



Effect of Financial Risk on Performance of Listed Deposit Money Banks in Nigeria

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ABSTRACT

This study sought to ascertain the effect of Financial Risk on Performance of Deposit Money Banks (DMBs) listed on Nigeria Stock Exchange from 2011-2022 using a sample of thirteen (13) DMBs. 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. Financial Risk, which is the independent variable, was measured by Credit Risk, Liquidity Risk, Operational Risk and Internal rate Risk, while Performance, which is the dependent variable, was measured by Return on Equity. Specific findings of this study suggested that Credit Risk has a significant positive effect on Return on Equity; Liquidity Risk has a significant negative effect on Return on Equity; Operational Risk has a significant negative effect on Return on Equity and Internal Rate Risk has a significant negative effect on Return on Equity at 5% level of significance respectively. This study recommended among others that, Deposit Money Banks should comply with relevant provisions of the Banks and Other Financial Institutions Act (1999) as amended and the Prudential Guidelines. Additionally, deposit money banks should be well capitalized according to the size of their loan portfolio and regulatory requirement in order to cushion the loan loss from non-performing loans.

Keywords: Credit Risk, Liquidity Risk, Operational Risk, Internal rate Risk, Return on Equity

Introduction

The past decade has seen the world witnessing one of the most shocking financial meltdowns. The effects of the crisis were pervasive and hit almost every sector of global businesses; the most affected sector was the financial services industry, specially the banking sector. The banking sector did not only witness the dramatic disappearance of the most renowned institutions it also became a regular target for tougher regulations, public anger and academic criticism. Financial risk is the unexpected variability or volatility of returns. It includes credit risk, market risks, interest rates risk, liquidity risk, operational risk etc which contribute to the volatility of financial performance. The hypothesis is that financial risk leads into failure of financial performance if it is not well managed. The financial crisis acquires unparalleled proportions and inflicted long-term damage on economies, countries and people. Every business decision and entrepreneurial act is connected with risk (Aniefor & Amahalu, 2022). When an organization has financial market exposure, there is a possibility of loss but also an opportunity for gain or profit. Financial market exposure may provide strategic or competitive benefits. The reasons for managing financial risk are the same as those for implementing a risk management, as financial risk is a subcategory of the company's risks. One of the main objectives is to reduce the volatility of earnings or cash flows due to financial risk exposure. The reduction enables the firm to perform better forecasts. Furthermore this will help to assure that sufficient funds are available for investment and dividends. Another argument for managing financial risk is to avoid financial distress and the costs connected with it (Amahalu, Abiahu, Obi & Okika 2016).

Risk management is defined as the process that a bank puts in place to control its financial exposures. The process of risk management comprises the fundamental steps of risk identification, risk analysis and assessment, risk audit monitoring, and risk treatment or control. It is not only a defensive mechanism, but also an offensive weapon for commercial banks and this is heavily dependent on the quality of leadership and governance (Mbonu & Amahalu, 2021a). Risk is the fundamental element that drives financial behaviour. Without risk, the financial system would be vastly simplified. However, risk is omnipresent in the real world. Financial Institutions therefore, should manage the risk efficiently to survive in this highly uncertain world. The future of banking will undoubtedly rest on risk management dynamics. Only those banks that have efficient risk management system will survive in the market in the long run. According to Ezechukwu and Amahalu (2016) the crisis that affected global financial stability and the economy in 2007-2009 has reinforced the need to rethink some of the approaches adopted by the financial community in assessing bank performance. To this end, it is important to obtain a comprehensive view of the key factors that may influence banks' performance, including the adequacy of business models in relation to risk appetite, and the question of how this adequacy is handled inside and outside banks through governance processes.

Statement of the Problem

Financial risk management and its implications on banking sector performance have been fraught with difficulties and challenges that ultimately results to poor banking performance that incubate tendency and leading to unfavourable banking performance with unclear statement of financial position, bank failure and crisis in the financial sector leading to a systemic risk and thus have a negative functional ramification on economic growth. Various studies conducted have failed to establish a definite relationship between financial risk and performance in banks. Okudo, Amahalu and Oshiole (2023) explored the effect financial risk on financial performance of commercial banks in Kenya and showed that there is a significant positive relationship between financial performance and financial risk management. In Pakistan, Tanveer, Muhammad & Sadaf (2017) found a significant positive relationship between financial risk and performance of commercial banks. On the other hand, Amahalu & Okudo (2023) found a significant negative relationship between financial risk and performance. while Khalaf (2012) found no relationship between financial risk management and financial performance of listed banks in Jordan, thereby creating a gap in knowledge which this study tends to fill.

Objectives of the Study

The main objective of this study is to determine the effect of Financial Risk on Performance of Deposit Money Banks listed on Nigeria Stock Exchange.

The specific objectives of this study are to:

1. Ascertain the effect of Credit Risk on Return on Equity of Deposit Money Banks listed on Nigeria Stock Exchange.
2. Determine the effect of Liquidity Risk on Return on Equity of Deposit Money Banks listed on Nigeria Stock Exchange.
3. Evaluate the effect of Operational on Return on Equity of Deposit Money Banks listed on Nigeria Stock Exchange.
4. Verify the effect of Interest Rate Risk on Return on Equity of Deposit Money Banks listed on Nigeria Stock Exchange.

Research Hypotheses

In line with the objectives of this study, the following null hypotheses were hypothesized:

H₀₁: Credit Risk has no significant effect on Return on Equity of Deposit Money Banks listed on Nigeria Stock Exchange.

H₀₂: Liquidity Risk has no significant effect on Return on Equity of Deposit Money Banks listed on Nigeria Stock Exchange.

H₀₃: Operational Risk has no significant effect on Return on Equity of Deposit Money Banks listed on Nigeria Stock Exchange.

H₀₄: Interest Rate Risk has no significant effect on Return on Equity of Deposit Money Banks listed on Nigeria Stock Exchange.

Conceptual Review

I. Financial Risk

Financial Risk as the term suggests is the risk that involves financial loss to firms. Financial risk generally arises due to instability and losses in the financial market caused by movements in stock prices, currencies, interest rates and more. Financial risk is the possibility that shareholders will lose money when they invest in a company that has debt, if the company's cash flow proves inadequate to meet its financial obligations. When a company uses debt financing, its creditors are repaid before its shareholders if the company becomes insolvent. Financial risk also refers to the possibility of a corporation or government defaulting on its bonds, which would cause those bondholders to lose money (Amahalu, & Okudo, 2023). Financial risk is the general term for many different types of risks related to the finance industry. These include risks involving financial transactions such as company loans, and its exposure to loan default. The term is typically used to reflect an investor's uncertainty of collecting returns and the potential for monetary loss.

II. Market Risk

Market risk involves the risk of changing conditions in the specific marketplace in which a company competes for business. One example of market risk is the increasing tendency of consumers to shop online. This aspect of market risk has presented significant challenges to traditional retail businesses (Amahalu, Abiahu, Nweze & Obi, 2017). Companies that have been able to make the necessary adaptations to serve an online shopping public have thrived and seen substantial revenue growth, while companies that have been slow to adapt or made bad choices in their reaction to the changing marketplace have fallen by the wayside. This example also relates to another element of market risk – the risk of being outmaneuvered by competitors. In an increasingly competitive global marketplace, often with narrowing profit margins, the most financially successful companies are most successful in offering a unique value proposition that makes them stand out

from the crowd and gives them a solid marketplace identity.

III. Credit Risk

Credit risk is also referred to as default risk. This type of risk is associated with people who borrowed money and who are unable to pay for the money they borrowed. As such, these people go into default. Investors affected by credit risk suffer from decreased income and lost principal and interest, or they deal with a rise in costs for collection. This type of risk arises when one fails to fulfill their obligations towards their counter parties (Amahalu, Ezechukwu, & Obi, 2017). Credit Risk is the risk businesses incur by extending credit to customers. It can also refer to the company's own credit risk with suppliers. A business takes a financial risk when it provides financing of purchases to its customers, due to the possibility that a customer may default on payment. A company must handle its own credit obligations by ensuring that it always has sufficient cash flow to pay its accounts payable bills in a timely fashion. Otherwise, suppliers may either stop extending credit to the company, or even stop doing business with the company altogether.

IV. Liquidity Risk

This type of risk arises out of inability to execute transactions. Liquidity risk can be classified into *Asset Liquidity Risk* and *Funding Liquidity Risk*. Asset Liquidity risk arises either due to insufficient buyers or insufficient sellers against sell orders and buy orders respectively. Liquidity risk involves securities and assets that cannot be purchased or sold fast enough to cut losses in a volatile market. Asset-backed risk is the risk that asset-backed securities may become volatile if the underlying securities also change in value. The risks under asset-backed risk include prepayment risk and interest rate risk (Amahalu, Okeke & Obi, 2017). Liquidity risk includes asset liquidity and operational funding liquidity risk. Asset liquidity refers to the relative ease with which a company can convert its assets into cash should there be a sudden, substantial need for additional cash flow. Operational funding liquidity is a reference to daily cash flow. General or seasonal downturns in revenue can present a substantial risk if the company suddenly finds itself without enough cash on hand to pay the basic expenses necessary to continue functioning as a business. This is why cash flow management is critical to business success – and why analysts and investors look at metrics such as free cash flow when evaluating companies as an equity investment.

V Operational Risk

Operational risk is the risk of a change in value caused by the fact that actual losses, incurred for inadequate or failed internal processes, people and systems, or from external events (including legal risk), differ from the expected losses. It can also include other classes of risk, such as fraud, security, privacy protection, legal risks, physical (e.g. infrastructure shutdown) or environmental risks. In similar fashion, operational risks affect client satisfaction, reputation and shareholder value, while increasing business volatility (Amahalu, Egolum, Ezechukwu & Obi, 2018). Operational risks refer to the various risks that can arise from a company's ordinary business activities. The operational risk category includes lawsuits, fraud risk, personnel problems and business model risk, which is the risk that a company's models of marketing and growth plans, may prove to be inaccurate or inadequate. This type of risk arises out of operational failures such as mismanagement or technical failures. Operational risk can be classified into *Fraud Risk* and *Model Risk*. Fraud risk arises due to lack of controls and Model risk arises due to incorrect model application.

VI Interest Rate Risk

Interest rate risk is the possibility that the value of an investment will decline as the result of an unexpected change in interest rates. This risk is most commonly associated with an investment in a fixed-rate bond. When interest rates rise, the market value of the bond declines, since the rate being paid on the bond is now lower in relation to the current market rate. Consequently, investors will be less inclined to buy the bond; since demand declines, so too does the market price of the bond. This means that an investor holding such a bond would experience a capital loss. The loss is unrealized as long as the investor chooses to continue holding the bond, and will be realized once the bond is sold or reaches its maturity date. Shorter-term bonds have a lower interest rate risk, since there is a shorter period of time within which changes in interest rates can adversely impact the bonds (Amahalu, Ezechukwu, & Okudo, 2022). Conversely, there is a higher interest rate risk associated with longer-term bonds, since there may be many years within which an adverse interest rate fluctuation can occur. When a bond has a higher level of interest rate risk, its price will fluctuate more when there is an adverse change in the interest rate. Interest rate risk can be mitigated, either by diversifying one's investments across a broad mix of security types, or by hedging. In the latter case, an investor can enter into an interest rate swap agreement with a third party, thereby offloading the risk of rate fluctuations onto the other party (Bragg, 2017).

VII Return on Equity (ROE)

The return on equity (ROE) is a measure of the profitability of a business in relation to the book value of shareholder equity, also known as net assets or assets minus liabilities. ROE is a measure of how well a company uses investments to generate earnings growth. The return on equity ratio or ROE is a profitability ratio that measures the ability of a firm to generate profits from its shareholders investments in the company. In other words, the return on equity ratio shows how much profit each naira of common stockholders' equity generates (Amahalu Abiahu, Obi & Nweze, 2018). So a return on 1 means that every naira of common stockholders' equity generates 1 naira of net income. This is an important measurement for potential investors because they want to see how efficiently a company will use their money to generate net income. ROE is also an indicator of how effective management is at using equity financing to fund operations and grow the company.

$$\text{ROE} = \frac{\text{Net Income}}{\text{Shareholder Equity}} \times 100$$

Financial Performance

Financial performance (FP) is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. Financial performance is the measuring of bank's policy and operations in monetary form. It also shows a bank's overall financial health over a period of time, and it helps to compare different banks across the banking industry at the same time. Nzekwe, Okoye and Amahalu (2021) looked at financial performance as a subjective measure of how well a firm uses its assets from primary mode of business to generate revenue.

Financial Risk and Performance

The banking sector is very important in respect of the financial allocation in the world due to its intermediation functions of transferring funds from surplus units to deficit units. In performing and sustaining these functions, good financial performance must be generated from which financial risks may not be avoided. Superior financial performance has become the main concern in numerous banks in Nigeria. Nigeria's banking sector has found a means of improving performance by undertaking a primary transformation of the business. Through the transformation, competition has emerged in all banks, thereby forcing the sector to implement expansion strategies to diversify customer and product scope. Okudo, Ezechukwu & Amahalu (2022) signified that liquidity risk is negatively associated with bank performance. This observation is similar to the findings of Tabari, Ahmadi and Emami (2013). Additionally, Tafri, Hamid, Meera and Omar (2009) found that liquidity risk has a positive but insignificant impact on performance.

Credit Risk and Return on Equity

Credit management is the most important function of the banking industry. It is the most risky and difficult and at the same time the most profitable function performed by banks. The main source of credit risk include, limited institutional capacity, inappropriate credit policies, volatile interest rates, poor management, inappropriate laws, low capital and liquidity levels, direct lending, massive licensing of banks, poor loan underwriting, laxity in credit assessment, poor lending practices, government interference and inadequate supervision by the relevant regulatory authorities. Okudo and Ndubuisi (2021) found a positive but non-significant relationship between credit risk and return on equity, while Kolapo, Ayeni and Oke (2012) revealed a negative relationship between credit risk and return on equity. On the other hand,

Liquidity Risk and Return on Equity

The vulnerability of banks to liquidity risk is determined by the funding risk and the market risk. Liquidity risk needs to be monitored as part of the enterprise-wide risk management process, taking into account market risk and credit risk to ensure stability in the balance sheet and dynamic management of liquidity risk (Mbonu & Amahalu, 2021b). A bank should only attempt this if it makes good business sense, not use it as a means to keep afloat. Liquidity risk not only affects the performance of a bank but also its reputation. Prior studies showed mixed results on the relationship between liquidity risk and return on equity, for instance, Kashyap, Rajan and Stein (2012) documented a negative relationship between liquidity risk and return on equity, while Okudo, Amahalu, Obi & Okafor (2022) evidenced a positive effect of liquidity risk on return on equity.

Operational Risk and Return on Equity

Operational risk arises from execution of a company's business function. It is a very broad concept which focuses on those risks which lead to arise from the people, systems and processes through which a company operates. Risk is simply uncertainty. It is not only the incidence of adverse outcomes but unforeseen favorable outcomes are also a form of risk. Foregoing opportunities is as significant as definite losses. Based on previous researches, Okudo, Mbonu & Amahalu (2022) established a positive and significant relationship between return on equity and operational risk. Ojiako (2012) found a negative and significant relationship between return on equity and operational risk.

Interest Rate Risk and Return on Equity

Changes in interest rate not only affect the cost of using money (cost of capital) as a result of the decision to invest but also influence the consumption level of an individual. When there is an increase in interest rate it will affect the investment because the cost of capital will increase (Mbonu & Amahalu, 2022). On the contrary, when there is decrease in interest rate it will decrease the rates to depositors and suppress the savings. The evaluation of the effect of interest rate risk on return on equity has yielded inconsistency and contradictory results. For example, Omabu, Okoye and Amahalu (2021) found no significant relationship between interest rate risk on return on equity. Tahmoospour and Ardekani (2012); Khan and Sattar (2014) found a positive relationship between interest rate risk on return on equity while Malik, Khan, Khan and Khan (2014) showed that interest rate risk negatively affect return on equity.

Theoretical Framework

Modern Portfolio Theory (MPT)

Modern portfolio theory (MPT) is a theory on how risk-averse investors can construct portfolios to optimize or maximize expected return

based on a given level of market risk, emphasizing that risk is an inherent part of higher reward. According to the theory, it's possible to construct an "efficient frontier" of optimal portfolios offering the maximum possible expected return for a given level of risk. This theory was pioneered by Harry Markowitz in his paper "Portfolio Selection," published in 1952 by the Journal of Finance. A major insight provided by MPT is that an investment's risk and return characteristics should not be viewed alone, but should be evaluated by how the investment affects the overall portfolio's risk and return. MPT shows that an investor can construct a portfolio of multiple assets that will maximize returns for a given level of risk (Ndulue, Okoye, Amahalu, 2021). Likewise, given a desired level of expected return, an investor can construct a portfolio with the lowest possible risk. Based on statistical measures such as variance and correlation, an individual investment's return is less important than how the investment behaves in the context of the entire portfolio. MPT makes the assumption that investors are risk-averse, meaning they prefer a less risky portfolio to a riskier one for a given level of return. This implies that an investor will take on more risk only if he or she is expecting more reward.

Empirical Review

Olalere and Omar (2016) evaluated the influence of risk management practices on bank financial performance in Nigeria. However, the objective of this paper is to study the significant of risk management and the financial performance of banks given a highly competitive market. The study is an ongoing research on risk management and financial performance in the banking industry in Nigeria. It established that poor risk management reduced profitability and it results to low profit margin of the company or be more extraneous in highly competitive market. Hence, the study concluded that for profitability to be attained, the bank must adhere to its financial operations with different regulations and guidelines.

Agbeja, Adelokun and Udi (2016) investigated the effect of counterparty risk and exchange rate risk on the profitability of deposit money banks in Nigeria. Profit before tax was measured as a function of non-performing loans; seven banks were selected on a cross-sectional basis for five years (2009-2013). Secondary data were used and an auto-regression conditional model was used to measure risk. The result revealed that counterparty risk and exchange rate risk have significant effect on bank performance- profitability. Accordingly, stringent but non-static credit policy and prudent exchange rate management to enhance economy were suggested.

Taiwo, Ucheaga, Achugamonu, Adetiloye, Okoye and Agwu (2017) investigated into the quantitative effect of credit risk management on the performance of Nigeria's Deposit Money Banks (DMBs) and Bank lending growth over the period of 17 years (1998-2014). Secondary data for empirical analysis were obtained from CBN Statistical bulletin 2014 and World Bank (WDI) 2015. The study employed multiple linear regression model to analyze the time series data. The result showed that sound credit management strategies can boost investors and savers confidence in banks and lead to a growth in funds for loans and advances which leads to increased bank profitability. The findings revealed that credit risk management has an insignificant impact on the growth of total loans and advances by Nigerian Deposit money banks. The study therefore recommended that DMBs in Nigeria should strictly adhere to their credit appraisal policies which ensures that only credit worthy borrowers have access to loanable funds. Banks are to ensure that funds are allocated to borrowers with decent high credit ratings.

Methodology

Research Design

This study utilised *Ex-post Facto* research design in conducting the research.

Population of Study

The population for this study consist of the fourteen (14) deposit money banks published in the Nigeria stock Exchange (NSE) website as at 31st December 2022 (See Appendix A).

Sample Size and Sampling Technique

Purposive sampling technique was employed to arrive at thirteen (13) banks that were considered as sample size for this study.

Source of Data

The data used in this study were collected mainly from secondary sources. These data were obtained from annual reports and account, Nigeria stock exchange publications for the sampled banks.

Table 1: Variable Description / Operationalisation of Variables

Variables (code)	Operational Definitions
Dependent Variable (Performance)	
Driver:	
Return on Equity (ROE)	Net income/Shareholder's Equity
Independent Variable (Financial Risk)	
Proxies:	
Credit Risk (CR)	Non-Performing Loans /Total Loans
Liquidity Risk (LR)	Total Loans and Advances /Total Deposits
Operational Risk (OPR)	Operating Expenses /Operating Income
Interest Rate Risk(IRR)	(Original price of bond - new price of bond)/new price of bond
Control Variable	
Firm Size (FSZ)	Natural logarithm of total asset

Model Specification

Multivariate regression equation was set up to evaluate the hypothesized relationships between the dependent variable and the independent variables in this study. The econometric form of the equation is given as:

$$ROE_{it} = \beta_0 + \beta_1 CR_{it} + \beta_2 LR_{it} + \beta_3 OPR_{it} + \beta_4 IRR_{it} + \beta_5 FSZ_{it} + \epsilon_{it} \quad \text{equ (i)}$$

Legend:

ROE_{it} = Return on Equity (Dependent Variable) for bank i in period t

CR_{it} = Credit Risk (Independent Variable) for bank i in period t

LR_{it} = Liquidity Risk (Independent Variable) for bank i in period t

OPR_{it} = Operational Risk (Independent Variable) for bank i in period t

FSZ_{it} = Firm Size (Control Variable) for bank i in period t

ϵ_{it} = The error term which account for other possible factors that could influence Y_{it} that are not captured in the model.

i : individual banks

t : time periods

Data Presentation and Analysis**Table 2 Pearson Correlation Matrix**

	ROE	CR	LR	OPR	IRR	FSZ
ROE	1.000	0.358	-0.332	-0.177	-0.438	-0.821
CR	0.358	1.000	-0.305	-0.379	0.458	0.461
LR	-0.332	-0.305	1.000	0.590	-0.219	-0.351
OPR	-0.177	-0.379	0.590	1.000	-0.595	-0.591
IRR	-0.438	0.458	-0.219	-0.595	1.000	0.744
FSZ	-0.821	0.461	-0.351	-0.591	0.744	1.000

Source: E-Views 9.0 Correlation Output, 2023

Interpretation on Correlation Matrix

From the findings on the correlation analysis, the study found that there was negative correlation coefficient between ROE and LR, OPR, IRR, FSZ by correlation factors of -0.332, -0.177, -0.438 and -0.821 respectively. However, CR and ROE were found to have positive correlation with correlation coefficients of 0.358.

Test of Hypotheses**Table 3 Panel Least Square Regression Analysis between Credit Risk and Return on Equity of Deposit Money Banks in Nigeria**

Dependent Variable: ROE

Method: Panel Least Squares

Date: 05/30/23 Time: 18:31

Sample: 2011 2022

Periods included: 12

Cross-sections included: 13

Total panel (balanced) observations: 156

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.723030	0.654781	4.158686	0.0001
CR	0.116640	0.224452	2.819664	0.0041
LR	-0.063842	0.513846	-3.124244	0.0033
OPR	-0.404003	0.929186	-2.643793	0.0089
IRR	-0.840195	0.515591	-2.629576	0.0093
FSZ	-0.164348	0.060960	-2.695987	0.0078
R-squared	0.647230	Mean dependent var		0.985200
Adjusted R-squared	0.534267	S.D. dependent var		0.891996
S.E. of regression	0.876580	Akaike info criterion		2.594220
Sum squared resid	112.9537	Schwarz criterion		2.654433
Log likelihood	-191.5665	Hannan-Quinn criter.		2.618683
F-statistic	23.43458	Durbin-Watson stat		1.738455
Prob(F-statistic)	0.000000			

Source: E-Views 9.0 Regression Output, 2023

Interpretation of Multivariate Regression Result

In table 3, a panel least square regression analysis was conducted to test the influence of financial risk on return on equity. From the findings in the table 3 above, the value of adjusted R squared was 0.534, an indication that there was variation of 53.4% on the performance measure (ROE) due to changes in CR, LR, OPR, IRR and FSZ. This shows that only 53.4% changes in return on equity ratio of deposit money banks could be accounted for by CR, LR, OPR, IRR and FSZ. The Beta and probability of the slope coefficients indicate that; $P(\beta_1 = 0.116640, x_1 = 0.0041 < 0.05; \beta_2 = -0.063842, x_2 = 0.0033 < 0.05; \beta_3 = -0.404003, x_3 = 0.0089 < 0.05; \beta_4 = -0.840195, x_4 = 0.0093 < 0.05; \beta_5 = -0.164348, x_5 = 0.0078 < 0.05)$. These coefficient values indicate that there is a significant and positive relationship between CR and ROE; while a significant but negative relationship exists between LR, OPR, IRR, FSZ and ROE 5% significant level. The Durbin-Watson Statistic of 1.138455 suggests that the model does not contain serial correlation problem. The F-statistic of the ROE regression is equal to 23.43458 and the associated F-statistic probability is equal to 0.000000, so the null hypothesis was rejected and the alternative hypothesis was accepted. As a result, there is linear relationship of ROE to the independent variables (CR, LR, OPR, IRR, FSZ).

Decision

Since the result of the Prob(F-statistic) of 0.000000 is less than the critical value of 5% significance level, leading to the conclusion that financial risks have a significant and positive effect on ROE at 5% significant level, hence, H_1 is accepted.

Findings, Conclusion and Recommendations

Summary of Findings

Based on the analysis of data, the following findings emerged:

- i. Credit Risk has a significant positive effect on Return on Equity of Deposit Money Banks listed on Nigeria Stock Exchange at 5% significant level.
- ii. Liquidity Risk has a significant negative effect on Return on Equity of Deposit Money Banks listed on Nigeria Stock Exchange at 5% significant level.
- iii. Operational Risk has a significant negative effect on Return on Equity of Deposit Money Banks listed on Nigeria Stock Exchange at 5% significant level.
- iv. Internal Rate Risk has a significant negative effect on Return on Equity of Deposit Money Banks listed on Nigeria Stock Exchange at 5% significant level.

Conclusion

This study assessed the effect of financial risk on performance. This study obtained data from annual reports and account and publications from Nigeria Stock Exchange for Deposit Money Banks that operated during 2011-2022. In addition, the effects of specific financial risk variables, such as credit risk, liquidity risk, operational risk and internal rate risk on return on equity. To determine the relationship that exists amongst the variables and the effect thereof, Pearson correlation coefficient and Panel Least Square regression estimate were employed. This study revealed that financial risk components (liquidity risk, operational risk and internal rate risk) have a statistically significant negative effect on return on equity at 5% level respectively, while credit risk have significant positive effect on return on equity at 5% level of significance.

Recommendations

Consequent upon the findings and conclusions drawn from this work, the following recommendations were made:

- i. Since Credit Risk has a positive effect on Return on Equity, Deposit Money Banks should improve on proper credit evaluation of potential borrowers and lending of funds should be allocated to prime borrowers.
- ii. In order to reverse the negative effect of Liquidity Risk on Return on Equity, Deposit Money Banks should be well capitalized according to the size of their loan portfolio and regulatory requirement in order to cushion the loan loss from non-performing loans.
- iii. Banks should comply with relevant provisions of the Banks and Other Financial Institutions Act (1999) as amended and the Prudential Guidelines in an attempt to correct the inverse effect of Operational Risk on Return on Equity.
- iv. Since Internal Rate Risk has a significant effect on Return on Equity, Deposit Money Banks should operate in alliance with top quality credit rating firms who will ensure that loan seekers are correctly rated and the potential risk of a loan proposal is brought to light.

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Appendix A

Nigerian Exchange Group

Listed Banks As At 31st December, 2022

A) Population of the Study

- 1) Access Bank Plc
- 2) Eco Bank Plc
- 3) FCMB Bank Plc
- 4) Fidelity Bank Plc
- 5) First Bank Plc
- 6) Guaranty Trust Bank Plc
- 7) Jaiz Bank Plc
- 8) Stanbic IBTC Plc
- 9) Sterling Bank Plc
- 10) Union Bank Plc
- 11) United Bank of Africa Plc
- 12) Wema Bank Plc
- 13) Zenith International Plc
- 14) Unity Bank Plc

Appendix B

Nigerian Exchange Group

Listed Banks As At 31st December, 2022

Sample Size of the Study

- 1) Access Bank Plc
- 2) Eco Bank Plc
- 3) FCMB Bank Plc
- 4) Fidelity Bank Plc
- 5) First Bank Plc
- 6) Guaranty Trust Bank Plc
- 7) Stanbic IBTC Plc
- 8) Sterling Bank Plc
- 9) Union Bank Plc
- 10) United Bank of Africa Plc
- 11) Wema Bank Plc
- 12) Zenith International Plc
- 13) Unity Bank Plc