendations.

2.0 LITERATURE REVIEW

2.1 Conceptual Literature

Systematic Risk

Systematic risk that can be referred to as market risk, and also called general risk, is the risk associated with changes that occur in the market as a whole (Sari & Hidayat, 2020; Rofiqoh & Mukaffi, 2021). It is the change in the rate of return on all assets in the market caused by an overall change in the market rate of return. It is defined as undiversifiable risk or market risk affecting the overall market and this type of risk is both unpredictable and impossible to completely avoid (Çakmak & Gözen, 2020). In other words, systematic risk is risks not exclusive for a certain company but relates to the general business environment.

Financial Risk

Financial risk refers to direct losses in the form of a monetary loss after risk was taken. Such risks include operational risk, legal risk, credit risk, liquidity risk, and market risk. Financial risk results from uncertainties associated with defaults on loans advanced, volatility of interest rates, liquidity management and changes in foreign exchange rates. Decisions involving financial institution activities, therefore, have an element of risk, which has effect on the overall performance and value of a firm (Schonborn, 2010). Rejda

(2011) classified financial risks into two; outward financial risks, which depend on changes in financial markets and internal financial risks resulting from within the firm. According to Sadgrove (2016), financial risk is sub-classified into six, with credit, liquidity and operational risks dominating finance literature. We shall be adopting the definition of Sadgrove (2016) as our definition of financial risk.

Financial Performance

Financial performance measures can be defined as the monetary consequences of business operations (Effiong & Ejabu, 2020). Financial performance is key in banks as it shows a bank's ability to generate income, maintain stability as well as generate profit. Profit-making is among the major objectives of banks. Various financial ratios are used to measure financial performance. These include working capital analysis, financial structure analysis, activity analysis and profitability analysis. The study adopts the profitability analysis with proxies Return on Assets (ROA) calculated as profit divided by total assets and return on Capital Employed (RoCE) calculated as earnings before interest and tax divided by capital employed as measures of financial performance.

2.2 Theoretical Literature

This study is underpinned by Modern Portfolio Theory (MPT). This theory developed by Harry Markowitz, is focused on the principles of risk and diversification. It provides a framework for understanding how different assets, including financial instruments held by deposit money banks, can be combined to create portfolios that aim to maximise returns for a given level of risk (Francis & Kim, 2013). In current study, we are analysing the interaction between different forms of risk (financial risk and systematic risk) and their impact on financial performance. MPT's emphasis on risk, diversification, and portfolio construction aligns well with this research. MPT is inherently concerned with the management of risk in investment portfolios. As this study investigates the moderating effect of systematic risk, the present study essentially examines how banks can manage and optimise their risk exposure while aiming to improve financial performance. MPT's insights into risk-return trade-offs and portfolio optimisation are directly applicable to this study's research objectives (Francis & Kim, 2013). MPT has been widely used in the financial industry, including by banks and other financial institutions, for managing investment portfolios and understanding risk (Surtee & Alagidede, 2022). The current study focuses on deposit money banks, making MPT a relevant theoretical framework given its extensive application in financial settings.

2.3 Empirical Literature

Karimi et al.'s, (2022) study analysed the moderating effect of bank size on the relationship between financial soundness and financial performance of commercial banks in Kenya. The study employed data from 39 commercial banks for ten years from 2009 to 2018. Panel data regression model was used to analyse the data. The study results established a negative moderating effect of bank size on the relationship between

commercial banks' financial soundness and net interest margin (NIM) and return on assets (ROA) with the results indicating a correlation coefficient of −0.1699 and −0.218, respectively. However, an absence of moderating effect was established when return on equity (ROE) was used as a measure of financial performance. While it does not directly relate to current study on deposit money banks in Nigeria, it provides insight into how external factors (bank size in this case) can moderate financial performance relationships. It highlights the importance of considering external factors in this current study.

Ogundipe et al., (2022) examined Moderating Effect of Contraventions on Regulatory Requirements and Performance of Deposit Money Banks in Nigeria. This study adopted an ex post facto research design. Validated data used for the study was extracted from audited financial statements of ten (10) DMBs and made use of pooled and panel regression across the ten (10) deposit money banks in Nigeria to analyse the data. Findings revealed that the ρ-value of F-statistics of 0.00, is significant because it is less than the chosen significance level of 5%, and the value of adjusted R-squared of 0.2018 explains the power of the explanatory variables. This implied that contraventions have a moderating effect on the relationship between Regulatory requirements and Performance (Perf) of selected deposit money banks in Nigeria. It is pertinent to current study because it explores how regulatory factors can moderate the relationship between compliance and performance. It underscores the significance of external regulatory influences in financial performance, similar to the current study focus on systematic risk.

Oloruntobi's (2022) study aimed at investigating the moderating effect of capital adequacy on financial performance on Deposit Money Banks in Nigeria from 2012 to 2019. The listed DMBs are 15 as at 31st December, 2019, out of which 12 banks were selected based on the availability of data. The study adopts Correlational and expost facto Designs and data were analysed with the aid of multiple regression technique using 96 firm-year paneled observations. The study reveals that liquidity and loan loss provision are positive and have significant impact on the capital adequacy of listed deposit money banks at 1% and 1% level of significance respectively. The study also found out that return on asset and firm size has no significant impact on the capital adequacy of listed deposit money banks. The study delves into the impact of capital adequacy on bank performance, which is a relevant external factor for current study. This study highlights the significance of capital-related metrics as potential moderators.

Isedu, & Erhabor's (2021) study empirically investigated the effects of financial risks on the performance of deposit money banks in Nigeria. More specifically, changes in financial performance were examined on the basis of the relative effect of credit risk, liquidity risk, market risk, operational risk and bank size. The study specifically focused on 18 deposit money banks listed on the floor of the Nigerian Stock Market for a period of 19 years. Both statistical and econometric techniques were applied in the analysis of the data used in the study. The findings of this study revealed that the combined effects of financial risks do not influence banks' performance negatively. The effect of market risk, interest rate risk and Operational risk did not in any way affect bank performance

significantly in Nigeria. This research explores the effects of various financial risks on the performance of deposit money banks in Nigeria. It provides a comprehensive overview of how different types of financial risk, including credit risk and operational risk, influence bank performance. This study is closely related to current study, while it does not address systematic risk explicitly, it sets the stage for understanding how financial risk factors influence performance.

Abubakar et al., (2020) investigated the effect of financial risk on the financial performance, using panel data from the annual reports and financial statements of 8 listed deposit money banks in Nigeria over a 10-year period from 2010 to 2019. The study was conducted using ex-post factor and longitudinal research designs. Results indicate that credit risk proxy by capital adequacy ratio (CAR) and market risk measured by net interest margin (NIM) have significant and positive effects on the financial performance; while operational risk gauged by cost-to-income ratio (CIR) did not have any significant effect on the ROE as an indicator of the financial performance. The study concludes that listed deposit money banks (DMBs) in Nigeria are highly capitalised to withstand the danger posed by risk weighted assets. The study offers insights into how specific financial risks, such as credit risk and market risk, affect financial performance. Although it does not address systematic risk, it contributes to the broader understanding of financial risk's impact on performance.

Olaoye et al (2020) examined the effect of financial risks on performance of Deposit Money Banks DMBs) using the identified explanatory variables of financial risks, viz: Credit risks, Insolvency risks, Liquidity risks and Market risks covering a period of 12 years (2007- 2018). The methodology of the study made use of ex-post facto research design. The study findings showed that Credit Risk was negative and statistically significant to deposit money banks' performance. The result also shows that Liquidity Risk is inversely and insignificantly related to banks' profitability .and Insolvency Risk (INSRK) have negative signs that are statistically insignificant to banks profitability. This research focuses on the effect of financial risks, including credit risk, insolvency risk, liquidity risk, and market risk, on the performance of deposit money banks. It aligns with current study's emphasis on financial risk factors and their influence on performance. The study's findings on credit risk and liquidity risk are particularly relevant to this current study.

Iyinomen et al.'s, (2019) study sought to ascertain the relationship between Financial Risk and Performance of Deposit Money Banks (DMBs) listed on Stock Exchange of two selected West African countries using a sample of twenty (20) Deposit Money Banks (DMBs). They covered 10 years period spanning from 2009 to 2018. Ex-Post Facto research design was employed while secondary data were collected and subjected to multiple regression and correlation analysis in order to achieve the study objectives. The result revealed that Liquidity risk has negative and significant effect on performance of banks in both Ghana and Nigeria using ROA model which was statistically significant at 1% level of significance; while using ROE, the negative effect of credit risk

on banks performance was found to be statistically insignificant. This study explores the relationship between financial risk and the performance of deposit money banks in West African countries. While it does not directly address systematic risk, it provides valuable insights into the impact of financial risk on performance in a regional context. It highlights the differing effects on performance depending on the specific financial risk considered.

Matayo & Muturi's (2018) study determined the effect of financial risk on financial performance of Supermarkets in Nairobi County. The study adopted the finance distress theory, Firm value maximisation theory and extreme value theory. The study used a descriptive research design with a quantitative approach. Secondary data for this study was collected using data collection sheets filled by accountants of various supermarkets in Nairobi County. The findings of the study showed that the two variables of the study, had statistically significant effect on financial performance of large-scale supermarkets in Kenya liquidity risk. Although this study focuses on supermarkets in Kenya, it examines the effect of financial risk, including liquidity risk, on financial performance. While not directly related to deposit money banks, it contributes to the understanding of how liquidity risk can influence performance. It also underscores the importance of studying financial risk in different industry contexts.

The empirical review shows a mixed result (some find a positive connection while some find a negative relationship) on the relationship between financial risk and financial performance. Moreover, no study was found using systematic risk to moderate the relationship between financial risk and financial performance despite so many factors used. The following is the conceptual framework (Figure 1) for the study.

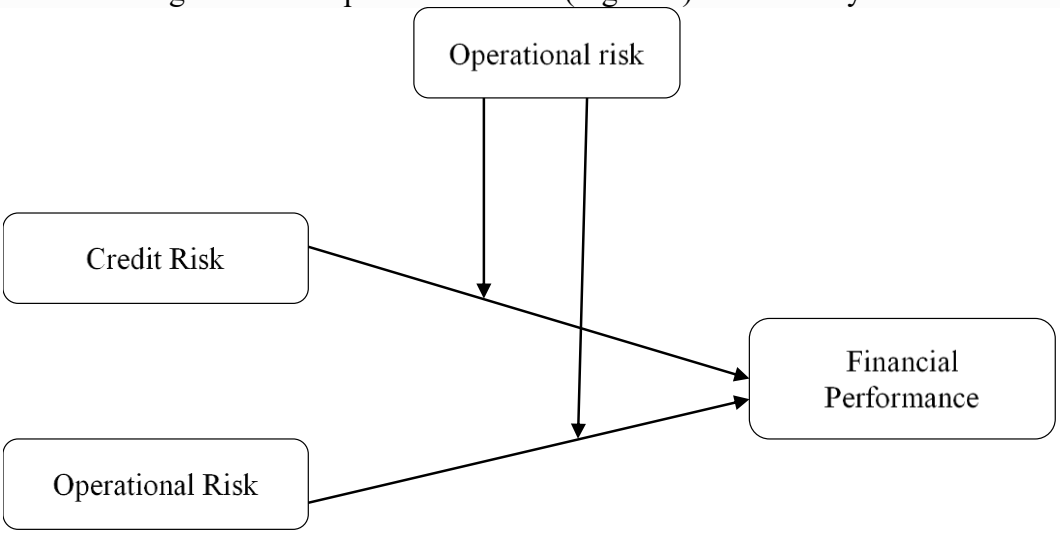

Figure 1: Conceptual Review

3.0 RESEARCH METHODOLOGY

This section discusses the methods used to conduct the study. The section discusses the research design and paradigm, the study's population sample, data gathering, and the technique for data analysis. The section also presents the model used to examine the effect of the explanatory variables on the outcome variable.

3.1 Research Design

This study adopted an ex-post facto research design to investigate the moderating role of systematic risk on the relationship between financial risk factors and performance of deposit money banks in Nigeria. Ex-post facto research is a scientific and quantitative design used where the investigator has no full control over variables since their representations have already happened or because they cannot be modified essentially (Ghauri & Grnhaug, 2010). This design has a strong relationship with the quantitative method (Bryman & Bell, 2011), and this is most appropriate for this study because it allowed for the testing of the expected impact of the independent variables on the dependent variable, and the making of predictions regarding these relationships.

3.2 Population of the Study

The population of this study consists of all the deposit money banks in Nigeria listed on the Nigerian Stock Exchange and that have complete financial records on their websites for the period of 2012 – 2021. As of April 2020, twelve (12) deposit money banks were listed on the Nigerian Stock Exchange.

3.3 Source of Data Collection

This study used secondary sources of data collection. The data were obtained from the annual reports and accounts of the twelve (12) selected DMBs in Nigeria for the period 2012 to 2021. This documentary source of data was used because of the nature variables under study. The data was obtained from the official website of each DMB.

3.4 Techniques of Data Analysis

This study adopted Partial Least Square Structural Equation Modeling (PLS-SEM) to examine the cause-and-effect relationship among variables. The technique is a second-generation statistical technique specially developed for the test of a complex model or complex relationships that involved many independent constructs. It is also used when the dependent variable has many proxies which regression analysis cannot estimate simultaneously in one model. This technique better explains the latent relationship of the variables.

3.5 Model Specification

The following specification is formed based on the direct and moderating effects.

$Y_1 = \alpha_0 + \beta 1$Operational risk + β_1 credit risk + β_2 systematic risk + β_3 (Operational risk * Systematic risk) + $\beta 3$ (Credit risk * Systematic risk) + ε .....(1)

The model is further modified as:

$FP_{it} = \beta_o + \beta_1 CR_{it} + \beta_2 ORit + \beta_3 SR_{it} + \beta_4 (CR_{it} * SR_{it}) + \beta_5 (ORit * SRit) + \varepsilon_{it}$ ..... (2)

To incorporate the dummy variable representing different levels of impact for Systematic Risk (SR), you can create the SR_dummy variable as follows:

SR_dummy:
3 for a "good environment" of systematic risk.
2 for a "fair environment" of systematic risk.
1 for a "poor environment" of systematic risk.

$FPit = \beta 0 + \beta 1 CRit + \beta 2 ORit + \beta 3 SRit + \beta 4 (CRit * SRit) + \beta 5 (ORit * SRit) + \beta 6 SRdummy + \varepsilon it$ .....(3)

Where:

FPit is the Financial Performance of bank *i* at time *t*.
CRit represents Credit Risk for bank *i* at time *t*.
ORit represents Operational Risk for bank *i* at time *t*.
SRit is the Systematic Risk for bank *i* at time *t*.
CRit∗*SRit* represents the product of Credit Risk and Systematic Risk.
ORit∗*SRit* represents the product of Operational Risk and Systematic Risk.
SRdummy is the dummy variable representing the different levels of impact of Systematic Risk.
0β0 is the intercept.
1β1 to 6β6 are the coefficients of the independent variables.
t represents time.
i represents a specific bank.
εit is the error term.

4.0 RESULTS AND DISCUSSIONS

4.1 Measurement Model

Credit risk is measured using two key ratios. The Non-Performing Loans Ratio (NPLR) represents the proportion of non-performing loans to the total loan portfolio, indicating the quality of loans. A higher NPLR suggests higher credit risk. On the other

hand, the Net Performing Loans Ratio (NPLR) measures the proportion of performing loans after deducting non-performing loans. A lower NPLR implies higher credit risk. Operational risk is also assessed using two key metrics. The Cost-to-Income Ratio (CIR) indicates the efficiency of a bank by measuring the proportion of operating costs to total income. A higher CIR suggests higher operational risk. The Capital Adequacy Ratio (CoR) is used to assess a bank's capital reserves in relation to its risk-weighted assets, reflecting its ability to absorb operational losses. A lower CoR indicates higher capital adequacy and lower operational risk. Systematic risk is measured through two components. Exchange Rate Risk (ER) gauges the potential impact of fluctuations in exchange rates on the bank's financial performance. A higher ER implies greater sensitivity to exchange rate changes and higher systematic risk. Inflation Rate Risk (INFR) assesses the influence of inflation rate fluctuations on the bank's performance. A higher INFR indicates higher sensitivity to inflation rate changes and, consequently, greater systematic risk. Lastly, financial performance is also evaluated using two key ratios. Return on Assets (RoA) quantifies a bank's ability to generate profit from its total assets. A higher RoA indicates more efficient asset utilisation and better financial performance. Return on Equity (RoE) measures the profitability of a bank concerning the equity invested. A higher RoE signifies better financial performance and increased returns to shareholders. These ratios collectively provide insights into the financial health and performance of deposit money banks. Therefore, prior to examining the hypotheses, it is essential to employ a measurement model to validate convergent validity, discriminant validity, and composite reliability. This means that the findings from the PLS analysis can only be considered valid for evaluating the study's hypotheses if all the measures within the PLS model satisfy the criteria for convergent validity, discriminant validity, and reliability.

Table 1. Model Assessment

Variables	Items	Outer VIF Values	Outer Loadings	Construct reliability and validity	
				CR	AVE
Credit risk	CPL	1.327	0.758	0.843	0.732
	NPLR	1.327	0.943		
Operational risk	CIR	1.220	0.942	0.815	0.692
	CoR	1.220	0.704		
Systematic risk	ER	2.472	0.971	0.935	0.878
	INFR	2.472	0.901		
financial performance	RoA	3.242	0.951	0.956	0.915
	RoE	3.242	0.962		

Note: CR = Composite Reliability, AVE = average variance extracted.

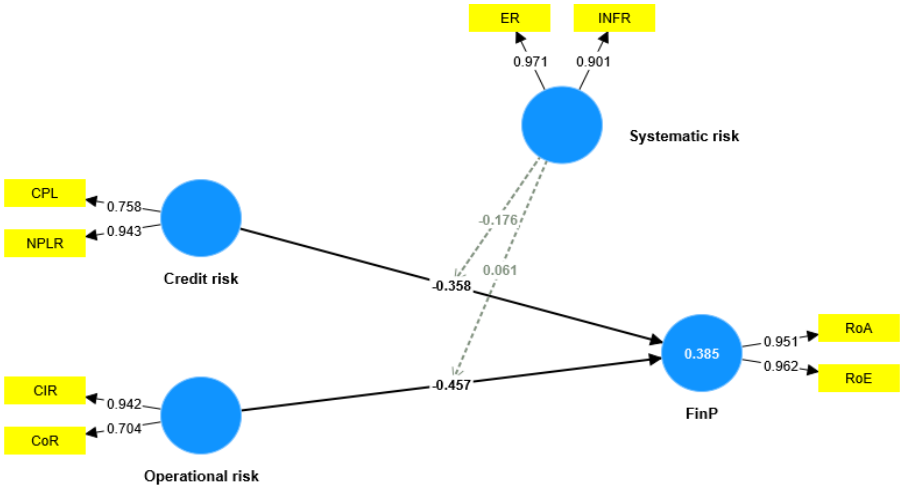

Figure 2: Modified Measurement Model

The measurement model in this study includes 10 items that correspond to the four variables under investigation. According to the criteria proposed by Hair Jr et al (2011), items with values of 0.70 or higher should be retained, while those with values below 0.70 should be removed. Following this threshold, two indicators, representing credit risk and systematic risk, were eliminated due to their low outer loading factor. Consequently, Figure 2 and Table 1 demonstrate that eight (8) indicators remain valid and reliable for further analysis. The values of Composite Reliability (CR) for the main constructs, ranging from 0.815 to 0.956, indicate the reliability of the measurements. Additionally, construct convergent validity is assessed using the average variance extracted (AVE). As shown in Table 1, the AVE values for all constructs exceed the threshold level of 0.5. Therefore, both construct validity and reliability are confirmed, in line with the criteria established by Fornell and Larcker (1981).

4.2 Structural Model

Coefficient of Determination

The study considers credit risk and operational risk as the independent variables, and financial performance as the dependent variable. Table 2 illustrates that these two independent variables collectively account for approximately 39% of the variance in financial performance (R2 = 0.385).

Table 2: Coefficient of Determination (R Square)

	R Square	R Square Adjusted
Financial Performance	0.385	0.359

Table 2 demonstrates that the R Square value of 0.385 indicates that a unit change in credit risk and operational risk is associated with a 39% increase in financial performance.

Direct and Moderating Effects Result

Table 3 provides an explanation of the direct and moderating relationships among the variables examined in the study. The results indicate that credit risk exhibits a negative and significant relationship with financial performance ($\beta = -0.358$, $p < 0.005$), operational risk demonstrates a negative and significant relationship with financial performance ($\beta = -0.457$, $p < 0.005$), and systematic risk has a negative and significant relationship with financial performance ($\beta = -0.261$, $p < 0.005$). Additionally, systematic risk is found to significantly moderate the relationship between credit risk and financial performance ($\beta = -0.176$, $p < 0.005$), leading to the rejection of Hypotheses 1, 2, 3, and 4. However, systematic risk is not found to significantly moderate the relationship between operational risk and financial performance ($\beta = 0.061$, $p > 0.05$), resulting in the failure to reject Hypothesis 5.

Table 3: Direct and Moderating Effects Result

Relationship	Beta	T statistics	P values
H01: Credit risk -> FP	-0.358	3.476	0.001
H02: Operational risk -> FP	-0.457	5.243	0.000
H03: Systematic risk -> FP	-0.261	2.991	0.003
H04: Systematic risk x Credit risk -> FP	-0.176	2.397	0.017
H05: Systematic risk x Operational risk -> FP	0.061	0.657	0.511

Note: FP= Financial Performance

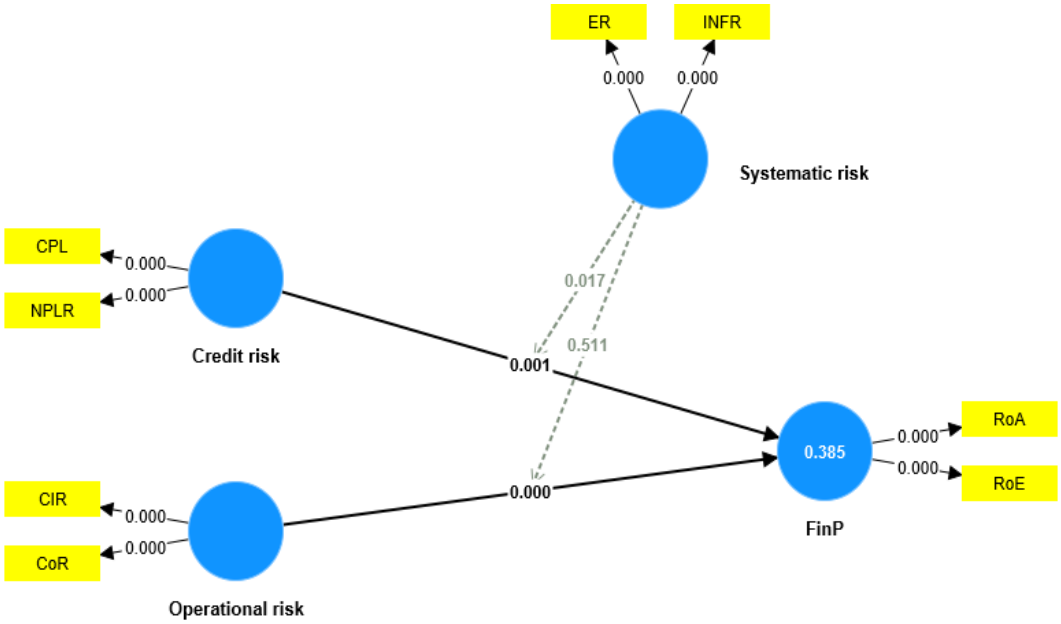

Figure 3: Structural model

5.0 DISCUSSION

The general aim of this study is to assess the moderating effect of systematic risk on the impact of financial risk factors on financial performance of selected deposit money banks in Nigeria. First, the result revealed that credit risk has a negative and significant effect on the financial performance of selected deposit money banks in Nigeria. This result implies that changes in credit risk may reflect changes in the health of the bank's loan portfolio, which may affect bank performance. Besides, the result indicated that the more financial institutions are exposed to credit risk such as non-performing loans, the lower their financial performance. This is supported by researchers such as Gadzo et al (2019) and Ekinci and Poyraz (2019) who found that credit risk has a significant negative effect on financial performance. However, this result is not in agreement with the study of other researchers such as Afolabi et al (2020).

This study also revealed that operational risk has a significant negative effect on the financial performance of selected deposit money banks in Nigeria. This implies that unfavourable operational risk could be one of the factors impeding the financial performance of deposit money banks in Nigeria. The results of the study showed that where operational risk is not properly managed, the tendency is that an organisation may suffer losses that can potentially erode its performance. This study is similar to the study of Al-Yatama et al (2020) which showed that operational risk has significant positive effects on the financial performance of Kuwaiti insurance companies. On the contrary, Ofeimun and Okeke (2019) indicated that operational risk management has a positive but not significant relationship with financial performance. Likewise, Onsongo et al (2019) in their study found that operations risk does not significantly influence the return on assets.

The finding that systematic risk has a significant negative effect on the financial performance of selected deposit money banks in Nigeria is an important insight into the relationship between risk and performance in the banking sector. In the context of the banking sector, systematic risk arises from macroeconomic factors, political instability, regulatory changes, and other external shocks that can impact the overall financial system. The negative effect of systematic risk on the financial performance of deposit money banks implies that when the overall market or industry experiences adverse conditions or shocks, such as economic downturns or financial crises, the performance of these banks tends to decline. This finding suggests that deposit money banks in Nigeria are susceptible to the macroeconomic and market-wide risks prevailing in the country. This result could be that during periods of economic downturns or financial crises, borrowers may face difficulties in repaying their loans, leading to an increase in non-performing loans. This deterioration in asset quality can significantly impact the profitability and financial stability of banks. This result is in agreement with studies such as Rafiq et al (2019) which showed that market risk does significantly influence stock performance positively. In addition, the result also found that the exchange rate showed a significant but negative relationship between stock performances. In addition, Funso and Lawal (2020) indicated that exchange risk does significantly influence financial performance negatively.

This result also revealed that systematic risk was found to significantly moderate the relationship between credit risk and financial performance. This result could imply that during periods of economic downturns, credit risk tends to increase as borrowers face financial difficulties, leading to higher default rates. At the same time, systematic risk is elevated, as macroeconomic factors negatively impact the overall market. This combined effect can lead to a higher number of loan defaults, increased provisions for loan losses, and reduced profitability for DMBs. The findings from this study are consistent with the research of Abdellahi et al (2017) who found that credit risk and systematic risk were found to be significantly associated with return on investment. The study is also in agreement with the research of Ilmiani and Meliza (2022) who found that systematic risk such as inflation rate moderates the effect of credit risk on performance. However, this result is not in line with the study of Melliza (2021) which examined the moderating effect of the inflation rate on credit risk and share price and found that the inflation rate fails to moderate the relationship between credit risk and share price.

This result also revealed that systematic risk was found to significantly moderate the relationship between operational risk and financial performance. In the context of this study, the lack of significant moderation by systematic risk implies that the relationship between operational risk and financial performance remains consistent irrespective of the prevailing market or industry-wide risks. In other words, the adverse impact of operational risk on financial performance is not significantly influenced by macroeconomic factors or market-wide shocks. This finding suggests that operational risk is a distinct and independent driver of financial performance for deposit money banks in Nigeria. It indicates that even during periods of market volatility or economic instability, the negative

effects of operational risk on financial performance persist. One possible reason for this result is that, the influence of operational risk on financial performance may be predominantly driven by internal factors specific to individual banks. This could include weaknesses in internal controls, ineffective risk management practices, or deficiencies in operational processes that are not directly impacted by systematic risk.

6.0 CONCLUSION AND RECOMMENDATIONS

This study examined the moderating effect of systematic risk on the relationship between financial risk factors (credit risk and operational risk) and financial performance in selected deposit money banks in Nigeria. Firstly, credit risk was found to have a significant negative effect on the financial performance of the selected banks. This study concludes that changes in credit risk, particularly non-performing loans, can impact the health of a bank's loan portfolio and ultimately affect its performance. Secondly, operational risk was found to have a significant negative effect on the financial performance of the selected banks. This study concludes that the importance of managing operational risk effectively is to avoid losses that can impede a bank's performance. Furthermore, systematic risk was found to have a significant negative effect on the financial performance of the selected banks. This study concludes that when the overall market or industry faces adverse conditions or shocks, such as economic downturns or financial crises, the performance of these banks tends to decline. This finding underscores the vulnerability of deposit money banks in Nigeria to macroeconomic and market-wide risks. Moreover, systematic risk was found to significantly moderate the relationship between credit risk and financial performance, concluding that during periods of economic downturns, the combined effect of elevated credit risk and systematic risk can lead to higher default rates, increased provisions for loan losses, and reduced profitability for deposit money banks. However, systematic risk was not found to significantly moderate the relationship between operational risk and financial performance, suggesting that the impact of operational risk on financial performance remains consistent regardless of market or industry-wide risks. This study concludes that operational risk is an independent driver of financial performance for the selected banks. Based on the findings of this study, the following recommendations can be made.

Given the significant negative effect of credit risk on financial performance, deposit money banks should enhance their credit risk management practices. This includes conducting thorough credit assessments, implementing effective loan monitoring mechanisms, and promptly addressing non-performing loans to mitigate the adverse impact on financial performance. Considering the significant negative effect of operational risk on financial performance, banks should focus on enhancing their operational risk management frameworks. This involves strengthening internal controls, implementing robust risk assessment processes, and ensuring effective governance structures to minimise the occurrence and impact of operational risks. Given the significant negative effect of systematic risk on financial performance, banks should closely monitor and assess macroeconomic factors, market conditions, and regulatory changes that may pose systemic

risks. This will enable banks to proactively develop risk mitigation strategies and contingency plans to withstand adverse market conditions and reduce the impact on their financial performance.

As there are inconsistencies in the literature regarding the relationships between financial risk factors, systematic risk, and financial performance, further research can explore additional variables or factors that may influence these relationships. This can provide a more comprehensive understanding of the dynamics between risk and performance in the banking sector. By implementing these recommendations, deposit money banks in Nigeria can enhance their risk management practices, improve financial performance, and build resilience to mitigate the negative effects of credit risk, operational risk, and systematic risk.

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