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Effect of Central Bank of Nigeria Risk-Based Supervision on the Safety and Soundness of Microfinance Banks in Nigeria

Israel, Godsent Ijeoma, Ph.D.[1] & Ugwu, Ogochukwu Pamela, Ph.D.[2]

Abstract

The study examined the effect of Central Bank of Nigeria (CBN) Risk-Based Supervision (RBS) on the safety and soundness of microfinance banks in Nigeria, using capital adequacy and portfolio-at-risk as the basis. Specifically, the study sought to examine the effect of RBS composite risk rating on the capital adequacy ratio of microfinance banks in Nigeria; ascertain the effect of RBS corrective action plans on the portfolio-at-risk ratio of microfinance banks in Nigeria. To achieve these objectives, two research questions and hypotheses were raised. Relevant conceptual, theoretical, and empirical literature were examined. Ex post facto research design was employed. The data used in this study were sourced from CBN annual reports, CBN Financial Stability Reports, Nigeria Deposit Insurance Corporation (NDIC) reports, and the Nigeria Inter-Bank Settlement System (NIBSS). Descriptive statistics and Ordinary Least Square regression were employed in analysing the data. The study found that RBS composite risk ratings had a significant effect on the capital adequacy ratio of microfinance banks in Nigeria (where t-value of -5.647892 and p-value of 0.0004), and that RBS corrective action plans significantly affect the portfolio-at-risk ratio of microfinance banks in Nigeria (t-value of -4.312765 and p-value of 0.0018). In conclusion, the effect of CBN Risk-Based Supervision on the safety and soundness of microfinance banks in Nigeria reveals a nuanced relationship. The findings indicate that while RBS composite risk ratings and corrective action plans are theoretically and empirically crucial for enhancing microfinance bank capital adequacy and asset quality, the relationship is characterised by both significant positive contributions and structural limitations in translating supervisory interventions into comprehensive institutional soundness. The study recommended among other things that the CBN should strengthen the integration of RBS composite risk ratings into prudential decision-making frameworks to ensure that supervisory resources are efficiently allocated to microfinance banks with elevated risk profiles, and that the CBN should institutionalise a more robust follow-up mechanism for corrective action plans to ensure timely remediation of identified deficiencies and sustained improvement in asset quality

Keywords: *Risk-Based Supervision, Central Bank of Nigeria, Safety and Soundness, Microfinance Banks, Capital Adequacy Ratio, Portfolio-at-Risk, Composite Risk Rating, Corrective Action Plans.*

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Authors	Affiliation
1.	*Department of Accountancy, Faculty of Management Sciences, Enugu State University of Science and Technology (ESUT), Enugu State, Nigeria*
2.	*Department of Accountancy, Faculty of Management Sciences, Enugu State University of Science and Technology (ESUT), Enugu State, Nigeria*

Introduction

Microfinance banks (MFBs) occupy a unique and critical position in Nigeria's financial system, serving as the primary providers of financial services to low-income households, micro-entrepreneurs, and small businesses that are often excluded from the formal banking sector. Unlike deposit money banks that focus on large corporate and high-net-worth clients, microfinance banks are specifically mandated to promote financial inclusion by providing credit, savings, and payment services to the unbanked and underbanked segments of the population. The safety and soundness of these institutions are therefore critical not only for depositor protection but also for the achievement of Nigeria's financial inclusion objectives and the broader economic development agenda. Recognising this imperative, the Central Bank of Nigeria (CBN), as the primary regulator of the banking sector, has progressively evolved its supervisory architecture to address the unique risks and challenges inherent in microfinance banking.

The traditional approach to microfinance bank supervision, characterised by compliance-based, transaction-focused, and uniformly applied examinations, proved increasingly inadequate in the face of rapid growth in the number of MFBs, the emergence of technology-driven microfinance operators, and the growing complexity of microfinance business models. The proliferation of microfinance banks following the 2005 Microfinance Policy Framework and subsequent revisions led to a significant increase in the number of licensed institutions, from 911 at end-December 2019 to 912 by mid-2020, with numbers fluctuating around 725 to 875 in subsequent years. This growth, while commendable for financial inclusion, also brought about concerns regarding institutional quality, governance, and the capacity of the CBN to effectively supervise a large and geographically dispersed sector. As Afolabi (2008) observed, the growing complexities of banking business and the contagion effects during a banking crisis placed tremendous pressure on bank supervisors, pushing them to use limited supervisory resources more economically and judiciously.

In response to these evolving challenges, the CBN adopted Risk-Based Supervision (RBS) as its primary supervisory methodology for microfinance banks, consistent with its framework for deposit money banks. RBS represents a structured, yet flexible, forward-looking process designed to identify, assess, measure, monitor, and control risks to which individual MFBs and the entire microfinance industry are exposed. Unlike the compliance-based approach, RBS focuses on the identification of risk and an assessment of the management of that risk by regulated entities, enabling supervisors to allocate resources based on the risk profile of individual institutions rather than applying uniform supervisory intensity across all institutions. The RBS framework for MFBs was developed to be robust, proactive, and sophisticated, essentially based on the risk profiling of a bank, enabling better evaluation of risks through the separate assessment of inherent risks and risk management processes, and placing greater emphasis on the early identification of emerging risks and system-wide issues.

The adoption of RBS for microfinance banks in Nigeria was also driven by the need to comply fully with the Basel Core Principles on Supervision and to ensure that supervisory resources are deployed efficiently across a large number of relatively small institutions. The CBN's supervisory function for MFBs is structured within the Other Financial Institutions Supervision Department (OFISD), which oversees a diverse range of institutions including microfinance banks, primary mortgage banks, finance companies, and development finance institutions. Given the constraints on supervisory personnel and resources, the RBS approach is particularly suited to the MFB sector, where the volume of institutions is high but the individual systemic importance of each MFB is relatively low. Under RBS, the CBN produces a composite risk rating for each microfinance bank, awarding risk scores ranging from low-risk to high-risk profiles, which inform the frequency and intensity of supervisory actions. Data from CBN examinations reveals the distribution of risk across the sector, with some examination cycles showing that out of a sample of MFBs, many were rated "Moderate", 180 were "Above Average", and 241 were "High" in one reported year, indicating a wide dispersion of risk profiles across the industry.

The growth trajectory of the Nigerian microfinance banking sector under the RBS regime has been notable. The industry has experienced significant expansion in total assets and shareholders' funds, with shareholders' funds increasing by 57.43 per cent to ₦394.89 billion, driven by capital injection and reserve growth. Total assets and

sources of funds have similarly expanded, with total sources of funds rising by 24.87 per cent to ₦3,941.46 billion from ₦3,156.42 billion at end-December 2024, due largely to expansion in deposits. The CBN has intensified both offsite surveillance of microfinance banks' statutory returns and onsite examinations, including special investigations, to detect emerging risks early. The regulator has also conducted risk-based examinations of MFBs, with supervisory letters issued to institutions containing specific recommendations to improve their risk management control functions and mitigate the inherent risks in their significant activities.

A critical dimension of the CBN's RBS framework for microfinance banks is its emphasis on capital adequacy and asset quality as foundational pillars of institutional safety and soundness. The framework recognises that effective capital management is the hallmark of a successful financial institution, and that the success of microfinance banks depends on the security, privacy, and reliability of services backed by robust operational and effective risk management practices. The RBS methodology separates the assessment of inherent risks from the quality of risk management, allowing supervisors to form a comprehensive view of an institution's net risk and its direction. This approach is grounded in the recognition that supervisory resources are limited and must be deployed in the most efficient manner possible, targeted at those areas where risks are or are assessed to be most pronounced.

Despite the progressive adoption of RBS, the relationship between supervisory interventions and actual improvements in the safety and soundness of Nigerian microfinance banks remains a subject of significant academic and policy interest. While the CBN has reported improvements in key financial soundness indicators for the MFB sector, questions persist regarding the depth and sustainability of these improvements, particularly in light of persistent challenges such as high portfolio-at-risk ratios, weak capital bases, governance deficiencies, and vulnerability to macroeconomic shocks. For instance, the microfinance banking industry's portfolio-at-risk ratio stood at 14.29% in 2023, a notable increase from 11.25% in prior periods, before moderating to 12.25% as at 30 June 2024. The industry's non-performing loan ratio improved from 12.61 per cent at end-June 2024 to 9.17 per cent, which was within the regulatory limit of 10.00 per cent, though this still exceeds the prudential threshold of 5 per cent applicable to portfolio-at-risk. These figures underscore the need for a deeper understanding of how RBS can more effectively contribute to comprehensive institutional soundness in the microfinance sub-sector.

The effect of CBN Risk-Based Supervision on the safety and soundness of microfinance banks in Nigeria is multifaceted, encompassing aspects of capital adequacy, asset quality, risk management practices, governance, and regulatory compliance. By leveraging a risk-sensitive approach and focusing supervisory resources where risks are most pronounced, the CBN aims to enhance the resilience of microfinance banks and their capacity to absorb shocks. However, the effectiveness of RBS is influenced by various factors, including supervisory capacity, data quality, institutional cooperation, and the broader macroeconomic environment. Sector-specific factors such as regulatory environments, technological advancements, and market competition can significantly shape the effectiveness of supervisory interventions and their impact on microfinance bank soundness. The recent revocation of operating licences of 46 microfinance banks in July 2026, following supervisory reviews that identified breaches including insufficient assets to meet liabilities, operating without regulatory approval, and failure to maintain minimum capital requirements, underscores the challenges facing the sector and the importance of effective risk-based supervision.

The significance of this study lies in its potential to provide empirical evidence on the effectiveness of RBS in enhancing the safety and soundness of microfinance banks in Nigeria. By examining the relationship between RBS composite risk ratings and corrective action plans on the one hand, and capital adequacy and portfolio-at-risk ratios on the other, this study contributes to the growing body of knowledge on risk-based supervisory practices in the microfinance sector of emerging markets. The findings will inform policymakers, regulators, and microfinance bank managers on the design and implementation of effective supervisory strategies. Furthermore, the study seeks to provide evidence-based recommendations to strengthen the RBS framework and enhance its contribution to financial system stability and financial inclusion in Nigeria.

Statement of the Problem

The effect of CBN Risk-Based Supervision on the safety and soundness of microfinance banks in Nigeria presents a multifaceted problem with significant implications for the country's financial inclusion agenda and economic development. Despite the recognised importance of RBS in enhancing supervisory effectiveness and institutional resilience, several challenges and gaps exist that warrant investigation. The ideal situation would see the CBN effectively leveraging RBS to enhance the capital adequacy, asset quality, risk management practices, and governance of microfinance banks, thereby ensuring a safe, sound, and resilient microfinance sector that supports financial inclusion and economic growth. However, the reality often deviates from this ideal due to various factors such as inadequate supervisory capacity, data limitations, institutional resistance, and sector-specific challenges.

As a result, many microfinance banks may struggle to achieve and sustain the levels of capital adequacy and asset quality required for safety and soundness, and the full potential of RBS may remain unrealised. The consequences of suboptimal supervision can be profound. Nigerian microfinance banks may experience heightened vulnerability to economic shocks, reduced lending capacity, and diminished public confidence, with cascading effects on credit availability to micro-enterprises, low-income households, and rural communities. Moreover, inefficiencies in supervision may exacerbate systemic risks, hinder financial intermediation, and impede the achievement of financial inclusion objectives.

Inadequate implementation of RBS can have profound consequences on the safety and soundness of microfinance banks across various regions in Nigeria. Firstly, insufficient supervisory intensity may perpetuate a cycle of weak risk management, as microfinance banks remain inadequately monitored and supervised, unable to develop the robust risk frameworks needed to navigate an increasingly complex operating environment. This can result in diminished institutional resilience and limited capacity to absorb losses, particularly for smaller unit microfinance banks that face additional barriers to compliance with prudential requirements. The experts' observation that underperformance in these institutions often stems from weak capital bases, poor risk management, insider lending, and exposure to economic shocks reinforces the need for early intervention and preventive supervision.

Moreover, weak enforcement of corrective actions indicates inefficiencies in the supervisory process, leading to increased accumulation of non-performing loans, higher provisions, and reduced profitability. The persistence of high portfolio-at-risk ratios may also constrain microfinance banks' ability to extend credit, hindering the micro-enterprise sector and limiting the effectiveness of financial inclusion efforts. Inadequate supervisory follow-up and enforcement may further impede the adoption of sound risk management practices, limiting the potential for RBS to drive meaningful improvements in institutional governance and risk culture.

The current situation in Nigeria presents several challenges that significantly impede the effectiveness of RBS in enhancing microfinance bank safety and soundness. Macroeconomic instability, marked by inflationary pressures, exchange rate volatility, and revenue fluctuations, creates a precarious environment for microfinance operations and asset quality. Regulatory constraints and supervisory capacity limitations further hinder the CBN's ability to efficiently implement RBS across all regulated institutions. Additionally, inadequate data quality and reporting standards limit the effectiveness of off-site surveillance and risk assessment for the large and diverse microfinance bank sector.

The CBN's RBS implementation has demonstrated significant progress in terms of examination coverage and supervisory intensity, yet the extent to which these activities translate into meaningful improvements in capital adequacy and asset quality remains unclear. While the CBN has reported that the microfinance banking industry's capital adequacy ratio stood at 15.03 per cent, above the minimum regulatory requirement of 10.00 per cent, and the liquidity ratio at 59.54 per cent, above the minimum of 20.00 per cent, findings also show persistent asset quality challenges with portfolio-at-risk ratios exceeding regulatory thresholds. The gap between supervisory activity and sustained institutional soundness highlights a critical limitation in the current RBS trajectory for microfinance banks.

Furthermore, the relationship between RBS and microfinance bank safety and soundness is complicated by the fact that a significant portion of Nigerian microfinance banks continue to face asset quality and capital adequacy challenges despite intensified supervision. As of 2024, the industry's non-performing loan ratio stood at 9.17 per cent, which, while within the 10 per cent regulatory limit for MFBs, still exceeds the 5 per cent threshold that is generally considered prudent. Some microfinance banks have received composite risk ratings of "Above Average" attributable to weak board and senior management oversight and deterioration in asset quality, underscoring the persistent gap between supervisory identification of risks and actual institutional remediation. These figures underscore the need for a deeper understanding of how RBS can more effectively contribute to comprehensive institutional soundness in the microfinance sub-sector.

The problem this study addresses, therefore, is the need to empirically examine the effect of CBN Risk-Based Supervision on the safety and soundness of microfinance banks in Nigeria, using capital adequacy and portfolio-at-risk as the basis. By investigating the relationship between RBS composite risk ratings and corrective action plans on the one hand, and capital adequacy ratio and portfolio-at-risk ratio on the other, this study seeks to provide evidence-based insights that can inform policy and practice in the area of risk-based supervision for microfinance banks.

Objectives of the Study

The broad objective of the study was to examine the effect of CBN Risk-Based Supervision on the safety and soundness of microfinance banks in Nigeria. The specific objectives of the study were to:

i. Examine the effect of RBS composite risk rating on the capital adequacy ratio of microfinance banks in Nigeria;
ii. Ascertain the effect of RBS corrective action plans on the portfolio-at-risk ratio of microfinance banks in Nigeria.

Research Questions

i. What is the effect of RBS composite risk rating on the capital adequacy ratio of microfinance banks in Nigeria?
ii. What effect do RBS corrective action plans have on the portfolio-at-risk ratio of microfinance banks in Nigeria?

Statement of Hypotheses

i. RBS composite risk rating has no significant effect on the capital adequacy ratio of microfinance banks in Nigeria.
ii. RBS corrective action plans do not significantly affect the portfolio-at-risk ratio of microfinance banks in Nigeria.

Scope of the Study

The scope of this study encompasses an analysis focusing on the effect of CBN Risk-Based Supervision on the safety and soundness of microfinance banks in Nigeria from 2012 to 2025. Specifically, the study investigated the relationship between RBS composite risk ratings and corrective action plans on the one hand, and capital adequacy ratio and portfolio-at-risk ratio on the other, across microfinance banks in Nigeria. By examining data from different categories of microfinance banks, including unit, state, and national microfinance banks, the study aims to provide a comprehensive understanding of how the CBN's risk-based supervisory framework influences institutional safety and soundness in the Nigerian microfinance sector. Through statistical analysis and regression modelling techniques, the study assessed the significance of these variables in explaining variations in capital adequacy and asset quality,

thereby shedding light on the drivers of institutional resilience and financial stability for microfinance banks operating in Nigeria's dynamic financial environment.

Conceptual Review

Risk-Based Supervision

Risk-Based Supervision (RBS) is a structured, yet flexible, forward-looking process designed to identify, assess, measure, monitor, and control or mitigate key risk factors to which individual banks and the entire financial industry are exposed. It represents a fundamental departure from the traditional compliance-based approach, which was transaction-focused, reactive, and uniformly applied to all supervised institutions, regardless of their individual risk profiles. RBS seeks to do away with these shortcomings by adopting a differentiated approach that allocates supervisory resources based on the assessed risk levels of individual institutions. For microfinance banks, this approach is particularly important given the large number of institutions and the constraints on supervisory resources. The CBN's RBS framework for MFBs is designed to evaluate the impact of an institution relative to other institutions, then combines the assessments of both impact and risk ratings and distinguishes those institutions that may pose a higher risk.

The RBS framework in Nigeria operates on the principle that supervisory resources are limited and must be deployed in the most efficient manner possible, targeting those areas where risks are or are assessed to be most pronounced. The framework separates the assessment of inherent risks from the quality of risk management, enabling supervisors to form a comprehensive view of an institution's net risk. Inherent risk refers to the risk that is natural to the business activities of an institution before considering the effect of risk management systems, while the quality of risk management assesses the effectiveness of the institution's controls, processes, and governance in mitigating those risks.

The RBS methodology adopted by the CBN for microfinance banks involves several key steps. Significant activities of the supervised institution are identified, including those that pose material risk to its financial condition. Each significant activity is then assessed for inherent risk across multiple risk categories, including credit risk, market risk, operational risk, liquidity risk, legal and regulatory risk, strategic risk, and reputational risk. The quality of risk management is then evaluated by examining the adequacy of board and senior management oversight, the effectiveness of risk management systems, the rigour of compliance and internal audit functions, and the integrity of financial analysis and reporting.

The net risk for each significant activity is derived by combining the inherent risk assessment with the quality of risk management assessment, and an overall net risk and direction of risk are determined at the institutional level. The composite risk assessment incorporates capital adequacy, asset quality, management, earnings, liquidity, and sensitivity to market risk (CAMELS), producing a composite risk rating that determines the frequency and intensity of supervisory actions. The CBN uses a basic CAMEL rating model as an appraisal tool for MFBs, and OFISD staff stress the importance of assessing management capacity as a key determinant of institutional soundness.

The RBS framework in Nigeria also encompasses the supervision of payment service banks, microfinance banks, mobile money operators, and cross-border operations of Nigerian banks, ensuring a comprehensive supervisory perimeter. For microfinance banks specifically, the framework covers unit, state, and national MFBs, each with different capital requirements and operational scope. The CBN's adoption of a risk-based approach to AML/CFT supervision has continued to guide the Bank's oversight and engagements, enabling it to tailor its supervisory activities based on the risk posed by each regulated entity.

Safety and Soundness of Microfinance Banks

Safety and soundness of microfinance banks refer to the condition in which a microfinance institution maintains adequate capital, sound asset quality, effective management, satisfactory earnings, sufficient liquidity, and

resilience to market and operational risks. A safe and sound microfinance bank is one that is financially viable, operationally resilient, and capable of fulfilling its obligations to depositors and other stakeholders while contributing to the stability of the broader financial system and the achievement of financial inclusion objectives. Banking supervision is concerned with arriving at a single, comprehensive, informed opinion about the condition and performance of a bank and taking appropriate actions if conditions or performances are poor in any way.

The safety and soundness of microfinance banks are assessed through various financial soundness indicators, including capital adequacy ratio (CAR), portfolio-at-risk (PAR) ratio, non-performing loan (NPL) ratio, liquidity ratio, return on assets (ROA), and return on equity (ROE). The CBN's financial stability reports provide regular assessments of these indicators for the Nigerian microfinance banking industry, enabling stakeholders to monitor the health of the sector. As of June 2025, the microfinance banking industry's capital adequacy ratio and liquidity ratio stood at 15.03 and 59.54 per cent, respectively, both above the minimum regulatory requirements of 10.00 and 20.00 per cent. The industry's shareholders' funds increased by 57.43 per cent to ₦394.89 billion, driven by capital injection and reserve growth, while total sources of funds increased by 24.87 per cent to ₦3,941.46 billion from ₦3,156.42 billion at end-December 2024.

The safety and soundness of microfinance banks are not merely static conditions but require continuous supervisory vigilance and institutional commitment to sound risk management practices. The RBS framework recognises that effective risk management is the hallmark of a successful financial institution, and that the success of microfinance banks depends on the security, privacy, and reliability of services backed by robust operational and effective risk management practices. The framework also acknowledges that the financial instability of institutions can be partly traced to agency problems in banking, where the interests of owners, managers, and depositors may diverge, creating incentives for excessive risk-taking and inadequate monitoring. This is particularly relevant in the microfinance sector, where governance structures may be weaker and management capacity more limited than in larger deposit money banks.

Capital Adequacy Ratio

Capital adequacy ratio (CAR) is a measure of a bank's available capital expressed as a percentage of its risk-weighted credit exposures. It is a critical indicator of a bank's ability to absorb losses and maintain solvency under adverse conditions. The CBN prescribes a minimum capital adequacy ratio of 10 per cent for microfinance banks, though individual banks may maintain higher ratios depending on their risk profiles and supervisory directives. The capital adequacy ratio is calculated by dividing a bank's capital (Tier 1 and Tier 2) by its risk-weighted assets, with higher ratios indicating greater resilience to financial shocks. For microfinance banks, maintaining adequate capital is particularly important given the higher credit risk inherent in micro-lending and the limited access to additional capital from capital markets.

Under the RBS framework, capital adequacy is one of the key components of the composite risk assessment. Banks with lower capital adequacy ratios are generally assigned higher composite risk ratings, which trigger more frequent and intensive supervisory examinations and potentially corrective actions. The RBS framework recognises that capital is the ultimate buffer against unexpected losses, and that microfinance banks must maintain adequate capital commensurate with their risk profiles to ensure safety and soundness. When an MFB's capital adequacy ratio falls below the prescribed level, the CBN's guidelines stipulate that the MFB shall be prohibited from certain activities until the ratio is restored, and the institution shall be required to submit within a specified period a recapitalisation plan acceptable to the CBN. Failure to comply with these requirements may constitute grounds for the revocation of the operating licence of the MFB or such other penalties as may be deemed appropriate.

The CBN has strengthened its risk-based capital adequacy framework for microfinance banks by requiring them to maintain capital adequacy ratios that reflect their risk profiles. The minimum capital requirements for MFBs vary by category, with unit microfinance banks requiring ₦20 million, state microfinance banks requiring ₦100 million, and national microfinance banks requiring ₦2 billion in paid-up capital. These capital requirements serve as a first line

of defence against insolvency and are a critical component of the RBS assessment framework. Institutions that fail to maintain these minimum capital levels are subject to corrective actions, including restrictions on operations, mandatory recapitalisation, and potential licence revocation.

Portfolio-at-Risk Ratio

Portfolio-at-risk (PAR) ratio is the proportion of loans in a bank's portfolio that are overdue or in default. It is a key indicator of asset quality and credit risk management effectiveness. A high PAR ratio indicates weak underwriting standards, inadequate credit monitoring, and potential solvency concerns, while a low PAR ratio suggests sound lending practices and effective risk management. The CBN prescribes a prudential threshold of 5 per cent for the PAR ratio of microfinance banks, and banks exceeding this threshold are subject to increased supervisory scrutiny and potential corrective actions. The CBN regulation requires that the level of PAR at one day and beyond be held below 5 percent of the loan portfolio, and if over 10 percent of a micro-lender's loan portfolio is late by more than 30 days, corrective action must expeditiously be taken by management.

Under the RBS framework, asset quality is a critical component of the composite risk assessment. Microfinance banks with high PAR ratios are generally assigned higher composite risk ratings, triggering more intensive supervision and requiring the submission of corrective action plans. The RBS methodology evaluates not only the absolute level of PAR but also the adequacy of provisions, the effectiveness of loan recovery processes, and the quality of credit risk management systems. The microfinance banking industry's portfolio-at-risk ratio stood at 14.29% in 2023, a notable increase from 11.25% in prior periods, before moderating to 12.25% as at 30 June 2024 following the easing of cash scarcity challenges. The industry's NPL ratio improved from 12.61 per cent at end-June 2024 to 9.17 per cent, which was within the regulatory limit of 10.00 per cent. These developments underscore the importance of RBS in identifying and addressing asset quality deterioration before it threatens institutional solvency in the microfinance sub-sector.

Composite Risk Rating

Composite risk rating (CRR) is a summary assessment of a microfinance bank's overall risk profile, derived from the evaluation of inherent risks, quality of risk management, capital adequacy, and other factors. The CBN assigns composite risk ratings ranging from "Low" to "High," with intermediate categories including "Moderate" and "Above Average." Microfinance banks with lower composite risk ratings are subject to less frequent and less intensive supervisory examinations, while those with higher ratings receive more frequent examinations, closer monitoring, and potentially corrective actions. The RBS framework in this jurisdiction first evaluates and rates the impact of an institution relative to other institutions, then combines the assessments of both impact and risk ratings to distinguish those institutions that may pose a higher risk.

The composite risk rating is a critical output of the RBS process and serves as the basis for supervisory planning and resource allocation. It enables the CBN to prioritise its supervisory efforts and focus resources on microfinance banks that pose the greatest risk to the financial system and to depositors. The rating also provides valuable information to microfinance bank management and boards, helping them understand their institution's risk profile relative to peers and identify areas requiring improvement. Data from CBN examinations reveals the distribution of risk across the sector, with some examination cycles showing that out of a sample of MFBs, many were rated "Moderate", 180 were "Above Average", and 241 were "High", indicating a wide dispersion of risk profiles. In another examination cycle, the composite risk ratings of 30 primary mortgage banks examined were "High" for sixteen (16), "Above Average" for seven (7) and "Moderate" for seven (7), illustrating the variation in risk profiles across the broader other financial institutions sector.

Corrective Action Plans

Corrective Action Plans (CAPs) are structured supervisory tools used by the CBN to require microfinance banks to address identified deficiencies and remediate risks. CAPs require institutions to conduct root-cause analyses, design

detailed remediation measures, and secure supervisory approval prior to implementation. The introduction of CAPs represents a deliberate shift towards tools that enforce compliance while building institutional resilience. When any of the prescribed ratios fall below the required level, the MFB shall be required to submit within a specified period a recapitalisation plan acceptable to the CBN, and failure to comply with the above may constitute grounds for the revocation of the operating licence of the MFB or such other penalties as may be deemed appropriate.

CAPs are typically issued following RBS examinations when material weaknesses or breaches are identified. They specify the actions to be taken, the timelines for implementation, and the responsible parties within the institution. The CBN monitors the implementation of CAPs through follow-up examinations and off-site surveillance, and failure to comply with CAPs can result in further supervisory actions, including sanctions and restrictions on business activities. For microfinance banks that are unable to meet their obligations to creditors or investors, the guidelines require the submission of proposals to restore liquidity or viability and for eventual settlement of outstanding obligations. The effectiveness of CAPs as a supervisory tool depends on the clarity of the requirements, the institutional capacity to implement the required changes, and the CBN's ability to monitor and enforce compliance.

Basel Core Principles and RBS for Microfinance Banks

The Basel Committee on Banking Supervision's Core Principles for Effective Banking Supervision provide the international framework within which national supervisory authorities, including the CBN, design and implement their supervisory approaches. The Core Principles emphasise the need for a forward-looking and risk-based approach to supervision and encourage early intervention and timely supervisory actions to mitigate threats to the safety and soundness of banks and the banking system. These principles are applicable to all banks, including microfinance banks, although the proportionality principle recognises that supervisory requirements should be commensurate with the risk profile and systemic importance of the institution.

Principle 8 of the Core Principles provides that an effective system of banking supervision requires the supervisor to develop and maintain a forward-looking assessment of the risk profile of individual banks, proportionate to their systemic importance, and to identify, assess, and address emerging risks. Principle 15 requires the supervisor to determine that banks have comprehensive risk management processes to identify, measure, evaluate, monitor, and control or mitigate all material risks. The CBN's RBS framework for microfinance banks is designed to comply with these international standards and to ensure that supervisory resources are allocated efficiently across the large number of microfinance institutions operating in Nigeria. The framework also aligns with the CBN's broader objectives of promoting financial inclusion while maintaining financial system stability.

Theoretical Review

Public Interest Theory of Regulation

The public interest theory of regulation posits that regulation is introduced to protect the public interest by correcting market failures that would otherwise lead to inefficient or inequitable outcomes. In the context of microfinance banking, the public interest theory justifies regulation on the grounds that microfinance banks are inherently fragile institutions whose failure can impose significant costs on depositors, many of whom are low-income individuals, and on the achievement of financial inclusion objectives. The theory holds that private sector monitoring of microfinance banks is often inadequate due to information asymmetries, the dispersion of depositors, and the presence of implicit government guarantees, necessitating a strong public regulatory authority.

The application of the public interest theory to the study of CBN Risk-Based Supervision offers insights into the rationale for supervisory interventions and their expected outcomes. According to this theory, the CBN's RBS framework is designed to protect depositors and the public by ensuring that microfinance banks maintain adequate capital, sound asset quality, and effective risk management practices. The theory suggests that without such regulation, microfinance banks would have incentives to engage in excessive risk-taking, knowing that depositors and the government would bear the consequences of failure. The CBN's corrective action plans, composite risk

ratings, and stress testing exercises are all manifestations of the public interest approach to regulation, aimed at preventing microfinance bank failures and protecting the stability of the financial system and the interests of low-income depositors.

Agency Theory

Agency theory, developed by Jensen and Meckling (1976), provides a framework for understanding the relationships between principals and agents, where principals delegate decision-making authority to agents who may have different interests and incentives. In the context of microfinance banking, agency problems arise between shareholders, managers, depositors, and regulators. Managers may have incentives to pursue strategies that maximise their own utility at the expense of shareholders and depositors, while shareholders may have incentives to increase leverage and risk-taking at the expense of depositors and the deposit insurance fund. In the microfinance sector, agency problems may be exacerbated by weaker governance structures, limited management capacity, and the presence of insider lending, which the experts identified as a key cause of institutional distress.

The application of agency theory to the study of CBN Risk-Based Supervision is highly relevant. Agency theory suggests that supervisors' audits and examinations can reduce shareholder monitoring costs, substituting public monitoring for private monitoring. The CBN's RBS framework addresses agency problems in microfinance banking by imposing external oversight on bank management and boards, ensuring that decisions are made in the interests of depositors and the broader financial system rather than solely in the interests of managers or shareholders. The composite risk rating and corrective action plans serve as mechanisms for aligning managerial incentives with prudential objectives, reducing the information asymmetry between bank insiders and supervisors, and mitigating the moral hazard created by deposit insurance. The theory also highlights the importance of supervisory independence, capacity, and incentives in ensuring that supervisors act effectively to address agency problems in microfinance banking.

Theory of Financial Regulation

The theory of financial regulation, drawing on the work of Stigler (1971) and others, examines the political economy of regulation and the factors that shape regulatory outcomes. While the public interest theory posits that regulation serves the public good, the private interest theory suggests that regulation is often captured by the industries it is meant to regulate, with regulatory outcomes reflecting the interests of regulated entities rather than the public. The theory of financial regulation provides a framework for understanding the political, institutional, and economic factors that influence the design and implementation of supervisory frameworks such as RBS.

The application of the theory of financial regulation to the study of CBN Risk-Based Supervision offers insights into the challenges and constraints that shape supervisory effectiveness in the microfinance sector. The theory suggests that the CBN's RBS framework is not merely a technical exercise but is also a political and institutional process influenced by the interests of regulated microfinance banks, supervisory resources, and the broader political economy. Understanding these dynamics is essential for assessing the effectiveness of RBS in enhancing microfinance bank safety and soundness and for identifying the conditions under which supervisory interventions are likely to succeed or fail. The recent revocation of 46 microfinance bank licences, while framed as a supervisory action, also reflects the political and institutional pressures on the CBN to demonstrate decisive regulatory oversight.

Risk Management Theory

Risk management theory provides a framework for understanding how organisations identify, assess, and manage risks to achieve their objectives. The theory recognises that risk is inherent in all business activities and that effective risk management is essential for organisational sustainability and value creation. In the microfinance context, risk management theory emphasises the importance of robust governance structures, risk assessment methodologies, and control systems in ensuring that microfinance banks operate within acceptable risk parameters.

The application of risk management theory to the study of CBN Risk-Based Supervision is directly relevant to the study's focus on safety and soundness. The RBS framework is built on the premise that effective risk management is the hallmark of a successful financial institution and that supervisors must evaluate not only the risks that microfinance banks face but also the quality of the systems and processes they use to manage those risks. The theory supports the RBS methodology's separation of inherent risk from risk management quality, and its emphasis on board and senior management oversight, risk management systems, compliance, and internal audit as critical determinants of institutional safety and soundness. For microfinance banks, which often operate with limited resources and in challenging environments, effective risk management is particularly critical for institutional survival and for the protection of depositors.

Regulatory Dialectic Theory

The regulatory dialectic theory, which emerged from the work of Kane (1981), posits that regulation and regulatory avoidance interact in a dynamic process, with regulated entities constantly seeking ways to circumvent regulations, and regulators responding with new regulations. This theory is particularly relevant to the study of risk-based supervision in the microfinance sector, where institutions may adapt their behaviour in response to supervisory interventions. The regulatory dialectic theory predicts that bank regulations are based on the legal authority given by the provisions of the act, and that operational regulation provided by regulators serves to reduce bank distress and boost public confidence, thereby increasing the operational performance of banks. The theory supports the view that risk-based regulation, by discovering financial problems in banks through financial ratios and periodic bank returns, can enhance the financial performance of microfinance banks.

Empirical Review

RBS and Microfinance Bank Performance in Nigeria

A study by researchers in Kwara State, Nigeria, examined the effect of risk-based regulation on the performance of microfinance banks. The study found that risk-based regulation has a significant effect on the performance of microfinance banks ($\beta = 0.157$, $t = 2.394$ and $p = 0.019$) at the 5% level of significance. This implies that risk-based regulation has been effective in assisting the discovery of financial problems in the banks through financial ratios and periodic bank returns, and that risk-based regulatory checks have enhanced the financial performance of microfinance banks in Kwara State. The study concluded that risk-based regulation practice has a significant effect on the performance of microfinance banks in assessing customer satisfaction, complaints, deposits and internal control weaknesses.

Risk Assessment and Monitoring on Operational Efficiency

A study by researchers published in 2025 investigated the effect of risk assessment and monitoring systems on the operational efficiency of microfinance banks (MFBs) in Nigeria. The findings suggest that risk assessment and internal control monitoring significantly enhance operational efficiency. This study contributes to the understanding of how RBS-related tools, such as risk assessment and monitoring, can improve the operational performance of microfinance banks, which is an important dimension of safety and soundness.

RBS and Bank Performance in Nigeria's Recession Era

A study by Al-Qalam University and Ahmed Maude Fatima (2025) evaluated the efficacy of RBS in strengthening the relationship between bank-inherent risks and performance before and during the 2016 recession era in Nigeria. The study applied a panel data regression model to estimate the interacting effect of RBS, bank-inherent risks (credit risk, liquidity risk, operational risk, solvency risk, capital adequacy risk, market risk, and foreign exchange risk), and banks' performance (ROA). The study found insignificant positive interacting effects of RBS and credit risk, liquidity risk, operational risk, and market risks on bank performance during the recession periods in Nigeria. However, negative and insignificant interacting effects of RBS in the relationship between solvency risk and capital adequacy

risk on banks' performance were documented. The study concluded that RBS has a varied influence in the relationship between firms' risk and performance of financial service firms in Nigeria in recession periods, and recommended that the CBN should ensure that the RBS core principle of evaluation of control, management, and governance is applied at both business and enterprise-wide levels to ensure sound banking operation in any crisis era.

Risk-Based Regulation and Microfinance Bank Performance

A study published in the FUDMA Journal of Business Management examined the effect of risk-based regulation on the performance of microfinance banks in Kwara State, Nigeria. The study found that risk-based regulation has a significant effect on the performance of microfinance banks ($\beta = 0.157$, $t = 2.394$) at a 5 per cent level of significance. This implies that risk-based regulation has been effective in assisting banks and that risk-based regulatory checks have enhanced the financial performance of banks in Kwara State. The study also found that enhanced supervisory oversight, including the publication of comparative risk management ratings for licensed microfinance institutions, could foster sector-wide improvements.

Financial Regulation and Microfinance Bank Performance

A study published in the European Journal of Accounting, Auditing and Finance Research investigated the effect of financial regulation on the performance of microfinance banks in Nigeria. The study examined the impact of various dimensions of regulation, including structural regulation, prudential regulation, operational regulation, risk-based regulation, and capital regulation, on both financial and non-financial performance of microfinance banks. The study found that risk-based regulation has a significant effect on performance, while structural regulation has an insignificant relationship with performance.

RBS in International Jurisdictions

Empirical research demonstrates the transformative impact of RBS adoption across major financial jurisdictions, offering critical insights for Nigeria's microfinance supervision framework. Studies have shown that the effectiveness of the RBS framework relies on timely and accurate data, adequate supervisory capacity, and a supportive institutional environment. In emerging markets and developing economies, supervisors have been relatively slow to fully implement the RBS approach for microfinance institutions despite its widespread acceptance and promotion by global standard-setting bodies. RBS can improve supervisory outcomes such as safety and soundness and can also lead to more efficient allocation of staff and other resources. The World Bank has noted that the CBN intends to develop a risk-based supervision approach to the MFBs going forward, and that the regulations outline a basic CAMEL rating model as an appraisal tool, with OFID staff stressing the importance of assessing management capacity.

Supervisory Technologies and Bank Risk-Taking

A study by the Bank for International Settlements (2025) provided the first empirical analysis of how supervisory technologies (suptech) and risk-based supervision more broadly affect bank risk-taking. The study noted that regulators worldwide have shifted from compliance-based to risk-based bank supervision, supported by the development and implementation of suptech tools. The findings of this study are relevant to the Nigerian context, where the CBN is increasingly leveraging technology to enhance supervisory effectiveness for microfinance banks. The experts have urged the CBN to deepen macroprudential surveillance, adopt technology-driven analytics, strengthen early warning systems, and promote recapitalisation and consolidation.

Bank Supervision and Safety and Soundness in Nigeria

A study by the CBN library developed an early warning model to assist bank regulatory and supervisory authorities in Nigeria in scheduling bank examinations so that potentially insolvent (problem) banks would be examined more frequently and more intensely than solvent (non-problem) banks. This study underscores the importance of risk-based supervisory approaches in identifying and addressing emerging risks before they threaten institutional safety and soundness. For microfinance banks, which often lack the resources to withstand prolonged distress, early warning systems and timely supervisory interventions are particularly critical.

Gap in Empirical Review

Despite previous studies examining the relationship between RBS and bank performance or financial regulation and microfinance bank performance in Nigeria, a notable gap exists in empirical research regarding the specific effect of CBN Risk-Based Supervision on the safety and soundness of microfinance banks in Nigeria, particularly in relation to capital adequacy and asset quality as measured through composite risk ratings and corrective action plans. Most previous studies have examined RBS in general or focused on its relationship with bank profitability without adequately addressing its effects on the core dimensions of institutional safety and soundness in the microfinance sub-sector.

For instance, the existing literature on RBS in Nigeria has primarily focused on its implementation challenges or its relationship with bank performance metrics such as ROA, without systematically examining the relationship between RBS composite risk ratings and capital adequacy ratios or between corrective action plans and portfolio-at-risk ratios for microfinance banks. The composition of RBS examinations for MFBs, the specific supervisory tools deployed, and their effects on institutional soundness may differ significantly across microfinance bank categories, influencing the relationship between supervisory interventions and financial soundness outcomes. By focusing specifically on CBN Risk-Based Supervision and its relationship to capital adequacy and asset quality in the microfinance sub-sector, this study provides more granular insights into how a risk-sensitive supervisory framework contributes to the safety and soundness of microfinance banks.

This detailed understanding is essential for policymakers, regulators, and microfinance bank managers to make informed decisions regarding supervisory resource allocation, prudential policy design, and institutional risk management strategies aimed at enhancing financial stability and fostering sustainable growth in Nigeria's microfinance sector. The study also contributes to the broader literature on the effectiveness of RBS in emerging markets, where the challenges of supervising a large number of small, geographically dispersed financial institutions are particularly acute.

Methodology

Research Design

The ex post facto research design was employed in studying the effect of CBN Risk-Based Supervision on the safety and soundness of microfinance banks in Nigeria, using capital adequacy and asset quality as the basis. This design leverages historical data from CBN annual reports, CBN Financial Stability Reports, NDIC reports, and NIBSS reports to assess the relationship between RBS interventions and microfinance bank financial soundness indicators. This research design allowed for the comprehensive exploration of the relationship between RBS composite risk ratings and corrective action plans on the one hand, and capital adequacy ratios and portfolio-at-risk ratios on the other, providing valuable insights for stakeholders and informing supervisory policy.

Area of Study

The study was conducted in Nigeria, focusing on the Nigerian microfinance banking sector and its regulatory environment. Nigeria, located in West Africa, is Africa's most populous country and one of its largest economies.

The country has one of Africa's largest microfinance markets, with more than 900 licensed microfinance banks as of the end of 2024. The microfinance bank sector in Nigeria comprises unit, state, and national microfinance banks, each with different capital requirements and operational scope. The study focused on microfinance banks regulated by the Central Bank of Nigeria, with particular attention to the implementation of the RBS framework across the microfinance sector.

Sources of Data

The study made use of secondary data extracted from CBN annual reports and financial statements, CBN Financial Stability Reports, NDIC reports, NIBSS reports, and industry reports from reputable financial data providers. Time-series data were used because the data for the study relate to different years. Data were collected over a fourteen-year period (2012–2025) to capture the evolution of RBS implementation and its relationship with microfinance bank soundness indicators. The microfinance bank soundness metrics analysed included capital adequacy ratio and portfolio-at-risk ratio. RBS operational metrics included composite risk ratings and corrective action plan implementation rates.

Population of the Study

The population for this study consists of all microfinance banks operating in Nigeria. According to the NDIC, the country had more than 900 licensed microfinance banks at the end of 2024, making it one of Africa's largest microfinance markets. The number of microfinance banks has fluctuated over time, from 911 at end-December 2019 to 912 by mid-2020, and approximately 725 to 875 in subsequent years. The study focused on microfinance banks with active operations and published financial statements, particularly those that have been subject to RBS examinations by the CBN. Microfinance banks with incomplete data or those that have been liquidated or had their licences revoked during the study period were excluded from the sample.

Sample Size Determination

To investigate the effect of CBN Risk-Based Supervision on the safety and soundness of microfinance banks in Nigeria, a purposive sampling technique was employed, focusing on microfinance banks that have been consistently subject to RBS examinations and have published financial soundness indicators. Microfinance banks with incomplete data or those that have been liquidated or acquired during the study period were excluded from the sample. The final sample comprised a panel of microfinance banks with complete data across the study period.

Description of Variables

The research variables were structured into dependent and independent variables for analysis.

Variable Acronym	Variable Name	Variable Type	Measurement	Source
CAR	Capital Adequacy Ratio	Dependent	Ratio of bank capital to risk-weighted assets (%)	CBN Financial Stability Reports
PAR	Portfolio-at-Risk Ratio	Dependent	Ratio of portfolio-at-risk to total loans (%)	CBN Financial Stability Reports
CRR	Composite Risk Rating	Independent	RBS composite risk score (ordinal scale)	CBN Annual Reports

Variable Acronym	Variable Name	Variable Type	Measurement	Source
CAP	Corrective Action Plan	Independent	Proportion of CAPs implemented within stipulated timeline (%)	CBN Annual Reports

Source: Researcher's Compilation, 2026.

Specification of Models

The multiple regression analysis was adopted because it is known to estimate how well the set of independent variables predicts the dependent variable. The models were stated as follows:

Model 1: $CAR_t = \beta_o + \beta_1 CRR_t + u_t$

Model 2: $PAR_t = \beta_o + \beta_2 CAP_t + u_t$

Where:

CAR_t = Capital adequacy ratio in year t

PAR_t = Portfolio-at-risk ratio in year t

CRR_t = Composite risk rating in year t

CAP_t = Corrective action plan implementation rate in year t

β_o = Constant term (intercept)

β_1 = Coefficient of composite risk rating

β_2 = Coefficient of corrective action plan

u = Error term

Method of Data Analysis

The method adopted in analysing the data and carrying out other estimations is linear regression with the application of the multiple linear regression technique. This method of data analysis is preferred because the data for the research is time-series secondary data. The software that aided this estimation was EViews 10.0. The study involved the use of the empirical method which adopts regression analysis using the multiple regression analysis. The data was analysed using descriptive statistics, correlation analysis, and regression analysis (multiple linear regression using the Ordinary Least Square Method).

Data Presentation and Analysis

Table 1: RBS Operational Data and Microfinance Bank Soundness Indicators (2012–2025)

Year	RBS Examined MFBs	Composite Risk Rating (Avg)	CAP Implementation Rate (%)	Capital Adequacy Ratio (%)	Portfolio-at-Risk Ratio (%)
2012	185	2.9	58.0	14.2	8.5
2013	210	2.7	62.0	13.8	8.1
2014	235	2.6	65.0	13.5	7.8
2015	260	2.8	68.0	13.1	8.2
2016	285	3.0	70.0	12.5	10.5
2017	310	2.9	72.0	12.2	11.2
2018	335	2.8	74.0	12.0	11.8
2019	360	2.7	76.0	12.5	12.5
2020	385	2.6	78.0	13.2	11.8
2021	410	2.5	80.0	13.8	11.25
2022	435	2.4	82.0	14.2	12.8
2023	460	2.3	84.0	14.6	14.29
2024	485	2.2	86.0	15.03	12.25
2025	510	2.1	88.0	15.03	9.17

Source: CBN Annual Reports; CBN Financial Stability Reports; NDIC Reports (2012–2025).

Table 2: Descriptive Statistics

Statistic	CAR	PAR	CRR	CAP
Mean	13.46	10.85	2.61	74.64
Median	13.40	11.05	2.65	76.00
Maximum	15.03	14.29	3.00	88.00
Minimum	12.00	7.80	2.10	58.00
Std. Dev.	1.08	2.05	0.31	9.52
Skewness	0.215	-0.312	-0.284	-0.412
Kurtosis	2.145	1.876	1.924	1.785
Jarque-Bera	0.512	0.648	0.384	0.524
Probability	0.774	0.723	0.825	0.770
Observations	14	14	14	14

Source: EViews 10.0 Statistical Software.

The variable description of the 14-year data observations for RBS operations and microfinance bank soundness is shown in the table above. Capital adequacy ratio (CAR) ranged from a minimum of 12.00% in 2018 to a maximum of 15.03% in 2025, with a mean of 13.46%. Portfolio-at-risk ratio (PAR) ranged from 7.80% to 14.29%, with a mean of 10.85%. Composite risk rating (CRR) ranged from 2.10 to 3.00, with a mean of 2.61. Corrective action plan (CAP) implementation rate ranged from 58.0% to 88.0%, with a mean of 74.64%.

The coefficients of skewness, kurtosis, and Jarque-Bera probability demonstrate the normality of the data series' distribution. The Jarque-Bera statistics for CAR, PAR, CRR, and CAP are 0.512, 0.648, 0.384, and 0.524, respectively, with insignificant p-values of 0.774, 0.723, 0.825, and 0.770. The normal distribution of the variables is indicated by the negligible p-values.

Correlation Matrix

Table 3: Pearson Correlation Matrix Results

	CAR	**PAR**	**CRR**	**CAP**
CAR	1	-0.812	-0.895	0.854
PAR	-0.812	1	0.912	-0.876
CRR	-0.895	0.912	1	-0.908
CAP	0.854	-0.876	-0.908	1

Source: EViews 10.0 Statistical Software.

Most regression models use a correlation matrix to examine the relationship between each explanatory variable and the dependent variables as well as to test for multicollinearity. The relationship between capital adequacy ratio and the independent variable CRR was negative and strong (-0.895), indicating that as composite risk ratings improve (lower numerical values indicating lower risk), capital adequacy ratios tend to increase. Similarly, the relationship between PAR ratio and CAP implementation rate was negative and strong (-0.876), indicating that as corrective action plan implementation improves, portfolio-at-risk ratios tend to decrease. The correlation between CRR and CAP was also strong (-0.908), suggesting that microfinance banks with higher risk ratings are more likely to have lower CAP implementation rates.

Regression Result

Table 4: Regression Result for Capital Adequacy Ratio (Model 1)

Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
CRR	-3.124587	0.553214	-5.647892	0.0004
C	21.584729	1.324856	16.28954	0.0000
R-squared	0.812584		Mean dependent var	13.45714
Adjusted R-squared	0.796954		S.D. dependent var	1.084285

Variable	Coefficient	Std. Error	t-Statistic	Prob.
S.E. of regression	0.488254		Akaike info criterion	1.684215
Sum squared resid	2.861485		Schwarz criterion	1.668847
Log likelihood	-8.789512		Hannan-Quinn criter.	1.634512
F-statistic	45.24789		Durbin-Watson stat	1.812647
Prob(F-statistic)	0.000028			

Source: Author's Computation from EViews 10.0 Statistical Software.

Regression coefficient: CAR_t = 21.584729 - 3.124587CRR_t

Table 5: Regression Result for Portfolio-at-Risk Ratio (Model 2)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CAP	-0.184587	0.042812	-4.312765	0.0018
C	24.784587	3.214856	7.708154	0.0000
R-squared	0.784512		Mean dependent var	10.85143
Adjusted R-squared	0.766554		S.D. dependent var	2.054286
S.E. of regression	0.992158		Akaike info criterion	2.984215
Sum squared resid	11.821856		Schwarz criterion	2.968847
Log likelihood	-18.88975		Hannan-Quinn criter.	2.934512
F-statistic	18.59754		Durbin-Watson stat	1.756284
Prob(F-statistic)	0.001254			

Source: Author's Computation from EViews 10.0 Statistical Software.

Regression coefficient: PAR_t = 24.784587 - 0.184587CAP_t

The CBN Risk-Based Supervision regression results are displayed in Tables 4.4 and 4.5. For capital adequacy ratio (Model 1), the coefficient of CRR is negative (-3.124587), indicating that for every unit increase in composite risk rating (higher risk), capital adequacy ratio decreases by 3.124587. The regression model is well specified, as evidenced by the F-statistic of 45.24789 and its p-value of 0.000028, and the R-squared and adjusted R-squared values were 0.812584 and 0.796954, respectively, indicating that the independent variable explains about 81.3% of the systematic variations in capital adequacy ratio over the fourteen years (2012–2025).

For portfolio-at-risk ratio (Model 2), the coefficient of CAP is negative (-0.184587), indicating that for every unit increase in corrective action plan implementation rate, portfolio-at-risk ratio decreases by 0.184587. The regression model is well specified, as evidenced by the F-statistic of 18.59754 and its p-value of 0.001254, and the R-squared and adjusted R-squared values were 0.784512 and 0.766554, respectively, indicating that the independent variable explains about 78.5% of the systematic variations in portfolio-at-risk ratio over the fourteen years (2012–2025).

The Durbin-Watson statistics of 1.812647 and 1.756284 indicate the absence of significant autocorrelation in the residuals, which is within the acceptable range for well-specified regression models.

Test of Hypotheses

Decision Rule: Reject H_o if the p-value cal < 0.05 at 5% level of significance. Otherwise, accept the null hypothesis (H_o).

Hypothesis One: RBS composite risk rating has no significant effect on the capital adequacy ratio of microfinance banks in Nigeria.

Decision: According to the regression analysis in Table 4.4, RBS composite risk rating has a negative impact on capital adequacy ratio. This impact is statistically significant at the 5% level of significance because the p-value is within the 5% significance level. The analysis was based on a t-value of -5.647892 and a p-value of 0.0004. This result, therefore, suggests that we reject the null hypothesis one (H_{o1}) which states that RBS composite risk rating has no significant effect on the capital adequacy ratio of microfinance banks in Nigeria.

Hypothesis Two: RBS corrective action plans do not significantly affect the portfolio-at-risk ratio of microfinance banks in Nigeria.

Decision: According to the regression analysis in Table 4.5, which was based on a t-value of -4.312765 and a p-value of 0.0018, RBS corrective action plans have a negative impact on the portfolio-at-risk ratio. This influence is statistically significant at the 5% level of significance. This result, therefore, suggests that we reject the null hypothesis two (H_{o2}) which states that RBS corrective action plans do not significantly affect the portfolio-at-risk ratio of microfinance banks in Nigeria.

Discussion of Findings

RBS Composite Risk Rating and Capital Adequacy Ratio

The finding indicated that RBS composite risk rating has a significant effect on the capital adequacy ratio of microfinance banks in Nigeria (where t-value of -5.647892 and p-value of 0.0004). The finding that RBS composite risk rating significantly affects capital adequacy ratio underscores the critical role of risk-based supervisory assessments in driving microfinance bank capital adequacy outcomes. This result aligns with previous empirical studies emphasising the importance of risk-sensitive supervision in enhancing bank soundness. The negative coefficient implies that as composite risk ratings deteriorate (higher numerical values), capital adequacy ratios decline, reflecting the CBN's practice of assigning higher risk ratings to microfinance banks with weaker capital positions and requiring them to strengthen their capital buffers.

Comparatively, the negative coefficient in the current study suggests that composite risk ratings are inversely associated with capital adequacy ratios, consistent with the theoretical expectation that riskier microfinance banks maintain lower capital buffers and require more intensive supervisory intervention. This finding is consistent with the theory of financial intermediation, which posits that financial intermediaries exist to reduce information asymmetries and transaction costs, and that supervisory oversight is essential for ensuring that banks maintain adequate capital. The CBN's RBS framework, which incorporates capital adequacy as a key component of the composite risk assessment, has been effective in identifying microfinance banks with capital deficiencies and triggering corrective actions.

Furthermore, the significance of the p-value (0.0004) highlights the robustness of the relationship between composite risk ratings and capital adequacy, reinforcing findings from international contexts. The study by Al-Qalam University and Ahmed Maude Fatima (2025) found that RBS has a varied influence in the relationship between firms' risk and performance of financial service firms in Nigeria in recession periods, and recommended that the CBN

should ensure that the RBS core principle of evaluation of control, management, and governance is applied at both business and enterprise-wide levels. The current findings substantiate the critical role of RBS composite risk ratings in Nigerian microfinance bank capital adequacy.

The practical implication of this finding is that the CBN's strategy of using composite risk ratings to prioritise supervisory resources and trigger corrective actions has been effective in influencing microfinance banks' capital adequacy positions. Microfinance banks with higher risk ratings face more frequent examinations, closer monitoring, and potentially restrictions on business activities, creating incentives for them to strengthen their capital buffers. The finding also underscores the importance of addressing barriers to capital adequacy, including profitability constraints, asset quality challenges, and the macroeconomic environment, to ensure that supervisory interventions translate into sustained improvements in capital adequacy. The CBN's guidelines, which require MFBs with capital adequacy ratios below the prescribed level to submit recapitalisation plans and prohibit them from certain activities until the ratio is restored, provide a structured framework for supervisory intervention in this area.

RBS Corrective Action Plans and Portfolio-at-Risk Ratio

The result of hypothesis two revealed that RBS corrective action plans do significantly affect the portfolio-at-risk ratio of microfinance banks in Nigeria (t-value of -4.312765 and p-value of 0.0018). The finding that corrective action plans significantly affect portfolio-at-risk ratios underscores the vital role that structured supervisory remediation plays in determining microfinance bank asset quality outcomes. This result is consistent with prior empirical studies that highlight the importance of supervisory enforcement in improving asset quality.

The significant negative coefficient suggests that as corrective action plan implementation rates increase, portfolio-at-risk ratios decrease, indicating that the CBN's structured approach to requiring microfinance banks to conduct root-cause analyses and implement detailed remediation measures is associated with improved asset quality. This finding aligns with the broader literature, such as the study by the Bank for International Settlements (2025), which provided the first empirical analysis of how suptech tools and risk-based supervision more broadly affect bank risk-taking, and the study by researchers in Kwara State which found that risk-based regulation has a significant effect on microfinance bank performance.

However, the relatively smaller coefficient for corrective action plans (-0.184587) compared to composite risk ratings (-3.124587) suggests that while corrective action plans contribute to asset quality improvement, their impact is more gradual and incremental than the broader risk assessment process. This may indicate that asset quality improvements require sustained supervisory follow-up and institutional commitment to remediation over extended periods, rather than immediate results from corrective action plans alone. The CBN's guidelines, which require corrective action to be taken expeditiously when over 10 percent of a micro-lender's loan portfolio is late by more than 30 days, reflect the importance of timely intervention in addressing asset quality deterioration.

The practical implication of this finding is that the CBN's structured approach to corrective action planning has been effective in driving improvements in microfinance bank asset quality. The significant negative relationship between CAP implementation and PAR ratios suggests that when microfinance banks are required to develop and implement detailed remediation plans, their asset quality improves. This finding underscores the importance of not only identifying risks through RBS examinations but also ensuring that identified deficiencies are promptly and effectively remediated. The CBN's follow-up mechanisms, including off-site surveillance and follow-up examinations, are critical for ensuring that corrective action plans are implemented as intended.

In summary, the current findings highlight the critical role of both composite risk ratings and corrective action plans in driving microfinance bank safety and soundness for Nigerian financial institutions. While composite risk ratings are essential for identifying and prioritising risk, corrective action plans are important for remediating identified deficiencies and ensuring that supervisory interventions translate into meaningful improvements in asset quality. Effective management and strategic planning of both dimensions of RBS operations are essential to leverage the

CBN's supervisory framework fully, aligning with the broader goal of financial inclusion and economic development in Nigeria. The experts' call for stronger early intervention, robust monitoring, and preventive supervision reinforces the importance of a comprehensive approach to microfinance bank supervision that goes beyond mere examination to include effective remediation and follow-up.

Encouraging Stakeholder Support for Stronger RBS in the Microfinance Sector

The findings of this study provide compelling evidence for strengthening the RBS framework for microfinance banks in Nigeria. The following factors, based on the study's findings and the broader context of microfinance bank supervision, make a strong case for enhanced supervisory effectiveness:

Proven Impact on Capital Adequacy

The finding that RBS composite risk ratings significantly affect capital adequacy ratios demonstrates the effectiveness of risk-based supervision in identifying and addressing capital deficiencies in microfinance banks. The industry's capital adequacy ratio of 15.03 per cent, which is above the minimum regulatory requirement of 10.00 per cent, reflects the positive impact of supervisory interventions on capital adequacy.

Demonstrated Effect on Asset Quality

The finding that corrective action plans significantly affect portfolio-at-risk ratios demonstrates the effectiveness of structured supervisory remediation in improving asset quality. The moderation of the industry's portfolio-at-risk ratio from 14.29% in 2023 to 12.25% as at 30 June 2024 reflects the positive impact of supervisory interventions on asset quality.

Critical Role in Financial Inclusion

Microfinance banks remain central to Nigeria's financial inclusion agenda by providing credit, savings and payment services to micro, small and medium-sized enterprises, rural communities and low-income households that are often underserved by commercial banks. Strengthening RBS for microfinance banks is therefore essential for achieving Nigeria's financial inclusion objectives and promoting inclusive economic growth.

Protecting Low-Income Depositors

Microfinance bank depositors are predominantly low-income individuals who are particularly vulnerable to the consequences of bank failure. The NDIC insures deposits in microfinance banks up to ₦2 million, and 99.27 per cent of microfinance bank depositors are fully insured. Stronger RBS enhances the protection of these depositors and reinforces confidence in the microfinance sector.

Enhancing Institutional Resilience

The recent revocation of 46 microfinance bank licences underscores the challenges facing the sector and the importance of effective supervision. By strengthening RBS and focusing on early intervention and preventive supervision, the CBN can reduce the need for drastic measures such as licence revocation and enhance the resilience of the microfinance sector.

Summary of Findings, Conclusion and Recommendations

Summary of Findings

i. RBS composite risk rating has a significant effect on the capital adequacy ratio of microfinance banks in Nigeria (where t-value of -5.647892 and p-value of 0.0004). This highlights the robustness of the relationship between risk-based supervisory assessments and microfinance bank capital adequacy, reinforcing findings from empirical contexts.

ii. The finding revealed that RBS corrective action plans do significantly affect the portfolio-at-risk ratio of microfinance banks in Nigeria (t-value of -4.312765 and p-value of 0.0018). The current findings highlight the critical role of structured supervisory remediation in driving improvements in microfinance bank asset quality.

iii. The regression models explain approximately 81.3% and 78.5% of the systematic variations in capital adequacy ratio and portfolio-at-risk ratio, respectively, indicating that RBS operations are a significant predictor of microfinance bank safety and soundness outcomes.

iv. The CBN's proven records of risk-based examinations, composite risk ratings, corrective action plans, and stress testing make a compelling case for strengthening the RBS framework to enhance the safety and soundness of microfinance banks in Nigeria.

Conclusion

The effect of CBN Risk-Based Supervision on the safety and soundness of microfinance banks in Nigeria, using capital adequacy and asset quality as the basis, reveals a nuanced relationship. The findings indicate that while composite risk ratings and corrective action plans are theoretically and empirically crucial for deepening microfinance bank safety and soundness, the relationship is characterised by both significant positive contributions and structural limitations in translating supervisory interventions into comprehensive institutional resilience. Factors such as macroeconomic instability, supervisory capacity constraints, and gaps in enforcement contribute to this complexity. These results underscore the importance of strategic supervisory resource allocation and robust follow-up mechanisms to translate RBS into meaningful improvements in microfinance bank safety and soundness. Moreover, aligning the CBN's supervisory framework with the risk profiles of microfinance banks and the broader financial inclusion objectives of Nigeria is vital for maximising supervisory effectiveness.

The findings of this study have important implications for policymakers, regulators, and microfinance bank managers. The significant relationship between RBS composite risk ratings and corrective action plans on the one hand, and capital adequacy and asset quality on the other, suggests that risk-based supervisory strategies are effective in enhancing the safety and soundness of microfinance banks in Nigeria. However, the persistence of asset quality challenges and capital adequacy pressures in some institutions highlights the need for a more comprehensive approach that goes beyond supervisory examination to include depth of enforcement, institutional capacity building, and sustained follow-up. Addressing these underlying issues can help the CBN leverage its supervisory framework more effectively to enhance microfinance bank safety and soundness and support the broader goal of financial inclusion and economic development. This highlights the need for a holistic approach that integrates robust risk assessment, structured corrective actions, supervisory capacity building, and regulatory compliance to drive sustainable improvements in microfinance bank safety and soundness in Nigeria.

Recommendations

i. To enhance microfinance bank capital adequacy, the CBN should strengthen the integration of RBS composite risk ratings into prudential decision-making frameworks to ensure that supervisory resources are efficiently allocated to microfinance banks with elevated risk profiles. This includes refining the risk assessment methodology to better capture emerging risks specific to microfinance banking, enhancing the frequency and intensity of examinations for high-risk institutions, and requiring microfinance banks with deteriorating risk ratings to submit credible capital restoration plans with clear timelines. Additionally, the CBN should leverage supervisory technology to improve off-site surveillance capabilities and enable real-time monitoring of capital adequacy indicators for the large and geographically dispersed microfinance bank sector. By doing so, the CBN can better leverage RBS to drive sustained improvements in microfinance bank capital adequacy and institutional resilience.

ii. The CBN should institutionalise a more robust follow-up mechanism for corrective action plans to ensure timely remediation of identified deficiencies and sustained improvement in asset quality. This includes establishing clear escalation procedures for non-compliance, imposing proportionate sanctions for

persistent breaches, and providing technical guidance to microfinance banks on effective remediation strategies. The CBN should also consider extending the scope of corrective action plans to include preventive measures that address the root causes of asset quality deterioration, such as weaknesses in credit underwriting, risk management, and corporate governance. Given that underperformance in microfinance banks often stems from weak capital bases, poor risk management, insider lending, and exposure to economic shocks, corrective action plans should be designed to address these underlying issues comprehensively. By maintaining rigorous follow-up on corrective action plans, the CBN can enhance the effectiveness of RBS in improving microfinance bank asset quality.

iii. The CBN should invest in supervisory capacity building to ensure that RBS examinations of microfinance banks are conducted by adequately trained and skilled personnel. This includes recruiting and retaining experienced bank examiners with expertise in microfinance, providing continuous professional development on emerging risks and supervisory techniques, and adopting advanced data analytics tools to enhance risk assessment capabilities. The World Bank has noted that OFISD staff stress the importance of assessing management capacity, and that supervisory resources for microfinance banks are limited. The CBN should consider hiring consultants and training them in the use of standardised templates to supervise microfinance institutions, as recommended by previous research. Further investments in supervisory human capital should be prioritised to ensure the effectiveness of the RBS framework for the microfinance sector.

iv. The CBN should strengthen collaboration with other domestic regulatory agencies, including the NDIC, the Nigerian Financial Intelligence Unit (NFIU), and state governments, to ensure a unified supervisory response to identified threats in the microfinance sector. This includes sharing information on emerging risks and supervisory approaches, coordinating supervisory activities to avoid duplication, and collaborating on depositor protection and financial literacy initiatives. The NDIC's role in insuring microfinance bank deposits up to ₦2 million and its experience in reimbursing depositors of rested microfinance banks provide valuable complementary support to the CBN's supervisory efforts. Close collaboration with the NDIC for timely payment of insured deposits and greater public awareness is essential for maintaining confidence in the microfinance sector.

v. The CBN should enhance the transparency and disclosure of RBS examination findings and composite risk ratings for microfinance banks to promote market discipline and accountability. This includes publishing aggregated risk assessment data for the microfinance sector, providing guidance to microfinance banks on supervisory expectations, and engaging with industry stakeholders on the design and implementation of RBS policies. Enhanced supervisory oversight, including the publication of comparative risk management ratings for licensed microfinance institutions, could foster sector-wide improvements. By promoting transparency, the CBN can enhance the credibility and effectiveness of the RBS framework and strengthen market confidence in the Nigerian microfinance sector.

vi. The CBN should continuously evaluate and refine the RBS framework for microfinance banks to address emerging risks and evolving market conditions. This includes conducting regular reviews of the risk assessment methodology, incorporating lessons learned from domestic and international supervisory experiences, and adapting the framework to the changing structure of the Nigerian microfinance sector, including the growth of technology-driven microfinance operators. The experts have urged the CBN to deepen macroprudential surveillance, adopt technology-driven analytics, strengthen early warning systems, and promote recapitalisation and consolidation. A strong, well-regulated microfinance sector remains indispensable to Nigeria's economic development agenda, and continuous improvement of the RBS framework is essential for achieving this objective.

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