



RISK ASSESSMENT AND ASSETS QUALITY OF FINANCIAL INSTITUTIONS IN NIGERIA**By****DR. CHARLES SEGUN ILELABOYE (ACA)***Head Finance, Bank of Agriculture Ltd, SWZ Ibadan, Nigeria**Corresponding authors' email and mobile: ilelaboyecharles@gmail.com/
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Abstract

Risk assets creation constitute the most prominent and primary source of earnings to financial institutions across the globe. It therefore becomes imperative that these activities must be properly assessed to mitigate credit risk thereof. The objective of this study was to find out the effect of risk assessment on the risk assets quality of financial institutions in Nigeria using board credit committee size and audit committee members with financial expertise as variables of investigation. Utilizing secondary data sourced from the yearly reports of selected financial institutions covering the period from 2010 to 2022 provides a rich data set for analysis. The population of the study comprised all eleven categories of financial institutions in Nigeria as of December 31, 2022. However, the study purposively examined a subset of this population, consisting of four categories of financial institutions, totaling 38 elements. Data were analysed through the use of feasible generalised least squared regression method. The findings indicated that board credit committee size has negative and significant effect on assets quality. On the other hand, audit committee member with financial expertise has positive and significant effect on assets quality of Nigerian financial institutions. The study concluded that board credit committee size has potentials to reduce incidences of non-performing loans of financial institutions in Nigeria. The study therefore recommended for a policy document that will harmonize 'board credit charters' of different institutions for uniformity as this will improve public perception and mitigation of credit risk exposure on the assets quality of financial institutions in Nigeria.

Keywords: asset quality, financial institutions, risk assessment, risk management

Introduction

Financial institutions play a formidable role in the economy by bridging the gap between those who have surplus funds (the surplus unit) and those in need of funds (the deficit unit). Hence, channeling funds from savers to borrowers, financial institutions enable investment, consumption, and economic growth. Indeed, the creation of risk assets in the form of loans and advances is a fundamental aspect of financial intermediation. Financial institutions assess the creditworthiness of potential borrowers and extend loans based on their ability to repay, thereby creating risk assets. These loans enable individuals and businesses to access the funds they need to invest in various ventures, whether it is starting a new business, expanding operations, or purchasing assets. However, it is worthy to note that the creation of risk assets comes with inherent risks for the financial institutions themselves. They must carefully manage these risks through risk assessment techniques, to ensure the sustainability of their operations and the stability of the financial system as a whole (Ogbuga *et al.* 2021).

Financial institutions in the submissions of Alfadhli and AlAli (2021) and Nyabaga and Matanda (2020) serve as backbone, blood vein and cornerstone for economic transformation. Sequel to this, every entity faces internal and external shocks in their day-to-day operations. The inability to nip these



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risks in the bud might have adverse implication on the asset's quality of financial institutions (Asiligwa, 2017). The study of Vijana and Aruna (2018) provide a succinct definition of risk as exposure to peril, loss, and damage, capturing its multifaceted nature. This definition underscores the potential negative outcomes associated with various activities, including financial transactions. Shahbaz *et al.* (2012) highlights credit risk as one of the most significant risks confronting financial institutions today.

Credit risk refers to the possibility that borrowers will fail to meet their repayment obligations, leading to financial losses for the lending institution. Given the centrality of loans and advances in financial intermediation, effective management of credit risk is essential for the stability and viability of financial institutions. In the same vein, Julian (2014) further elaborates on credit risk by emphasizing the importance of assessing and quantifying this risk. By evaluating the likelihood of borrower default and the potential magnitude of losses, financial institutions can make informed decisions regarding lending activities and implement appropriate risk mitigation strategies. In summary, risk, particularly credit risk, poses a significant challenge to financial institutions and must be carefully managed to safeguard their financial health and stability. Proper assessment and quantification of risk are crucial steps in this process, enabling institutions to make prudent decisions and mitigate potential losses effectively.

Perit and Besmir (2019) highlight the fundamental objective of risk assessment, which is to ascertain the risk tolerance and appetite levels of financial institutions. This process involves evaluating the institution's capacity and willingness to bear risk in pursuit of its objectives. By understanding their risk tolerance, institutions can establish appropriate risk management frameworks and make concerted decisions regarding risk-taking activities. Ilelaboye and Alade (2023) emphasize the global trend of enhancing financial institutions' asset quality through effective risk assessment. Countries worldwide are recognizing the importance of strong and resilient financial institutions in promoting economic stability and growth. By strengthening risk assessment practices, countries aim to improve the quality of assets held by financial institutions, thereby reducing the likelihood of financial crises and enhancing overall financial system stability. Together, these perspectives underscore the critical role of risk assessment in shaping the risk management practices of financial institutions and promoting financial stability at both the institutional and systemic levels.

Despite the wealth of studies conducted on risk assessment, there is still room to re-evaluate the existing literature and identify the gap that may exist. The turning point in 1990 up to the early 2000 that led to the liquidation of many financial institutions, and subsequent regulatory reforms, such as consolidation of banks in 2005, issuance of governance code, as revised in 2018, establishment of Asset Management Company of Nigeria (AMCON) in 2010, and newly introduced Global Standing Instruction (GSI) in 2021 have significantly transformed the financial institutions to an extent (Ilelaboye & Alade, 2023). However, much still needs to be done as recent reforms have not really foreclosed liquidation in the financial sector. Of recent, financial institutions are not carrying out in depth risk assessment before risk assets are created. For instance, in June 2022, Titan Trust Bank (TTB) commenced process of taking over Union Bank Plc due to large volume of bad loans worth N40 billion that were not collateralized (Ronald, 2022). This is a complete breach of the risk assessment. Furthermore, the reason adduced to liquidation of some Merchant Banks ranged from loan portfolio exploding beyond the capacity of the bank, lending spree without growing the deposit base and non-compliance with the credit policy and laws among others (Donil, 2004). Above infractions were clear manifestations of poor risk assessment.



Furthermore, there have been academic studies on risk management and risk assessment with particular reference to the operations of deposit money banks. The conclusions of these studies manifested different outcomes which might be attributed to different methodologies, sample sizes and contextual factors. The present study aims to fill a gap in existing research by expanding the discourse to include other categories of financial institutions. This expansion could provide a more comprehensive understanding of the subject matter. The study investigates how risk assessment influences the asset quality of financial institutions in Nigeria, with a focus on two specific factors-board credit committee size and audit committee members with finance expertise having firm size as a control variable. This approach allows for a more precise examination of the relationship between risk assessment and assets quality while accounting for potentially influential factors.

Literature Review and Hypotheses Formulation

Risk Assets Quality of Financial Institutions

Nwosu *et al.* (2020) underscore the significance of risk asset quality as a crucial aspect of every financial institution's portfolio. When these assets are well-managed, they are expected to generate interest income for the organization, contributing to its profitability and sustainability. The statement highlights the dual nature of risk assets: they represent both opportunities and challenges for financial institutions. Temile *et al.* (2019) highlight a crucial aspect of risk asset management by emphasizing that these assets carry a significant portion of risk to the capital of financial institutions. This risk exposure stresses the potential impact that the performance of risk assets can have on the overall financial health and viability of the organization. Popoola *et al.* (2021) assert that the creation of strong assets serves as a critical factor in evaluating the performance of financial institutions. Strong assets reflect sound lending practices, prudent risk management, and effective asset quality management, all of which contribute to the institution's overall financial health and stability. These assets not only generate income but also enhance the institution's capacity to meet its obligations and support sustainable growth over the long term. Conversely, Daniel (2017) highlights the detrimental effects of poor asset quality on the liquidity position of financial institutions. When assets are of low quality or are impaired, it can diminish the institution's ability to convert assets into cash quickly, thereby weakening its liquidity position.

Runchen (2023) and Jacqueline (2023) aptly point out that asset quality of financial institutions can be compromised by both internal and external factors. Internal factors, as highlighted by Asiligwa (2017), are specific to the bank and are within the control of its management. These may include factors such as the size of the bank, its age, lending practices, risk management policies, and corporate governance standards. Effective management of these internal factors is essential for maintaining strong asset quality and overall financial health. On the other hand, external factors, as noted by Ogunbiyi & Ihejirika (2014), are beyond the control of the bank's management and may include macroeconomic variables such as interest rates, inflation rates, exchange rates, and economic growth trends. These external factors can significantly impact the performance of financial institutions and may affect the quality of their assets. Abdulazeez *et al.* (2019) suggest that non-performing loans could be measured as ratio of non-performing loans to total loan outstanding. Non-performing loans (NPL) are loans that have not been serviced in relation to the agreed-upon terms for an extended period, typically indicating a higher risk of default. Monitoring and managing NPLs is crucial for financial institutions to assess and address potential credit risks effectively. Indeed, according to the Central Bank of Nigeria (CBN)



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prudential guidelines (2010), non-performing loans can diminish asset quality and pose risks to the stability of financial institutions and the broader economy.

Risk Assessment

According to Committee of Sponsoring Organisation (1992), risk assessment entails the identification and analysis of relevant risks to achievement of the objectives. According to Perit and Besmir (2019), the basic purpose of risk assessment is to determine the risk tolerance and appetite level of financial institutions. Diana (2017) lends credence to the fact that risk assessment is very important in the financial sector than any other sector because of its impact when it crystallizes. The studies of Asilgwa (2017), Dina (2017), avers that risk assessment in the financial institutions include policies, procedures, rules and structure used in banks to manage credit risk by identifying, analysing, assessing, treating and monitoring of risks. Furthermore, Shahbaz *et al.* (2012) subscribes to the fact that difference in risk management culture and techniques can lead to either success or failures of financial institutions as it has been witnessed for the past couple of decades. The banks that are performing creditably would suddenly announce large losses due to credit exposure that has turned awry. For instance, the position of Israel (2016) is that poor credit management contributes immensely to poor asset quality in Nigerian banking sector. According to the study, poor risk assessment on loan has diminished the liquidity position and credit expansion with the attendant effect on the economic growth. Thus, risk assessment is the combined efforts put in place by the management to prevent risks from crystallising particularly over the asset quality of financial institutions. To properly assess the risk, the quality and composition of board credit committee and audit committee member with finance expertise matter in guaranteeing good asset quality.

Board Credit Committee Size

To enhance efficiency and effectiveness, board is expected to put in place some specialised committees that would give advice to board on certain oversight functions. Egungwu and Egungwu (2018) describe board credit committee as a sub-committee within the board that is saddled with the responsibility of assessing credit worthiness of the borrower to ensure that amount borrowed is repaid. However, the number and nature of committee depend on factors, such as bank's size and the risk profile of the institution. Board committees are sub-set committee within an organisation that supervises the activities of board of directors in a way that would broaden the operational excellence of financial institutions. SOX Act (2002) prescribes the need to have various committees within the board and members must be characterised by competence and expertise. Part of the committee so prescribed is board credit committee. According to Ibrahim and Yusof (2019), international best practices require the establishment of the board credit committee size that comprises not less than three directors, preferably independent and non-executive directors to control credit risk through the implementation of the contents of various credit charters being operated by different financial institutions.

Audit Committee Members with Financial Expertise

The Sarbanes-Oxley Act (SOX, 2002) explains that roles of audit committee are enormous in the sense that it reviews effectiveness of financial statements and evaluate the control system. Hence, there is need for tact and expertise in dealing with financial matters. Akpey and Azembila (2016) describe financial expert as someone with accounting knowledge and finance related fields including professional certification in accounting or comparable experience. Having experience and knowledge in accounting and auditing improve the judgment of audit committee (Zubair, 2020). The assertion



from Onyabe *et al.* (2018) regarding the role of board members with a finance background in making risk assessment decisions aligns with the widely recognized importance of having qualified individuals in key decision-making positions within financial institutions.

Board members with expertise in finance are likely to possess the necessary skills and understanding to effectively evaluate and manage risks, which are indeed fundamental to the control system of any organization. The idea of having at least one audit committee member with finance expertise was first entrenched under section 359 (3) and CAMA, 2004 (as amended). This idea was further reinforced in the SEC code of 2011. As reflected in the work of Osemene and Fakile (2018), audit committee member with finance expertise improves the earning management activities more effectively. Ojeka *et al.* (2021) argue that audit committee members need a vast knowledge and experience in accounting and auditing to perform effective oversight functions. This means that audit committee with financial background understand financial figures than members without financial experience.

Control Variable

Firm Size

From the studies of Nyabaga and Matanda (2020), Andreas and Theodoros (2019), the size of the firm dictates the nature of risk system to enforce in a particular organisation. Eyigege (2018) opines that large size banks have greater access to large deposits. According to Ekanayake and Azeez (2015) argue that larger banks incurs lesser loan default than the smaller banks. Akwaa-Sekyi and Gene (2016) argue that large banks tend to be mindful of risk system than the smaller banks. It was reinforced that size plays a prominent role in determining the credit products available in the financial institutions. The size of the bank can be measured through various financial ratios to analyse the financial strength of the financial institutions (Syed & Ghazali, 2018). The study of Nzioka (2013) observes that firm size has become a control variable that is normally used in empirical corporate finance. Thus, firm size is how big the financial institutions are in relation to its assets base.

Underlying Theory

Credit Risk Theory

The definition provided from Ayunku and Uzochukwu (2020) accurately encapsulates the essence of credit risk. When an obligor fails to honor their repayment obligation, whether it is a borrower, debtor, or counter party, it indeed exposes the lender to potential losses. This failure to repay can result in the lender suffering not only the loss of the principal amount lent but also the interest that would have been earned on that principal. Folajimi and Dare's (2020) reference likely underlies the importance of the Merton Model as a foundational theory in the field of credit risk management, highlighting its contributions to efforts aimed at measuring and managing credit risk exposure in financial markets. One of the ways to mitigate credit risk is through an in-depth check of the borrowers in a bid to determine their credit worthiness (Inegbedion *et al.*, 2020). One of the problems facing financial sector in Nigeria is credit risk which had led to liquidation of several banks (John, 2015).

Review of Empirical Studies and Development of Hypotheses

Board Credit Size and Risk Asset Quality

Abubakar *et al.* (2022) delve into an intriguing aspect of financial institution governance by examining the influence of credit committee characteristics on bank assets quality, with a specific focus on credit committee size as one of the proxies. The domain of the study covers 18 deposit money banks in



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Nigeria. Using data sourced from published annual reports of selected banks covering a thirteen-year period (2006-2018) provides a comprehensive dataset for analysis. Data analysis technique used included co- relational coefficient, multiple regression analysis and dynamic panel model estimation using generalised method of moments. The findings of Abubakar *et al.*'s (2022) study, indicating that credit committee size has a significant and negative effect on non-performing loans, offer valuable insights into the governance and risk management practices within financial institutions. Extending the domain of the study to include other financial institutions would indeed provide a broader understanding of the relationship between credit committee characteristics and assets quality across the financial sector. The purpose of Ibrahim and Yusof (2019) study was to examine the association between board credit committee and the assets quality of banks in the Sub-Saharan Africa using credit committee size as variable of investigation. With the use of multiple regression analytical technique, the outcome shows that credit committee size has positive and not significant relationship with assets quality. The study was conducted in Sub-Saharan Africa and its outcome might not be applicable to the Nigerian context as a result of different rules and regulations guiding the business environment.

The study by Egungwu and Egungwu (2018) offers valuable insights into the impact of corporate governance practices on the assets quality of banks in Nigeria, with a specific focus on the role of the board credit committee as an explanatory variable. In essence, their research explores how the structure and functioning of the board credit committee influence the overall asset quality of Nigerian banks. The study explores the use of secondary data gotten from the annual reports of the chosen banks covering 2012 to 2016. The hypotheses were tested with the use of Ordinary Least Square (OLS) regression technique. The study finds that board credit committee size is not significant and has negative effect on the assets quality of banks. Indeed, while the study provides valuable insights into the relationship between credit committee characteristics and assets quality within the scope of its analysis, its outdated nature and limited scope may pose some limitations in terms of applicability and relevance to current contexts. Progress *et al.* (2014) in Zimbabwe investigate the effect of corporate governance on the performance of commercial banks using five banks annual reports spanning 2009 and 2012. Multiple regression analysis was adopted to determine the influence of internal board committees on the performance. The result discovers that board committees are negatively related to banks performance. The study concentrates on short run effect between the corporate governance and the performance. Apart from this, the study is old and events must have taken over its outcomes. Hence the study hypothesizes that;

H₁: Board credit committee size has no significant effect on the risk assets quality of financial institutions in Nigeria.

Audit Committee Size with Finance Expertise and Risk Assets Quality

James and Anuwa (2022) in a study conducted in Nigeria on corporate governance and assets quality of listed deposit money banks in Nigeria using proxies such as audit committee with financial expertise as one of the explanatory variables. However, longitudinal design was adopted in the study, while data were gathered from the financial statements of fourteen (14) listed deposit money banks covering the period 2012-2019. Data analysis was carried out through the use of random effect regression model. Findings reveal that audit committee member with finance expertise has positive with no significant effect on the asset quality of quoted deposit money banks in Nigeria. Nevertheless, the scope of this study could have been extended to other financial institutions different from deposit money banks.



The study conducted by Augustine and Justice (2022) offers additional insights into the relationship between corporate governance, specifically audit committee effectiveness, and corporate performance within the Nigerian banking sector spanning 2011-2020. The finding that audit committee members with finance expertise have a positive and significant effect on corporate performance, as revealed by the Ordinary Least Squares (OLS) analysis conducted by Augustine and Justice (2022), carries important implications for corporate governance practices and organizational outcomes within Nigerian deposit money banks.

Ojeka *et al.* (2021) conduct a study on the effect of audit committee characteristics on the asset quality in Nigerian deposit money banks using audit committee member with finance expertise as one of the proxies of investigation. The study adopts the use of multiple regression analysis specifically panel data regression technique. Secondary data was used as instrument of data collection. The outcome of the study indicating that the inclusion of audit committee members with finance knowledge reduces the level of non-performing loans (NPLs) in Nigerian banks carries significant implications for risk management, corporate governance, and financial stability within the banking sector. The study does not show the time scope covered and devoid of underpinning theory. Pham (2021) conducts a study on how controls affect the assets quality in Vietnam using bank specific characteristics between 2007 and 2018. The study extracts information from the financial reports of 30 joint stock commercial banks. The study employs the use of descriptive and Bayesian linear regression method as estimation technique. The outcomes of the study reveal that audit committee with finance expertise have negative and significant effect on the assets quality of the sampled banks in Vietnam. There is a contextual gap in the study

Osemene and Fakile (2018) empirically examine the effectiveness of audit committee and performance of deposit money banks in Nigeria using financial expertise as one of the explanatory variables. The study uses secondary data of 5 years (2013-2017) sourced from the annual reports of 9 listed deposit money banks on the Nigerian Exchange Group (NGX). Through the use of inferential statistics such as ordinary least square, it was discovered that audit committee with financial expertise has positive and significant effect on the financial performance of deposit money banks in Nigeria. In the same vein, Zgarni *et al.* (2018) investigate the effect of audit committee on the discretionary loan loss provisions in Tunisian commercial banks covering 2001-2014. The regression models were estimated using panel corrected standard error. The finding that audit committees with financial expertise have a negative and significant effect on asset quality, as proxied by non-performing loans, is intriguing and warrants careful consideration. Apart from the fact that this study was not conducted in Nigeria, there was no robustness test carried out in the study coupled with lack of theoretical reviews. In view of the above, the hypothesis was tested;

H₂: Audit committee member with finance expertise has no significant effect on the risk assets quality of financial institutions in Nigeria.

Firm Size and Risk Assets Quality

The study conducted by Popoola *et al.* (2021) focuses on analyzing bank-specific factors and assets quality among listed deposit money banks (DMBs) in Nigeria. The inclusion of firm size as a control variable in the analysis conducted by the researchers adds an important dimension to their study. By including firm size as a control variable, the researchers can mitigate the potential impact of these



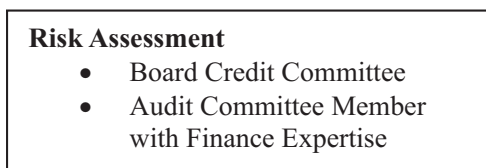
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confounding variables and isolate the specific effect of audit committee expertise on risk asset quality. The data utilized in the study were sourced from the published annual reports of the sampled banks for the period spanning 2012 to 2018. The analysis was carried out with multiple regression analytical technique. The finding that firm size has a negative and not significant effect on the asset quality of banks in Nigeria adds another layer of insight to the study's analysis.

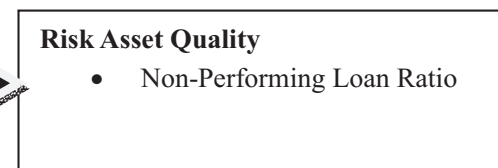
Evidence from Vietnam in a study conducted by Pham (2021) on how internal control affect the asset quality also finds out that banks' size as a control variable has negative and significant effect on the asset quality of banks in Vietnam. Motaz *et al.* (2019) assess the impact of audit characteristics on the credit risk in Jordanian commercial banks using bank size as a control variable which was measured by logarithm of the total asset. The outcome of the study suggests that banks' size has negative and significant effect on the asset quality. Similarly, Abdulazeez *et al.* (2019) examine the impact of board structure on the assets quality of listed deposit money banks in Nigeria using firm size as one of the control variables. The outcome of the inferential statistics indicates that firm size has negative and not significant relationship with the asset quality of banks in Nigeria.

Conceptual Framework

Independent Variables



Dependent Variable



Control Variable

Conceptual Framework Schema

Source: Author's Compilation (2024)

Methodology

This study employed an *ex-post facto* research design. This provides a pragmatic and ethical approach for investigating the relationship between risk assessment and risk asset quality in Nigerian financial institutions. Utilizing secondary data sourced from the yearly reports of selected financial institutions covering the period from 2010 to 2022 provides a rich dataset for analysis. The population of the study comprises all eleven categories of financial institutions in Nigeria as of December 31, 2022. However, the study purposively examines a subset of this population, consisting of four categories of financial institutions, totaling 38 elements. They are deposit money banks, development financial institutions, non interest banks and merchant banks. The establishment of the Asset Management Corporation of Nigeria (AMCON) in 2010 indeed marks a significant event in the Nigerian financial sector, particularly in addressing the issue of non-performing loans.

Modifying the model of Asilgwa (2017) on the effect of internal controls on the financial performance of commercial banks in Kenya, for the study on risk assessment and risk asset quality of financial institutions in Nigeria suggests an adaptation of existing theoretical frameworks to suit this study. The model is as follows;

$$NPLR_{it} = \beta_0 + \beta_1 BCCS_{it} + \beta_2 ACFEX_{it} + e_{it} \dots \dots \dots (1)$$



When control variable was introduced, the model was as stated in (2)

$$NPLR_{it} = \beta_0 + \beta_1 BCCS_{it} + \beta_2 ACFEX_{it} + \beta_3 \log FS_{it} + e_{it} \dots \dots \dots (2)$$

Where;

$NPLR_{it}$ = Non-Performing Loans Ratio (NPLR) of bank i at time t, as dependent variable

$BCCS_{it}$ = Board Credit Committee Size of bank i at time t, as independent variable

$ACFEX_{it}$ = Audit Committee Member with Financial Expertise of bank i at time t, as independent variable

$\log FS_{it}$ = Log of Firm Size of bank i at time t, as independent variable

it 2010-2022 = Annual time series of the pooled data

P_{0it} = Intercepts

$P_{1it} - P_{2it}$ = Coefficient Slope

e = Stochastic error time

The analyses were done using both descriptive and inferential statistics involving feasible generalised least squared regression method.

Table 1

Measurement of Variables

Variables	Proxies/Notation	Description	Measurement	Source
Dependent Variables				
Non-performing Loan	Non-performing Loan Ratio (NPLR)	Loans that are classified in line with the CBN prudential guidelines.	Non-performing Loan divided by Total loans	Pham (2021),
Independent Variables				
Risk Assessment	Board Credit Committee Size (BCCS)	Board Credit Committee Size.	Total number of board members in board credit committee	Ibrahim and Yusof (2019).
	Audit Committee Member with Finance Expertise (ACFEX)	The number of audit committee members with financial background.	Ratio of audit committee members with financial expertise divided by the total number of audit committee members	Zubair (2016)
Control Variable				

Source: Author's Collection (2024)



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4. Results and Discussions

4.1 Descriptive Statistics

The descriptive analysis presented in Table 2 indicates that, on average, the sampled financial institutions in Nigeria had a non-performing loan (NPL) rate of 10% over the period under review. Indeed, a non-performing loan (NPL) rate of 10% is considered high compared to international best practices, which typically recommend an NPL rate of around 5% or lower for healthy assets quality. A higher NPL rate can indicate elevated credit risk exposure, weakened loan portfolio quality, and potential challenges in loan recovery and provisioning within financial institutions. The finding that the sampled financial institutions have a mean value of 7 members for the Board Credit Committee Size (BCCS) is notable, especially when compared to the recommended minimum size of 4 members in the board credit charters. The minimum size in the board credit size of the sampled financial institutions was 0, (no member), while the maximum was 18 within the period under review. Ibrahim and Yusof (2019) draw attention to the fact that international best practice requires establishment of credit committee that should comprise not less than 3 directors. The essence of this committee is to track the assets quality of the banks' portfolio.

The finding that the Audit Committee Member with Financial Expertise (ACFEX) has a mean value of 25 percent, which aligns with the regulatory requirement of 17 percent (1/6), indicates compliance with regulatory standards. The result in Table 2 displays a minimum value of 0 and maximum of 80 percent. The idea of having at least one audit committee member with finance expertise was first entrenched under section 359 (3) and CAMA, 2004 (as amended). This idea was further reinforced in the SEC code of 2011. Andreas and Theodoros (2019), Osemene and Fakile (2018), maintain that audit committee member with finance expertise improves the earning management activities more effectively and that expertise in audit committees add to the quality of loans portfolio. The Firm Size (FS) as measured by log of total asset indicates that the financial institutions on the average maintain an asset base of N1.030 trillion. This is a good signal that the sampled banks have a very strong asset base to create credits. The standard deviation of N1.40 trillion showcases a wide dispersion in the sizes of the Nigerian financial sector. However, the asset base hovers between minimum of N14 billion and maximum of N9.66 trillion. In addition, all variables have positive kurtosis which implies a distribution with more extremes from the normal distribution and thus makes it heavily tailed.

Table 2

Results of Descriptive Statistics

Variables	Mean	Std. Dev.	Minimum	Maximum	Skewness	Kurtosis
NPLR	0.10	0.16	0	1.07	3.01	12.65
BCCS	6.21	2.38	0	18	0.60	5.39
ACFEX	0.25	0.17	0	0.80	0.25	2.81
FS	1.03e+09	1.41e+09	1.41e+07	9.66e+09	2.67	12.23

Source: Author's Computation (2024)



Test of Variables

Correlation Results

The major reason for testing correlation prior to the estimation model is to discern the likelihood of multicollinearity among the independent variables and the outcome variable (dependent). This is also useful in finding the direction and the quantum of relationship. This is done to avoid the standard errors from being overstated or understated which might culminate to incorrect inferences about the behavior of the variables. According to Awen *et al.* (2018), if correlation coefficient is <0.5 , it is considered weak, if it is $0.5 - 0.7$, it is moderate, if it is >0.7 , it is strong. However, any coefficient that is >0.8 represents a good correlation but might indicate multicollinearity problem. As pointed out in the studies of Ayinku and Uzochukwu (2020), the coefficient value of independent variable should not exceed 0.80, otherwise, multicollinearity is suspected. As depicted in Table 3, the highest correlation as disclosed in the matrix is between non-performing loan ratio and ACFEX with the value of 0.49 which is considered weak. However, none of the value exceeded 0.80 and therefore manifested absence of multicollinearity. Nevertheless, Adepiti (2023) notes that correlations might not often time provide evidence of causal relationship between variables and therefore restricted their usefulness in the realm of causality.

Table 3

Correlation Matrix

	NPLR	BCCS	ACFEX	FS
NPLR	1.0000			
BCCS	-0.1984 0.0009	1.0000		
ACFEX	0.0414 0.4936	-0.0716 0.2360	1.0000	
FS	-0.3147 0.0000	0.2341 0.0001	-0.1788 0.0029	1.0000

Source: Author's Computation (2024)

4.2.2 Variance Inflation Test (VIF)

The absence of correlation among the independent variables, as indicated by Variance Inflation Factors (VIF) values less than 10, is a positive outcome in regression analysis (Anjala & Shikha 2016). As posited by Ilaboya and Ohiokha (2016), any VIF that is higher than 10 manifests collinearity and this could lead to unreliable coefficient estimates and inflated standard errors. Hence, it impedes interpretation and true relationship between each independent variable and the dependent variable

Table 4

Results of Multicollinearity

Variable	VIF	1/VIF
ACFEX	1	0.995427
BCCS	1	0.995427
Mean VIF	1	

Source: Author's Computation (2024)



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4.2.3 Post Estimation Test

To further confirm the validity of these data, the result from the Breusch-Pagan/Cook-Weisberg test, indicating that the variance of the residuals increases as the fitted values increase, suggests the presence of heteroskedasticity in the regression model. The test result shows that the reported statistics have a p-value of 0.0000, which is less than the significance level of 0.05 (indicated by " < 0.005 "). This means that there is strong evidence to reject the null hypothesis of homoskedasticity (constant variance of residuals) in favor of the alternative hypothesis of heteroskedasticity. The study conducts Ordinary Least Square (OLS), fixed and random effect to ascertain the most appropriate technique to employ. Doing this tends to minimize the prediction error between the predicted and the real values. As posited by Bayar (2019), it becomes imperative to control for outliers, omitted variables, measurement errors and heteroskedasticity in the study. Investigating the effect of risk assessment on the risk asset quality of financial institutions in Nigeria requires the use of Feasible Generalized Least Squared (FGLS) method to correct for the heteroscedascity that was present in the ordinary least square and fixed and random effect estimation. In the presence of heteroskedasticity, regression using Feasible Generalized Least Squared (FGLS) offers potential efficiency because it could be used to estimate the coefficient of multiple linear regression models and their covariance matrix (Popoola *et al.*, 2021).

Table 5
Heteroscedasticity Results

Chi2(1)	46.50
Prob.> Chi2	0.0000

Source: Author's Computation (2024)

The R-squared value of 0.076 obtained from the ordinary least squares (OLS) regression analysis, as indicated in Table 6, suggests that only 7% of the variation in risk assets quality of financial institutions in Nigeria can be explained by the proxies of risk assessment, specifically the board credit committee size and the presence of audit committee members with financial expertise. The R-Squared stands at 0.06 for fixed effect estimation model and 0.060 for random effect estimation model. This implies that about 6 percent of the systematic variation in assets quality of financial institutions in Nigeria was explained by board credit committee size and audit committee members with finance expertise. Other factors account for 94 percent variation. A low R-squared values suggests that the proxies of risk assessment included in the regression model have limited predictive power in explaining variations in risk assets quality across financial institutions in Nigeria.

Since ordinary least squared and fixed random effect suffers from econometric assumptions, it behooves therefore to use Feasible Generalized Least Squared (FGLS) to correct these errors. Evidence from Table 6 has it that board credit committee size has negative and significant effect of 1 percent on the asset quality [Coef. = -0.013(0.000)], while audit committee member with finance expertise also has positive and significant effect of 1 percent on the risk assets quality [Coef. = 0.491(0.000)]. Based on the interpretation of the results, it appears that the null hypotheses stating that board credit committee size and audit committee member with finance expertise do not have a significant effect on the risk assets quality of financial institutions in Nigeria should be rejected. The finding signifies that



injection of more board credit committee members engender sound controls that will be sufficient to safeguard risk assets quality of financial institutions in Nigeria. Nevertheless, more audit committee members with finance expertise might not necessarily guarantee reduction in the non-performing loans of financial institutions in Nigeria.

With the introduction of control variables to FGLS model, board credit committee size has negative and significant effect at 1 percent level [Coef. = -0.007(0.015)], while audit committee member with finance expertise is positive and also significant at 1 percent level [Coef. = 0.460(0.000)]. The introduction of control variables neither alters the coefficient nor the significance of the risk assessment proxies. The result still suggests that board credit members contribute greatly to reduction of non-performing loans, while more members with finance expertise may not improve assets quality.

Table 6
Regression Analysis of Risk Assessment on Risk Assets Quality

	Without control Variables				With control Variables			
	OLS Model	FE Model	RE Model	FGLS Model	OLS Model	FE Model	RE Model	FGLS Model
BCCS	0.277 {0.197}	-0.057 {0.684}	-0.167 0.053{*}	-0.013 {0.000}**	-0.035 0.262{*}	-0.013 {0.457}	-0.017 {0.111}	-0.007 {0.015}*
ACFEX	0.176 {0.000}**	1.010 {0.000}*	0.884 {0.000}**	0.491 {0.000}**	0.094 {0.042}*	0.929 {0.001}**	0.761 {0.003}*	0.460 {0.000}**
LFS					0.944 {0.003}*	-0.001 {0.850}	0.001 {0.841}	0.005 {0.005}*
CONS	2.52 {0.008}*	-0.075 {0.200}	-0.002 {0.964}*	0.081 {0.000}**	0.562 {0.584}	-0.079 {0.556}	-0.013 {0.791}	-0.016 {0.570}
F/Wald Stat	18.62	13.93	23.42	66.37	12.89	6.25	26.87	178.58
Prob.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000
R ²	0.076	0.062	0.060		0.125	0.0703	0.068	
Vif	3.94				4.51			
Hetest		12.43{0.0002}				11.86{0.0003}		
AR(1)		9.75{0.0035}				5.875{0.0162}		

Note: (1) parentheses are p-values; (2) *, **, implies statistical significance at 5% and 1% levels respectively

Source: Author's Computation, (2024).

4.3 Discussion of Findings

4.3.1 Effect of Risk Assessment on Risk Assets Quality

The result from Table 6 suggests that there is a statistically significant negative relationship between Board Credit Committee Size (BCCS) and risk asset quality in Nigerian financial institutions. A negative coefficient for BCCS suggests that, on average, larger board credit committee sizes are associated with lower levels of non-performing loans in Nigerian financial institutions. In other words, as the size of the board credit committee increases, there is a tendency for NPLs to decrease.



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Corroborating the outcome of this finding were the studies of Abubakar *et al.* (2022) in Nigeria and Progress *et al.* (2014) in Zimbabwe environment. Ibrahim and Yusof (2019) in the study conducted in the Sub-Saharan Africa reveal that board credit committee size has positive and not significant effect on the asset quality. Conversely, the study of Egungwu and Egungwu (2018) claim in Nigeria that board committee credit size has negative and insignificant effect on the asset quality of financial institutions in Nigeria.

Similarly, Audit Committee Member with Financial Expertise (ACFEX) has positive and significant effect on the non-performing loans of financial institutions in Nigeria. A positive coefficient for ACFEX suggests that, on average, having audit committee members with financial expertise is associated with an increase in non-performing loans within Nigerian financial institutions. In other words, financial institutions with a higher proportion of audit committee members possessing financial expertise tend to experience higher levels of NPLs. Augustine and Justice (2022), Osemene and Fakile (2018) in Nigeria align with the outcome the present study. But James and Anuwa (2022) in Nigeria disagree with the outcome of the present study by claiming that ACFEX has positive and not significant effect on the assets quality of deposit money banks in Nigeria. Ojeka *et al.* (2021) in the study conducted in Nigeria found that ACFEX has negative effect on the asset quality. In the study conducted in Vietnam, Pham (2021), Zgarni *et al.* (2018) in Tunisia found that ACFEX has negative and significant effect on the assets quality. In view of these results, it therefore infers that before creation of any risk assets, financial institutions should consider the character, capacity collateral condition and credit scores of the clients as proposed by Credit Risk Theory (CRT).

The result from Table 6 indicating a positive and significant effect of firm size on non-performing loans in Nigerian banks implies that larger firms tend to have higher levels of non-performing loans. The positive coefficient associated with firm size suggests that an increase in the size of banks in Nigeria is associated with a corresponding increase in non-performing loans. This is in tandem with the study of Ilaboya and Ohiokha (2016) that was conducted in Nigeria. The results of Motaz *et al.* (2019) aptly posit that firm size has negative and significant effect on the risk assets quality.

5. Conclusion and Recommendations

The objective of the study was to find out the effect of risk assessment on the risk assets quality of financial institutions in Nigeria using board credit committee size and audit committee member with financial expertise as substitutes of investigation. Since entity faces both internal and external risks on daily operations, it becomes imperative to properly assess the credit risk and come up with mitigating strategy over the risk assets. The results obtained through the use of Feasible Generalized Least Squares (FGLS) method indicate that both Board Credit Committee Size (BCCS) and Audit Committee Member with Financial Expertise (ACFEX) have significant effects on asset quality.

These findings have important implications for corporate governance practices and risk management strategies within financial institutions. They underscore the importance of board composition and expertise in influencing asset quality outcomes. Financial institutions may need to consider optimizing the size and composition of their board committees to improve risk oversight and enhance assets quality. Based on the findings and policy implication, the study recommends, that the practice of



having a different 'board credit charters' among various financial institutions in Nigeria should be discouraged forthwith. Hence, there should be a policy document that will harmonise these charters for uniformity so as to improve the public perception and mitigation of credit risk exposure on the assets quality of financial institutions in Nigeria. Future researchers may consider the qualitative studies, surveys and case analysis to provide further insights to what constitutes to improved assets quality outcomes.

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