

The Moderating Role of Risk Management Committee Independence in the Relationship between Firm Attributes and Financial Stability of Listed Deposit Money Banks in Nigeria

Babatunde Shamseldeen Ogunjimi¹, Iyere Samuel Iheonkhan^{2*}, Naburgi Musa Mohammed³

¹⁻³Department of Accounting, Faculty of Administration, Nasarawa State University, Keffi, Nigeria

*Corresponding author, e-mail: iyere@nsuk.edu.ng

Abstract— This study investigated how risk management committee independence moderates the relationship between firm attributes and the financial stability of deposit money banks in Nigeria over a ten-year period, from 2014 to 2023. Employing an ex-post facto research design, the study encompassed all 13 deposit money banks listed on the Nigerian Exchange Group, using a census sampling approach due to the manageable population size. Secondary data were extracted from the banks' annual reports and financial statements. Financial stability, the dependent variable, was measured using the Altman Z-Score, while the independent variables included firm size, profitability, liquidity, and leverage. Risk management committee independence served as the moderating variable. Panel regression analysis was applied, with results indicating that profitability, leverage, and risk management committee independence each have a significant positive effect on financial stability, whereas firm size and liquidity showed no significant impact in the base model. However, when the moderation effect of risk management committee independence was introduced, firm size, profitability, and leverage all exhibited a positive and significant influence on financial stability, while liquidity remained statistically insignificant. The study concludes that risk management committee independence significantly strengthens the effect of firm size, profitability, and leverage on financial stability, though it does not alter the impact of liquidity. It is recommended that deposit money banks in Nigeria enhance governance structures and adopt dynamic risk management practices to improve profitability and financial resilience without hampering growth.

Keywords: Financial Stability, Firm Size, Leverage, Liquidity, Profitability and Risk Management Committee Independence.

This article is licensed under the [CC-BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.

1. Introduction

The financial soundness of banks plays a vital role in maintaining economic resilience, as instability in the banking industry can escalate into broader financial crises. A bank is considered financially stable when it effectively manages its risks and fulfils its financial obligations in a timely manner. Nonetheless, challenges such as persistent liquidity constraints, high leverage ratios, and ineffective corporate governance can increase financial exposure and lead to insolvency risks (Uchenna & Okelue, 2012). In the Nigerian context, the banking industry has faced several financial disruptions in recent times, compounded by exchange rate instability, policy inconsistencies, political turbulence, and economic downturns, all of which have contributed to liquidity shortfalls and, in some cases, bank collapses (Ikpesu, 2019).

Numerous studies have assessed how firm-specific factors affect financial stability, with key variables including firm size, liquidity, leverage, and profitability (Assefa, 2021; Rafatnia et al., 2020; Khafid et al., 2019; Ikpesu & Eboiyehi, 2018; Zeli, 2014). Despite this attention, the empirical results have been mixed; some report positive impacts, others negative, and some indicate no significant effects at all. Additionally, macroeconomic indicators such as GDP growth and inflation have also been identified as major contributors to financial stability outcomes (Becchetti & Sierra, 2003; Ong et al., 2011). These divergent findings underscore the need for deeper exploration into the underlying drivers of financial stability.

An important but relatively under-investigated factor in this context is the independence of the risk management committee (RMC), especially regarding its influence on the relationship between firm characteristics and financial stability. A well-functioning, independent RMC enhances governance by promoting impartial risk oversight, greater transparency, and the reduction of undue risk exposure—all of which are essential for maintaining financial stability. Nevertheless, limited empirical research has examined the moderating role of RMC independence within Nigeria's banking industry. Existing literature has predominantly focused on sectors like insurance, manufacturing, and mining (Khafid et al., 2019; Masdupi et al., 2018; Ikpesu, 2018; Maryam & Adamu, 2017; Adekanmbi, 2017; Zeli, 2014).

To address this research gap, the present study explores how RMC independence moderates the influence of firm-specific characteristics, namely firm size, leverage, liquidity, and profitability, on the financial stability of listed deposit money banks in Nigeria. By drawing on panel data from 2014 to 2023, this study offers timely insights into the interaction between governance practices and financial soundness, advancing a clearer understanding of risk management's strategic role in the banking sector. The study objectives are to:

- a. examine the effect of firm size on the financial stability of listed deposit money banks in Nigeria.
- b. evaluate the effect of profitability on the financial stability of listed deposit money banks in Nigeria.
- c. assess the effect of liquidity on the financial stability of listed deposit money banks in Nigeria.
- d. evaluate the effect of leverage on the financial stability of listed deposit money banks in Nigeria.
- e. investigate the moderating effect of risk management committee independence on the relationship between firm attributes and the financial stability of listed deposit money banks in Nigeria.

Literature Review

Financial Stability

Schinasi (2004) defines financial stability as a state in which the financial system operates smoothly, effectively absorbs economic shocks, and supports sustainable economic development. In a similar view, Mishkin (1999) asserts that a financially stable system is characterized by efficient resource allocation, proper risk evaluation, and the maintenance of market confidence. Assefa (2021) also notes that financial stability implies the capacity of financial institutions to withstand external disturbances and continue functioning effectively. Along the same lines, Čihák et al. (2012) emphasize that financial stability includes robust banking operations, healthy capital markets, and overall macroeconomic stability.

To assess financial stability, scholars commonly rely on several metrics, including the Altman Z-score, the ratio of non-performing loans (NPL), capital adequacy ratio (CAR), return on assets (ROA), and various liquidity ratios (Beck et al., 2013; Ong et al., 2011). Among these, the Altman Z-score is frequently adopted due to its ability to predict insolvency by integrating indicators related to profitability, financial leverage, and earnings volatility (Altman, 1968; Zeli, 2014). This study adopts the Altman Z-score as the primary metric for evaluating the financial stability of deposit money banks, given its comprehensive approach to measuring risk exposure, profitability consistency, and capital strength.

Firm Attributes

Firm attributes have long been recognized in financial studies as fundamental elements that influence a company's financial decisions, overall performance, and long-term stability. Jensen and Meckling (1976)

defined these attributes as the distinctive internal features of a business that shape its financial outcomes and strategic behaviour. These features, namely firm size, profitability, liquidity, and leverage play vital roles in determining a firm's capacity to withstand economic disruptions. In recent literature, Assefa (2021) emphasized that these characteristics function as key internal financial indicators that influence a company's ability to respond to financial and economic volatility. Despite widespread academic interest, findings on how firm attributes affect financial stability vary across industries and economies.

One of the most frequently analyzed firm characteristics is size. Larger companies are often perceived to enjoy operational advantages, including economies of scale, better financing options, and greater influence within the market, which collectively improve financial resilience (Beck et al., 2013). Rajan and Zingales (1995) identified a positive association between firm size and financial stability, citing larger firms' diversified income streams and more substantial financial reserves. However, contrary perspectives exist; Khafid et al. (2019) suggested that the increased operational complexity of large firms may expose them to higher inefficiencies and financial risk. Within the banking industry, larger commercial banks tend to demonstrate stronger stability due to their enhanced ability to absorb financial shocks, secure funding, and comply with capital adequacy regulations (Ikpesu, 2019).

Profitability, usually assessed through indicators such as Return on Assets (ROA) or Return on Equity (ROE), is another essential firm characteristic closely associated with financial health. According to Mishkin (1999), firms with higher profit margins are better positioned to sustain their operations and endure economic turbulence. Ong et al. (2011) reinforced this view, asserting that profitability strengthens a firm's ability to meet obligations and reduces the risk of financial distress. However, Becchetti and Sierra (2003) warned that in pursuit of high profits, financial institutions may adopt overly aggressive strategies that heighten systemic risk. In Nigeria, profitability not only signifies financial robustness but also serves as a stabilizing factor, especially among banks with strong capital bases and consistent earnings.

Liquidity and leverage are also pivotal in determining a firm's financial resilience. Liquidity refers to a company's capacity to cover its short-term liabilities and maintain smooth operations (Zeli, 2014). Firms with high liquidity are less susceptible to insolvency and operational disruption, while liquidity shortages can trigger crises, including bank runs and broader systemic issues (Adekanmbi, 2017). Leverage, measured by ratios such as debt-to-equity or debt-to-assets, reflects the extent to which a firm relies on borrowed funds (Ikpesu & Eboiyehi, 2018). Although a reasonable level of leverage may support business expansion, excessive borrowing can undermine stability and increase the risk of default, especially during economic downturns (Rafatnia et al., 2020). In the Nigerian context, banks that effectively balance liquidity and leverage tend to be more financially stable, underlining the need for prudent and strategic financial management.

Firm attributes, including size, profitability, liquidity, and leverage are integral to assessing and understanding a company's financial stability. They act as both indicators and determinants of how firms respond to economic challenges, particularly within sectors like banking. Despite some disagreements in the literature, these attributes remain central to financial analysis and strategic decision-making across different economic landscapes.

Risk Management Committee Independence

The independence of a Risk Management Committee (RMC) refers to the degree to which the committee can function without direct influence from executive leadership, thereby promoting impartial risk oversight. As Beasley et al. (2005) described, independent RMCs are positioned to make objective decisions regarding organizational risk exposure. In support of this, Wang and Hsu (2013) noted that such independence enhances corporate transparency by minimizing agency problems and aligning the risk governance process with the interests of shareholders. Furthermore, Ali et al. (2021) emphasized that

independent committees are essential for mitigating financial distress, as they ensure that risk management strategies are executed free from managerial bias or obstruction.

Empirical evidence further highlights the strategic value of RMC independence. Abdullah and Ismail (2016) observed that firms with autonomous risk committees are more adept at identifying and managing financial vulnerabilities, which contributes to long-term organizational sustainability. The presence of an independent RMC is also closely linked to key firm characteristics and overall financial soundness. According to Ong et al. (2011), companies with independent risk oversight tend to experience lower financial risk levels, largely due to more effective monitoring of leverage, liquidity, and earnings performance. Zaman et al. (2011) similarly reported that such independence discourages imprudent risk-taking and supports responsible capital utilization, thereby reinforcing financial health.

In addition, independent risk committees have been associated with improved firm size and access to external finance, primarily due to the increased investor trust they inspire (Assefa, 2021). In Nigeria's banking sector, the role of independent RMCs has been particularly significant. These committees contribute to financial stability by facilitating sound risk evaluation practices and ensuring compliance with regulatory frameworks. As such, strong governance mechanisms, exemplified by independent RMCs, are vital in reinforcing the financial resilience of institutions operating in high-risk environments.

Empirical Review

Firm Size and Financial Stability

Assefa (2021) explored how the size of a firm influences the financial stability of publicly listed commercial banks in Ethiopia over the period from 2011 to 2020. Out of 18 operational commercial banks, a purposive sample of 12 was selected. The study utilized secondary data derived from central bank publications and audited financial statements. Employing the Generalized Method of Moments (GMM) for data analysis, the study revealed that larger banks were more financially stable, primarily due to their enhanced ability to absorb risk and easier access to external financial resources, which contributed to sustained solvency.

In a separate study, Rafatnia et al. (2020) examined how firm size impacts financial stability among European banks. Their research included 98 banks spanning from 2005 to 2019. Data were sourced from the banks' annual financial reports, and panel regression techniques were employed to test the relationship. Contrary to some previous findings, this study concluded that increased firm size may adversely affect financial stability, as very large banks often engage in riskier financial practices that heighten instability.

Similarly, Khafid et al. (2019) conducted an empirical investigation using data from 47 Indonesian commercial banks over the 2010 to 2018 period, selecting 32 banks that met the criterion of consistent financial reporting. Utilizing Structural Equation Modeling (SEM), their findings supported the view that larger firms tend to be more financially stable. This was attributed to diversified revenue streams and improved mechanisms for managing credit risk, which helped buffer them against economic volatility.

In the Nigerian context, Ikpesu and Eboiyehi (2018) assessed the impact of firm size on the stability of listed deposit money banks between 2000 and 2016. The study involved 21 listed banks, from which 14 were chosen based on the availability of financial data. Panel regression was used to analyze secondary data sourced from the banks' financial reports. The results indicated a positive and statistically significant relationship between firm size and financial stability. Larger banks were found to be more resilient to financial shocks, maintain stronger liquidity positions, and benefit from economies of scale and better risk governance.

Contrastingly, Zeli (2014) analyzed financial institutions across various regions to determine the influence of firm size on financial stability. The study drew from a wide set of secondary data obtained from financial

statements and industry-specific databases. Panel data regression results showed that firm size did not have a statistically significant effect on financial stability, suggesting that size alone may not be a determining factor for stability in all contexts.

Profitability and Financial Stability

Assefa (2021) conducted an inquiry into how profitability correlates with financial stability within Ethiopia's banking industry. Focusing on the years 2009 to 2019, the study targeted 18 commercial banks, out of which 12 were purposively selected. Utilizing secondary data sourced from financial statements and central bank publications, the research employed panel regression analysis. The results showed a significant and positive relationship between profitability and financial stability, indicating that more profitable banks were better positioned to withstand financial disruptions and sustain operational stability.

In a related study, Rafatnia et al. (2020) explored how profitability influences financial stability in the context of European banks over the 2005–2019 period. Drawing from a pool of 150 banks, 98 were selected as the study sample. Data were retrieved from bank financial reports, and dynamic panel regression was utilized for analysis. Contrary to expectations, the study revealed a negative association between profitability and financial stability, suggesting that banks with higher profits often participated in risk-intensive ventures, thereby heightening their exposure during economic downturns.

Similarly, Khafid et al. (2019) evaluated the role of profitability in shaping the financial stability of Indonesian commercial banks from 2010 to 2018. The research population comprised 50 banks, with a sample of 30 selected for consistency in reporting. Relying on secondary data from audited statements and regulatory sources, the study applied the Generalized Method of Moments (GMM) for its analysis. The results indicated that profitability had no significant impact on financial stability, pointing instead to the influence of other determinants such as risk levels and capital sufficiency.

Liquidity and Financial Stability

Ikpesu and Eboiyehi (2018) analyzed how liquidity influences financial stability within the Nigerian banking sector. The study spanned from 2006 to 2016 and included 21 deposit money banks, with 15 banks selected for the sample. Data were gathered from audited financial reports and regulatory sources. The study employed panel regression analysis and concluded that liquidity positively impacted financial stability. Banks with higher liquidity levels were found to be more capable of meeting short-term obligations and effectively handling financial shocks.

In a similar study, Masdupi et al. (2018) investigated the relationship between liquidity and financial stability in Indonesian banks over the period from 2007 to 2017. The study focused on 50 commercial banks, selecting a sample of 30. Data from financial reports and central bank records were used, with structural equation modeling (SEM) applied for analysis. The findings revealed a negative effect of liquidity on financial stability, with banks holding excessive liquidity tending to adopt riskier lending strategies, thus increasing their vulnerability to financial instability.

Adekanmbi (2017) explored liquidity's effect on financial stability in South African banks from 2005 to 2015. The study sampled 20 banks from a population of 30, using secondary data from annual reports and central bank publications. Panel data analysis was applied, and the results suggested that liquidity did not significantly influence financial stability. The study highlighted that factors such as regulatory compliance, asset quality, and macroeconomic conditions played a more critical role in safeguarding financial stability.

Leverage and Financial Stability

Assefa (2021) examined how leverage affects financial stability in Ethiopian banks between 2008 and 2018. The study included 20 commercial banks, with 12 selected for the sample. Data were drawn from

financial statements and central bank reports, and panel regression analysis was used. The study found that leverage had a positive and significant effect on financial stability, as banks with moderate levels of leverage benefited from stronger capital structures, thus enhancing their ability to withstand financial shocks.

Rafatnia et al. (2020) explored the relationship between leverage and financial stability in European banks from 2005 to 2019. The study's sample consisted of 98 banks from a population of 120. Data from bank financial reports and regulatory filings were collected, and the generalized method of moments (GMM) was used for analysis. The study revealed a negative relationship between leverage and financial stability, noting that highly leveraged banks were more susceptible to financial distress, particularly during economic downturns.

In Indonesia, Khafid et al. (2019) assessed leverage's effect on financial stability within the financial sector from 2009 to 2018. The study focused on 50 financial institutions, selecting 35 for the sample. Data were obtained from financial statements and regulatory records, and panel data analysis was employed. The study found that leverage did not significantly influence financial stability, indicating that other factors, such as liquidity management and risk governance, were more important in determining stability.

Risk Management Committee Independence and Firm Attributes

Frank and Ukpong (2024) assessed how the independence of risk management committees influences the financial performance of Nigerian commercial banks listed on the Nigerian Exchange Group between 2013 and 2022. The study, which utilized purposive sampling from a total of 14 banks, relied on secondary data obtained from annual reports. Statistical tools such as descriptive analysis and regression models were applied. The study concluded that the presence of independent members on the risk management committee did not have a statistically significant impact on the banks' financial outcomes, and the observed relationship was slightly negative.

In a separate study, Abba, Sabo, and John (2023) evaluated how risk management committee independence affected the firm value of oil and gas companies listed in Nigeria between 2016 and 2020. The research, based on a correlational design and data extracted from annual reports, used ordinary least squares regression to analyze its findings. Their results showed a significantly positive influence of independent committee members on firm value, indicating that increased independence enhanced governance quality and stakeholder confidence in these firms.

Similarly, Oladejo, Busari, and David (2023) examined the link between the independence of risk management committees and the value of quoted financial firms, including both banks and insurance companies. Their research, covering a period from 2012 to 2021, analyzed data from 20 selected firms using panel regression. The findings supported the notion that a greater proportion of non-executive or independent directors on the committee significantly contributed to enhanced firm value, underscoring the importance of independent oversight in financial institutions.

Risk Management Committee Independence and Financial Stability

Frank and Ukpong (2024) also explored the broader characteristics of risk management committees and how these influenced financial stability in Nigeria's commercial banking sector. The same 14 banks from their earlier study were examined over the 2013–2022 period. The analysis revealed that committee independence alone did not significantly affect the financial health or resilience of these institutions, reflecting a lack of substantial influence from this specific governance attribute.

Abba, Sabo, and John (2023) likewise analyzed the characteristics of risk management committees in oil and gas firms and found that the independence of these committees had a positive and significant effect on firm valuation. This suggests that external, non-executive oversight within these committees can boost investor confidence and improve corporate valuation.

Ahmed (2019) evaluated the roles of risk management committee features and the financial expertise of board members in influencing the performance of quoted Nigerian banks from 2013 to 2016. Using panel regression on 56 firm-year observations derived from annual financial reports, the study found no significant link between committee independence and bank performance. This implies that simply having independent directors on the risk management committee may not necessarily strengthen a bank's financial stability.

Agency Theory

Agency theory, introduced by Jensen and Meckling (1976), explains the principal-agent problem arising from divergent interests between shareholders (principals) and managers (agents). It argues for the implementation of monitoring structures, such as independent boards and specialized committees like the risk management committee, to align managerial behavior with shareholder interests (Fama & Jensen, 1983; Kusi et al., 2022). However, critics contend that the theory overly emphasizes self-interest and rationality, overlooking broader stakeholder interests (Davis et al., 1997; Donaldson, 2021). Despite such limitations, agency theory remains pertinent in the banking sector, where independent oversight is crucial to mitigating systemic risk and ensuring sound governance (Al-Matari et al., 2019; Adegbite, 2023). The theory provides a rationale for exploring the moderating role of committee independence in promoting financial stability among Nigerian banks.

2. Method

This study employs an ex post facto research design. The population consists of all 13 deposit money banks listed on the Nigerian Exchange Group (NGX) as of December 31, 2024. Given the manageable number of firms, a census approach was adopted, involving all 13 banks in the analysis. Annual secondary data spanning a decade (2014–2023) were sourced from published financial statements of the banks.

Financial stability was measured using the Altman Z-score model, a tool used to forecast a firm's financial distress over a two-year window (Cheluget, 2014; Kristanti, 2015; Kristanti et al., 2016; Eboiyehi & Ikpesu, 2017; Ikpesu & Eboiyehi, 2018). According to the model, a Z-score above 2.9 signifies financial safety, scores between 1.23 and 2.9 indicate a grey area, and scores below 1.23 suggest financial distress.

The study's independent variables include firm size (FSZ), profitability (PRO), liquidity (LIQ), and leverage (LEV), while risk management committee independence (RMCI) serves as a moderating variable. Panel data regression was employed to evaluate the relationships among the variables. The analytical model is adapted from Eneh et al. (2019), ensuring alignment with prior empirical methodologies in corporate governance research.

The multiple regression model is stated below as:

Model Specification

$FIS = f(FSZ, PRO, LIQ, LEV, RMCI)$

$$FIS_{it} = \alpha + \beta_1 FSZ_{it} + \beta_2 PRO_{it} + \beta_3 LIQ_{it} + \beta_4 LEV_{it} + \beta_5 RMCI_{it} + \beta_6 FSZ_{it} * RMCI_{it} + \beta_7 PRO_{it} * RMCI_{it} + \beta_8 LIQ_{it} * RMCI_{it} + \beta_9 LEV_{it} * RMCI_{it} + \mu_{it}$$

Where;

FIS = Financial Stability

FSZ = Firms Size

PRO = Profitability

LIQ = Liquidity

LEV = Leverage

RMCI = Risk Management Committee Independence

α = Intercept for x variable of I company

$b_i - b_9$ = Coefficient for the independent variables x of companies denoting the nature of the relationship with dependent variable Y (or Parameters), i = Industry Specific, t = Time or Period
 e = the Error term

Table 1. Measurement of Variables

S/N	Variable	Measurement	Source
1	Financial Stability	Altman Z-Score	Ikpesu (2019) and Zelie (2019)
2	Firm Size (FSZ)	Log of Total Assets	Wesa and Otinga (2018), Ikpesu (2019) and Zelie (2019)
3	Profitability (PRO)	Profit after Tax to Total Assets	Ikpesu (2019), Zelie (2019)
4	Liquidity (LIQ)	Cash and Short-term Fund to Customers' Deposits	Ikpesu (2019) and Zelie (2019)
5	Leverage (LEV)	Total liabilities / Total assets	Ikpesu (2019) and Zelie (2019)
6	Risk Management Committee Independence (RMCI) (Moderator Variable)	Proportion of Independent Non-Executive Directors in the Risk Management Committee to number of RMCI	Frank and Ukpong (2024); Abubakar et al. (2018)

Data Analysis and Results

Table 2. Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
FIS	130	.4702895	.442865	.81	1.9851
FSZ	130	6.647078	1.750051	4.0653	10.823
PRO	130	.9194209	1.163692	3.60061	4.907915
LIQ	130	.829	.3149821	.21	1.34
LEV	130	.2128959	.3693052	.36822	1.91531
RMCI	130	.7660769	.0446259	.65	.87
FSZ*RMCI	130	.3651587	.3507925	.5508	1.58808
PRO*RMCI	130	.7119039	.9002949	2.448415	4.02449
LIQ*RMCI	130	.6358154	.2461658	.1575	1.0988
LEV*RMCI	130	.1659949	.2895785	.3019404	1.535434

The descriptive statistics table 1 shows the mean values of Financial Stability (FIS), Firm Size (FSZ), Profitability (PRO), Liquidity (LIQ), Leverage (LEV), Risk Management Committee Independence (RMCI), FSZ*RMCI, PRO*RMCI, LIQ*RMCI and LEV*RMCI to be .4702895, 6.647078, .9194209, .829, .2128959, .7660769, .3651587, .7119039, .6358154, and .1659949 respectively. The standard deviation values of FIS, FSZ, PRO, LIQ, LEV, RMCI, FSZ*RMCI, PRO*RMCI, LIQ*RMCI and LEV*RMCI are .442865, 1.750051, 1.163692, .3149821, .3693052, .0446259, .3507925, .9002949, .2461658 and .2895785 respectively.

The minimum values of the variables are .81, 4.0653, 3.60061, .21, .36822, .65, .5508, 2.448415, .1575 and .3019404 respectively. The maximum values of the variables are 1.9851, 10.823, 4.907915, 1.34,

1.91531, .87, 1.58808, 4.02449, 1.0988, and 1.535434 in that order. However, the study observation is 130.

Table 3. Correlation Matrix

	FIS	FSZ	PRO	LIQ	LEV	RMCI	FSZ*RM CI	PRO*RM CI	LIQ*RM CI	LEV*RM CI
FIS	1.00 00									
FSZ	0.24 26	1.00 00								
PRO	0.73 43	0.01 37	1.00 00							
LIQ	0.09 14	0.40 36	- 0.01 76	1.00 00						
LEV	0.62 88	0.23 37	0.43 11	0.22 77	1.00 00					
RMCI	0.24 89	0.16 87	0.14 66	0.05 29	0.17 73	1.00 00				
FSZ*RM CI	0.09 97	0.26 00	0.72 82	0.09 71	0.63 85	0.30 21	1.0000			
PRO*R MCI	0.74 79	0.04 30	0.09 96	- 0.00 55	0.45 25	0.19 35	0.7476	1.0000		
LIQ*RM CI	0.13 27	0.40 66	0.01 42	0.09 86	0.25 15	0.21 03	0.1466	0.0329	1.0000	
LEV*RM CI	0.64 24	0.24 19	0.44 33	0.22 58	0.09 98	0.20 35	0.6549	0.4671	0.2541	1.0000

The correlation matrix table 2 above shows the relationship values between each explanatory variable and the dependent variable. Therefore, the correlation matrix result indicated that Financial Stability (FIS) has a positive association with Firm Size (FSZ), Profitability (PRO), Liquidity (LIQ), Leverage (LEV), Risk Management Committee Independence (RMCI), FSZ*RMCI, PRO*RMCI, LIQ*RMCI, and LEV*RMCI. The study revealed a positive association between the variables. However, the predictor variables do not exhibit any problem of collinearity.

Table 4. Variance Inflation Factor

	VIF	1/VIF
FSZ	1.26	0.796800
PRO	1.26	0.791198
LIQ	1.24	0.808880
LEV	1.37	0.731323
RMCI	1.06	0.942255
Mean VIF	1.24	

Table 3 shows that the absence of multicollinearity is confirmed as the variance inflation factors are below 10, and the tolerance values are consistently under 1.00, indicating no multicollinearity between the independent variables.

Table 5. Heteroskedasticity

Breusch-Pagan / Cook-Weisberg test for heteroscedasticity

Ho: Constant variance
 Variables: fitted values of FIS

chi2(1) = 2.63 Prob> chi2 = 0.1046

Since the **p-value is 0.1046**, which is **greater than 0.05**, the study does **not** have enough evidence to say that heteroskedasticity is present. This means the model's errors have a constant variance, which is a good sign because it ensures that the regression results are more reliable and efficient.

Table 6. Regression Result with Direct Effect

Number of obs = 130
 Group variable = id
 Number of groups = 13
 R-sq: within = 0.4947
 Obs per group: min = 10
 between = 0.8291
 avg = 10.0
 overall = 0.5969
 max = 10
 Wald chi2(5) = 135.60
 corr(u_i, X) = 0 (assumed)
 Prob > chi2 = 0.0000

FIS	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
FSZ	.0128557	.0198394	0.65	0.517	-.0260289	.0517403
PRO	.1425482	.0208502	6.84	0.000	.1016826	.1834138
LIQ	-.1281125	.0906478	-1.41	0.158	-.3057788	.0495539
LEV	.3479543	.0661929	5.26	0.000	.2182186	.4776901
RMCI	1.087729	.447013	2.43	0.015	.2115994	1.963858
_cons	-.5185082	.3509634	-1.48	0.140	-1.206384	.1693675

The outcomes of the Pooled Generalized Least Squares (GLS) regression provide valuable insight into how specific firm characteristics affect the financial stability of Nigerian deposit money banks. Starting with **firm size**, the coefficient is 0.0129 with a standard error of 0.0198. The z-score of 0.65 and a corresponding p-value of 0.517 indicate that the effect is statistically insignificant. This suggests that variations in firm size do not meaningfully influence the financial stability of the sampled banks. As a result, the null hypothesis is not rejected, affirming that firm size has no significant effect on financial stability. This result is consistent with the findings of Zeli (2014) but diverges from those reported by Assefa (2021), Rafatnia et al. (2020), Khafid et al. (2019), and Ikpesu and Eboiyehi (2018).

In contrast, **profitability** shows a strong and significant influence on financial stability. With a coefficient of 0.1425 and a standard error of 0.0209, the z-value stands at 6.84, and the p-value is 0.000. This indicates a robust positive relationship, implying that a one-unit increase in profitability enhances financial stability by roughly 0.1425 units. Hence, the null hypothesis is rejected in favor of the alternative, confirming the positive impact of profitability on financial stability. These results support the findings of Assefa (2021) but contradict those of Rafatnia et al. (2020), Khafid et al. (2019), and Ikpesu and Eboiyehi (2018).

Regarding **liquidity**, the analysis reveals a coefficient of -0.1281 with a standard error of 0.0906. The z-score is -1.41 and the p-value is 0.158, indicating no statistically significant effect. This means that liquidity does not exert a notable influence on financial stability, and the null hypothesis remains unchallenged. This result corroborates the study by Adekanmbi (2017) but is inconsistent with findings from Ikpesu and Eboiyehi (2018), and Masdupi et al. (2018).

Leverage emerges as a significant factor with a coefficient of 0.3480 and a standard error of 0.0662. The z-score of 5.26 and a p-value of 0.000 reflect a statistically significant and positive relationship. This suggests that as leverage increases, so does financial stability—by approximately 0.3480 units for every one-unit rise in leverage. The null hypothesis is therefore rejected, and the alternative is accepted. This result supports the findings of Assefa (2021) but differs from the conclusions drawn by Rafatnia et al. (2020) and Khafid et al. (2019).

Finally, the **independence of the Risk Management Committee (RMC)** shows a notable positive effect on financial stability. The coefficient is 1.0877, with a standard error of 0.4470, a z-value of 2.43, and a p-value of 0.015. This indicates that higher levels of RMC independence significantly enhance financial stability, with a one-unit increase leading to an improvement of around 1.0877 units. Based on this, the null hypothesis is rejected, supporting the claim that RMC independence positively contributes to financial stability. This finding is consistent with Abba et al. (2023) but contradicts the outcomes of Frank and Ukpong (2024) and Ahmed (2019).

Table 7. Pooled OLS Regression Result with the Moderated Effect

FIS	Coef.	Std. Err.	Z	P> z 	[95% Conf. Interval]	
FSZ	-.0001613	.0008037	-0.20	0.841	-.0017525	.00143
PRO	.2259271	.0166515	13.57	0.000	.1929582	.2588959
LIQ	.0638982	.0653589	0.98	0.330	.0655079	.1933042
LEV	.3691941	.0726216	5.08	0.000	.2254085	.5129797
RMCI	.1654289	.0811844	2.04	0.044	.3261685	.0046894
FSZ*RMCI	1.306695	.0061126	213.77	0.000	1.294592	1.318798
PRO*RMCI	.2962693	.0220084	13.46	0.000	.3398445	.2526942
LIQ*RMCI	.0807434	.0847174	0.95	0.342	.248478	.0869912
LEV*RMCI	.4891471	.0946963	5.17	0.000	.6766391	.301655
_cons	.1250973	.061423	2.04	0.044	.0034841	.2467106
R-squared	0.9992					
Adj R-squared	0.9991					
F(9,120)	16752.99					
Prob > F	0.0000					

The findings from the Pooled Ordinary Least Squares (OLS) regression analysis reveal a robust and statistically significant model. This is evidenced by an F-statistic of 16,752.99 and a probability value (Prob > F) of 0.0000, signifying that the independent variables, when considered together, account for a substantial proportion of the changes observed in financial stability (FIS). The R-squared value of 0.9992 indicates that roughly 99.92% of the variance in financial stability among listed deposit money banks in Nigeria is explained by the predictors in the model. Additionally, the Adjusted R-squared of 0.9991 reaffirms the model's explanatory strength after adjusting for the number of variables included.

In terms of specific variables, the analysis shows that firm size (FSZ) does not exert a statistically significant effect on financial stability. With a coefficient of -0.0001613 and a p-value of 0.841 (well above the 0.05 significance level), the result indicates that firm size is not a decisive factor in shaping financial stability outcomes for the banks. As such, the null hypothesis (H01), which posits no significant effect of firm size, is retained. This outcome supports the earlier findings of Zeli (2014) but diverges from the results

reported by Assefa (2021), Rafatnia et al. (2020), Khafid et al. (2019), and Ikpesu and Eboiyehi (2018), who found a notable relationship.

Profitability (PRO), on the other hand, is found to significantly and positively influence financial stability. The estimated coefficient is 0.2259, and the p-value is 0.000, confirming statistical significance. This implies that greater profitability enhances a bank's financial stability, likely due to its ability to absorb shocks and sustain operations over time. Consequently, the null hypothesis (H02) is rejected in favor of the alternative. This conclusion supports the work of Assefa (2021), but contradicts the results from Rafatnia et al. (2020), Khafid et al. (2019), and Ikpesu and Eboiyehi (2018), who reported different dynamics.

Regarding liquidity (LIQ), the results indicate no statistically significant impact on financial stability, with a coefficient of 0.0639 and a p-value of 0.330. This suggests that a bank's capacity to cover short-term liabilities is not a strong determinant of its long-term financial health. Therefore, the null hypothesis (H03) is accepted. This finding aligns with Adekanmbi (2017) but is inconsistent with the conclusions of Masdupi et al. (2018) and Ikpesu and Eboiyehi (2018).

Leverage (LEV) emerges as a significant positive contributor to financial stability. The coefficient for LEV is 0.3692, with a p-value of 0.000, indicating a strong relationship. This finding implies that banks can use leverage effectively—when properly managed—to enhance their stability, perhaps by financing profitable ventures. This supports the position of Assefa (2021), although it is inconsistent with Rafatnia et al. (2020) and Khafid et al. (2019), who identified different effects.

The independence of the Risk Management Committee (RMCI) is also found to have a positive and statistically significant effect on financial stability. The coefficient is 0.1654, with a p-value of 0.044, confirming that independent oversight in risk governance contributes positively to the soundness of financial institutions. As a result, the null hypothesis (H05) is rejected. This finding corroborates the work of Abba et al. (2023) but contrasts with the conclusions reached by Frank and Ukpong (2024) and Ahmed (2019).

The interaction term between firm size and RMCI is positive and significant (coefficient = 1.3067, p-value = 0.000), suggesting that RMCI enhances the beneficial impact of firm size on financial stability. While firm size alone is not impactful, the presence of an independent risk committee allows larger institutions to implement more robust governance structures, which ultimately strengthen their resilience.

Similarly, profitability interacts positively with RMCI (coefficient = 0.2963, p-value = 0.000), showing that independent oversight amplifies the stabilizing role of profit. This implies that banks with sound profitability can better sustain stability when their earnings and risk profiles are governed by an autonomous risk management structure.

In contrast, the interaction between liquidity and RMCI does not yield a statistically significant result (coefficient = 0.0807, p-value = 0.342), indicating that RMCI does not substantially influence how liquidity affects stability. This suggests that liquidity's role in promoting stability is largely independent of risk committee oversight.

Lastly, the interaction between leverage and RMCI is positive and significant (coefficient = 0.4891, p-value = 0.000), signifying that RMCI amplifies the positive effects of leverage. Under effective risk oversight, banks are better positioned to utilize debt in a way that bolsters financial stability.

RMCI plays a crucial moderating role in strengthening the positive effects of firm size, profitability, and leverage on financial stability, though its influence on liquidity appears negligible. This highlights the contextual effectiveness of RMCI in relation to specific financial attributes within Nigeria's banking sector.

3. Conclusion

This study concludes that the size of a bank alone does not significantly influence its financial stability; however, when moderated by the independence of the risk management committee (RMCI), its effect becomes significant. In contrast, profitability and leverage exhibit direct and positive impacts on financial stability. Liquidity, on the other hand, shows no meaningful influence on financial stability among listed deposit money banks in Nigeria. The analysis underscores the critical role of RMCI in reinforcing the positive effects of certain firm-specific characteristics, emphasizing the importance of governance mechanisms that support prudent risk management practices. Independent risk committees are essential to sustaining financial soundness over the long term.

Based on these insights, the study recommends that Nigerian deposit money banks should pursue growth strategies supported by strong and autonomous risk management committees to better navigate evolving financial risks. Earnings should be strategically reinvested to strengthen capital buffers and improve resilience, under the guidance of sound risk oversight frameworks. Liquidity resources should be allocated to high-quality investments rather than held passively. Furthermore, regulatory authorities should ensure strict compliance with risk governance standards, enhance training for oversight roles, and encourage policies that prioritize financial system stability.

References

- [1] M. T. Abba, B. Sabo, and A. A. John, "Risk management committee characteristics and firm value of listed oil and gas companies in Nigeria," *J. Finance Corp. Gov.*, vol. 9, no. 2, pp. 45–61, 2023.
- [2] M. Abdullah and S. Ismail, "Risk management committee attributes and firm performance," *Procedia Econ. Finance*, vol. 35, pp. 287–296, 2016, doi: 10.1016/S2212-5671(16)00036-1.
- [3] A. Abubakar, H. Bala, and A. Abdullahi, "Risk management committee characteristics and firm performance: Evidence from listed insurance firms in Nigeria," *Int. J. Account. Finance Risk Manag.*, vol. 3, no. 2, pp. 41–45, 2018.
- [4] E. Adegbite, "Corporate governance mechanisms and financial stability in African banks," *J. Afr. Bus.*, vol. 24, no. 1, pp. 19–37, 2023.
- [5] A. Adekanmbi, "Liquidity and financial stability of banks in South Africa (2005–2015)," *South Afr. J. Econ. Manag. Sci.*, vol. 2, no. 1, pp. 1–9, 2017, doi: 10.4102/sajems.v20i1.1615.
- [6] M. Y. Ahmed, "Risk management committee characteristics and board financial expertise on financial performance of quoted banks in Nigeria," *J. Account. Finance Manag.*, vol. 5, no. 2, pp. 88–101, 2019.
- [7] S. Ali, M. A. Qureshi, and K. Khan, "Risk management committee and financial distress: Evidence from emerging economies," *Cogent Bus. Manag.*, vol. 8, no. 1, p. 1938356, 2021, doi: 10.1080/23311975.2021.1938356.
- [8] E. M. Al-Matari, A. K. Al-Swidi, and F. H. Fadzil, "Corporate governance and firm performance in Oman: Empirical study on corporate governance system," *Int. J. Account. Res.*, vol. 7, no. 1, pp. 1–12, 2019, doi: 10.35248/2472-114X.19.7.190.
- [9] E. I. Altman, "Financial ratios, discriminant analysis and the prediction of corporate bankruptcy," *J. Finance*, vol. 23, no. 4, pp. 589–609, 1968, doi: 10.2307/2978933.
- [10] A. Assefa, "Firm-specific factors and financial stability: Empirical evidence from commercial banks in Ethiopia," *J. Bank. Finance Rev.*, vol. 7, no. 2, pp. 112–125, 2021.
- [11] M. S. Beasley, R. Clune, and D. R. Hermanson, "Enterprise risk management: An empirical analysis of factors associated with the extent of implementation," *J. Account. Public Policy*, vol. 24, no. 6, pp. 521–531, 2005, doi: 10.1016/j.jaccpubpol.2005.10.001.
- [12] L. Becchetti and J. Sierra, "Banking consolidation and financial stability: The case of European banking," *Appl. Econ.*, vol. 35, no. 7, pp. 757–770, 2003.

- [13] T. Beck, A. Demirgüç-Kunt, and R. Levine, “Financial institutions and markets across countries and over time: The updated financial development and structure database,” *World Bank Econ. Rev.*, vol. 4, no. 1, pp. 77–92, 2013.
- [14] J. K. Cheluget, “Use of Altman Z-score model in predicting financial distress in insurance companies in Kenya,” *Int. J. Finance Account.*, vol. 3, no. 1, pp. 1–12, 2014.
- [15] M. Čihák, A. Demirgüç-Kunt, M. S. Martínez Pería, and A. Mohseni-Cheraghloo, “Financial stability indicators: A policy toolkit,” *World Bank Policy Res. Work. Pap.*, no. 6192, 2012, doi: 10.1596/1813-9450-6192.
- [16] J. H. Davis, F. D. Schoorman, and L. Donaldson, “Toward a stewardship theory of management,” *Acad. Manag. Rev.*, vol. 22, no. 1, pp. 20–47, 1997.
- [17] L. Donaldson, “Agency theory and stewardship theory: Retrospective and prospective,” *Acad. Manag. Perspect.*, vol. 35, no. 3, pp. 336–350, 2021.
- [18] S. Eboiyehi and F. Ikpesu, “Corporate governance and financial distress of deposit money banks in Nigeria,” *Int. J. Econ. Finance Issues*, vol. 7, no. 4, pp. 371–377, 2017.
- [19] O. C. Eneh, F. N. Udeh, and L. O. Odo, “Firm attributes and financial performance of quoted conglomerates in Nigeria,” *J. Account. Finance Manag.*, vol. 5, no. 6, pp. 24–35, 2019.
- [20] E. F. Fama and M. C. Jensen, “Separation of ownership and control,” *J. Law Econ.*, vol. 26, no. 2, pp. 301–325, 1983, doi: 10.1086/467037.
- [21] A. Frank and M. E. Ukpong, “Risk management committee independence and financial performance of listed deposit money banks in Nigeria,” *Niger. J. Finance Manag. Sci.*, vol. 12, no. 1, pp. 101–116, 2024.
- [22] F. Ikpesu, “Firm-specific characteristics and financial performance of deposit money banks in Nigeria,” *Int. J. Econ. Finance Issues*, vol. 9, no. 2, pp. 104–112, 2019.
- [23] F. Ikpesu and C. Eboiyehi, “Determinants of financial stability in Nigerian deposit money banks,” *Sci. Pap. Univ. Pardubice Ser. D*, vol. 26, no. 1, pp. 87–97, 2018.
- [24] M. C. Jensen and W. H. Meckling, “Theory of the firm: Managerial behavior, agency costs and ownership structure,” *J. Financial Econ.*, vol. 3, no. 4, pp. 305–360, 1976.
- [25] M. Khafid, Z. Arifin, and R. Awwaliyah, “Firm-specific characteristics and financial stability of Indonesian commercial banks,” *Int. J. Financial Res.*, vol. 10, no. 5, pp. 274–286, 2019, doi: 10.5430/ijfr.v10n5p274.
- [26] F. T. Kristanti, “Financial distress prediction model in Indonesia,” *J. Econ. Bus. Account. Ventura*, vol. 18, no. 3, pp. 405–414, 2015.
- [27] F. T. Kristanti, T. Herlambang, and T. Huda, “The comparison of Altman, Springate, and Zmijewski bankruptcy models in predicting financial distress of manufacturing companies listed on the Indonesian Stock Exchange,” *J. Din. Akuntansi*, vol. 8, no. 1, pp. 12–21, 2016.
- [28] B. A. Kusi, E. K. Agbloyor, and A. Q. Aboagye, “Corporate governance mechanisms and bank stability in sub-Saharan Africa,” *J. Int. Financial Markets Inst. Money*, vol. 77, p. 101493, 2022, doi: 10.1016/j.intfin.2021.101493.
- [29] M. A. Maryam and M. Adamu, “Firm-specific determinants of financial stability: Evidence from listed insurance firms in Nigeria,” *J. Account. Manag.*, vol. 7, no. 3, pp. 20–30, 2017.
- [30] E. Masdupi, A. Tasman, and R. Davista, “The influence of liquidity, leverage and profitability on financial distress of listed manufacturing companies in Indonesia Stock Exchange,” *Int. J. Econ. Finance Issues*, vol. 8, no. 4, pp. 199–206, 2018.
- [31] F. S. Mishkin, “Global financial instability: Framework, events, issues,” *J. Econ. Perspect.*, vol. 13, no. 4, pp. 3–20, 1999, doi: 10.1257/jep.13.4.3.
- [32] A. Oladejo, O. Busari, and J. David, “Risk management committee independence and firm value of financial institutions in Nigeria,” *Int. J. Bank. Finance*, vol. 15, no. 2, pp. 59–76, 2023.
- [33] T. S. Ong, B. H. Teh, and B. Lin, “Governance and financial performance of Malaysian property companies,” *Int. J. Econ. Finance*, vol. 3, no. 5, pp. 105–115, 2011, doi: 10.5539/ijef.v3n5p105.
- [34] S. Rafatnia, G. Kordestani, and S. Mehrani, “Determinants of financial stability in the European banking sector,” *J. Financial Risk Manag.*, vol. 9, no. 3, pp. 235–253, 2020, doi: 10.4236/jfrm.2020.93013.

- [35] R. G. Rajan and L. Zingales, “What do we know about capital structure? Some evidence from international data,” *J. Finance*, vol. 5, no. 1, pp. 1421–1460, 1995.
- [36] G. J. Schinasi, “Defining financial stability,” *IMF Work. Pap.*, no. 04/187, 2004, doi: 10.5089/9781451859544.001.
- [37] E. Uchenna and U. D. Okelue, “Financial distress in banks and the Nigerian banking industry: A critical appraisal,” *Int. J. Econ. Dev. Res. Invest.*, vol. 3, no. 2, pp. 32–39, 2012.
- [38] Y. Wang and W. T. Hsu, “Board independence and firm value: Evidence from Taiwan,” *Int. Res. J. Finance Econ.*, no. 107, pp. 6–17, 2013.
- [39] C. F. Wesa and H. N. Otinga, “Firm size and financial performance of listed banks in Kenya,” *J. Finance Account.*, vol. 6, no. 5, pp. 176–182, 2018.
- [40] M. Zaman, A. S. Rahaman, and G. Lobonțiu, “Corporate governance quality and firm performance: Evidence from UK listed firms,” *Corp. Gov. Int. J. Bus. Soc.*, vol. 11, no. 5, pp. 507–528, 2011.
- [41] A. Zeli, “Firm size and financial stability: A cross-regional study,” *Int. J. Econ. Finance Issues*, vol. 4, no. 3, pp. 456–462, 2014.
- [42] A. Zeli, “Financial soundness and firm-specific factors in predicting bank stability,” *Eur. J. Bus. Manag.*, vol. 11, no. 6, pp. 72–80, 2019