EFFECT OF CREDIT RISK MANAGEMENT ON LOAN PERFORMANCE OF CREDIT-ONLY MICROFINANCE INSTITUTIONS IN SELECTED COUNTIES IN CENTRAL KENYA

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A Thesis Submitted in Partial Fulfilment for the Award of the Degree of Doctor of Philosophy in Business Administration (Finance Option) in the School of Business and Education, Kirinyaga University

September, 2026

DECLARATION

This research thesis is my original work and has not been presented for a degree or any other award in any other University.

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DEDICATION

This thesis is dedicated to my dear wife Mary and our children Stephen and Esther.

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I wish to express my heartfelt appreciation to the people who have made this research thesis a success. I acknowledge the professional guidance provided by my university supervisors Dr. Muigai Gitau and Dr. Waita Gichaiya. My sincere gratitude goes out to my employer Kirinyaga University for providing time and conducive environment to conduct this research. I am grateful to my classmates for our inspiring class discussions, particularly to those with whom I could exchange ideas for this thesis. I thank my family for their patience and understanding during this period especially my wife Mary for her moral support and prayers and shouldering some of my family responsibilities during this period. I thank the Almighty God for His mercy, care, protection, strength and knowledge to write this thesis.

ABSTRACT

Credit-only Microfinance Institutions (COMFIs) in Kenya play an important role in promoting financial inclusion by providing credit services to underserved individuals and small businesses. However, persistent loan defaults and poor repayment performance continue to threaten their financial sustainability and limit their contribution to economic development. This study examined the effect of credit risk management on loan performance among credit-only microfinance institutions operating in selected counties in Central Kenya. Specifically, the study assessed the effect of credit risk identification, credit risk assessment, credit policy and credit risk oversight on loan performance, and examined the moderating effect of government regulations on these relationships. The study was anchored on the Information Asymmetry Theory, supported by the adverse selection and moral hazard concepts, which together explain how unequal access to borrower information contributes to default risk in lending markets. A descriptive and explanatory research design was adopted. Data were collected from licensed credit-only microfinance institutions using structured questionnaires and interview schedules. Quantitative data were analyzed using descriptive statistics, correlation analysis and simple and multiple linear regression, while qualitative data from the interviews were analyzed thematically. Diagnostic tests for normality, multicollinearity, heteroscedasticity, autocorrelation and linearity were conducted to confirm the suitability of the data for regression analysis. The study established that credit risk identification had a positive and statistically significant effect on loan performance, with improved borrower screening, background verification and use of credit reference reports associated with stronger repayment outcomes. Credit risk assessment also had a positive and statistically significant effect and emerged as the strongest predictor of loan performance among the practices examined, indicating that thorough borrower evaluation enhances repayment discipline. Credit policy had a positive and statistically significant effect, suggesting that clear lending guidelines and consistent enforcement improve lending discipline and reduce default. Credit risk oversight likewise had a positive and statistically significant effect, showing that continuous monitoring and borrower follow-up strengthen portfolio quality. The moderation analysis established that government regulations significantly moderated the relationships between credit risk identification, credit risk assessment, credit policy and loan performance, while the moderating effect on credit risk oversight was not statistically significant. The study concluded that effective credit risk management practices, reinforced by a supportive regulatory framework, are essential in improving loan performance among credit-only microfinance institutions in Central Kenya. The study recommends that institutions strengthen borrower screening and appraisal systems, review and consistently enforce credit policies, institutionalize post-disbursement monitoring, and sustain compliance with regulatory requirements in order to improve portfolio quality and support long-term institutional sustainability. The study contributes to theory by establishing that the pre-disbursement and post-disbursement mechanisms of information asymmetry and agency operate with different force in unsecured lending, and that regulatory pressure moderates internal credit practice selectively rather than uniformly; to empirics by providing disaggregated county-level evidence from the credit-only segment; to methodology by demonstrating hierarchical moderated regression with mean-centred interaction terms in place of a direct-predictor specification; and to practice by identifying borrower appraisal as the practice carrying the greatest measurable return and policy enforcement, rather than policy documentation, as the determinant of lending discipline.

ABBREVIATIONS AND ACRONYMS

AMFI-K	Association of Microfinance Institutions of Kenya
CBK	Central Bank of Kenya
CIS	Credit Information Sharing
COMFIs	Credit-Only Microfinance Institutions
CRB	Credit Reference Bureau
CRM	Credit Risk Management
IMF	International Monetary Fund
IR	Interview Respondents
NACOSTI	National Commission for Science, Technology and Innovation
NGOs	Non-Governmental Organizations
NPL	Non-Performing Loans
OLS	Ordinary Least Squares
ROE	Return on Equity
SPSS	Statistical Package for the Social Sciences
VIF	Variance Inflation Factor

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CHAPTER ONE

INTRODUCTION

This chapter presents the background of the study, statement of the problem, purpose of the study, research objectives, research hypotheses, justification, significance, scope, limitations and delimitations, assumptions of the study and operational definition of terms.

1.1 Background to the Study

In Kenya, credit-only microfinance institutions (COMFIs) play a crucial role in enhancing financial inclusion by providing access to credit for small businesses, entrepreneurs, and low-income earners (Association of Microfinance Institutions – Kenya [AMFI-K], 2026). However, rising loan defaults have posed significant challenges to their sustainability and the broader financial ecosystem. According to the Central Bank of Kenya, the non-performing loan (NPL) ratio increased from 12.26% in 2017 to 15.3% in 2023, while mortgage defaults surged by 26%, totaling Kshs 634 billion in arrears (Muindi & Ambrose, 2023; Mwaniki, 2024). These figures highlight the urgent need for COMFIs to enhance their credit risk management strategies to safeguard financial stability.

Globally, the 2008 financial crisis underscored the catastrophic impact of poor credit risk management, leading to the implementation of stricter regulatory frameworks and improved risk assessment models in many developed economies (Barra & Ruggiero, 2022). Despite advancements in these regions, COMFIs in Kenya continue to struggle with high default rates, insufficient risk mitigation policies, and inadequate credit information sharing. Unlike their counterparts in Europe and Asia, who have established more robust credit controls, Kenyan

COMFIs still face substantial challenges in areas like borrower risk identification, credit assessment, and oversight, threatening their financial sustainability (Githinji, 2021).

High default rates typically emerge when institutions fail to identify borrower risk early, conduct thorough risk assessments, enforce adequate credit policies, and maintain continuous risk oversight across the loan lifecycle (Amin & Thasleem, 2020). Furthermore, the effectiveness of these practices depends heavily on the strength and consistency of government regulation, which shapes institutional compliance, reporting standards, and enforcement. This study, therefore, examines how credit risk identification, credit risk assessment, credit policy, and credit risk oversight contribute to improving loan performance in COMFIs and explores the moderating role of government regulation in these relationships (Karanja & Simiyu, 2022).

1.1.1 Global Perspective on Credit Risk Management

Credit risk management is a fundamental aspect of financial stability for lending institutions worldwide (Siddique et al., 2021). At its core, credit risk refers to the likelihood of a borrower failing to meet their debt obligations, which can result in financial losses for lenders (Maxoptob, 2023). The global financial system has continuously evolved to address credit risk through regulatory frameworks, risk mitigation strategies and technological advancements that enhance credit assessment and loan performance (Mbithi & Ogilo, 2023). However, economic shocks such as the 2008 global financial crisis, exposed vulnerabilities in financial institutions' risk management practices, leading to regulatory reforms and heightened scrutiny of credit risk management policies (Barra & Ruggiero, 2022).

Financial institutions, including banks and credit-only microfinance institutions (COMFIs), play a crucial role in economic growth by facilitating access to capital for businesses and individuals

(Agaba et al., 2022). Credit risk management ensures that these institutions maintain financial sustainability by reducing the likelihood of defaults and minimizing non-performing loans (NPLs) (Siddique et al., 2021). Institutions that fail to manage credit risk effectively often experience declining profitability, liquidity challenges and, in extreme cases, insolvency (Maxoptob, 2023).

The Basel Accords, established by the Basel Committee on Banking Supervision, provide a regulatory framework for global banking practices, emphasizing risk-based capital requirements to cushion against potential credit losses (Rehman et al., 2019). Basel III, introduced in response to the 2008 crisis, strengthened credit risk management through enhanced capital adequacy standards, stress testing and liquidity requirements (Naili & Lahrichi, 2022). These regulatory measures highlight the significance of credit risk management in maintaining financial resilience and mitigating the impact of economic downturns (Mbithi & Ogilo, 2023).

The 2008 financial crisis was a defining moment for global credit risk management (Acheampong & Elshandidy, 2021). Triggered by excessive risk-taking in the subprime mortgage market, the crisis led to widespread loan defaults, bank failures and economic recessions in multiple countries (Mushafiq et al., 2021). In response, financial institutions and regulators implemented stricter credit risk management policies to prevent similar collapses in the future (Ghazieh & Chebana, 2021). The crisis underscored the need for comprehensive credit evaluation processes, stringent loan underwriting standards and robust credit monitoring systems (Barra & Ruggiero, 2022).

Countries such as the United States and the United Kingdom introduced measures to improve transparency in lending, requiring financial institutions to conduct more thorough credit assessments before extending loans (Rehman et al., 2019). The European Union also adopted enhanced risk mitigation frameworks, compelling banks to increase their capital buffers to absorb

potential losses (Naili & Lahrichi, 2022). These reforms have since shaped global credit risk management practices, promoting financial stability and resilience (Kil et al., 2021).

Credit risk management plays a critical role in ensuring that financial institutions maintain a balance between loan accessibility and default mitigation (Zhou et al., 2022; Omar, 2019). It serves as a safeguard against financial instability, helping institutions navigate economic uncertainties while maintaining loan performance (Mushafiq et al., 2021). Effective credit risk management involves rigorous borrower screening, collateral requirements and structured repayment plans (Busari, 2023; Olatunbosun et al., 2022). These measures ensure that financial institutions can minimize credit losses while still extending loans to borrowers who demonstrate repayment capacity (Ghazieh & Chebana, 2021; Kareem, 2024). Scholarly evidence indicates that financial institutions with strong credit risk management frameworks tend to maintain lower NPL ratios, as they are able to predict potential defaulters and implement mitigation strategies in a timely manner (Rehman et al., 2019; Kil et al., 2021).

In the aftermath of the global financial crisis, institutions worldwide adopted advanced credit risk assessment tools, including credit scoring models and stress testing methodologies. These tools have significantly improved financial institutions' ability to evaluate borrowers' repayment capacity and adjust lending conditions accordingly (Acheampong & Elshandidy, 2021). They also allow lenders to identify potential defaulters early and implement proactive risk mitigation strategies (Muhammad, 2021; Darmoe, 2020). Siddique et al. (2021) observe that banks with well-established credit risk management systems report significantly lower default rates (AsareAsare, 2023; Arhin, 2024). Scholarly attention has, however, concentrated on prudentially supervised banks in developed markets, and comparatively little is known about how these practices operate

in credit-only lending contexts where credit information systems and enforcement mechanisms are uneven.

Additionally, effective credit risk management influences macroeconomic stability by promoting responsible lending practices, ensuring financial institutions remain solvent and fostering economic growth (Naili & Lahrichi, 2022). Poorly managed credit risk can lead to an accumulation of bad debt, which in turn can cause economic downturns and financial sector instability, as seen during the 2008 financial crisis when weak credit oversight led to widespread banking collapses (Kil et al., 2021; Mbithi & Ogilo, 2023). Conversely, institutions with strong credit risk management policies contribute to sustainable economic growth by ensuring the efficient allocation of credit, maintaining trust in the financial system and fostering investor confidence in financial markets (Naili & Lahrichi, 2022).

Regulatory bodies worldwide have introduced various measures to ensure that financial institutions adhere to sound credit risk management practices (Zhou et al., 2022). The Basel III framework mandates higher capital adequacy ratios, encouraging banks to maintain sufficient buffers against credit losses. Similarly, the Financial Stability Board (FSB) and the International Monetary Fund (IMF) have developed policies aimed at strengthening global credit risk frameworks and promoting financial stability (Acheampong & Elshandidy, 2021).

Governments and central banks in major economies have also implemented credit risk management policies tailored to their financial landscapes. For instance, in response to rising NPLs, the European Central Bank (ECB) introduced stricter provisioning requirements, compelling banks to write off bad debts more efficiently. These regulatory interventions have

significantly contributed to the improvement of loan performance and the overall health of financial institutions (Naili & Lahrichi, 2022).

The integration of technology in credit risk management has revolutionized financial institutions' ability to assess and mitigate credit risks. Digital lending platforms, artificial intelligence, and big data analytics have enhanced the accuracy and efficiency of credit assessments (Omar, 2019). Digital lending platforms leverage alternative data sources such as mobile money transactions and social media activity, to evaluate borrowers with limited credit histories. Research indicates that institutions utilizing fintech innovations experience lower default rates and enhanced loan performance (Zhou et al., 2022). Artificial intelligence and big data analytics have also improved credit risk modeling by identifying patterns in borrower behavior and predicting potential defaults. These technologies enable financial institutions to make data-driven lending decisions, reducing the likelihood of loan defaults and improving overall loan performance (Omar, 2019). Blockchain technology further enhances credit risk management by providing secure and transparent transaction records, reducing fraud, and improving trust in financial transactions (Ghazieh & Chebana, 2021).

Despite significant progress in credit risk management, financial institutions continue to face challenges in mitigating credit risks effectively. Economic uncertainties, geopolitical risks and market fluctuations can impact borrowers' ability to repay loans, increasing default risks. Additionally, regulatory compliance remains a concern, as financial institutions must continuously adapt to evolving credit risk management standards and reporting requirements (Mushafiq et al., 2021). Future advancements in credit risk management will likely focus on enhancing predictive analytics, expanding credit information-sharing networks and strengthening regulatory

frameworks. Collaboration between financial institutions, regulators, and technology providers will be essential in developing innovative solutions to manage credit risks effectively (Duho et al., 2021). The implementation of AI-driven credit assessments and blockchain-based credit information systems is expected to enhance credit risk transparency and improve loan performance (Kil et al., 2021).

The issue of credit risk management remains a critical concern for financial institutions globally, as loan defaults continue to threaten the stability of banking and microfinance sectors. The problem has been widely acknowledged, particularly following the 2008 global financial crisis, which exposed significant weaknesses in risk assessment and mitigation frameworks (Barra & Ruggiero, 2022). In response, governments and regulatory bodies have implemented stringent policies to enhance credit risk oversight, including Basel III capital requirements, stress testing methodologies, and enhanced credit reporting systems (Acheampong & Elshandidy, 2021). Financial institutions worldwide have also adopted advanced technological solutions such as artificial intelligence, machine learning and blockchain to improve credit risk assessment and reduce default rates (Zhou, Chen, Zhang, & Zheng, 2022). While these interventions have strengthened financial resilience in developed economies challenges persist particularly in emerging markets where credit information systems are underdeveloped and risk management frameworks remain weak (Naili & Lahrichi, 2022). Despite efforts to enhance credit risk management, rising non-performing loan (NPL) ratios in various global financial markets suggest that more comprehensive strategies are needed to mitigate the impact of economic downturns and borrower defaults (Kil et al., 2021). Thus, the current study seeks to establish effective strategies for enhancing sustainable loan performance and financial stability by leveraging proven credit risk management approaches.

1.1.2 Regional Perspective on Credit Risk Management

Credit risk management remains a critical challenge across Africa, particularly in the microfinance sector which plays a vital role in promoting financial inclusion (Agaba et al., 2022). Many African economies rely heavily on COMFIs to provide financial services to small businesses and low-income households (Al Zaidanin & Al Zaidanin, 2021). However, these institutions frequently encounter high default rates due to economic instability, inadequate risk assessment mechanisms and the limited financial literacy of borrowers (Omar, 2019). Addressing these challenges requires a more structured approach to credit risk management, combining regulatory reforms, financial education, and technological advancements to improve loan performance and financial stability (Duho et al., 2021). In the context of the current study, this regional challenge directly reinforces the need to examine how credit risk identification, credit risk assessment, credit policy and credit risk oversight influence loan performance in COMFIs and how regulation can shape the effectiveness of these mechanisms.

One of the most pressing issues facing credit markets in Africa is the high rate of non-performing loans (NPLs), which continues to undermine the financial sustainability of lending institutions (Magri, 2019). In Kenya, for instance, the Central Bank of Kenya reported that the NPL ratio in the microfinance sector had risen to over 15% in recent years, posing a threat to the sustainability of COMFIs (Zhou, 2021). Similarly, in Ghana, the NPL ratio climbed from 13.8% in 2019 to 14.8% in 2020, indicating increasing loan defaults that undermine the financial health of credit unions (AsareAsare, 2023). The situation is not unique to these countries, as Nigeria and Uganda have also struggled with rising default rates, which significantly affect the overall stability of their banking and microfinance sectors (Richard et al., 2019). These regional trends strengthen the

justification for focusing on credit risk management practices because default patterns often reflect weaknesses in identification of high-risk borrowers, insufficient assessment procedures, weak credit policies and limited oversight and monitoring after disbursement.

African financial institutions have attempted to mitigate credit risk through various strategies, including stringent credit assessment processes, collateral requirements and loan monitoring systems (Maxoptob, 2023). However, these efforts have been met with mixed success due to economic volatility and regulatory gaps (Al Zaidanin & Al Zaidanin, 2021). The absence of comprehensive credit information-sharing mechanisms has further exacerbated the problem, as financial institutions struggle to accurately assess borrowers' creditworthiness (Duho et al., 2021). Unlike developed economies where credit bureaus play a significant role in reducing risk, many African nations have yet to establish fully functional credit information systems, leading to repeated lending to high-risk borrowers (Omar, 2019). This regional limitation connects directly to the current study's emphasis on credit risk assessment and credit risk identification, because weak information systems can weaken appraisal decisions and reduce loan performance.

The role of government regulation in credit risk management cannot be overlooked, as it significantly impacts financial stability (Magri, 2019). Many African countries have implemented policies aimed at improving financial sector resilience, yet enforcement remains a significant challenge (Zhou, 2021). The Central Bank of Nigeria, for instance, has introduced prudential guidelines that require financial institutions to maintain strict loan classification and provisioning requirements (AsareAsare, 2023). Similarly, Ghana and Kenya have adopted measures to strengthen capital adequacy requirements, but these have not entirely curbed the rising default rates (Richard et al., 2019). The lack of consistency in regulatory enforcement across different

financial institutions has hindered the effectiveness of these measures (Maxoptob, 2023). This regional evidence supports the moderating role tested in this study, because regulation can strengthen credit policy enforcement and oversight standards, and weak enforcement can reduce the effectiveness of otherwise sound internal risk practices.

Technology is increasingly becoming a crucial tool in mitigating credit risk within the African financial sector (Al Zaidanin & Al Zaidanin, 2021). The adoption of mobile banking, digital lending platforms and artificial intelligence-driven credit scoring systems has improved financial institutions' ability to assess risk more effectively (Duho et al., 2021). In Kenya, M-Pesa's mobile lending services have demonstrated how digital financial platforms can enhance credit accessibility while implementing real-time credit risk assessment models (Omar, 2019). Similarly, Nigeria's fintech industry has introduced credit scoring algorithms that analyze alternative data such as mobile phone usage and utility payments, to assess a borrower's repayment capacity (Zhou et al., 2022). These innovations highlight the potential of technology in enhancing credit risk management and improving loan performance in Africa (Magri, 2019). This evidence reinforces the logic of examining credit risk assessment and credit risk oversight, because technology strengthens appraisal and monitoring, which can reduce defaults.

Despite these advancements, challenges persist in ensuring financial institutions effectively manage credit risk in a dynamic economic environment (Richard et al., 2019). Economic shocks, such as the COVID-19 pandemic have further exposed the vulnerabilities of Africa's financial sector, leading to increased loan defaults and liquidity crises for many COMFIs (Duho et al., 2021). The pandemic highlighted the need for more resilient credit risk management frameworks that can withstand economic downturns, particularly in fragile economies (Maxoptob, 2023). African

governments and financial institutions must therefore invest in robust risk assessment models, credit guarantee schemes and financial literacy programs to create a more sustainable lending environment (Omar, 2019).

Furthermore, financial education plays a crucial role in mitigating credit risk, ensuring that borrowers understand credit obligations (Zhou et al., 2022). Many borrowers in African economies lack adequate knowledge of credit management, which leads to poor repayment behaviors and increased default rates (Richard et al., 2019). Financial literacy initiatives have been introduced in countries such as South Africa, Kenya and Ghana, aiming to educate borrowers on responsible borrowing practices and debt management (AsareAsare, 2023). However, these programs remain limited in scale and need further expansion to create a more informed borrower base capable of managing credit responsibly (Magri, 2019).

Regional financial integration also presents an opportunity for improving credit risk management in Africa by facilitating better credit assessment (Maxoptob, 2023). Institutions such as the African Development Bank (AfDB) and the Economic Community of West African States (ECOWAS) have emphasized the need for cross-border credit information-sharing platforms that would allow financial institutions to access borrower credit histories across different countries (Omar, 2019). If successfully implemented, such platforms could significantly reduce credit risk by enabling more accurate borrower assessments and preventing serial defaults across multiple financial institutions (Richard et al., 2019).

Therefore, credit risk management in Africa remains a complex challenge requiring a multifaceted approach that includes regulatory compliance, technological adoption, and financial literacy. While financial institutions and governments have made strides in enhancing risk assessment,

economic volatility, and regulatory inconsistencies continue to pose significant threats. To achieve long-term financial stability, African nations must strengthen regulatory enforcement, invest in digital credit risk assessment tools and expand financial education programs. The success of credit risk management in Africa will not only determine the sustainability of COMFIs but will also shape the broader economic development of the continent. This regional conclusion directly supports the justification of the current study by showing that improved loan performance depends on stronger credit risk identification, improved assessment, enforceable credit policies, sustained oversight, and effective regulation.

1.1.3 Local Perspective

In Kenya, COMFIs implement various credit risk management practices to minimize defaults that lead to losses. These practices enhance their ability to mitigate exposure to credit risks. A significant relationship has been found between credit risk management and loan performance, highlighting the role of effective credit policies in sustaining COMFIs (CBK, 2023; Njuguna & Wanjiru, 2021). Furthermore, credit monitoring, risk policy, granting processes and control measures have a substantial and positive influence on loan performance in COMFIs (AMFI-K, 2023). The lending activity of financial institutions exposes them to credit risks due to borrower defaults. To mitigate these risks, COMFIs ensure that credit risks are not excessive by implementing loss mitigation measures (Ochieng, 2020). These local practices correspond directly to the study variables. Borrower screening and early warning processes reflect credit risk identification, appraisal and verification reflect credit risk assessment, lending rules reflect credit policy, and continuous monitoring reflects credit risk oversight. This local context therefore

provides direct justification for examining how each of these practices affects loan performance in COMFIs.

Despite the enormous contribution of savings and credit cooperative societies (SACCOs) to economic development, they face challenges related to effective credit management policies. Capital adequacy significantly influences the financial performance of SACCOs, as proper credit risk management ensures liquidity planning and justifiable fund distribution (CBK, 2023; Mwangi & Karanja, 2019). The risk of borrower default arises when clients are unable or unwilling to repay the principal and interest as scheduled, leading to financial losses for institutions and distress that can ripple through the entire economy. Statistics indicate that non-performing loans (NPLs) in Kenya's microfinance sector stood at 12.5% in 2023, reflecting persistent challenges in credit management (CBK, 2023; Atieno, 2021). Thus, controlling non-performing loans through credit risk management practices enhances the quality of deposit-taking financial institutions' loan portfolios.

Credit risk is a major factor that destabilizes the credit performance of COMFIs. The increase in risk management challenges in the microfinance sector has necessitated the adoption of risk-based supervision approaches to address defaults (AMFI-K, 2023; Wanyama, 2022). Credit risk is considered the most significant threat to financial institutions as it leads to insolvency and economic downturns. Structured approaches to credit risk management, which include assessment, strategy formulation, and mitigation techniques, are essential in minimizing these risks. Effective credit risk management involves continuous monitoring processes to assess and control risks. The impact of credit risk extends beyond the lender and can influence other financial institutions connected to the same borrower. A substantial connection exists between the credit risk

environment and loan performance in Kenyan microfinance banks, emphasizing the need for effective risk control measures (KNBS, 2023; Omondi & Kiptoo, 2020). According to the Central Bank of Kenya (CBK), 45% of loan defaults in microfinance institutions result from inadequate risk management policies (CBK, 2023). This local evidence strengthens the justification for the current study because weak policies and weak oversight directly relate to credit policy and credit risk oversight, and they ultimately affect loan performance.

Credit risk management encompasses the approaches used by financial companies to protect themselves from late loan repayments and defaults (Njoroge, 2021). To safeguard institutions against credit risks, microfinance firms implement various credit screening and assessment techniques before granting loans. Measures such as requiring security from loan clients and setting stringent conditions for disbursement help mitigate risks. Nevertheless, improvements in credit risk control methods are necessary to further reduce loan default rates and enhance loan performance (Kimani, 2022). Expanding the scope of research to consider a larger sample size would provide a more comprehensive representation of the entire banking sector. Notably, data from the Association of Microfinance Institutions in Kenya (AMFI-K) indicates that only 60% of loan applications are successfully assessed for credit risk before approval (AMFI-K, 2023).

Credit risk management involves multiple procedures and controls that financial institutions implement to ensure effective credit collection and minimize default risks. Many microfinance institutions in Kenya have separate credit risk management units that report to loan managers (Otieno, 2020). However, a lack of independent credit risk management sections in some financial institutions contributes to increased credit risks (Wambua & Kibet, 202). Credit risks are associated with client evaluation before loan disbursement, loan awareness, and adverse

transactions. To counter these risks, COMFIs employ risk control strategies such as credit diversification, bank securities and contractual agreements. These practices improve loan performance, but additional measures, such as implementing personalized default risk models, could further enhance risk mitigation strategies. A broader study on the effects of credit risk management on SACCOs' loan performance is recommended (Muriuki, 2020).

The efficiency of credit management systems in microfinance institutions is crucial in determining loan performance. Client appraisal strategies are central to enhancing credit risk control. Microfinance institutions in Meru employ loan officers to evaluate clients' creditworthiness by examining business plans, financial records, and returns (KNBS, 2023; Kariuki, 2021). Collection policies also serve as credit risk control strategies by ensuring that slow payers meet repayment deadlines, reducing defaults. The role of loan officers in allocating loans contributes to lower default rates and improved loan performance. However, the study suggests that microfinance institutions should adopt additional credit risk control strategies such as loan insurance, signing agreements, loan ranking, financial condition reporting and restrictions on additional borrowing to enhance credit performance (Mutai, 2020). 23% of loan defaults occur due to inadequate loan assessment processes (Ndegwa, 2021). By assessing the gaps in loan assessment processes and identifying strategies that mitigate credit risk, the study aims to provide insights into improving financial stability and reducing default rates in the sector. In addition, the likelihood of financial institutions incurring losses due to debt defaults by borrowers underscores the importance of robust credit risk management practices (Mwangi, 2021). While credit risk control measures such as risk analysis evaluation, risk monitoring and risk identification are widely used, their effectiveness in microfinance institutions in Meru remains unclear. This study seeks to assess how these measures influence loan performance and identify additional strategies that can enhance financial stability.

By focusing on institution-specific challenges, the study aims to provide practical recommendations for strengthening credit risk management in the sector.

Financial performance in microfinance organizations is measured primarily by profitability, and a positive relationship exists between financial performance and credit risk management strategies. To further reduce credit evasion, COMFIs should utilize Credit Reference Bureau (CRB) services to assess loan customers' creditworthiness. Future studies should investigate the impact of credit information sharing on loan performance in financial institutions. In Kenya, data from the Credit Reference Bureau shows that over 3 million borrowers are blacklisted due to loan defaults, highlighting the necessity of stringent credit screening measures (Kimani & Owuor, 2022). The primary goal of credit risk control strategies is to reduce loan defaults and enhance financial performance in microfinance institutions. COMFIs in Kenya implement risk management measures to ensure that loans correspond to borrowers' repayment abilities. Credit risk monitoring of loan portfolios is periodically conducted to maintain high credit performance levels. Additionally, financial institutions use CRB services to evaluate loan applicants' creditworthiness, thereby minimizing loan defaults (Wainaina, 2020). Loan collection strategies, including hiring experienced credit collectors, lawyers, and auctioneers, also play a crucial role in improving credit performance. To further enhance financial performance, microfinance institutions should conduct regular training sessions on credit risk management to equip loan officers with the necessary knowledge and skills (Ngugi, 2021).

Given the persistent challenges in credit risk management, this study is necessary to explore the effectiveness of current risk control measures and identify areas requiring improvement. By assessing the impact of credit risk management on loan performance in Kenya's credit-only

microfinance institutions, the study provides valuable insights into enhancing financial sustainability. The findings will inform policymakers and financial institutions on best practices, ultimately contributing to a more stable microfinance sector.

1.1.4 Status of COMFIs in Kenya

Credit-only microfinance institutions (COMFIs) in Kenya play a vital role in providing financial services to individuals and businesses that lack access to traditional banking institutions. Unlike deposit-taking microfinance institutions, COMFIs primarily focus on offering credit facilities without accepting customer deposits. These institutions target underserved populations, including small-scale traders, farmers and micro-entrepreneurs, who often face difficulties securing loans from commercial banks due to stringent collateral requirements and complex application processes (Karanja, 2022). By providing tailored credit products, COMFIs have contributed significantly to economic growth, particularly in rural and peri-urban areas where formal banking services are limited (Wafula, 2023).

The Association of Microfinance Institutions Kenya (AMFI-K) indicates that, as at 31 December 2021, its membership included credit-only microfinance institutions and that a subset of COMFIs submitted operational and portfolio data for sector reporting (AMFI-K, 2021). This reporting further shows that COMFIs operate with established institutional capacity and broad outreach, and it documents portfolio quality indicators for the credit-only segment, including measures of portfolio at risk that signal delinquency exposure within the sector (AMFI-K, 2021). These status indicators reinforce the relevance of this study because they show that COMFIs remain active and significant in serving underserved markets, but they also face portfolio performance pressures that make credit risk management practices central to sustainability.

As of 2020, Kenya had 13 licensed COMFIs, collectively serving over 10,580 active clients and 3,227 active borrowers (Wafula, 2023). These institutions bridge the financial gap by offering flexible repayment terms and innovative credit models, including group lending and asset-based financing. This accessibility has enabled micro-entrepreneurs to expand their businesses, improve livelihoods, and invest in critical sectors such as education, healthcare, and agriculture (Korir, 2022). However, despite their contributions to financial inclusion, COMFIs face persistent challenges that threaten their sustainability and effectiveness in loan performance.

One of the major challenges facing COMFIs is the high rate of loan defaults, which undermines financial stability. In some microfinance institutions, loan default rates exceed 23%, primarily due to inadequate borrower assessment processes and weak credit risk management frameworks (Karanja & Wamugo, 2024; Ndegwa, 2021). Unlike commercial banks, which rely on extensive credit history evaluations and collateral requirements, COMFIs often extend loans based on group guarantees or minimal documentation, exposing them to a higher risk of non-performing loans. The lack of comprehensive credit assessment mechanisms has made it difficult to distinguish between high-risk and low-risk borrowers, increasing the likelihood of loan defaults (Kinyua, 2022). Sector evidence that tracks portfolio quality within the credit-only segment further strengthens the case that delinquency risk is not only institution-specific but also a sector concern, which heightens the need for stronger credit appraisal, monitoring, and enforcement (AMFI-K, 2021).

Another critical challenge is limited access to external funding. Since COMFIs do not accept deposits, their loan portfolios largely depend on capital from investors, donors, and financial institutions. However, funding constraints often restrict their ability to expand credit offerings,

resulting in liquidity shortages that limit growth potential (Wafula, 2023). Many COMFIs also struggle to secure sustainable financing due to concerns over their financial stability, particularly in light of high default rates and inconsistent cash flow patterns. Without adequate funding sources, these institutions may face operational inefficiencies that hinder their capacity to support long-term financial inclusion (Njagi, 2021).

Regulatory inconsistencies further compound the challenges faced by COMFIs. Unlike deposit-taking microfinance institutions, which fall under the direct supervision of the Central Bank of Kenya (CBK), COMFIs operate within varied regulatory frameworks that often lack uniformity. Some COMFIs are members of the Association of Microfinance Institutions of Kenya (AMFI), while others operate under different financial oversight bodies, leading to disparities in compliance standards and risk management practices (Wafula, 2023). The absence of a standardized regulatory framework has contributed to governance challenges, making it difficult to implement consistent credit risk control measures across institutions. This context supports examining government regulation as a moderating factor because supervision and compliance expectations can strengthen how internal practices, including credit policy enforcement and credit risk oversight, translate into improved loan performance.

Competition from digital lenders and commercial banks has also posed a significant threat to the sustainability of COMFIs. The rapid adoption of financial technology (FinTech) has enabled digital lenders to offer fast, unsecured loans through mobile platforms, often with minimal application procedures. While this has improved financial accessibility, it has also intensified competition, forcing COMFIs to innovate and integrate technology into their credit delivery models (Korir, 2022). However, many COMFIs still struggle to adopt digital solutions effectively,

given the high costs of technology implementation and the need for client education on digital financial services (Jagong'o, 2022).

The sustainability of COMFIs in Kenya is becoming increasingly uncertain due to these challenges, necessitating an in-depth evaluation of their credit risk management strategies. Given their crucial role in financial inclusion, entrepreneurship and poverty reduction, understanding their credit risk control mechanisms is essential for ensuring long-term viability. The high default rates, regulatory inconsistencies and funding constraints underscore the need for more effective credit assessment frameworks, risk monitoring mechanisms, and policy reforms to enhance financial stability (Ndegwa, 2021). This study sought to assess the effectiveness of credit risk management practices in COMFIs and their impact on loan performance. By examining current risk mitigation strategies such as borrower vetting, loan structuring, and repayment enforcement, the research aims to identify gaps and propose sustainable solutions to enhance credit performance. Additionally, the study explored how regulatory challenges and competition from digital lenders affect COMFI operations, offering insights into potential policy interventions that could strengthen the sector. Therefore, the findings will contribute to financial sector knowledge by providing recommendations for improving credit risk management in COMFIs, ensuring that these institutions continue to support small businesses and marginalized communities while maintaining financial stability.

1.1.5 Credit Risk Management Practices

Credit risk management practices are treated in this study as four distinct institutional practices rather than as a single composite. Each is introduced below in the order in which it appears among the specific objectives.

Credit risk identification is the first practice. It concerns the institutional routines through which a lender detects exposure before credit is advanced, including borrower background verification, the use of credit reference bureau data, credit scoring and risk matrices, and borrower vetting. Scholars working across African lending markets report that institutions with formalised identification routines record lower incidences of lending to previously delinquent borrowers, whereas institutions relying on relational or informal screening carry higher concentrations of hidden exposure.

Credit risk assessment is the second practice. It concerns the appraisal of repayment capacity once exposure has been identified, and covers business risk, environmental risk, personal risk and the appraisal of the borrower's business plan. The literature distinguishes assessment from identification on the ground that identification detects the existence of risk while assessment estimates its magnitude, and reports that the two produce different effects on portfolio quality when modelled separately.

Credit policy is the third practice. It is the formal rule structure governing credit granting standards, loan terms and conditions, repayment structuring, monitoring expectations, staff training and recovery procedures. Studies conducted in East African microfinance markets consistently observe that the existence of a documented policy is less consequential than the consistency with which the policy is enforced.

Credit risk oversight is the fourth practice. It is the post-disbursement control function covering loan portfolio performance review, the controls attached to each loan product, and risk reporting and review. Oversight differs from the preceding three practices in that it operates continuously

across the loan lifecycle rather than at the point of approval, and the literature associates it with the early detection of portfolio deterioration.

1.1.6 Loan Performance in Credit-Only Microfinance Institutions

Loan performance is the dependent variable of this study and is introduced here as a standalone construct so that its meaning is fixed before the practices expected to influence it are examined empirically. Loan performance refers to the extent to which borrowers repay advanced credit fully and within the agreed schedule, and it is reflected in the level of delinquency carried by the lending portfolio.

In this study loan performance is measured through the default rate and the level of non-performing loans reported by the institution. These measures were preferred over profitability indicators such as return on assets or return on equity because profitability reflects pricing, cost structure and non-lending income in addition to lending outcomes, and therefore does not isolate the repayment behaviour that credit risk management practices are intended to influence.

Loan performance carries particular weight in credit-only microfinance institutions. Because these institutions do not mobilise deposits, they hold no depositor-funded buffer against portfolio deterioration and depend entirely on the recycling of repaid credit to sustain lending. Deterioration in loan performance therefore translates directly into a contraction of lending capacity, which is the mechanism through which weak credit risk management threatens institutional survival and, in turn, the financial inclusion outcomes these institutions were established to deliver.

1.2 Statement of the Problem

Credit-only microfinance institutions (COMFIs) in the selected counties in Central Kenya play a crucial role in extending credit to underserved populations, particularly small-scale entrepreneurs and low-income households, thereby contributing to financial inclusion and local economic activity. However, these institutions continue to experience persistent loan defaults, which undermine loan performance, weaken financial stability and constrain their ability to sustain credit provision to their clients.

Weak credit risk management practices expose COMFIs to high non-performing loan levels, reduced profitability and potential financial distress, thereby threatening their long-term sustainability and the flow of credit to micro-entrepreneurs. National financial sector data indicates an increasing trend in non-performing loans, with the Central Bank of Kenya reporting rising non-performing loan ratios in recent years, alongside increasing mortgage defaults (Muindi & Ambrose, 2023; Mwaniki, 2024). While these trends reflect the broader financial sector, their impact is more severe for COMFIs due to their inability to mobilize deposits, leaving them with limited buffers to absorb portfolio deterioration. Consequently, effective credit risk management particularly in credit appraisal, risk identification, policy enforcement, and post-disbursement monitoring remains critical for improving loan performance within the credit-only microfinance segment.

Despite extensive scholarship on credit risk management and loan performance, existing studies largely focus on commercial banks and deposit-taking microfinance institutions, while credit-only microfinance institutions remain comparatively underexplored (Siddique et al., 2021; Gambo et al., 2019). Although prior research has examined credit risk practices such as borrower screening,

credit risk assessment, loan monitoring and risk mitigation, evidence on how these practices operate within COMFIs remains limited. This is paramount given that COMFIs differ structurally from banks and deposit-taking microfinance institutions, as they rely on external funding, face different risk exposures, and serve borrowers with limited credit histories (Korir, 2022; Mwaura & Njoka, 2020). These differences suggest that findings from other financial institutions may not be fully generalisable to COMFIs in the Central Kenya context.

In addition, existing studies report mixed findings on the relationship between credit risk management practices and loan performance. Some evidence suggests that stringent credit policies can improve loan recovery but may restrict access for microfinance borrowers, while other evidence suggests that flexible credit terms may support client retention but increase default risk (Njoroge & Tirimba, 2024; Wambua & Kiragu, 2023). These inconsistencies highlight the need for context-specific evidence on COMFIs, where the balance between credit access and risk control may differ from that of established banks and deposit-taking microfinance institutions.

Beyond the scholarly gap, practical and policy challenges also persist. Although regulatory interventions aim to enhance financial stability and consumer protection, limited oversight within the credit-only segment may weaken enforcement of sound lending standards and portfolio controls (Ndungu, 2023). This raises questions on whether government regulation strengthens or weakens the effectiveness of internal credit risk management practices in improving loan performance among COMFIs.

This study therefore sought to address the key literature gap by examining the effect of credit risk management practices on loan performance in COMFIs operating in Kirinyaga, Nyeri, Murang'a, and Kiambu counties. Specifically, the study focused on credit risk identification, credit risk

assessment, credit policy and credit risk oversight, as well as the moderating effect of government regulation.

1.3 Purpose of the Study

The purpose of this study was to investigate the effect of credit risk management on loan performance of credit-only microfinance institutions in selected counties in Central Kenya.

1.4 Objectives of the Study

1.4.1 General Objective

The general objective of the study was to establish the effect of credit risk management on loan performance of credit-only microfinance institutions in selected counties in Central Kenya.

1.4.2 Specific Objectives

The study was guided by the following specific objectives:

1. To assess the effect of credit risk identification on loan performance of credit-only microfinance institutions in selected counties in Central Kenya.
2. To examine the effect of credit risk assessment on loan performance of credit-only microfinance institutions in selected counties in Central Kenya.
3. To evaluate the effect of credit policy on loan performance of credit-only microfinance institutions in selected counties in Central Kenya.
4. To analyse the effect of credit risk oversight on loan performance of credit-only microfinance institutions in selected counties in Central Kenya.

5. To investigate the moderating effect of government regulations on the relationship between credit risk management practices and loan performance among credit-only microfinance institutions in selected counties in Central Kenya.

1.5 Research Hypotheses

The study tested the following null hypotheses:

Ho_1: Credit risk identification has no statistically significant effect on loan performance of credit-only microfinance institutions in selected counties in Central Kenya.

Ho_2: Credit risk assessment has no statistically significant effect on loan performance of credit-only microfinance institutions in selected counties in Central Kenya.

Ho_3: Credit policy has no statistically significant effect on loan performance of credit-only microfinance institutions in selected counties in Central Kenya.

Ho_4: Credit risk oversight has no statistically significant effect on loan performance of credit-only microfinance institutions in selected counties in Central Kenya.

Ho_5: Government regulations have no statistically significant moderating effect on the relationship between credit risk management practices (credit risk identification, credit risk assessment, credit policy and credit risk oversight) and loan performance of credit-only microfinance institutions in selected counties in Central Kenya.

1.6 Justification of the Study

The study was justified by the scale and persistence of loan default in the Kenyan credit market and by the particular exposure of credit-only microfinance institutions (COMFIs) to that default. The non-performing loan ratio in the Kenyan financial sector rose from 12.26% in 2017 to 15.3%

in 2023 (Muindi & Ambrose, 2023; Mwaniki, 2024), a trend that threatens the sustainability of lenders whose clients lack collateral and formal credit histories. Unlike deposit-taking institutions, COMFIs cannot draw on depositor funds to absorb losses, so every defaulted loan erodes the capital on which their continued lending depends. Establishing which credit risk management practices improve loan performance is therefore a matter of institutional survival for these lenders rather than a question of marginal efficiency.

The study was further justified by the gap in existing evidence. Prior studies on credit risk management and loan performance in Kenya have concentrated on commercial banks, microfinance banks and deposit-taking savings and credit co-operative societies, and have reported mixed findings on the strength of the relationship. Few studies have isolated the credit-only segment, which is licensed but not prudentially supervised in the manner of deposit-taking institutions, and fewer still have tested whether government regulations condition the effect of internal credit practices on loan performance. An empirical examination of this segment in selected counties of Central Kenya was therefore necessary to generate evidence on which institutions, regulators and researchers could act.

This focus on COMFIs, rather than traditional financial institutions, was justified by the unique challenges and opportunities they faced in Central Kenya's financial landscape. COMFIs played a critical role in extending credit to underserved populations, addressing financing gaps and promoting economic growth among low-income earners and small businesses. However, due to limited access to capital sources and the lack of adequate collateral among borrowers, effective credit risk management was essential to maintain the financial stability of COMFIs and ensure sustainable lending practices. By examining credit risk management practices in these counties, the

study provided insights that enhanced COMFIs' ability to manage risk, improve loan performance, and strengthen financial inclusion strategies.

1.7 Significance of the Study

This study provides insights that support the Kenyan government's initiatives to enhance credit risk management across financial institutions. With rising concerns over loan defaults and non-performing loans in the microfinance sector, the findings of this study are intended to guide policymakers in developing regulations that not only mitigate risk but also strengthen the stability of credit-only microfinance institutions (COMFIs). By clarifying the relationship between credit risk management practices and loan performance, policymakers will be better placed to establish targeted guidelines that address the unique needs of COMFIs, so that these institutions maintain operational stability while expanding financial inclusion. Regulatory frameworks informed by this study will contribute to a more resilient financial ecosystem in which microfinance institutions are empowered to fulfil their mission without jeopardising their financial health. The study therefore has an important role to play in guiding regulatory strategies that promote sustainable growth and enable COMFIs to operate effectively within Kenya's evolving financial sector.

This study offers an independent examination of the effect of credit risk management on loan performance, which is of value to microfinance institutions seeking to enhance their operations. By providing a clearer understanding of how effective credit risk control relates to improved loan performance, the study enables these institutions to implement informed strategies for managing risk more proactively. This includes establishing a robust monitoring and evaluation framework tailored to customer behaviour and creditworthiness, which is essential for reducing the risk of loan defaults. Such frameworks provide a standardised method for assessing loan quality and

customer compliance, thus enabling institutions to make informed lending decisions. In addition, insights from the study will support microfinance institutions in crafting comprehensive risk management policies that allow them to control exposure to high-risk clients. The findings will ultimately help microfinance institutions to maintain financial stability, protect asset quality and foster trust among customers and stakeholders by demonstrating responsible lending practices.

For COMFIs' management boards, the study provides critical data to support strategic decisions on credit diversification, risk mitigation and profitability enhancement. Diversifying credit offerings across customer segments and regions helps to spread the risk of default and reduces an institution's reliance on high-risk loans. Management can also use these insights to design more efficient lending policies that prioritise rigorous customer screening and creditworthiness assessment before loan disbursement. Improved screening practices not only enhance loan quality but also reduce the likelihood of future defaults, protecting institutional assets and maintaining a healthy portfolio. The findings further offer operational guidance for managers seeking to refine their systems and lending procedures so that these align with best practice in credit risk management. By applying these improvements, COMFIs can strengthen their financial performance and achieve a higher profitability index, ultimately supporting their mission of extending credit access to underserved communities.

Academically, this study contributes to the literature on credit risk management and loan performance in microfinance settings, particularly within emerging markets. By examining the Kenyan context, the study provides data and analysis that can inform similar research in other countries facing comparable financial challenges. The findings help to fill existing gaps in research, particularly on how government regulations moderate the relationship between credit

risk management practices and loan performance in COMFIs. The study establishes a foundation for future academic inquiry into the dynamics of microfinance institutions and guides researchers in understanding how tailored risk management practices affect loan performance. The findings may also serve as a benchmark for subsequent studies in related fields, encouraging more rigorous examination of credit risk policies and their practical implications. This research therefore not only deepens the knowledge base but also stimulates further exploration and innovation in microfinance management strategies.

1.8 Scope of the Study

The study focused on credit-only microfinance institutions (COMFIs) operating within Central Kenya, specifically targeting Kirinyaga, Nyeri, Murang'a, and Kiambu counties. These areas were selected because of their high population density, active entrepreneurial culture and significant demand for accessible financing options among micro-enterprises. The concentration of small businesses and self-employed individuals in Central Kenya created a need for COMFIs to provide affordable credit options, especially since conventional banks often imposed restrictive loan conditions and collateral requirements that many local entrepreneurs could not meet. In addition, the selected counties were included because they host a comparatively high concentration of COMFIs within the Central Kenya region, as reflected in the county-level distribution documented in the study appendices, which indicates multiple COMFIs operating within Kirinyaga, Nyeri, Murang'a and Kiambu, thereby providing an appropriate geographic base for examining credit risk management and loan performance in the credit-only segment.

The reference to selected counties in the title and throughout this study is therefore deliberate. Kirinyaga, Nyeri, Murang'a and Kiambu were purposively drawn from the wider Central Kenya

region on three grounds. First, they host the highest concentration of licensed credit-only microfinance institutions in the region, as documented in the county-level distribution presented in Table 3.1 and Appendix V, which provided a sufficient institutional population from which to draw a viable sample. Second, they share comparable socio-economic characteristics, including high population density, an active micro-enterprise sector and sustained demand for non-collateralised credit, which permits meaningful comparison across institutions without the confounding effect of markedly different economic structures. Third, the counties are contiguous and administratively accessible, which made it practicable to reach institutional respondents within the time and resource limits of the study. Describing these as selected counties, rather than as Central Kenya as a whole, accurately reflects the purposive basis of the selection and avoids any implication that evidence was drawn from every county in the region.

The exclusion of the remaining Central Kenya counties was equally deliberate. Embu County was excluded because it served as the pilot site, and its inclusion in the main study would have compromised the independence of the instrument-testing exercise from the primary dataset. Meru, Nyandarua, Laikipia and Tharaka-Nithi counties were excluded on the ground that their credit-only microfinance presence is thinner and more dispersed, which would have introduced institutions operating under materially different scale and density conditions into a population intended to be comparable. The study acknowledges that concentrating on four comparatively homogeneous counties constrains the extent to which the findings may be generalised to credit-only microfinance institutions operating in arid, pastoral or predominantly urban county economies. That constraint is accepted deliberately in exchange for internal comparability, and it is recorded among the delimitations of the study and revisited in the suggestions for further research.

The study drew on the information asymmetry theory and the related concepts of moral hazard and adverse selection to analyse factors affecting loan performance within COMFIs. Information asymmetry theory explained the difficulties institutions faced in obtaining accurate borrower information, which increased lending risks, while moral hazard described the tendency of borrowers to take greater risks after receiving credit. These theoretical frameworks offered a lens through which to understand the impact of varying credit policies and regulatory conditions on loan performance. Through this focused regional approach, the research contributed valuable data that informed strategies to strengthen COMFIs' resilience and optimise credit risk management practices within Central Kenya.

1.9 Limitations of the Study

Limitations are the conditions beyond the researcher's control that may affect the findings of a study or the extent to which they can be generalised. Four limitations are acknowledged. First, the study relied on the perceptions of credit personnel rather than on audited portfolio records, since institutional loan data are commercially sensitive and were not released for verification; the risk of self-report bias was mitigated by drawing respondents from three functional levels within each institution and by triangulating the survey responses against the interview evidence. Second, the study was cross-sectional, capturing credit risk management practices and loan performance at a single point in time, which limits inference about how the relationships evolve as institutions mature or as the regulatory environment shifts. Third, the population comprised 37 institutions concentrated in four comparatively homogeneous counties, which constrains generalisation to counties with different economic structures. Fourth, some institutions declined to disclose portfolio figures they regarded as proprietary, which confined the measurement of loan performance to the

constructs captured in the instrument. None of these limitations was found to compromise the internal validity of the analysis, and each is reflected in the suggestions for further research.

1.10 Delimitations of the Study

Delimitations are the boundaries that the researcher set deliberately in order to keep the study focused and manageable. Geographically, the study was delimited to licensed credit-only microfinance institutions in Kirinyaga, Nyeri, Murang'a and Kiambu counties; the remaining counties of the Central Kenya region were excluded for the reasons set out in Section 1.8. Conceptually, the study was delimited to four credit risk management practices, namely credit risk identification, credit risk assessment, credit policy and credit risk oversight, with government regulations as the sole moderating variable and loan performance measured through the default rate and the level of non-performing loans. In terms of respondents, the study was delimited to staff drawn from the credit management function at managerial, junior officer and field levels, who were considered best placed to report on credit risk management practice within their institutions.

1.11 Assumptions of the Study

The study was based on several key assumptions that supported the validity and reliability of the research findings. The first assumption concerned the instrument rather than the respondents. It was assumed that the questionnaire, having been piloted in Embu County and refined on the basis of that pilot, measured the constructs it was designed to measure, and that the items were understood consistently across institutions and across the three functional levels of respondent. The pilot addressed ambiguity in wording, sequence and relevance, and reliability was confirmed statistically before the instrument was administered; the assumption carried forward is therefore

that the refinements made at the pilot stage held during full administration. It was further assumed that respondents, being credit personnel reporting on institutional practice rather than on personal conduct, had no material incentive to misreport, and that the assurance of anonymity and institutional non-identification reduced any residual incentive to present practice more favourably than it was. It was also assumed that the credit risk management practices reported by respondents reflected the practices actually in use during the period under study, that the regulatory environment remained stable over the period of data collection, and that the institutions sampled were representative of licensed credit-only microfinance institutions operating in the selected counties.

1.12 Operational Definition of Terms

This section provides definitions and operationalization of key terms used in the study to ensure clarity and consistency in their application:

Credit Risk Management: Credit risk management is the coordinated set of policies, procedures, and controls used to identify, assess, monitor and reduce the likelihood and impact of borrower default on a lender's loan portfolio (Dabbas, 2023).

Credit Risk Identification: Credit risk identification is the process of evaluating and identifying a borrower's level of credit exposure using methods such as managerial inspection and analysis of financial information to detect potential default risk early (Mutugi, 2024).

Credit Risk Assessment: Credit risk assessment is the appraisal process through which a lender evaluates a borrower's ability and willingness to repay a loan under the proposed terms before credit is advanced (Bhatt et al., 2023).

Credit Policy: Credit policy refers to the formal lending guidelines that determine credit granting standards, loan terms and conditions, monitoring expectations and recovery procedures to support sustainable lending and minimize default risk (Busari, 2023).

Credit Risk Oversight: Credit risk oversight is the ongoing governance and monitoring function that reviews credit exposures, portfolio performance and control compliance to enable timely corrective action and prevent credit losses (Quoc Trung et al., 2021).

Government Regulations: Government regulations are the legally enforced rules and supervisory requirements that shape lender conduct and compliance in credit markets and can strengthen or weaken how internal risk controls translate into loan performance outcomes (Malmstrom Rognes, 2023).

Loan Performance: Loan performance is the extent to which borrowers repay loans fully and on time, reflected in repayment timeliness and the level of delinquency or non-performing loans in the portfolio (Kamanda, 2024)

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews literature on credit risk management and loan performance in credit-only microfinance institutions. It begins with the theoretical literature review, followed by the conceptual review of the study variables, the empirical review, a critique of the reviewed literature and the research gaps. It closes with the conceptual framework and a summary of the chapter.

2.2 Theoretical Literature Review

The theoretical framework explains the concepts and propositions that relate to the research problem and helped to underpin and anchor this study. It provides the basis for understanding the key study variables and the relationships between credit risk management practices and loan performance. It also guided the selection of factors examined in the study and the relationships tested during data analysis. The study was anchored on the following theories, which are reviewed in the subsequent subsections.

Each theory reviewed below underpins specific objectives of the study rather than the study as a whole. The Information Asymmetry Theory underpins the first and second objectives, which address credit risk identification and credit risk assessment, since both practices exist to reduce the information gap between lender and borrower at the pre-disbursement stage. The Agency Theory underpins the third and fourth objectives, which address credit policy and credit risk oversight, since both practices exist to constrain and monitor borrower conduct after credit has been advanced. The Institutional Theory underpins the fifth objective, which addresses the moderating effect of government regulations, since it explains how external regulatory pressure shapes the

credit practices institutions adopt and enforce. Adverse selection and moral hazard are treated within the Information Asymmetry Theory as the mechanisms through which the information gap translates into default, and are discussed under section 2.2.1 rather than as independent theories.

2.2.1 Information Asymmetry Theory

The Information Asymmetry Theory was introduced by George Akerlof in 1970 and explains situations in which one party in a transaction possesses more or better information than the other, creating market inefficiency and poor decision making (Mukasafari, 2022). In credit markets, information asymmetry is central because borrowers typically know more about their true repayment capacity, income stability and risk intentions than lenders. This imbalance often produces adverse outcomes such as adverse selection and moral hazard, which remain major challenges in credit risk management and credit risk assessment. When a lender does not have sufficient information about a borrower's financial health or risk profile, it becomes difficult to make accurate lending decisions, and credit may be extended to higher-risk borrowers who do not fully disclose their creditworthiness, thereby weakening subsequent repayment outcomes (Liang & He, 2020).

Adverse selection, a critical implication of information asymmetry, occurs when lenders cannot distinguish between high- and low-risk borrowers at the appraisal stage. As a result, financial institutions may approve loans for borrowers who are more likely to default, especially in contexts where financial records are limited, informal or difficult to verify. This situation is common in developing credit markets where reliable borrower data is scarce or fragmented, increasing the probability that the loan portfolio will contain a higher share of risky borrowers. Information asymmetry also exacerbates moral hazard. After securing loans, borrowers may engage in riskier

behavior because lenders cannot perfectly observe loan use and repayment effort, and this raises delinquency and default risk unless strong monitoring and enforcement mechanisms exist (Mukasafari, 2022).

One way to mitigate information asymmetry is through improved information sharing and stronger borrower profiling systems. Recent empirical work in Kenya shows that structured credit information access and credit management practices are associated with better loan performance outcomes because they improve borrower screening and reduce hidden-risk lending (Mburu et al., 2020). This logic also appears in other contexts. Evidence from Nigeria indicates that strengthening credit management frameworks and incorporating macroeconomic conditions into credit evaluation can improve institutional performance by supporting more accurate risk pricing and more prudent credit decisions (Akhanolu et al., 2020). These findings demonstrate how better information and stronger assessment systems reduce the risk that institutions lend into hidden distress, which ultimately improves repayment outcomes.

In addition, the signaling theory introduced by Michael Spence in 1973 complements information asymmetry by explaining how borrowers can credibly signal their creditworthiness using observable commitments such as collateral, repayment reputation, or verifiable documentation, which improves lender confidence and reduces screening errors (Mukasafari, 2022). Where signaling is credible, lenders can better separate low-risk from high-risk clients, reducing adverse selection and strengthening portfolio quality over time. Public disclosures and standardized documentation also serve a similar role by improving the lender's visibility into borrower conditions and strengthening the quality of credit decisions, which supports improved loan performance (Mburu et al., 2020).

Moreover, as financial markets become more complex, technology has increasingly been applied to reduce information gaps. Machine learning and big data analytics can process large volumes of borrower-related information and improve risk prediction beyond traditional appraisal. For example, evidence from China's peer-to-peer lending context shows that integrating text-related soft information with traditional metrics can alleviate information asymmetry and improve credit risk assessment accuracy, strengthening the lender's ability to predict default risk and protect portfolio performance (Liang & He, 2020). Related evidence also indicates that borrower narrative content and loan descriptions can influence risk assessment and default likelihood because they contain information about repayment willingness that may not be captured by numeric indicators alone (Sun et al., 2023). These developments illustrate how the theory has evolved in practice, moving from reliance on limited borrower documentation toward data-driven assessment and monitoring tools that reduce information opacity.

Despite these developments, information asymmetry remains persistent in credit markets where access to reliable borrower data is limited and where borrower incomes are unstable or informal. In Kenya, evidence continues to show that weaknesses in credit information and credit management systems constrain accurate borrower assessment and can contribute to default risk and loan portfolio instability (Mburu et al., 2020). Therefore, improving information sharing and strengthening credit evaluation tools remains essential to enhancing credit risk management effectiveness and stabilizing repayment outcomes.

Ultimately, the Information Asymmetry Theory remains relevant in modern financial markets because it explains why transparency, information-sharing practices, and monitoring tools are central to controlling default risk and improving portfolio outcomes. When financial institutions

reduce information gaps and strengthen monitoring, they reduce adverse selection and moral hazard, improve repayment behavior, and protect institutional stability (Mukasafari, 2022; Liang & He, 2020). However, these measures must be continually refined to match changing borrower behavior, evolving technology, and shifting market conditions.

The Information Asymmetry Theory is highly relevant to the current study, which examines the impact of credit risk management practices on the loan performance of credit-only microfinance institutions in Central Kenya counties. The theory connects directly with the study variables because credit risk identification addresses information gaps before lending through borrower background checks and credit history verification, thereby reducing adverse selection and preventing high-risk loans from entering the portfolio (Mburu et al., 2020). Credit risk assessment strengthens the lender's ability to evaluate repayment capacity using structured appraisal processes and risk indicators, which improves borrower classification and loan structuring decisions, leading to better repayment outcomes (Akhanolu et al., 2020). Credit policy reduces inconsistent decision making by standardizing underwriting rules, collateral requirements, repayment structures, and enforcement expectations, thereby limiting discretionary approvals that intensify information-driven risk. Credit risk oversight targets moral hazard after disbursement through monitoring, portfolio review, and enforcement actions that reduce delinquency and prevent arrears escalation. As these practices reduce information asymmetry, loan performance improves through fewer defaults and fewer non-performing loans, which is the dependent variable of the study. Government regulation further moderates this relationship by strengthening disclosure, compliance and information-sharing expectations, thereby reinforcing the effectiveness of institutional credit risk management practices in improving loan performance (Mukasafari, 2022).

Two concepts arise directly from the Information Asymmetry Theory and are treated here as mechanisms within it rather than as independent theories. The first is adverse selection, which operates before credit is advanced. Because the lender cannot distinguish high-risk from low-risk applicants at the appraisal stage, applicants carrying concealed risk are disproportionately likely to be approved, and the resulting portfolio is riskier than the lender's own standards would permit. This is the mechanism the first and second objectives address, since credit risk identification and credit risk assessment exist precisely to narrow the information gap at the point of approval. In credit-only microfinance institutions the mechanism is intensified by the prevalence of informal income, the absence of audited financial records and the limited reach of credit reference infrastructure.

The second is moral hazard, which operates after credit is advanced. The concept was introduced into formal economic analysis by Arrow (1963), developed by Pauly (1968) and formalised in principal-agent terms by Holmstrom (1979). It describes the change in a party's conduct once the consequences of that conduct are borne by another. Once funds are disbursed the lender has surrendered control over the resource while retaining the claim to repayment, and the borrower may divert funds, reduce effort or take on further obligations the lender cannot observe. Because unsecured lending removes the collateral that would otherwise align incentives, moral hazard is particularly acute in the credit-only segment, and it is the mechanism that credit policy and credit risk oversight are designed to contain.

2.2.2 Agency Theory

The Agency Theory was advanced by Jensen and Meckling (1976), building on earlier work by Ross (1973), and explains the relationship that arises when one party, the principal, delegates

authority or resources to another party, the agent, whose interests may diverge from those of the principal. Because the principal cannot fully observe the agent's conduct, the agent may act in ways that advance his own interest at the principal's expense, and the principal must incur monitoring, bonding and residual costs to contain that divergence.

In credit markets the lender occupies the position of principal and the borrower that of agent. Once funds are disbursed, the lender has surrendered control over the resource while retaining the claim to its repayment, and the borrower may divert the funds, reduce effort or take on additional obligations that the lender cannot observe. The agency costs arising from this divergence are borne by the lender through provisioning, recovery expenditure and write-offs.

The theory underpins the third and fourth objectives of this study. Credit policy functions as the bonding mechanism of the agency relationship: documented lending standards, loan terms and conditions, repayment structuring and enforcement procedures constrain borrower discretion contractually and attach consequences to non-performance. Credit risk oversight functions as the monitoring mechanism: portfolio performance review, product-level controls and risk reporting reduce the information the borrower holds privately after disbursement. The theory also operates internally, since documented approval limits and segregation of duties constrain discretionary lending by credit staff, who are themselves agents of the institution.

The theory has been criticised for assuming that both parties act as rational self-interested maximisers, which understates the role of trust, reputation and relational lending in microfinance markets. It is nonetheless appropriate to this study because credit-only microfinance institutions lend without collateral in most cases and therefore depend heavily on the contractual and monitoring mechanisms the theory describes.

2.2.3 Institutional Theory

The Institutional Theory, developed by Meyer and Rowan (1977) and extended by DiMaggio and Powell (1983) and Scott (2001), holds that organisations are shaped not only by considerations of efficiency but also by the regulatory, normative and cultural-cognitive pressures exerted by the environment in which they operate. Organisations adopt structures and practices that confer legitimacy, and over time organisations within a common institutional field come to resemble one another through processes of isomorphism.

Of the three isomorphic pressures the theory identifies, coercive isomorphism is the most directly relevant to this study. Coercive pressure arises from formal rules, licensing conditions and supervisory expectations imposed by the state, and compels organisations to adopt prescribed practices irrespective of whether those practices are independently efficient.

The theory underpins the fifth objective, which examines the moderating effect of government regulations. It explains why regulation is specified in this study as a moderator rather than as a direct predictor of loan performance. Regulation does not itself recover loans; it alters the conditions under which an institution's own credit risk management practices operate, by prescribing standards, mandating disclosure and attaching consequences to non-compliance. The strength of the relationship between each practice and loan performance is therefore expected to vary with the intensity of the regulatory pressure the institution faces.

The theory is particularly apposite to the credit-only segment in Kenya. These institutions are licensed but are not prudentially supervised in the manner of deposit-taking institutions, and the coercive pressure they experience is consequently weaker and less uniform than that experienced by banks. The theory therefore predicts greater variation in practice across the segment, and

provides the theoretical basis for expecting regulation to condition rather than determine loan performance.

2.3 Review of Variables

This section presents a conceptual review of the study variables, establishing how credit risk identification, credit risk assessment, credit policy, credit risk oversight, government regulation and loan performance are defined, conceptualised and measured in the literature. The section is retained as a distinct component of the review because it performs a function different from that of the empirical review in Section 2.4. Whereas Section 2.4 interrogates the findings of prior studies and the gaps they leave unresolved, this section establishes the conceptual content and measurement of the constructs themselves. It therefore extends the conceptual background introduced in Section 1.1 and supplies the definitional basis on which the conceptual framework in Section 2.7 and the empirical review in Section 2.4 depend.

2.3.1 Credit Risk Identification

Credit risk identification represents the foundational stage of credit risk management, where financial institutions systematically detect, classify, and document potential sources of default risk before and during the loan lifecycle. Unlike credit risk assessment, which evaluates the magnitude and probability of loss, identification focuses on recognizing the existence, nature, and origin of potential credit exposures. Bhatt et al. (2023) suggest that effective credit risk identification requires institutions to map borrower-specific, transaction-specific, and environmental risk triggers before credit is extended. If these risks are not clearly identified at the point of lending, subsequent measurement and mitigation strategies can be structurally weak, increasing the likelihood of portfolio deterioration.

The literature divides credit risk identification into two broad dimensions: ex-ante identification and ongoing identification. Ex-ante identification includes pre-disbursement screening processes, such as borrower background checks, income verification, collateral validation, sectoral exposure analysis, and credit history profiling (Dabbas, 2023). Ongoing identification, however, extends beyond loan approval and involves continuous monitoring of early warning signals, such as irregular installment patterns, business performance decline, increased leverage, and macroeconomic vulnerability (Quoc Trung et al., 2021). In microfinance markets, particularly those dominated by informal income patterns and seasonal volatility, limiting identification to initial screening could prevent institutions from capturing evolving borrower risks.

Credit risk identification is theoretically grounded in Information Asymmetry Theory, which posits that borrowers typically possess superior knowledge regarding their repayment capacity compared to lenders. This imbalance generates two key risks: adverse selection at the screening stage and moral hazard post-disbursement. According to Acheampong & Elshandidy (2021), structured identification systems help reduce information asymmetry by enhancing borrower profiling and improving transparency at the credit approval stage. However, in emerging economies like Kenya, identification systems are often constrained by incomplete credit reporting and limited financial documentation, weakening risk visibility and increasing default exposure (Malmström Rognes, 2023). As a result, the effectiveness of identification mechanisms varies significantly across different institutional and regulatory contexts.

Empirical studies have operationalized credit risk identification in various ways. Some researchers focus on the use of credit bureau checks and borrower background verification to measure the strength of identification systems, emphasizing formal information sources (Zhou et al., 2022).

Others examine the completeness of loan application forms and the rigor of verification procedures as indicators of identification effectiveness (Duho et al., 2021). In the microfinance context, borrower profiling and group-based verification mechanisms are often used as proxies for identification practices (Busari, 2023). However, many studies aggregate identification with other aspects of credit risk management, such as assessment or general credit policies, which obscures the independent contribution of identification mechanisms to loan performance. This aggregation weakens analytical precision, limiting the ability to evaluate the specific role of identification in preventing adverse borrower selection.

Credit risk identification is operationalized in this study through several key constructs: borrower background verification, income source validation, credit history consultation, sector and business risk profiling, and early warning signal detection. These constructs align with both theoretical and practical considerations. Borrower background verification and income validation directly address adverse selection risks by ensuring that credit is extended to individuals whose financial capacity can be reliably assessed. Credit history consultation, especially through Credit Reference Bureau (CRB) mechanisms, is crucial in competitive lending environments like Central Kenya, where cross-institutional indebtedness is common. Sector and business risk profiling takes into account macroeconomic and industry-level risks, particularly in regions reliant on agriculture and informal trade. Early warning signal detection reflects the dynamic nature of borrower risk, emphasizing that credit risk evolves over time rather than remaining static.

These constructs are particularly relevant in this study, as loan performance is measured using default rate and number of non-performing loans (NPLs), two key indicators of portfolio quality. Weak identification increases the probability of approving borrowers with hidden risks, which

subsequently raises the likelihood of defaults and NPL accumulation. In contrast, robust identification processes improve borrower transparency and strengthen repayment outcomes. By explicitly linking defined identification constructs to performance measures based on loan default, this study addresses an empirical gap in the literature where credit risk identification is rarely examined as an independent predictor of loan performance.

In the Kenyan context, credit risk identification faces significant challenges, such as informal economic activity and incomplete borrower documentation. Although Credit Reference Bureaus have improved transparency, informal lending channels remain partially outside the formal reporting system. This is especially problematic for credit-only microfinance institutions (COMFIs), which operate without deposit mobilization and rely on external funding, making early risk detection vital for sustainability. Despite these challenges, empirical research examining the specific effects of identification practices on loan performance in Central Kenya remains sparse.

In conclusion, credit risk identification is the foundational gateway through which all subsequent credit risk management practices operate. Weak identification mechanisms contribute to adverse selection, moral hazard exposure, and portfolio instability, while robust identification systems enhance transparency and improve repayment outcomes. By operationalizing credit risk identification through structured screening and early warning detection methods and linking these practices directly to loan performance measures, this study contributes to filling both a conceptual and empirical gap in the literature on credit risk management in credit-only microfinance institutions in Central Kenya.

2.3.2 Credit Risk Assessment

Credit risk assessment refers to the systematic evaluation of a borrower's ability and willingness to repay a loan under the agreed contractual terms. Unlike credit risk identification, which focuses on recognizing the presence and sources of risk, credit risk assessment quantifies the magnitude, probability, and potential impact of the identified risks before credit approval. Bhatt et al. (2023) explain that effective credit risk assessment enables institutions to determine whether identified risks fall within acceptable risk tolerance levels, thereby forming a core element of the decision-making process within the broader credit risk management framework.

Conceptually, credit risk assessment is conducted at three levels: borrower-level, transaction-level, and portfolio-level. The borrower-level assessment evaluates financial capacity, repayment history, income stability, leverage, and the sustainability of cash flows. Transaction-level assessment looks at loan size, tenure, interest rate structure, collateral adequacy, and the presence of covenants. Portfolio-level assessment evaluates concentration risks, sectoral exposure, and the geographic distribution of loans (Dabbas, 2023). It is important to integrate assessments across these levels to avoid fragmented decision-making, ensuring that cumulative exposure effects are taken into account.

Theoretically, credit risk assessment is grounded in Information Asymmetry Theory and credit rationing models. In imperfect markets, lenders face uncertainty regarding borrower quality and must design screening and pricing mechanisms that distinguish between high-risk and low-risk borrowers (Acheampong & Elshandidy, 2021). Risk-based pricing models, internal ratings, and debt-to-income ratios function as filtering mechanisms that help mitigate adverse selection. However, excessively restrictive credit assessments may hinder access to credit for micro-

entrepreneurs, raising concerns about financial exclusion and impeding economic development. Therefore, a balanced approach is essential, where institutions maintain prudential standards while fostering financial inclusion.

Empirical literature highlights various operationalizations of credit risk assessment. Several studies focus on credit scoring models and internal rating systems (Naili & Lahrichi, 2022). Other studies emphasize quantitative indicators, such as debt-service coverage ratios, loan-to-value ratios, and probability-of-default metrics (Zhou et al., 2022). In microfinance settings, qualitative assessment mechanisms such as character evaluation, community references, and borrower interviews are frequently used to supplement formal metrics (Busari, 2023). However, many studies aggregate credit risk assessment under broader "credit risk management" constructs, limiting the ability to isolate the independent contribution of assessment practices to loan performance outcomes. Additionally, relying on single quantitative indicators, such as debt ratios alone, may fail to capture the multi-dimensional nature of credit risk assessment in microfinance institutions.

For this study, credit risk assessment is operationalized through financial capacity analysis, debt repayment capacity evaluation, collateral adequacy, and structured risk grading before loan approval. Financial capacity analysis assesses the borrower’s projected cash flow sustainability and ability to meet debt obligations. Debt repayment capacity evaluation examines the alignment between loan obligations and income stability, as well as the borrower’s leverage position. Collateral adequacy is assessed in terms of the enforceability, liquidity, and realistic recoverability of pledged security. Structured risk grading reflects the internal classification system of borrowers, indicating the risk level assigned to each applicant. These constructs were selected due to their

relevance to the decision-making processes within credit-only microfinance institutions and their focus on pre-approval evaluations.

While some studies focus on automated credit scoring systems, such an approach was not adopted as the primary construct in this study. Many credit-only microfinance institutions in Central Kenya use hybrid appraisal frameworks that combine quantitative metrics with qualitative judgment, especially in informal lending environments. Capital adequacy ratios, which primarily measure institutional solvency, were excluded as proxies for borrower-level assessment, to avoid conflating institutional health with the quality of borrower evaluation.

Recent developments in artificial intelligence and machine learning have introduced new methodologies for credit risk assessment, incorporating alternative data such as mobile money transaction histories and behavioral analytics (Kareem, 2024). While these tools enhance predictive accuracy, especially in thin-file environments, challenges such as algorithmic opacity and data incompleteness may result in bias and reduce transparency (Malmström Rognes, 2023). In the Kenyan context, where informal income sources are prevalent, over-reliance on automated systems may misclassify viable borrowers, underscoring the need for contextual interpretation in addition to automated tools.

Empirical studies conducted between 2020 and 2024 confirm that structured credit risk assessment mechanisms improve loan portfolio outcomes. Institutions employing standardized risk grading systems and integrated cash flow analysis report lower non-performing loan ratios and better capital stability (Naili & Lahrichi, 2022). Duho et al. (2021) further find that microfinance institutions that combine quantitative scoring with qualitative evaluation outperform those relying on informal or unstructured screening methods.

In the Kenyan microfinance context, borrower over-indebtedness and cross-institutional borrowing complicate the reliability of risk assessments. To address this, effective credit risk assessment must integrate Credit Reference Bureau data and leverage checks to mitigate the risks of hidden indebtedness. However, incomplete reporting and informal sector participation hinder comprehensive assessments. For credit-only microfinance institutions, where limited capital buffers make them vulnerable to portfolio deterioration, robust credit risk assessment is crucial for ensuring long-term viability (Nepht, 2021).

In conclusion, credit risk assessment is central to the lending decision-making process. By systematically evaluating identified risks, it allows financial institutions to make informed lending decisions, thereby improving portfolio quality and reducing default rates. The operationalization of credit risk assessment through a combination of financial capacity analysis, debt repayment capacity evaluation, and collateral adequacy ensures a comprehensive approach aligned with the operational realities of credit-only microfinance institutions in Central Kenya. This approach fills a gap in existing literature, where credit risk assessment has often been integrated with broader credit risk management practices, thus providing valuable insights into its direct impact on loan performance.

2.3.3 Credit Policy

Credit policy refers to the formal body of lending rules, standards and procedures that an institution establishes to govern the extension, administration and recovery of credit. Whereas credit risk identification detects exposure and credit risk assessment evaluates its magnitude, credit policy converts those judgements into binding institutional rules. It therefore functions as the structural

governance instrument through which lending discretion is constrained and consistency across loan officers, branches and product lines is enforced.

Conceptually, credit policy operates at three levels. At the strategic level it defines risk appetite, target market segments, exposure limits and product design. At the operational level it prescribes loan approval authority, documentation standards, collateral requirements, pricing and repayment structuring. At the enforcement level it specifies delinquency classification, provisioning, restructuring options and recovery or write-off procedures. Weakness at any one of these levels undermines the others, since a well-drafted policy that is not enforced exerts no measurable influence on portfolio outcomes.

Theoretically, credit policy is grounded in Information Asymmetry Theory and in agency reasoning. Standardised lending rules reduce adverse selection by imposing uniform eligibility thresholds that screen out borrowers whose risk characteristics would otherwise be concealed, and they reduce moral hazard by attaching enforceable consequences to post-disbursement conduct. Policy also constrains agency costs within the institution itself, since documented approval limits and segregation of duties reduce the scope for discretionary or relationship-driven lending by credit staff.

Empirical literature has operationalised credit policy in several ways. Some studies rely on the existence of a written policy document, which captures form rather than substance. Others measure the frequency with which policies are reviewed and updated, the degree of staff awareness of policy requirements, or the consistency with which sanctions are applied to non-performing accounts. A recurring limitation is that policy is frequently measured as a binary presence

indicator, which cannot distinguish institutions that enforce their policies from those that merely possess them.

In this study, credit policy was operationalised through five constructs: documented default credit management procedures, monitoring and enforcement of policy requirements, clarity and appropriateness of loan terms and conditions, the structuring of loan repayment schedules, and staff awareness supported by periodic training. These constructs were selected because they capture enforcement intensity rather than mere policy existence, and because each of them is observable in institutional records and therefore verifiable during data collection.

In the Kenyan credit-only microfinance context, credit policy assumes heightened importance. Credit-only institutions do not mobilise deposits and are consequently not subject to the prudential capital and provisioning requirements imposed on deposit-taking institutions. In the absence of that external discipline, the institution's own credit policy becomes the primary mechanism of lending control. Competitive pressure from digital lenders, borrower multiple-borrowing across institutions and the limited enforceability of unsecured claims further increase the weight that internal policy must carry.

In conclusion, credit policy constitutes the rule structure within which identification, assessment and oversight operate. Its influence on loan performance is expected to arise less from the existence of documented rules than from the consistency with which those rules are applied, which is the dimension this study measures.

2.3.4 Credit Risk Oversight

Credit risk oversight refers to the structured monitoring, supervisory control, and governance mechanisms that ensure credit exposures remain within institutional tolerance after loan

disbursement. Unlike credit risk identification and assessment, which primarily function before approval, oversight operates as a post-disbursement control system designed to maintain portfolio quality throughout the loan lifecycle. Quoc Trung et al. (2021) define oversight as systematic tracking of loan performance, delinquency evolution, and compliance with established lending standards. Similarly, Dabbas (2023) conceptualizes it as the institutional review process that integrates monitoring, reporting, and corrective intervention mechanisms to mitigate repayment deterioration.

The empirical literature reveals significant variation in how credit risk oversight has been operationalized. Duho et al. (2021) measure oversight through the frequency of portfolio review meetings, the existence of risk monitoring committees, and regular stress-testing exercises. Naili and Lahrichi (2022) operationalize oversight using internal audit independence, compliance reporting systems, and board-level supervision intensity. Zhou et al. (2022) assess oversight strength by using automated delinquency tracking systems, digital repayment dashboards, and fintech-enabled early warning tools. Kareem (2024) incorporates real-time monitoring systems, structured recovery follow-up procedures, and portfolio analytics as oversight indicators. In contrast, Acheampong and Elshandidy (2021) proxy oversight indirectly through recovery rate and write-off control mechanisms, arguing that effective monitoring improves recovery outcomes.

However, several operationalizations present conceptual limitations. For instance, using recovery rate as a proxy for oversight, as seen in Acheampong and Elshandidy (2021), conflates monitoring processes with post-default financial outcomes, which may also be influenced by macroeconomic conditions and legal enforcement efficiency. Similarly, reliance on non-performing loan ratios as oversight indicators risks overlap with loan performance variables. Duho et al. (2021) note that

frequent portfolio review meetings indicate structured monitoring, but meeting frequency alone does not necessarily capture the quality or enforcement discipline of the monitoring process. Naili and Lahrichi (2022) emphasize the importance of audit independence, but it must be combined with real-time portfolio tracking mechanisms to meaningfully influence asset quality.

This study operationalized credit risk oversight through structured delinquency monitoring systems, early warning detection mechanisms, periodic portfolio review procedures, internal audit and compliance verification frameworks, and formal recovery management protocols. Structured delinquency monitoring refers to whether institutions systematically track repayment behavior using predefined thresholds. Early warning mechanisms reflect the institution's ability to detect irregular repayment patterns before full default classification. Periodic portfolio reviews represent managerial oversight of aggregate exposure trends and concentration risk. Internal audit and compliance verification measure governance-level enforcement of credit standards. Formal recovery management protocols capture whether delinquent accounts are managed through standardized procedures, as opposed to informal negotiation.

This operationalization aligns with multidimensional measurement approaches adopted by Duho et al. (2021), Kareem (2024), and Zhou et al. (2022), who emphasize the integration of monitoring systems, review structures, and technological tools. However, unlike studies that rely solely on technological indicators, this study incorporates both technological and governance-based oversight dimensions to reflect the hybrid operational model typical of credit-only microfinance institutions. Busari (2023) highlights that institutions with structured monitoring frameworks combined with accountability mechanisms exhibit stronger portfolio discipline compared to those with fragmented oversight functions.

The theoretical basis for these constructs is grounded in agency theory and risk governance frameworks. After loan disbursement, borrowers may engage in opportunistic behavior due to moral hazard (Acheampong & Elshandidy, 2021). Continuous monitoring mitigates this risk by reinforcing repayment discipline. Internally, oversight mechanisms constrain agency conflicts between loan officers, who may be incentivized by disbursement targets, and management, which is responsible for portfolio stability (Naili & Lahrichi, 2022). Therefore, oversight must extend beyond repayment tracking to include compliance verification and governance enforcement.

In the Kenyan microfinance context, oversight assumes heightened importance due to multiple borrowing by borrowers and digital credit expansion. Zhou et al. (2022) show that fintech-integrated monitoring platforms improve delinquency detection efficiency, yet informal lending outside credit bureau reporting systems limits complete exposure visibility. Duho et al. (2021) argue that the absence of sector concentration monitoring increases default risk in agricultural and trade-dependent regions. These contextual dynamics justify the inclusion of portfolio review and concentration analysis within the oversight construct.

By aligning oversight constructs with default rate and number of non-performing loans as dependent variables, this study isolates monitoring architecture from financial performance outcomes. Weak delinquency monitoring, absence of early warning systems, and limited governance oversight increase the probability of default escalation and NPL accumulation. Conversely, structured supervisory mechanisms enhance early intervention and portfolio stabilization. Unlike prior studies that aggregate oversight within broader credit risk management indices, this study examines it as a distinct explanatory variable within credit-only microfinance institutions.

Despite extensive research on credit risk management, relatively few studies disaggregate oversight from identification, assessment, and policy constructs, particularly within the COMFI segment. The operational distinctiveness of credit-only microfinance institutions, combined with their narrower capital buffers and reliance on external funding, amplifies the relevance of structured monitoring mechanisms. The Central Kenya microfinance environment, characterized by dense lending competition and sectoral concentration, provides a context in which oversight effectiveness warrants empirical isolation.

In summary, credit risk oversight constitutes the supervisory infrastructure that sustains loan portfolio quality after approval. Literature demonstrates diverse operationalizations ranging from audit independence and meeting frequency to technological monitoring systems and recovery proxies. By adopting a multidimensional construct incorporating delinquency monitoring, early warning detection, portfolio review, audit verification, and structured recovery procedures, this study provides a more precise and contextually grounded measurement framework. This enables rigorous examination of the relationship between credit risk oversight and loan performance, measured through default rate and non-performing loans, among credit-only microfinance institutions in Central Kenya.

2.3.5 Government Regulation

Government regulation refers to the legally enforceable rules, supervisory standards and compliance requirements imposed by public authorities to ensure financial stability, consumer protection and systemic resilience within credit markets (Central Bank of Kenya, 2023). In microfinance systems, regulation operates externally to the institution, shaping how internal credit risk management practices are applied and enforced. Malmström Rognes (2023) defines financial

regulation as an institutional framework that constrains risk-taking behavior through reporting obligations, capital requirements, and supervisory oversight. Unlike credit risk oversight, which is internally administered, government regulation functions as an external accountability mechanism that influences institutional governance discipline.

The literature distinguishes between two key types of regulation: prudential regulation and market-conduct regulation. Prudential regulation focuses on ensuring institutional solvency through capital adequacy, provisioning standards, liquidity requirements, and risk-weighted asset controls (Naili & Lahrichi, 2022). Market-conduct regulation, on the other hand, emphasizes transparency, responsible lending practices, consumer disclosure, and fair pricing standards (Acheampong & Elshandidy, 2021). These regulatory types influence institutional behavior through different channels prudential regulation affects risk appetite and capital allocation, while market-conduct rules guide borrower screening, documentation practices, and pricing policies.

Empirical studies have operationalized government regulation through several different approaches. Some researchers measure regulatory intensity by evaluating compliance with capital adequacy ratios and prudential thresholds (Naili & Lahrichi, 2022). Others examine the frequency of supervisory inspections and the stringency of regulatory reporting requirements as proxies for enforcement strength (Duho et al., 2021). Zhou et al. (2022) operationalize regulatory effectiveness through the implementation of credit information systems and mandatory participation in credit bureaus. Kareem (2024) assesses the regulatory environment using composite indices that include supervisory oversight, reporting transparency, and the enforcement of regulatory sanctions. However, some studies have treated government regulation as a macro-

level governance indicator, relying on cross-country regulatory quality indices, which may not adequately capture the dynamics of institutional-level compliance.

A limitation in the literature is that government regulation is often treated as a contextual control variable rather than a construct that is operationalized within the framework of the study. For example, Duho et al. (2021) treat the regulatory environment as a background factor, without examining specific regulatory mechanisms such as credit information sharing or the intensity of supervisory inspections. Similarly, some studies measure regulation through capital adequacy compliance without exploring how regulatory expectations directly interact with internal credit practices. This aggregation of regulatory factors limits a clear understanding of how regulatory mechanisms influence loan performance through moderation rather than through direct causality.

In this study, government regulation is operationalized through several defined constructs that directly influence credit risk management practices: regulatory reporting requirements, supervisory inspection intensity, credit information sharing compliance, capital and provisioning standards adherence, and consumer protection and disclosure enforcement mechanisms. Regulatory reporting requirements reflect the extent to which institutions submit portfolio and risk exposure data to supervisory authorities. Supervisory inspection intensity measures the degree of external monitoring and enforcement. Credit information sharing compliance assesses the extent of integration with Credit Reference Bureau systems. Capital and provisioning standards adherence captures prudential discipline aimed at absorbing potential credit losses. Consumer protection enforcement reflects regulatory efforts to ensure transparency in lending practices and to protect borrowers' rights.

These constructs were selected because they represent enforceable regulatory mechanisms that influence institutional behavior directly, rather than relying on macro-level indices. Unlike prior studies that have treated regulation as a background or institutional factor, this study isolates the specific enforcement mechanisms that shape internal risk management practices. Naili and Lahrichi (2022) demonstrate that regulatory enforcement of capital adequacy can influence risk-taking behavior and portfolio stability. Zhou et al. (2022) highlight that mandatory credit bureau participation reduces borrower over-indebtedness and serial default behavior. Duho et al. (2021) argue that frequent supervisory inspections strengthen compliance with internal lending standards. Furthermore, Acheampong and Elshandidy (2021) emphasize that prudential provisioning requirements increase institutional resilience during credit shocks.

The moderating role of government regulation becomes evident through its ability to either strengthen or weaken the effectiveness of internal credit risk management. Regulatory measures do not directly determine lending decisions but influence the consistency and enforcement of identification, assessment, policy, and oversight mechanisms. In environments with strict regulatory enforcement and high supervisory intensity, institutions are more likely to rigorously implement screening and monitoring procedures. Conversely, in weaker regulatory environments, internal risk management practices may be inconsistently applied, given the lack of external accountability. Kareem (2024) demonstrates that strong regulation enhances the effectiveness of structured credit policies, leading to reduced non-performing loans.

In the Kenyan microfinance context, regulatory heterogeneity leads to varying levels of compliance and supervision. While deposit-taking microfinance institutions are subject to stricter prudential regulations, credit-only microfinance institutions experience less comprehensive

regulatory oversight. The advent of digital lenders has also intensified competition, creating regulatory asymmetries between fintech platforms and traditional microfinance institutions. Zhou et al. (2022) underscore that informal lending, which falls outside credit bureau reporting systems, weakens regulatory effectiveness in curbing serial borrowing. Additionally, borrower over-indebtedness remains a significant challenge, further highlighting the need for robust regulatory frameworks to manage credit risk effectively.

The operationalization of government regulation in this study is designed to capture the nuanced relationship between regulatory enforcement and internal credit practices. Strong regulatory reporting, supervisory inspections, and compliance with credit information sharing systems increase the likelihood that internal credit risk identification, assessment, policy enforcement, and oversight mechanisms are consistently applied. Weak regulatory enforcement, on the other hand, can dilute the effectiveness of these internal controls.

While there is growing literature on financial regulation, empirical research specifically isolating government regulation as a moderating variable in microfinance credit risk management models remains limited. Most studies treat regulation as a background or contextual variable, rather than exploring how regulatory intensity interacts with specific credit risk management constructs to influence loan performance. This gap is particularly evident in credit-only microfinance institutions, which have distinct funding structures and regulatory environments compared to deposit-taking institutions.

In summary, government regulation plays a critical role in shaping the effectiveness of internal credit risk management practices. By adopting a multidimensional construct that incorporates regulatory reporting, supervision, credit information sharing, capital adequacy, and consumer

protection, this study contributes to a more precise understanding of how external regulatory structures influence internal lending practices. This approach provides a clearer examination of the relationship between government regulation and loan performance outcomes, measured through default rates and non-performing loans, in credit-only microfinance institutions in Central Kenya.

2.3.6 Loan Performance

Loan performance refers to the extent to which loans advanced by a lending institution are repaid in accordance with the agreed terms of principal and interest, and it therefore reflects the quality of the loan portfolio at a given point in time. A loan is regarded as performing when it is serviced as scheduled, and as non-performing when repayment of principal or interest remains overdue beyond the period specified in the lender's credit policy or by the regulator. Loan performance is thus an outcome variable: it records the combined result of the decisions taken when borrowers are screened, appraised and approved, and of the monitoring and recovery actions taken after disbursement (Karanja & Simiyu, 2022).

The literature measures loan performance through several portfolio quality indicators, the most common being the non-performing loan ratio, the default rate, portfolio at risk, repayment rates, recovery efficiency and write-off frequency (Duho et al., 2021; Karanja & Simiyu, 2022). Some studies also use profitability measures such as return on assets as proxies for loan performance. Such proxies, however, conflate repayment outcomes with pricing, operating costs and non-lending income, and are therefore less direct measures of the quality of lending than indicators drawn from the loan book itself (Karanja & Wamugo, 2024).

Loan performance carries particular weight in credit-only microfinance institutions because these institutions do not mobilise deposits and depend on loan repayments as the principal source of liquidity for further lending (Muindi & Ambrose, 2023). Deterioration in repayment therefore affects both the income and the lending capacity of the institution. From the perspective of the Information Asymmetry Theory reviewed in Section 2.2.1, loan performance is the point at which the effects of adverse selection before disbursement and moral hazard after disbursement become observable. In this study, loan performance is the dependent variable and is measured through the default rate and the number of non-performing loans held by each institution, as operationalised in Section 3.13. These indicators were selected because they draw directly on the repayment status of the loan portfolio rather than on profitability proxies.

2.4 Empirical Review

2.4.1 Credit Risk Identification and Loan Performance

Empirical studies across banking and microfinance sectors consistently associate structured credit risk identification with improved loan performance outcomes. In mainstream commercial banking, structured borrower screening mechanisms have been shown to reduce non-performing loan ratios and improve portfolio stability. Agaba et al. (2022), examining commercial banks in Uganda using a descriptive correlational design, found that institutions utilizing formal credit bureau checks, borrower profiling systems, and sectoral risk analysis recorded significantly lower delinquency rates compared to banks relying on less formal screening processes. The study measured loan performance through non-performing loan ratios and portfolio at risk indicators, establishing a statistically significant negative relationship between identification rigor and loan default.

Similar findings emerge in Middle Eastern banking systems. Al Zaidanin and Al Zaidanin (2021), employing regression analysis in United Arab Emirates commercial banks, observed that early-stage risk mapping of borrower financial profiles and sector exposure significantly enhanced loan recovery performance. The operationalization of identification included structured borrower classification systems and standardized credit file documentation. Banks that institutionalized systematic risk detection mechanisms reported improved asset quality relative to those using discretionary evaluation practices.

Evidence from African deposit money banks reinforces this pattern. Ogunwale and Areghan (2024) analyzed Nigerian banks using multiple regression techniques and reported that continuous borrower risk identification, including periodic financial review and exposure reassessment, had a significant inverse effect on default rates. Loan performance in the study was measured through default frequency and non-performing loan ratios. The findings suggest that risk identification is not limited to pre-disbursement screening but extends to ongoing detection of emerging borrower vulnerabilities.

Within microfinance institutions, credit risk identification plays an equally critical role. Duho et al. (2021), using panel data from African microfinance institutions, demonstrated that detailed borrower income source verification and diversification profiling significantly reduced portfolio at risk levels. The study operationalized identification through documentation of borrower cash flow streams and risk categorization procedures. Ali, Gueyie and Chrysostome (2022) similarly found that contextual borrower profiling including repayment history review and demographic segmentation was significantly associated with lower non-performing loan ratios. The panel

regression results indicated that institutions applying multi-dimensional risk identification frameworks achieved stronger portfolio stability.

Studies in cooperative finance structures report comparable outcomes. Mbithi and Ogilo (2023), analyzing deposit-taking savings and credit cooperatives in Kenya, found that institutions employing structured borrower verification processes recorded lower default rates than cooperatives relying primarily on relational trust-based lending. Loan performance was measured through delinquency ratios and non-performing loan levels. Arhin (2024), examining Ghanaian credit unions, reported that formalized borrower background checks and systematic documentation significantly reduced loan arrears. These findings suggest that structured identification frameworks contribute to improved credit outcomes across different financial institutional models.

Technological advancement has further transformed identification practices. Mohamed and Elgammal (2023), studying branchless banking models in microfinance institutions, found that digital borrower profiling systems significantly reduced default incidence compared to manual screening approaches. The operationalization included transaction behavior monitoring and automated risk scoring algorithms. Yu (2023), applying machine learning techniques in credit card risk prediction, demonstrated that multilayer neural network models improved borrower risk detection accuracy and reduced loan loss rates relative to traditional statistical methods. Although conducted in consumer credit markets, the study confirms that enhanced identification precision strengthens repayment predictability.

Across sectors, credit risk identification has been measured through constructs such as borrower background verification, credit bureau utilization, income source validation, sector exposure analysis, repayment history assessment and behavioral profiling systems. Loan performance has

commonly been operationalized through default rates, non-performing loan ratios, portfolio at risk indicators, and recovery levels. Despite variation in institutional context and methodological design, the empirical evidence consistently indicates that institutions adopting structured and multi-layered identification frameworks experience improved loan portfolio quality and reduced default exposure. The convergence of findings across commercial banks, microfinance institutions, cooperatives,and digital lending platforms underscores the central role of early borrower risk detection in sustaining credit performance outcomes.

Critique of the reviewed studies on credit risk identification. Although the reviewed studies converge on a positive association between structured identification and portfolio quality, several weaknesses limit their transferability to credit-only microfinance institutions. Agaba et al. (2022), Al Zaidanin and Al Zaidanin (2021) and Ogunwale and Areghan (2024) all draw on deposit-taking commercial banks, which operate under prudential supervision, hold capital buffers and can access borrower information through formal credit infrastructure. Their findings therefore describe identification conducted under enforcement conditions that credit-only institutions do not enjoy. Duho et al. (2021) and Ali et al. (2022) rely on panel data at institutional level, which captures aggregate portfolio movement but cannot isolate which identification practice produced the observed effect. Mohamed and Elgammal (2023) and Yu (2023) examine digitally enabled identification in settings with dense transactional data, a condition not consistently present in Kenyan credit-only lending.

How the gap is addressed. This study addresses these limitations by disaggregating credit risk identification into observable institutional practices, namely borrower background checks, third-party credit bureau data, credit scoring and risk matrices, and vetting and psychometric testing, and by estimating their effect on loan performance within credit-only institutions specifically.

Because the sampled institutions are not deposit-taking, the study isolates identification effects in the absence of prudential enforcement, which the reviewed literature does not do.

2.4.2 Credit Risk Assessment and Loan Performance

Credit risk assessment has received extensive empirical attention across commercial banking, microfinance institutions, cooperative finance structures, and digital lending platforms due to its central role in shaping loan portfolio outcomes. Unlike credit risk identification, which detects potential exposures, credit risk assessment evaluates borrower repayment capacity and translates risk information into structured lending decisions. Empirical studies consistently demonstrate that institutions employing formalized assessment frameworks report lower default rates and improved asset quality.

In mainstream commercial banking, Agaba et al. (2022) examined credit risk management practices in Ugandan commercial banks using a descriptive correlational design and regression analysis. Credit risk assessment in the study was measured through credit scoring systems, debt service capacity evaluation, collateral appraisal, and financial statement analysis. Loan performance was operationalized using non-performing loan ratios and portfolio at risk indicators. The findings revealed a statistically significant negative relationship between structured borrower appraisal and default levels. Banks that implemented standardized financial ratio analysis and risk grading frameworks exhibited stronger loan recovery performance.

Comparable evidence emerges from Nigerian deposit money banks. Busari (2023) applied panel regression analysis to examine the effect of credit risk assessment mechanisms on financial performance and loan quality. Assessment constructs included borrower liquidity analysis, income stability verification, leverage ratios, and structured approval procedures. Loan performance was

measured through non-performing loan ratios and asset quality indicators. The study found that banks with rigorous borrower financial capacity assessment recorded significantly lower levels of loan impairment. These findings reinforce the argument that systematic evaluation of repayment ability reduces adverse selection risk in credit markets.

In Middle Eastern banking systems, Al Zaidanin and Al Zaidanin (2021) used multiple regression modeling to test the effect of credit appraisal systems on loan portfolio quality. The operationalization of assessment included internal credit rating systems, borrower risk classification matrices and standardized collateral valuation procedures. Loan performance was measured through loan loss provisions and non-performing loan proportions. The results indicated that banks with structured internal rating-based assessment frameworks experienced improved portfolio stability compared to institutions relying on discretionary credit approval practices.

Within microfinance institutions, credit risk assessment assumes particular importance due to borrower income volatility and informal financial documentation. Sindani et al. (2020), studying microfinance institutions in Meru County in Kenya, found that borrower business feasibility evaluation, projected cash flow analysis and repayment capacity interviews significantly influenced loan repayment performance. Loan performance was measured through repayment adherence rates and delinquency levels. Institutions that conducted detailed borrower appraisal before loan disbursement reported fewer instances of loan evasion and lower delinquency incidence.

Karanja and Simiyu (2022) examined microfinance banks in Kenya using cross sectional survey data and regression analysis. Credit risk assessment was measured through credit scoring models, client appraisal interviews, debt burden analysis, and risk grading systems. Loan performance was

measured using non-performing loan ratios and loan recovery rates. The study reported that structured assessment tools significantly predicted improved portfolio quality. Institutions applying standardized risk grading frameworks recorded lower default frequencies compared to institutions applying informal appraisal systems.

Panel data evidence from African microfinance institutions further strengthens this relationship. Duho et al. (2021) analyzed how borrower risk assessment and income diversification evaluation influence credit risk exposure. Credit risk assessment in the study included borrower income stream verification, risk categorization, and repayment capacity analysis. Loan performance was measured using portfolio at risk and non-performing loan ratios. The study concluded that microfinance institutions incorporating structured repayment capacity assessment experienced significantly lower default risk.

Ali et al. (2022) extended this analysis by examining demographic and behavioral components of borrower assessment in microfinance institutions. Using panel regression techniques, they found that institutions incorporating repayment history analysis and financial behavior profiling into their assessment frameworks achieved improved loan performance outcomes. Loan performance was operationalized using portfolio at risk indicators and default ratios. The findings suggest that assessment precision enhances repayment predictability even in environments characterized by limited formal financial records.

Technological innovation has further transformed credit risk assessment practices. Solanki (2023) examined the impact of predictive analytics in credit evaluation processes across financial institutions and found that machine learning based credit scoring models significantly improved default prediction accuracy compared to traditional financial ratio analysis. Loan performance in

that study was measured using realized default probabilities and credit loss rates. Yu (2023), applying neural network models in credit card risk assessment, demonstrated that advanced algorithmic assessment tools reduced loan loss incidence by enhancing borrower risk differentiation. Although conducted in consumer banking contexts, the study confirms that enhanced assessment accuracy translates into improved repayment outcomes.

Assessment at the portfolio level also influences loan performance stability. Agaba et al. (2022) found that institutions conducting periodic reassessment of borrower risk grades and updating exposure classifications demonstrated lower escalation of non-performing loans during economic downturns. Loan performance was measured through non-performing loan ratios and portfolio at risk levels. Continuous reassessment allowed banks to adjust lending criteria in response to macroeconomic shifts, thereby preserving asset quality.

Across sectors, credit risk assessment has been operationalized through constructs such as credit scoring systems, debt service coverage ratios, collateral adequacy evaluation, risk grading matrices, borrower financial statement analysis, liquidity assessment, repayment history review and behavioral risk profiling (Kimani, 2023). Loan performance has typically been measured through default rates, non-performing loan ratios, portfolio at risk indicators, recovery ratios, and loan loss provisions. Despite differences in institutional scale and technological sophistication, empirical evidence consistently indicates that institutions employing structured and multidimensional assessment frameworks experience lower default exposure and improved loan portfolio quality.

The cumulative findings from commercial banks, microfinance institutions, cooperative societies and technologically enabled lending platforms demonstrate a consistent association between

systematic borrower capacity evaluation and enhanced loan performance outcomes. Institutions that integrate financial ratio analysis, structured credit scoring, risk grading systems and periodic reassessment mechanisms into their lending processes record lower delinquency levels and stronger asset quality indicators. This empirical convergence underscores the central role of credit risk assessment in sustaining loan performance across diverse financial sectors (Patel, 2022).

Critique of the reviewed studies on credit risk assessment. The reviewed evidence is methodologically uneven. Busari (2023) and Al Zaidanin and Al Zaidanin (2021) infer assessment quality from secondary financial statement data, which records the consequences of appraisal rather than the appraisal process itself. Karanja and Simiyu (2022) rely on cross-sectional survey data collected at a single point in time, which cannot establish whether improved assessment preceded improved repayment or followed it. Studies examining automated scoring, including Solanki (2023), assume data environments and system maturity that are largely absent in credit-only microfinance institutions. A further weakness is that assessment is frequently merged with identification into a single composite construct, so that the independent contribution of repayment-capacity appraisal remains unestablished.

How the gap is addressed. This study separates assessment from identification both conceptually and in the estimation strategy, specifying a distinct model for the assessment hypothesis. Assessment is measured through business risk, environmental risk, personal risk and business plan appraisal, all of which are verifiable in borrower files, and primary data are collected directly from credit managers rather than inferred from published financial statements.

2.4.3 Credit Policy and Loan Performance

Credit policy has been extensively examined in empirical literature as a structural governance mechanism influencing loan portfolio quality in both regulated banking systems and microfinance institutions. In mainstream commercial banking environments, scholars argue that credit policy defines the institutional risk appetite, establishes lending thresholds and constrains discretionary approval behavior. Agaba, Tamwesigire and Eton (2022), using regression analysis on Ugandan commercial banks, report that institutions with documented lending criteria, formal approval hierarchies, and standardized loan classification procedures experienced significantly lower non-performing loan ratios. Credit policy in the study was operationalized through lending standards, exposure limits, and recovery enforcement guidelines, while loan performance was measured using portfolio at risk and non-performing loan proportions. The findings demonstrate that policy clarity and enforcement consistency reduce credit deterioration.

In Nigerian deposit money banks, Busari (2023) examined credit policy strength using panel regression models and found that clearly articulated borrower eligibility standards, collateral requirements, and internal approval authority limits significantly influenced asset quality. Loan performance was measured using non-performing loan ratios and credit loss provisions. Busari argues that weak policy enforcement increases exposure to high risk borrower segments, thereby elevating default incidence. The study further reports that institutions aligning credit policy with capital adequacy thresholds demonstrated improved loan portfolio stability.

Al Zaidanin and Al Zaidanin (2021), analyzing commercial banks in the United Arab Emirates, maintain that policy embedded risk classification systems and structured collateral valuation frameworks enhance recovery performance. Their empirical findings indicate that banks

implementing standardized credit approval matrices experienced reduced loan impairment charges. Loan-performance was measured through loan loss provisions and non-performing loan levels. The authors contend that internal policy discipline plays a decisive role in reducing moral hazard behavior among lending officers.

Within microfinance institutions, credit policy assumes a central role in balancing outreach objectives with asset quality preservation. Kimondo and Nicolette (2023), examining deposit taking microfinance institutions in Kenya, found a statistically significant positive relationship between structured credit policy frameworks and financial performance. Credit policy constructs in the study included loan approval procedures, credit risk control mechanisms and structured monitoring protocols. Loan performance was operationalized using non-performing loan levels and sustainability indicators. The authors argue that although policy alone does not determine performance, it provides the foundational structure within which lending discipline is maintained.

Agola and Tonny (2023), focusing specifically on credit only microfinance institutions, demonstrate through regression analysis that stringent lending standards, clearly defined repayment terms and structured recovery procedures significantly predict improved loan repayment outcomes. Loan performance was measured through default rates and repayment ratios. The findings suggest that institutions applying stricter credit eligibility thresholds and consistently enforcing recovery guidelines experience reduced delinquency. The authors opine that flexible or poorly defined policy environments increase vulnerability to borrower over exposure and repayment failure.

Empirical evidence from Nairobi based microfinance institutions supports similar conclusions. Kipkirui and Omagwa (2018) report that client appraisal policies, credit term structures, and

collection enforcement procedures significantly influence financial performance outcomes. Using multiple regression analysis, they found that standardized credit term documentation and structured recovery protocols were positively associated with loan repayment rates. Loan performance was measured using non-performing loan ratios and collection efficiency metrics. The study argues that policy formalization enhances accountability and reduces discretionary distortions in credit administration.

Further empirical evidence from Kahihu et al. (2021) indicates that clearly defined credit terms and structured penalty clauses embedded in lending policies significantly improve collection performance. Loan performance was measured using delinquency rates and recovery ratios. The authors maintain that ambiguity in policy enforcement increases repayment uncertainty and weakens portfolio stability.

From a regulatory compliance perspective, Ndonga and Jediddah (2017) examined the impact of statutory credit policy adherence under Kenya's Microfinance Act on loan portfolio performance among deposit taking institutions. The study found that compliance with regulatory loan classification standards and provisioning requirements significantly reduced non-performing loan ratios. Loan performance was measured through loan portfolio efficiency indicators. The authors argue that external regulatory reinforcement strengthens internal credit policy discipline and enhances asset quality management.

Evidence from broader emerging markets reinforces the structural role of credit policy. Olatunbosun et al. (2022), analyzing lending institutions in Nigeria, found that structured exposure limits and standardized credit approval frameworks reduced loan concentration risk and improved recovery performance. Loan performance in the study was measured through default frequency

and credit loss rates. The authors contend that credit policy functions as a preventative mechanism that constrains excessive risk accumulation.

Across commercial banks, microfinance institutions, cooperative societies, and regulated deposit taking institutions, credit policy has been operationalized through constructs such as borrower eligibility criteria, collateral standards, approval authority hierarchies, risk based pricing guidelines, exposure limits, loan restructuring procedures and recovery enforcement mechanisms. Loan performance has consistently been measured using non-performing loan ratios, default rates, portfolio at risk metrics, recovery rates and credit loss provisions (Philip, 2020). Despite contextual differences, empirical studies converge in demonstrating that institutions maintaining clear, consistently enforced and risk aligned credit policy frameworks exhibit improved loan repayment outcomes and enhanced portfolio quality stability.

The cumulative empirical evidence therefore suggests that credit policy functions as an institutional governance architecture that shapes lending discipline, moderates risk exposure, and influences loan performance across diverse financial environments. Institutions embedding structured approval standards, clearly articulated repayment terms, exposure limits, and systematic recovery procedures within their credit policy frameworks demonstrate stronger asset quality outcomes compared to institutions where policy enforcement is weak or inconsistent.

Critique of the reviewed studies on credit policy. A recurring weakness in this body of work is that credit policy is operationalised as the presence of a written document rather than as the consistency with which the document is enforced. Busari (2023) and Ndonga and Jediddah (2017) measure policy through compliance with externally imposed regulatory standards, which conflates institutional policy with regulatory obligation. Agola and Tonny (2023) examine credit-only

institutions but treat policy as a unitary construct, leaving the relative contribution of loan terms, repayment structuring, enforcement and staff awareness undetermined. Kahihu et al. (2021) draw conclusions from institutions that differ substantially in scale and funding structure, which limits comparability.

How the gap is addressed. This study measures credit policy through enforcement-sensitive constructs, namely documented default management procedures, monitoring and enforcement, loan terms and conditions, repayment structuring, and staff awareness and training. This design distinguishes institutions that enforce policy from those that merely possess it, which the reviewed studies do not.

2.4.4 Credit Risk Oversight and Loan Performance

Credit risk oversight has increasingly been examined as a post approval governance mechanism that sustains asset quality and stabilizes loan portfolios across financial institutions. In mainstream banking, oversight is conceptualized as continuous portfolio monitoring, early warning detection, compliance verification, and corrective intervention processes. Duho et al. (2021) argue that banks implementing structured portfolio review committees and monthly delinquency tracking systems record significantly lower non-performing loan ratios compared to institutions relying on periodic review. In their panel analysis of African banking institutions, loan performance was measured using non-performing loan ratios and credit loss provisions, while oversight was operationalized through monitoring frequency, reporting structures and internal audit intensity. The findings establish that continuous supervisory discipline reduces default accumulation over time.

Within commercial banking environments, Naili and Lahrichi (2022) contend that oversight embedded in independent credit committees and structured risk reporting hierarchies strengthens

enforcement of internal lending standards. Using cross country banking data, they demonstrate that institutions with board level risk monitoring frameworks exhibit stronger loan portfolio resilience during economic stress periods. Loan performance was operationalized through impaired loan ratios and provisioning adequacy levels. Their analysis supports the argument that governance layered oversight enhances credit discipline and limits post disbursement moral hazard behavior.

Empirical evidence from deposit taking microfinance institutions further reinforces the importance of structured oversight. Agaba et al. (2022) report that microfinance institutions implementing systematic repayment monitoring systems and delinquency classification protocols experienced improved portfolio at risk outcomes. Oversight constructs in the study included periodic loan review meetings, structured collection follow up mechanisms and policy compliance audits. Loan performance was measured using portfolio at risk and non-performing loan indicators. The authors argue that consistent oversight reduces delayed recognition of repayment distress and enhances recovery performance.

In the Kenyan context, Muindi and Ambrose (2023) examined credit risk monitoring practices among microfinance institutions and found that structured follow up systems, repayment tracking dashboards, and internal audit reviews significantly predicted improved loan repayment rates. Loan performance was measured using delinquency rates and non-performing loan ratios. Their regression results suggest that oversight effectiveness depends on timeliness of intervention and clarity of escalation procedures. Institutions that delayed corrective measures exhibited higher default frequency.

Research from Nigerian deposit money banks supports similar findings. Olatunbosun et al. (2022) demonstrate that continuous monitoring of loan aging schedules and systematic enforcement of

restructuring protocols significantly reduced loan impairment charges. Loan performance in the study was measured using default incidence and credit loss provisions. The authors argue that oversight mechanisms function as risk containment structures that prevent minor repayment irregularities from escalating into systemic defaults.

Early warning systems have emerged as a central construct in credit risk oversight literature. Kareem (2024) reports that financial institutions integrating automated delinquency alerts and real time portfolio analytics achieved significantly lower portfolio at risk ratios compared to institutions relying on manual reporting systems. Oversight was operationalized through automated monitoring frequency, escalation response time, and recovery activation procedures. Loan performance was measured using non-performing loan ratios and recovery rates. The findings suggest that technological reinforcement of oversight enhances detection accuracy and intervention speed.

Zhou et al. (2022) further argue that fintech enabled monitoring systems improve repayment discipline by tracking borrower behavioral patterns and repayment anomalies. Using a mixed method analysis of digital lending institutions, they found that institutions combining algorithmic monitoring with human verification achieved lower default rates than institutions using either approach in isolation. Loan performance was measured using default probability and delinquency duration metrics. The authors contend that hybrid oversight frameworks improve portfolio stability in competitive lending markets.

Portfolio concentration monitoring constitutes another dimension of oversight influencing loan performance. Kahihu et al. (2021) establish that institutions failing to monitor sectoral exposure limits experienced higher correlated default risk during sector specific downturns. Loan performance was measured using sector adjusted default ratios. The study demonstrates that

concentration thresholds embedded within oversight frameworks reduce systemic vulnerability and enhance loan portfolio resilience.

Regulatory reinforced oversight has also been shown to influence loan performance outcomes. Ndonga and Jediddah (2017) report that compliance with statutory loan classification and provisioning standards under Kenya's Microfinance Act significantly improved loan portfolio efficiency among regulated institutions. Loan performance was operationalized using non-performing loan ratios and portfolio yield measures. The study argues that external supervisory enforcement strengthens internal monitoring discipline and enhances recovery accountability.

Evidence from Ghanaian and Nigerian banking sectors supports the macro sensitivity dimension of oversight. Boateng et al. (2024) demonstrate that institutions incorporating macroeconomic stress indicators into portfolio review meetings exhibited stronger asset quality performance during interest rate volatility. Loan performance was measured using default frequency and impairment levels. The authors contend that oversight systems integrating macroeconomic signals improve anticipatory risk management capacity.

Across sectors, credit risk oversight has been operationalized through constructs such as repayment monitoring frequency, early warning system integration, internal audit independence, recovery enforcement procedures, portfolio stress testing, concentration exposure limits, and board level risk reporting mechanisms. Loan performance has been measured using non-performing loan ratios, default rates, recovery efficiency, portfolio at risk, impairment provisions and credit loss ratios. Despite contextual variations, empirical studies consistently demonstrate that institutions implementing structured, continuous and multi layered oversight mechanisms record improved loan repayment outcomes and enhanced asset quality stability.

The cumulative empirical evidence therefore establishes credit risk oversight as a continuous supervisory architecture that sustains portfolio quality after loan disbursement. Institutions embedding systematic monitoring frameworks, timely intervention protocols, concentration controls, and governance reinforced reporting structures demonstrate stronger loan performance outcomes relative to institutions where oversight is fragmented or reactive.

Critique of the reviewed studies on credit risk oversight. The reviewed studies establish that post-disbursement monitoring matters, but they measure it inconsistently. Naili and Lahrichi (2022) and Olatunbosun et al. (2022) treat oversight largely as an internal audit function, which captures compliance review rather than continuous portfolio surveillance. Zhou et al. (2022) examine technology-enabled monitoring in institutions with mature digital infrastructure, a condition that does not hold across the Kenyan credit-only segment. Muindi and Ambrose (2023) examine Kenyan microfinance institutions but aggregate deposit-taking and credit-only providers, so the distinctive oversight burden carried by credit-only lenders is obscured. Several studies also measure oversight through reporting frequency alone, which records activity rather than corrective effect.

How the gap is addressed. This study operationalises oversight through the number of loan products issued and their attached controls, loan portfolio performance review, and risk reporting and review, and confines the sample to credit-only institutions. This allows the effect of continuous surveillance to be estimated in the segment where it substitutes for, rather than supplements, external prudential supervision.

2.4.5 Government Regulation and Loan Performance

Government regulation has been consistently examined in financial sector research as a structural framework through which governments establish prudential standards, supervisory mechanisms and compliance requirements that guide lending activities within financial institutions (Naili & Lahrichi, 2022). Rather than functioning merely as an institutional control mechanism, recent empirical studies have increasingly examined how regulatory environments shape the extent to which internal credit risk management practices improve loan performance (Naili & Lahrichi, 2022; Duho et al., 2021; Busari, 2023).

Regulatory instruments including capital adequacy requirements, supervisory inspections, loan classification standards, provisioning rules, reporting obligations and credit information-sharing frameworks create the conditions under which financial institutions implement borrower appraisal, credit monitoring and risk control practices. Consequently, institutions operating under stronger regulatory environments tend to derive greater improvements from their credit risk management practices than institutions operating under relatively weak supervisory environments (Zhou et al., 2022; Liu et al., 2024). Across these studies, government regulation has commonly been operationalized using prudential compliance, supervisory intensity, reporting obligations and regulatory enforcement, while loan performance has largely been measured using non-performing loan ratios, portfolio at risk, repayment rates, impairment provisions and recovery efficiency.

In mainstream commercial banking, prudential capital regulation has received considerable empirical attention because of its role in strengthening institutional credit risk management and maintaining asset quality. Naili and Lahrichi (2022), using panel data from regulated banking institutions, examined whether prudential capital regulation influenced the extent to which banks'

credit risk management practices contributed to improved asset quality during periods of macroeconomic uncertainty. Government regulation was operationalized through capital adequacy compliance, supervisory enforcement and regulatory monitoring, while loan performance was measured using impaired loan ratios, non-performing loan ratios and provisioning adequacy. The study found that banks operating under stronger prudential supervision realized greater improvements in loan portfolio quality from their credit risk management practices than institutions operating under relatively weaker supervisory environments. The authors attributed these findings to enhanced regulatory enforcement, which strengthened institutional compliance with prudent lending standards, discouraged excessive credit expansion and promoted continuous portfolio monitoring. However, the study further established that regulatory requirements produced better outcomes only where supervisory enforcement remained consistent and credible, indicating that the effectiveness of credit risk management practices depends not only on institutional capability but also on the quality of regulatory implementation. Although the study provides important evidence from commercial banking systems, its findings may not fully explain the experiences of Credit-Only Microfinance Institutions, whose operational characteristics and regulatory obligations differ substantially from those of commercial banks.

Similar observations were reported by Duho, Duho and Forson (2021), who examined banking institutions across selected African countries to determine whether supervisory oversight influenced the relationship between institutional governance practices and credit risk outcomes. Government regulation was measured using supervisory inspection frequency, compliance monitoring and statutory reporting requirements, whereas loan performance was assessed using default ratios, credit loss provisions and non-performing loan ratios. The findings revealed that institutions characterized by effective governance systems realized stronger improvements in loan

recovery performance when subjected to regular supervisory inspections than institutions operating under weaker governance structures. According to the authors, frequent supervisory oversight strengthened internal accountability, improved compliance with institutional lending procedures and enhanced the quality of risk reporting systems, thereby enabling existing credit risk management practices to achieve better loan portfolio outcomes. Nevertheless, the study observed that institutions with inadequate governance structures derived comparatively smaller benefits from regulatory supervision because weaknesses in internal controls limited the implementation of supervisory recommendations. These findings demonstrate that differences in regulatory oversight influence how effectively internal credit risk management practices translate into improved loan performance. However, the study focused primarily on conventional banking institutions, leaving uncertainty regarding whether similar relationships exist among Credit-Only Microfinance Institutions operating under Kenya's regulatory framework.

Within the microfinance sector, regulatory frameworks have increasingly been examined in relation to how they strengthen institutional credit administration and improve the effectiveness of lending practices in managing loan portfolios. Agaba et al. (2022), analysing microfinance institutions in Uganda, investigated whether regulatory accountability enhanced the contribution of institutional credit administration practices to loan portfolio quality. Government regulation was operationalized using statutory reporting obligations, compliance with regulatory requirements and supervisory accountability mechanisms, while loan performance was measured using Portfolio at Risk (PAR), repayment rates and portfolio quality indicators. The study found that microfinance institutions operating under stronger regulatory oversight realized greater improvements in portfolio quality from effective credit administration practices than institutions functioning under relatively weak supervisory environments. Regulatory reporting requirements improved

documentation quality, reinforced adherence to approved lending procedures and strengthened institutional monitoring systems, thereby enhancing the ability of credit risk management practices to reduce portfolio delinquency. However, the authors observed that these improvements were more pronounced among institutions with stronger governance structures and adequate managerial capacity, suggesting that regulatory requirements produce better outcomes where institutional systems are sufficiently developed to support compliance. Although the study provides valuable evidence from the East African microfinance sector, it was conducted within Uganda's regulatory environment, whose institutional and legal framework differs from that governing Credit-Only Microfinance Institutions in Kenya.

Empirical evidence from Nigerian banking institutions provides further support for the role of government regulation in reinforcing institutional credit risk management practices. Busari (2023) examined whether prudential regulatory compliance influenced the effectiveness of credit risk management practices among deposit money banks in Nigeria. Government regulation was measured using capital adequacy compliance, prudential lending requirements and supervisory monitoring, whereas loan performance was assessed using non-performing loan ratios, default frequency and credit loss provisions. The findings revealed that banks maintaining higher levels of compliance with prudential regulations achieved greater improvements in loan portfolio quality from their credit risk management practices than institutions characterized by relatively weak compliance. The study attributed these improvements to regulatory capital requirements, which encouraged prudent lending decisions, strengthened portfolio monitoring and discouraged excessive credit risk exposure. Nevertheless, Busari (2023) reported that the benefits associated with regulatory compliance were less pronounced among smaller financial institutions because relatively high compliance costs constrained their capacity to implement comprehensive credit risk

management systems. These findings indicate that while regulatory requirements strengthen the effectiveness of institutional lending practices, organizational resource capacity influences the extent to which financial institutions benefit from the prevailing regulatory framework.

Credit information sharing regulation has also received considerable empirical attention because of its contribution to strengthening borrower assessment and reducing information asymmetry within lending markets. Zhou et al. (2022) examined traditional and digital lending institutions to determine whether mandatory credit information-sharing requirements enhanced the effectiveness of institutional borrower assessment practices in improving loan performance. Government regulation was operationalized using compulsory participation in credit reference bureaus, borrower information disclosure requirements and compliance with regulatory information-sharing obligations, while loan performance was measured using default incidence, repayment consistency and delinquency persistence. The study established that institutions operating within mandatory credit information-sharing systems achieved greater improvements in loan performance from effective borrower screening practices than institutions operating under less comprehensive regulatory reporting environments. Mandatory information sharing reduced information asymmetry, improved borrower profiling and strengthened credit appraisal decisions, thereby enhancing the contribution of institutional credit risk management practices to improved repayment performance. However, the authors noted that the effectiveness of these regulatory arrangements was constrained by the continued exclusion of informal lending institutions from formal credit reporting systems, limiting the completeness and reliability of borrower credit information.

The rapid expansion of digital financial services has further increased scholarly interest in the contribution of regulatory frameworks to responsible lending practices. Ediagbonya and Tioluwani (2022) examined emerging digital lending institutions to establish whether regulatory frameworks enhanced the effectiveness of digital credit risk management practices in improving loan repayment performance. Government regulation was measured using fintech licensing requirements, consumer protection regulations, regulatory compliance standards and supervisory oversight, whereas loan performance was measured using repayment rates, borrower default frequency and portfolio delinquency indicators. The study found that digital lenders operating within well-developed regulatory frameworks realized better repayment outcomes from their digital credit risk management systems than institutions operating in fragmented regulatory environments. According to the authors, regulatory clarity strengthened institutional credibility, enhanced consumer confidence and promoted responsible lending behaviour, thereby improving the effectiveness of digital credit appraisal and loan monitoring practices. However, the study also acknowledged that the rapidly evolving nature of financial technology continues to outpace regulatory development in some jurisdictions, creating implementation gaps that may reduce the effectiveness of regulatory oversight. Although these findings provide useful insights into digital lending environments, they may not fully explain the experiences of Credit-Only Microfinance Institutions in Kenya, whose lending models continue to combine conventional credit administration procedures with emerging digital lending technologies.

Recent studies on sustainable finance have similarly demonstrated that regulatory frameworks influence the effectiveness of institutional risk management practices in maintaining loan portfolio quality. Liu et al. (2024) examined financial institutions participating in green lending programmes to establish whether environmental regulatory requirements enhanced institutional credit risk

management. Government regulation was operationalized using mandatory environmental disclosure requirements, compliance with green finance policies and regulatory reporting obligations, while loan performance was measured using default probability, credit impairment indicators and credit loss ratios. The findings revealed that financial institutions operating under comprehensive disclosure requirements achieved stronger improvements in loan portfolio quality from their internal risk management practices than institutions operating under less stringent regulatory environments. Mandatory disclosure requirements strengthened institutional accountability, improved risk assessment processes and enhanced transparency during credit appraisal, thereby increasing the effectiveness of institutional credit risk management practices in reducing loan defaults. The study further noted that consistent regulatory implementation remained essential for sustaining these improvements because variations in enforcement reduced institutional compliance with disclosure requirements.

Evidence from the Kenyan microfinance sector also suggests that regulatory compliance influences the extent to which institutional lending practices contribute to improved loan performance. Karanja and Simiyu (2022) examined rural microfinance institutions in Kenya to determine how regulatory compliance requirements influenced institutional lending outcomes. Government regulation was measured using compliance with prudential guidelines, statutory reporting requirements and supervisory standards, while loan performance was measured using repayment rates and non-performing loan ratios. The findings established that institutions demonstrating higher compliance with regulatory requirements realized greater improvements in repayment performance from prudent lending practices than institutions characterized by weaker compliance. Regulatory requirements improved reporting transparency, strengthened institutional accountability and enhanced portfolio monitoring, thereby reinforcing the effectiveness of internal

credit risk management practices. However, the authors observed that stringent compliance obligations reduced operational flexibility among rural microfinance institutions serving borrowers in informal economic sectors, suggesting that the benefits associated with regulation may vary depending on institutional operating environments and client characteristics.

Technological advancement has equally transformed the implementation of regulatory compliance within microfinance institutions. Olatunbosun et al. (2022) examined Nigerian microfinance institutions to determine whether technology-enabled regulatory compliance systems enhanced the effectiveness of institutional credit management practices. Government regulation was operationalized using automated regulatory reporting systems, technology-based compliance monitoring and supervisory reporting requirements, whereas loan performance was measured using portfolio at risk, repayment rates and default frequency. The findings indicated that institutions possessing adequate technological infrastructure experienced greater improvements in loan performance from their credit risk management practices than institutions operating with limited technological capability. Automated compliance systems enhanced reporting accuracy, strengthened portfolio monitoring and facilitated timely supervisory interventions, thereby increasing the effectiveness of institutional credit risk management practices. Nevertheless, institutions constrained by inadequate technological resources realized relatively limited benefits despite operating under similar regulatory requirements. The findings therefore suggest that technological capability influences how effectively financial institutions respond to regulatory expectations.

At the macroeconomic level, Boateng et al. (2024) examined lending institutions in Ghana to determine how monetary policy interventions and financial sector regulations influenced

institutional lending outcomes. Government regulation was measured using monetary policy adjustments, interest rate regulations and financial sector stabilization policies, while loan performance was measured using impairment ratios, delinquency rates and default frequency. The study established that stable regulatory policies strengthened the contribution of institutional credit management practices to improved repayment performance by creating a predictable lending environment that facilitated prudent credit decisions. Conversely, abrupt policy adjustments and restrictive regulatory interventions weakened borrower repayment capacity, thereby limiting the effectiveness of institutional credit risk management practices in maintaining loan portfolio quality. These findings illustrate that broader regulatory policies shape the operating environment within which institutional credit risk management practices are implemented.

Across the reviewed empirical studies, government regulation has been operationalized using capital adequacy standards, supervisory inspection frequency, loan classification and provisioning requirements, statutory reporting obligations, credit information-sharing frameworks, fintech licensing requirements, regulatory disclosure obligations and macroeconomic stabilization policies. Loan performance has consistently been measured using non-performing loan ratios, portfolio at risk, repayment rates, default frequency, impairment provisions, recovery efficiency and credit loss indicators. Although regulatory approaches vary across financial sectors and jurisdictions, the reviewed studies consistently demonstrate that differences in regulatory environments influence the extent to which institutional credit risk management practices improve loan performance. Financial institutions operating under stronger prudential supervision, effective compliance systems and consistent regulatory enforcement generally realize greater improvements from borrower appraisal, credit monitoring and other credit risk management practices than institutions operating within relatively weak regulatory environments. Collectively, the empirical

evidence suggests that government regulation reinforces institutional accountability, strengthens compliance with prudent lending standards and enhances the effectiveness of internal credit risk management practices in improving loan performance.

Despite the growing body of empirical evidence demonstrating the importance of regulatory environments in shaping the effectiveness of credit risk management practices, several conceptual, contextual and methodological gaps remain. First, although many studies acknowledge the contribution of government regulation to institutional lending outcomes, most have examined regulation as a direct predictor or control variable rather than investigating how it influences the relationship between credit risk management practices and loan performance. Second, the majority of empirical studies have been undertaken within commercial banks, deposit-taking microfinance institutions, fintech lenders and other formal financial institutions, with comparatively limited attention devoted to Credit-Only Microfinance Institutions (COMFIs). Third, most available evidence originates from Asia, Europe and a few African countries, limiting the applicability of these findings to Kenya's credit-only microfinance subsector, which operates under a distinct regulatory framework and lending model. Finally, limited empirical evidence exists on how the prevailing government regulatory environment influences the relationship between credit appraisal, credit monitoring, credit policy implementation and credit risk identification practices and loan performance among Credit-Only Microfinance Institutions in Central Kenya. The present study therefore seeks to address these conceptual, contextual and methodological gaps by examining the extent to which government regulation influences the relationship between credit risk management practices and loan performance among Credit-Only Microfinance Institutions in the selected counties in Central Kenya.

Critique of the reviewed studies on government regulation. The principal weakness in this literature is modelling rather than measurement. Duho et al. (2021), Busari (2023) and Boateng et al. (2024) all treat regulation as a direct predictor of performance, which assumes that regulation acts on outcomes independently of internal credit governance. That specification cannot detect whether regulation strengthens or weakens the effect of an institution's own practices. Studies that do acknowledge a conditional role, including Oyelakin and Kandi (2017), test it in prudentially regulated settings where compliance is externally enforced. Credit-only institutions in Kenya face a markedly different regulatory position, since they are licensed but not prudentially supervised.

How the gap is addressed. This study models government regulation as a moderating variable rather than a direct predictor, entering interaction terms between regulation and each credit risk management practice and testing the significance of the change in explained variance. This specification directly addresses the modelling gap identified in the reviewed studies.

2.4.6 Loan Performance in COMFIs

Loan performance has been consistently conceptualized in financial sector research as a central indicator of institutional sustainability and credit portfolio stability. In microfinance and credit-only institutional settings, loan performance is commonly operationalized through repayment timeliness, default rate, non-performing loan ratios, portfolio at risk indicators, and recovery efficiency measures (Karanja & Simiyu, 2022; Duho et al., 2021). Scholars argue that these indicators reflect the quality of credit administration and the effectiveness of risk governance structures. In credit-only microfinance institutions, where revenue generation is heavily dependent on loan repayment streams rather than deposit mobilization, loan performance becomes a direct determinant of operational continuity and capital preservation (Muindi & Ambrose, 2023).

In mainstream commercial banking sectors, loan performance has been empirically linked to structured risk management systems and regulatory compliance mechanisms. Acheampong and Elshandidy (2021) demonstrate that banks integrating capital adequacy monitoring, stress testing, and internal credit scoring systems recorded lower impaired loan ratios during macroeconomic shocks. Loan performance in the study was measured using non-performing loan ratios and credit loss provisions. Similarly, Zhou et al. (2022) report that institutions deploying real-time portfolio monitoring and borrower profiling technologies experienced significant reductions in delinquency persistence. These findings establish that structured credit governance mechanisms are strongly associated with improved asset quality outcomes.

The integration of digital risk assessment tools has further reshaped loan performance dynamics globally. Mohamed and Elgammal (2023) found that institutions adopting digital lending platforms and automated repayment tracking systems exhibited stronger repayment discipline and reduced default frequency. Loan performance was measured through repayment rates and portfolio at risk indicators. However, Ali et al. (2022) caution that algorithm-driven lending models may replicate socio-economic bias if alternative data inputs are incomplete or poorly calibrated. The findings suggest that technological innovation alone does not guarantee improved loan performance unless supported by inclusive borrower profiling systems.

In Sub-Saharan Africa, empirical studies consistently report elevated non-performing loan ratios within microfinance institutions compared to commercial banks. Agaba et al. (2022) found that inadequate borrower documentation, limited credit information sharing and weak post-disbursement monitoring significantly contributed to high delinquency rates in Ugandan microfinance institutions. Loan performance in the study was measured using portfolio at risk

ratios and default frequency. Similarly, Asare (2023) reports that Ghanaian microfinance institutions recorded non-performing loan ratios exceeding regional banking averages due to insufficient risk screening and monitoring systems.

Richard et al. (2019) argue that macroeconomic instability, inflation volatility, and informal borrower income structures significantly influence loan default behavior in African lending institutions. Loan performance in the analysis was operationalized through impaired loan ratios and write-off rates. The findings demonstrate that institutions operating in high volatility environments experience amplified repayment risk exposure, particularly when borrower cash flows are seasonal or informal. Duho et al. (2021) further contend that improving loan performance in African microfinance requires not only internal risk reforms but also regulatory harmonization and capacity strengthening in credit information infrastructure.

Within the Kenyan context, loan performance challenges remain persistent in microfinance sectors. Muindi and Ambrose (2023) report that microfinance institutions recorded increasing delinquency ratios following macroeconomic tightening cycles and inflationary pressures. Loan performance was measured using non-performing loan ratios and recovery efficiency indicators. The Central Bank of Kenya (2023) reports that non-performing loans within microfinance institutions reached double digit levels, reflecting structural weaknesses in credit appraisal and post disbursement monitoring systems. These figures illustrate that loan performance deterioration remains a systemic issue rather than an isolated institutional anomaly.

Credit-only microfinance institutions face unique vulnerability to loan performance fluctuations due to the absence of deposit buffers and limited capital diversification. Mwaura and Njoka (2020) argue that institutions lacking standardized appraisal procedures and structured monitoring

systems exhibit higher default rates compared to institutions implementing formalized credit governance mechanisms. Loan performance in the study was measured using delinquency ratios and recovery timelines. Fatoki (2021) further demonstrates that borrower financial literacy significantly predicts repayment behavior, suggesting that institutions incorporating borrower education initiatives record improved repayment compliance and reduced default frequency.

Ngugi (2021) reinforces this argument by establishing that staff capacity building and policy enforcement intensity significantly influence portfolio stability. Loan performance was measured using repayment consistency and default incidence indicators. Institutions investing in staff training and structured credit review cycles exhibited stronger loan performance outcomes relative to institutions relying on informal appraisal mechanisms. These findings underscore the institutional governance dimension of loan performance within microfinance systems.

Technological adoption has emerged as a critical differentiator in Kenyan microfinance loan performance. Mohamed and Elgammal (2023) report that mobile based repayment platforms improved repayment tracking accuracy and reduced collection costs. Loan performance was measured through repayment rates and portfolio at risk ratios. However, Ali et al. (2022) caution that algorithmic lending must incorporate gender sensitive and socio-economic contextual data to prevent systematic exclusion or misclassification of borrowers. The findings suggest that digital systems must be integrated with contextual borrower evaluation frameworks to sustain positive loan performance outcomes.

Regulatory asymmetry further shapes loan performance dynamics in credit-only microfinance institutions. Wafula (2023) reports that inconsistent compliance with Credit Reference Bureau reporting requirements reduces borrower visibility across institutions, increasing hidden leverage

risk and repayment default probability. Loan performance was measured using delinquency ratios and serial borrowing incidence. Gitonga and Mutembei (2022) argue that proportional regulatory enforcement strengthens credit discipline and enhances portfolio quality stability. However, rigid interest rate controls may limit institutional flexibility in pricing borrower risk, potentially affecting sustainability outcomes.

Borrower characteristics also significantly influence loan performance outcomes. Karanja and Wamugo (2024) demonstrate that seasonal income cycles, limited collateralization, and informal employment patterns significantly predict repayment volatility in rural counties such as Kirinyaga and Murang'a. Loan performance in the study was measured using default frequency and repayment lag indicators. Mekonnen (2021) further argues that moral hazard behavior increases in contexts where borrower enforcement mechanisms are weak. The findings indicate that institutions integrating structured follow up systems and graduated enforcement procedures exhibit improved loan performance outcomes.

Comparative empirical evidence from structured banking environments further illustrates contextual differences. Siddique et al. (2021) report that commercial banks operating under advanced credit scoring infrastructures exhibit significantly lower default ratios relative to microfinance institutions serving informal sectors. Loan performance was measured using impaired loan ratios and capital adequacy adjusted default rates. Gambo et al. (2019) similarly find that structured loan classification systems significantly reduce impairment volatility in regulated banking sectors. These findings highlight structural differences between deposit taking institutions and credit-only microfinance institutions.

Across empirical studies, loan performance has been operationalized using non-performing loan ratios, default rates, portfolio at risk, recovery efficiency, impairment provisions, repayment timeliness and write-off frequency indicators. While improved credit governance, regulatory enforcement, technological adoption, and borrower literacy initiatives are consistently associated with improved loan performance outcomes, evidence also demonstrates that macroeconomic volatility, institutional resource constraints and borrower informality significantly condition these relationships (Agaba et al., 2022; Muindi & Ambrose, 2023).

The cumulative empirical evidence therefore establishes loan performance in credit-only microfinance institutions as a multi-dimensional outcome influenced by institutional governance strength, regulatory environment, technological infrastructure, borrower characteristics and macroeconomic conditions. In contexts such as Kenya, where credit-only institutions operate in competitive and informal economic ecosystems, loan performance remains highly sensitive to both internal credit risk management effectiveness and external systemic pressures.

Critique of the reviewed studies on loan performance. Measurement inconsistency is the dominant weakness. Several studies proxy loan performance through profitability indicators such as return on assets or return on equity, which conflate lending outcomes with pricing, cost structure and non-lending income. Others rely on portfolio at risk alone, which is sensitive to portfolio growth and can mask deterioration in a rapidly expanding book. Richard et al. (2019) and Fatoki (2021) attribute performance variation largely to macroeconomic conditions, which understates the contribution of institutional practice. Studies conducted within Kenya seldom disaggregate by county or by institutional type, so the performance profile of credit-only lenders in Central Kenya remains empirically undocumented.

How the gap is addressed. This study measures loan performance directly through default rate and the number of non-performing loans rather than through profitability proxies, and confines the analysis to credit-only microfinance institutions operating in the selected counties of Central Kenya. This provides construct-level and contextual precision that the reviewed studies do not offer.

2.5 Critique of the Reviewed Literature

The reviewed literature reflects sustained scholarly engagement with credit risk management and loan performance across commercial banking, microfinance, and emerging digital finance systems. Empirical evidence consistently supports the proposition that structured credit governance mechanisms influence portfolio quality and institutional sustainability (Acheampong & Elshandidy, 2021; Duho et al., 2021; Naili & Lahrichi, 2022; Agaba et al., 2022). Studies conducted in both developed and emerging financial systems demonstrate that improvements in appraisal rigor, monitoring intensity, and enforcement discipline reduce delinquency rates and enhance institutional resilience. However, when examined in relation to credit-only microfinance institutions and the specific constructs underpinning this study, significant conceptual, methodological, contextual, and analytical limitations emerge.

The critique of individual studies is presented under each empirical subsection in Section 2.4, where the weaknesses of each reviewed study and the manner in which this study addresses them are set out alongside the evidence itself. The present section therefore consolidates those subsection-level critiques into the cross-cutting conceptual, methodological, measurement and contextual limitations that characterise the literature as a whole.

A major conceptual weakness within the literature lies in the aggregation of credit risk management constructs. Numerous empirical investigations operationalize credit risk management as a composite variable incorporating identification, assessment, policy, and monitoring elements without disaggregating these components analytically (Busari, 2023; Muindi & Ambrose, 2023; Kipkirui & Omagwa, 2018). While such aggregation simplifies modeling, it obscures construct-level effects and limits theoretical clarity. For instance, Agaba et al. (2022) report a statistically significant association between credit management and portfolio at risk reduction but do not distinguish whether early-stage borrower identification mechanisms or post-disbursement oversight systems account for the effect. Similarly, Richard et al. (2019) observe improvements in loan recovery following strengthened credit frameworks but treat risk management as a unified institutional function rather than as a set of discrete governance mechanisms. The absence of construct-specific testing constrains theoretical development and prevents precise policy recommendations, particularly for credit-only institutions operating under constrained managerial and financial resources.

The dominance of commercial banking scholarship further complicates contextual applicability. Studies conducted within Basel-regulated systems emphasize capital adequacy, internal rating-based models, stress testing, and supervisory oversight as primary determinants of credit stability (Naili & Lahrichi, 2022; Zhou et al., 2022). These institutional conditions differ substantially from those characterizing credit-only microfinance institutions, which operate without deposit mobilization and frequently under fragmented supervisory regimes. Acheampong and Elshandidy (2021) demonstrate that strengthened governance structures reduce non-performing loan ratios in regulated banks; however, the study assumes diversified funding sources and prudential compliance capacity not typically present within credit-only institutions. Even within Kenyan

scholarship, empirical investigations disproportionately focus on deposit-taking microfinance institutions subject to Central Bank oversight (Ndonga & Jediddah, 2017; Karanja & Simiyu, 2022). The structural vulnerability of credit-only institutions, arising from reliance on loan repayment cycles and external funding streams, remains under-examined. Consequently, empirical generalizations drawn from prudentially regulated institutions may not adequately explain risk dynamics within credit-only settings.

Methodological patterns within the reviewed studies reveal additional weaknesses. A significant proportion of microfinance research relies on cross-sectional survey designs and perceptual measures of credit management effectiveness (Mwaniki, 2024; Muindi & Ambrose, 2023; Mwaura & Njoka, 2020). While these studies identify associations between institutional practices and performance indicators, they do not establish causal direction or temporal sequencing. Longitudinal panel data linking structured credit risk identification, assessment, policy enforcement, and oversight to objective default rate outcomes remain limited. Duho et al. (2021) demonstrate that panel-based regulatory monitoring produces stronger inferential validity within banking research, yet similar methodological rigor is rarely replicated in credit-only microfinance studies. The predominance of cross-sectional methodologies restricts deeper understanding of dynamic delinquency cycles, borrower seasonality effects, and policy adjustment responses over time.

Measurement inconsistency further complicates the empirical landscape. Portfolio at risk, return on assets, and financial sustainability ratios are frequently used as proxies for loan performance (Agaba et al., 2022; Busari, 2023; Kahihu et al., 2021). While these metrics capture institutional health, they are influenced by operational efficiency, cost management, and funding structure

beyond core credit discipline. Fewer studies prioritize default rate and number of non-performing loans as direct measures of borrower repayment behavior. This misalignment between independent credit governance constructs and dependent financial performance proxies weakens construct validity and complicates theoretical interpretation. In several cases, improvements in reported performance indicators may reflect broader financial restructuring rather than strengthened credit risk governance mechanisms.

The treatment of government regulation within the literature reflects conceptual acknowledgment but limited analytical depth. Regulatory frameworks are commonly modeled as independent predictors of institutional performance rather than as conditional variables shaping the strength or direction of internal credit governance effects (Busari, 2023; Kahihu et al., 2021; Wafula, 2023). Interaction-based modeling remains scarce. Duho et al. (2021) confirm that regulatory compliance improves banking stability but do not examine whether regulatory intensity moderates the effectiveness of structured identification systems. Similarly, studies within Kenyan microfinance contexts recognize compliance requirements without empirically testing moderation effects under varying regulatory intensity levels. Given Kenya's dual regulatory structure affecting credit-only institutions, the absence of moderation modeling represents a substantive analytical gap.

Technological adoption literature introduces additional complexity. Mohamed and Elgammal (2023) and Yu (2023) demonstrate that digital lending platforms and artificial intelligence-driven credit scoring systems enhance predictive accuracy and reduce delinquency in structured markets. However, these studies assume extensive borrower data ecosystems and institutional digital capacity. Credit-only microfinance institutions frequently operate within informal economic contexts characterized by limited documentation and constrained technological infrastructure. Ali

et al. (2022) caution that algorithmic systems may reproduce socio-economic bias without inclusive data architecture, yet empirical examination of algorithmic adaptation within resource-constrained microfinance institutions remains minimal. The literature therefore overemphasizes technological potential while under-interrogating institutional feasibility.

Borrower heterogeneity is acknowledged but insufficiently embedded within analytical frameworks. Karanja and Wamugo (2024) demonstrate that income seasonality and rural economic volatility significantly influence repayment consistency, yet such borrower characteristics are typically included as control variables rather than as interacting components within structured risk governance systems. Mekonnen (2021) discusses moral hazard in microfinance contexts but does not translate the concept into measurable post-disbursement behavioral indicators. Adverse selection theory is frequently referenced in risk discourse (Acheampong & Elshandidy, 2021), yet empirical operationalization within credit-only institutional contexts remains limited. The gap between theoretical framing and empirical measurement reduces explanatory depth.

Regional specificity within Kenya is also underdeveloped. While Muindi and Ambrose (2023) report elevated non-performing loan ratios within microfinance institutions, limited research isolates credit-only institutions operating within Central Kenya's microenterprise-intensive counties characterized by competitive lending, informal cross-borrowing, and localized economic volatility. Geographic heterogeneity is therefore insufficiently incorporated into empirical modeling. The interaction between local economic structures and institutional credit governance practices remains under-examined.

The cumulative effect of these conceptual, methodological, measurement, technological, regulatory, and contextual limitations is substantial. Although existing literature confirms that credit risk management influences loan performance, it does not adequately disaggregate identification, assessment, policy, and oversight constructs; does not consistently operationalize direct default rate and non-performing loan indicators; does not isolate credit-only microfinance institutions as structurally distinct institutional entities; and does not rigorously test the moderating influence of government regulation within localized Kenyan contexts. The interaction between structured credit risk governance mechanisms and regulatory intensity in shaping measurable default outcomes within credit-only microfinance institutions therefore remains insufficiently interrogated.

2.6 Summary of Studies and Research Gaps

Acheampong and Elshandidy (2021) examined determinants of credit risk and financial stability within regulated banking systems and established that governance quality, board oversight, and internal control systems significantly reduce non-performing loan ratios. The study employed panel regression across prudentially supervised institutions and demonstrated that structured risk governance enhances asset quality. However, the institutional context was limited to deposit-taking banks operating under capital adequacy requirements and formal supervisory enforcement. Credit-only microfinance institutions differ structurally in funding architecture, liquidity vulnerability, and regulatory exposure. These institutions operate without depositor-backed buffers and depend exclusively on loan recovery cycles. The absence of disaggregated empirical analysis focusing on credit-only institutions leaves unresolved whether governance-performance dynamics observed in regulated banking environments translate to structurally constrained microfinance models.

Duho et al. (2021) investigated risk governance mechanisms across African banking systems and reported that regulatory compliance strengthens credit discipline and institutional stability. While the study confirmed that regulatory oversight improves performance, regulation was modeled as a direct predictor rather than as a moderating variable interacting with internal credit governance mechanisms. The conditional relationship between regulatory enforcement intensity and structured credit risk identification or oversight systems was not empirically tested. Similar modeling limitations appear in Busari (2023), who examined regulatory compliance within microfinance institutions and concluded that compliance enhances financial outcomes, yet did not estimate interaction effects between regulatory frameworks and specific credit governance constructs. Consequently, although regulation is recognized as influential, the moderating capacity of government regulation on the relationship between structured credit risk mechanisms and loan performance remains insufficiently interrogated.

Agaba et al. (2022) examined credit management practices within microfinance institutions and found that borrower appraisal and monitoring significantly reduce portfolio at risk. However, the study treated credit management as a composite construct and did not isolate credit risk identification, assessment, policy design and oversight into analytically independent variables. The aggregation of governance components limits construct-level inference and obscures which mechanisms independently influence measurable loan outcomes. Moreover, portfolio at risk was employed as the principal dependent variable. While portfolio at risk captures exposure levels, it does not measure realized default behavior. Distinguishing between exposure and actual default incidence is essential when assessing loan performance within credit-only institutions where repayment failure directly undermines sustainability.

Kahihu et al. (2021) analyzed credit management practices and institutional performance within Kenyan financial institutions and reported a positive association between structured credit systems and profitability measured through return on assets. Although informative, profitability-based measures reflect broader operational efficiency and cost management rather than borrower-level repayment discipline. Empirical studies that rely on return-based performance indicators risk conflating institutional financial management with credit governance effectiveness. Loan performance operationalized through default rate and number of non-performing loans provides a more direct measure of repayment behavior and portfolio quality. The limited application of such direct delinquency indicators in microfinance research constrains the precision of empirical conclusions.

Muindi and Ambrose (2023) examined credit risk management practices within Kenyan microfinance institutions and found that improved appraisal systems reduce loan delinquency. Mwaniki (2024) similarly reported that inadequate borrower vetting increases default probability. Both studies provide localized insight; however, they relied predominantly on cross-sectional survey designs and perceptual measures of institutional practices. Objective loan-level data and longitudinal modeling linking structured governance adjustments to measurable changes in default rate and non-performing loan counts were not central to their empirical strategy. Furthermore, institutional heterogeneity was insufficiently addressed, as credit-only institutions were not analytically distinguished from deposit-taking entities. The absence of institution-specific modeling limits contextual precision.

Moseti et al. (2020) explored the moderating role of government policies on microfinance services and financial performance and acknowledged that policy frameworks influence institutional

outcomes. Nevertheless, regulatory influence was conceptualized broadly without operationalizing government regulation as a statistical moderator interacting with specific credit risk governance constructs. Kahihu et al. (2021) and Richard et al. (2019) similarly recognized regulatory oversight as influential but did not test hierarchical interaction effects examining whether regulatory intensity strengthens or attenuates the impact of structured credit identification, assessment, policy or oversight mechanisms. The limited use of moderation analysis techniques such as interaction-term regression constrains understanding of the conditional mechanisms through which regulation shapes loan performance.

Technological adaptation literature introduces additional complexity. Mohamed and Elgammal (2023) demonstrated that artificial intelligence-driven credit scoring enhances predictive accuracy and reduces default rates in digitally advanced financial systems. Zhou et al. (2022) similarly reported that machine learning-based risk models improve portfolio quality within commercial banking environments. However, these studies were conducted within capital-intensive institutions possessing comprehensive borrower data ecosystems and technological infrastructure. Credit-only microfinance institutions operating in Central Kenya often rely on manual appraisal systems, informal borrower documentation and field-based monitoring due to infrastructural and cost constraints. Comparative empirical evaluation examining whether structured manual identification and oversight mechanisms achieve comparable default reduction within such environments remains limited. The transferability of digital risk modeling evidence to resource-constrained credit-only institutions therefore remains empirically untested.

The integration of theoretical constructs into empirical modeling also remains limited. Mekonnen (2021) discussed adverse selection and moral hazard in microfinance lending and argued that weak

screening increases post-disbursement delinquency. However, the study did not operationalize adverse selection or moral hazard through measurable indicators such as repeat non-performing loan accumulation, strategic default patterns or information asymmetry proxies. Similarly, Acheampong and Elshandidy (2021) referenced governance theory without isolating borrower-level behavioral indicators within credit-only contexts. The limited empirical operationalization of theoretical constructs restricts the explanatory depth of credit governance studies and weakens alignment between theory and measurable outcomes.

Borrower heterogeneity further complicates governance-performance dynamics. Karanja and Wamugo (2024) demonstrated that income seasonality, rural economic volatility, and financial literacy significantly influence repayment behavior within Kenyan financial institutions. However, borrower characteristics were primarily included as control variables rather than integrated into structured credit risk identification frameworks. The interaction between borrower socio-economic profiles and institutional credit policy design remains insufficiently modeled. Within microenterprise-dominated regions characterized by agricultural seasonality and informal economic activity, failure to incorporate borrower heterogeneity into structured identification systems limits predictive accuracy and governance effectiveness.

Geographical specificity presents another underexamined dimension. Despite Central Kenya hosting a dense concentration of microfinance institutions operating within agriculturally driven economies characterized by seasonal income fluctuations and competitive cross-borrowing, empirical studies rarely isolate this region for focused analysis. National-level aggregation obscures localized economic conditions, enforcement intensity variations and borrower behavioral patterns. Without region-specific modeling, it remains unclear whether structured credit risk

identification, assessment, policy, and oversight mechanisms exhibit consistent effectiveness across diverse socio-economic contexts.

Methodological limitations further constrain the literature. The predominance of cross-sectional designs restricts causal inference and temporal sequencing. Longitudinal analyses linking changes in structured credit governance to shifts in default rate and non-performing loan incidence remain scarce. Interaction-based modeling testing regulatory moderation effects is similarly limited. Advanced empirical techniques capable of isolating independent and conditional effects of structured credit risk governance constructs on direct loan performance indicators are underutilized within the microfinance scholarship.

The cumulative weight of these empirical and methodological constraints reveals a clearly delineated gap. Existing research confirms that credit risk management influences institutional performance; however, it does not consistently disaggregate credit risk identification, assessment, policy, and oversight as independent constructs, does not uniformly employ default rate and number of non-performing loans as direct measures of loan performance, does not isolate credit-only microfinance institutions as a structurally distinct institutional category and does not rigorously model government regulation as a moderating variable within a geographically defined Kenyan context. The independent and conditional relationships between structured credit risk governance mechanisms and measurable loan performance outcomes within credit-only microfinance institutions operating in Central Kenya therefore remain insufficiently established.

The gaps identified above are summarised in Table 2.1, which sets out, for each reviewed study, the focus and context of the study, its key findings, the gap arising from it, and the manner in which the present study addresses that gap.

Table 2.1: Summary of Studies and Knowledge Gaps, Knowledge Gaps

Author(s) and Year	Focus and Methodology	Key Findings	Knowledge Gaps	Focus of Current Study
Acheampong and Elshandidy (2021)	Determinants of credit risk and financial stability in prudentially regulated European banks; panel regression	Governance quality, board oversight and internal control significantly reduce non-performing loan ratios	Confined to deposit-taking banks with capital buffers and formal supervisory enforcement; credit-only institutions not examined	Restricts the sample to licensed credit-only microfinance institutions that hold no depositor-backed buffers and depend entirely on loan recovery cycles
Agaba et al. (2022)	Credit management practices and loan performance of commercial banks in Uganda; descriptive correlational design	Borrower appraisal and monitoring significantly reduce portfolio at risk	Credit risk management treated as a single composite construct, so the contribution of each practice is indeterminate	Disaggregates credit risk management into identification, assessment, policy and oversight, each tested through its own regression model
Al Zaidanin and Al Zaidanin (2021)	Credit risk management and financial performance of United Arab Emirates commercial banks; multiple regression	Early-stage risk mapping and structured borrower classification significantly improve loan recovery	Assessment quality inferred from secondary financial statements rather than from the appraisal process itself	Collects primary data directly from credit managers on documented appraisal practice within each institution
Duho et al. (2021)	Risk governance and income diversification across African banking institutions; panel data	Regulatory compliance strengthens credit discipline and institutional stability	Regulation modelled as a direct predictor rather than as a moderator of internal credit governance	Models government regulation as a moderating variable with interaction terms and tests the significance of the change in explained variance
Ali et al. (2022)	Gender, credit risk and performance in Sub-Saharan African microfinance institutions; panel regression	Borrower profiling and demographic segmentation are associated with lower non-performing loan ratios	Institution-level panel data cannot isolate which identification practice produced the observed effect	Measures identification through four discrete, file-verifiable practices and estimates their joint and separate effects
Kahihu et al. (2021)	Credit management practices and institutional performance of Kenyan microfinance institutions; survey design	Clearly defined lending guidelines improve portfolio quality	Credit policy treated as a unitary construct measured by document existence rather than enforcement consistency	Operationalises credit policy through enforcement-sensitive constructs including default management procedures, monitoring, enforcement and staff training
Muindi and Ambrose (2023)	Microcredit risk management strategies and loan	Monitoring practices are significantly	Deposit-taking and credit-only providers aggregated, obscuring	Confines the population to credit-only institutions,

Author(s) and Year	Focus and Methodology	Key Findings	Knowledge Gaps	Focus of Current Study
	portfolio performance in Kenyan microfinance institutions	associated with portfolio quality	the oversight burden specific to credit-only lenders	where oversight substitutes for rather than supplements prudential supervision
Zhou et al. (2022)	Financial technology and credit risk monitoring; institutions with mature digital infrastructure	Technology-enabled monitoring improves repayment predictability and lowers default incidence	Assumes data density and system maturity not present across the Kenyan credit-only segment	Measures oversight through practices observable in institutions with limited digital infrastructure, namely portfolio review, product controls and risk reporting
Busari (2023)	Credit risk management, capital adequacy and financial performance of Nigerian deposit money banks; panel data	Institutions under strong regulatory frameworks record better repayment performance	Compliance conflated with internal policy; no interaction effects estimated between regulation and credit governance constructs	Separates institutional credit policy from regulatory obligation and estimates the interaction between regulation and each practice
Boateng et al. (2024)	Interest rate and regulatory effects on lending institutions in Ghana	Regulatory frameworks significantly influence lending outcomes	Regulation specified as a direct predictor; conditional effect on internal practice untested	Specifies a hierarchical moderated model in which regulation enters both directly and through interaction terms
Richard et al. (2019)	Credit risk and corporate financial performance; macroeconomic emphasis	Macroeconomic instability and inflation volatility drive loan performance variation	Understates the contribution of institutional practice; performance proxied through profitability measures	Measures loan performance directly through default rate and number of non-performing loans rather than profitability proxies
Mbithi and Ogilo (2023); Arhin (2024)	Credit lending models in Kenyan deposit-taking SACCOs and Ghanaian credit unions	Structured borrower verification lowers default rates relative to relational trust-based lending	Cooperative and union structures differ in funding and member governance; no county-level disaggregation within Kenya	Examines credit-only institutions within the selected counties of Central Kenya, providing contextual and geographic specificity

Source: Researcher (2026), from the empirical studies reviewed in Section 2.4

2.7 Conceptual Framework

The conceptual framework presents the hypothesised relationships among the independent, moderating and dependent variables of the study, as shown in Figure 2.1.

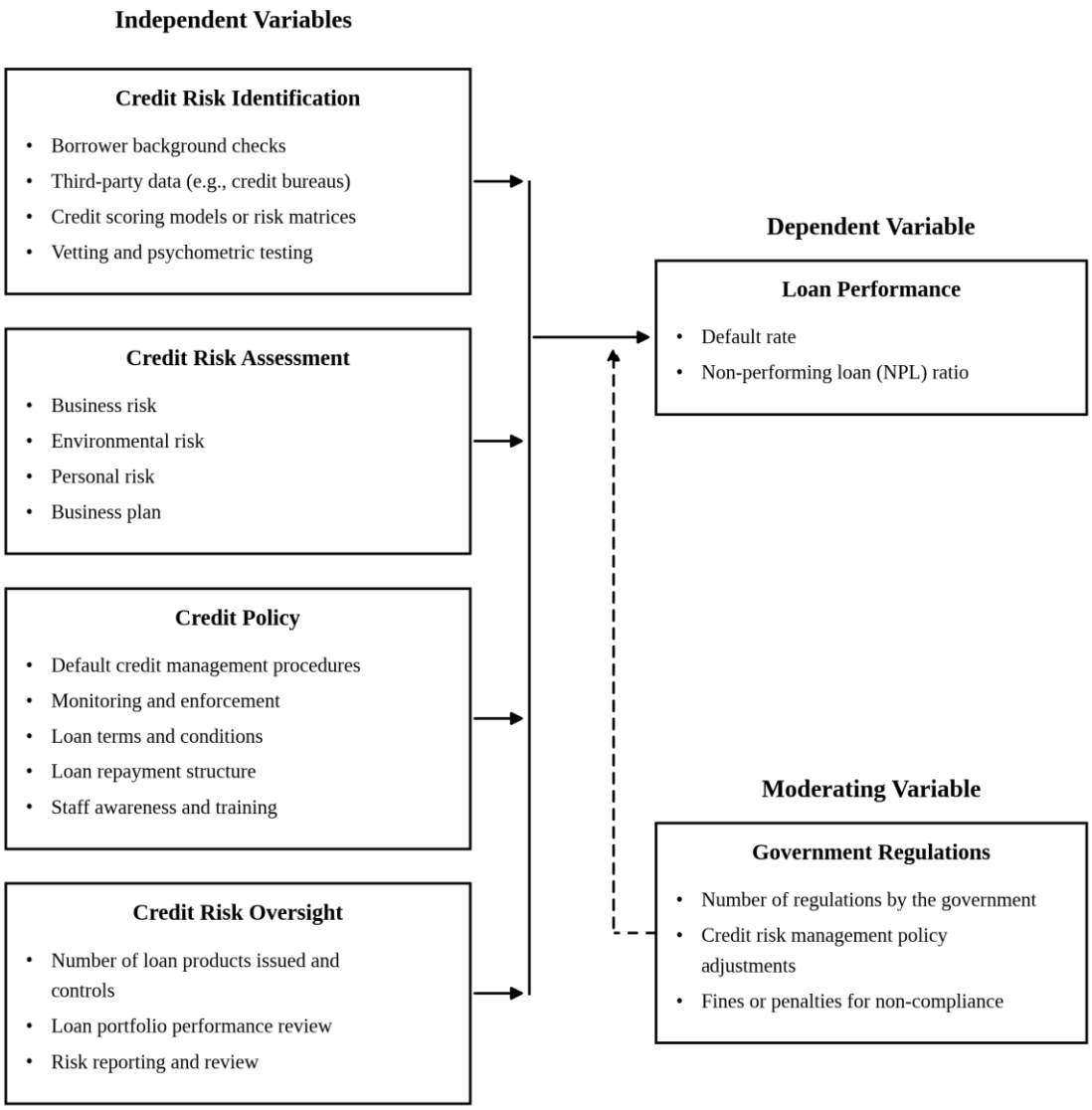

Figure 2.1: Conceptual Framework

Source: Researcher (2026)

Figure 2.1 presents the relationships among the study variables. The independent variables are the four credit risk management practices examined in the study. Credit risk identification is measured through borrower background checks, the use of third-party data such as credit reference bureau reports, credit scoring models or risk matrices, and vetting and psychometric testing. Credit risk assessment is measured through the appraisal of business risk, environmental risk, personal risk and the borrower's business plan. Credit policy is measured through default credit management

procedures, monitoring and enforcement, loan terms and conditions, loan repayment structure, and staff awareness and training. Credit risk oversight is measured through the number of loan products issued and the controls applied to them, loan portfolio performance reviews, and risk reporting and review.

The dependent variable is loan performance, measured through the default rate and the non-performing loan (NPL) ratio. The framework proposes that each of the four credit risk management practices has a direct effect on loan performance, corresponding to the first four hypotheses of the study. Government regulations constitute the moderating variable and are measured through the number of regulations imposed by the government, the credit risk management policy adjustments prompted by regulation, and the fines or penalties imposed for non-compliance. The broken arrow from government regulations is directed at the relationship between the credit risk management practices and loan performance, rather than at loan performance itself, to indicate that regulation is expected to strengthen or weaken the effect of the practices on loan performance, as stated in the fifth hypothesis. This specification is consistent with the Institutional Theory reviewed in Section 2.2.3.

2.8 Summary of the Chapter

This chapter synthesized the theoretical and empirical literature on credit risk management and loan performance, focusing on credit-only microfinance institutions. The review established that structured credit risk identification, assessment, policy design and oversight mechanisms are consistently associated with improved portfolio quality and reduced non-performing loans across banking and microfinance sectors. However, existing studies predominantly aggregate credit risk constructs, rely on profitability-based performance proxies and focus on deposit-taking or

prudentially regulated institutions, thereby limiting construct-level clarity and contextual applicability to credit-only microfinance models. The literature further acknowledges the importance of government regulation but rarely models its moderating influence on internal credit governance mechanisms. Additionally, borrower heterogeneity, technological constraints, and regional economic dynamics remain insufficiently integrated into empirical analysis. Consequently, gaps persist in understanding the independent and conditional effects of disaggregated credit risk governance mechanisms on direct loan performance indicators, particularly within credit-only microfinance institutions operating in Central Kenya.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research methodology adopted in the study. It explains the research philosophy and research design, and describes the study area, target population, sample size and sampling procedure. It then presents the research instruments, the pilot study and the validity and reliability of the instruments, followed by the data collection procedures and the operationalisation of variables. The chapter closes with the ethical considerations observed and the data analysis techniques applied in the study.

3.2 Research Philosophy

Research philosophy refers to the system of beliefs and assumptions about the development of knowledge that underpins the conduct of a study. It determines how the researcher conceives of reality, what is accepted as valid knowledge, the place of values in the inquiry, and the procedures through which knowledge is generated. This study was guided by the positivist research paradigm.

Ontologically, positivism holds that reality exists independently of the researcher and is single, objective and external to the social actors being studied. This study accordingly treated credit risk identification, credit risk assessment, credit policy, credit risk oversight, government regulations and loan performance as objective institutional realities that exist within credit-only microfinance institutions irrespective of the researcher's involvement, and that can be observed and measured.

Epistemologically, positivism holds that valid knowledge is that which is observable, measurable and verifiable, and that it is generated through the testing of hypotheses derived from existing

theory. Knowledge in this study was therefore generated by operationalising each variable into measurable constructs, collecting numerical data through a structured instrument, and subjecting the resulting data to statistical testing. Findings were accepted as knowledge only where they were supported by statistical evidence at the stated level of significance.

Axiologically, positivism requires that the researcher remain value-free and detached, so that the findings are not shaped by the researcher's own beliefs or expectations. The researcher in this study maintained an external position throughout, collecting data through a standardised instrument administered uniformly across institutions, and interpreting results strictly according to the statistical output rather than according to prior expectation.

Methodologically, positivism proceeds deductively, moving from theory to hypothesis to measurement to statistical verification. This study drew hypotheses from the Information Asymmetry Theory and the related literature, operationalised the variables, collected quantitative data from a defined population, and tested each hypothesis using correlation and regression analysis.

The choice of positivism was justified by the correspondence between the characteristics of the paradigm and the characteristics of this study (Waweru, Onyuma & Murumba, 2021). Positivistic research permits generalisability of findings; employs quantitative methods; uses empirical and analytical approaches; formulates and tests research hypotheses; follows objectivism; draws on theory capable of predicting relationships among variables; holds that knowledge is discoverable and observable; and requires adherence to the scientific method of investigation. Each of these characteristics is present in this study. Hypotheses Ho_1 to Ho_5 were formulated and tested statistically; data were quantitative and collected through a structured instrument; the study was

anchored on theory from which the hypothesised relationships were derived; the researcher remained external to the phenomenon; and findings were generated through a systematic, replicable analytical procedure and are generalisable to credit-only microfinance institutions operating under comparable conditions.

Interpretivism was considered and rejected. Interpretivism assumes that reality is socially constructed and is investigated by exploring the meanings individuals attach to their experiences, which does not accommodate the formulation and statistical testing of hypotheses, the objective measurement of variables or the generalisation of findings, all of which this study undertook. The qualitative material collected through the interview schedule and the open-ended questionnaire items did not alter this position. That material was used to corroborate and illustrate the statistically derived findings rather than to construct meaning independently of them, and its use in a supporting role is consistent with, and does not displace, the positivist orientation of the study.

3.3 Research Design

This study adopted a descriptive and explanatory survey research design. Survey research aligned with the positivist paradigm because it assumed that organizational and social phenomena could be objectively measured, quantified and analyzed to reveal statistically verifiable patterns and relationships (Creswell & Creswell, 2018; Saunders, Lewis, & Thornhill, 2019). The descriptive component of the design enabled the systematic documentation of prevailing credit risk management practices within credit-only microfinance institutions in Central Kenya. Structured questionnaires, measured on Likert scales, were used to operationalize key constructs, thereby allowing institutional practices related to credit risk identification, assessment, policy, oversight, and regulation to be quantified. This structured measurement approach enhanced reliability,

comparability, and objectivity, which are central principles in survey-based quantitative research (Bryman, 2016).

In addition to describing institutional characteristics, the study incorporated an explanatory dimension because it sought to test hypothesized relationships between credit risk management practices and loan performance. The explanatory component enabled the examination of causal associations through inferential statistical techniques, including regression analysis and moderation modeling. Such designs were appropriate where the objective was not merely to describe phenomena but to determine whether statistically significant relationships existed among measurable variables (Hair et al., 2022). By integrating descriptive statistics with hypothesis testing procedures, the research design facilitated probabilistic inference and generalization of findings to the wider population of credit-only microfinance institutions within the study area, thereby ensuring coherence between philosophical orientation, research objectives, and analytical strategy

3.4 Study Area

The study was conducted in Kirinyaga, Nyeri, Murang'a and Kiambu counties in the Central region of Kenya. The four counties were selected because they host an active concentration of licensed credit-only microfinance institutions and have local economies built on agriculture, trade and small enterprises that depend heavily on accessible microfinance credit. The counties are also contiguous and administratively accessible, which made it practicable to reach institutional respondents within the time and resource limits of the study. The rationale for selecting these counties, and for excluding the other counties of the region, is set out in Section 1.8.

3.5 Target Population

A target population refers to the complete set of units that meet the criteria of a study and from which data is collected to address research objectives (Cahoon, 2023; Detterman, 2022). The target population comprised 37 credit-only microfinance institutions operating within Kirinyaga, Murang'a, Kiambu and Nyeri counties in Central Kenya. The selected institutions were spread across the selected counties, as outlined in Table 3.1, and their inclusion was based on their active involvement in credit-only microfinance operations within the study area. This distribution captures the diverse rural and peri-urban credit dynamics, which are particularly relevant for credit risk management and loan performance.

From each institution, three respondents were drawn from the credit management team: a credit manager, a junior credit officer and a field credit officer, resulting in a total of 111 respondents. These respondents were selected because they represent the strategic, operational, and field-level dimensions of credit risk management within the institutions. The inclusion of participants from different functional levels ensured comprehensive coverage of institutional practices related to credit identification, assessment, policy implementation, oversight and regulatory compliance. This multi-level approach strengthens the internal validity of the study by capturing a broad spectrum of insights into how credit risk management practices are applied across the organization (Smith, 2021; Gupta & Jain, 2022)

Table 3.1: Target Population of COMFIs and Respondents by County

County	Number of COMFIs	Target Respondents
Kirinyaga	8	24
Muranga	8	24

Kiambu	12	36
Nyeri	9	27
TOTALS	**37**	**111**

Source: AMFI Kenya (2022)

3.6 Sample Size

Because the target population of 37 credit-only microfinance institutions was small and accessible, the study adopted a census of all the institutions rather than drawing a sample of them. From each institution, three respondents were drawn from the credit management function, namely a credit manager, a junior credit officer and a field credit officer. The sample size was therefore 111 respondents, distributed across the four counties as shown in Table 3.1.

3.7 Sampling Procedure

The sampling frame for this study consisted of the 37 credit-only microfinance institutions (COMFIs) operating in Central Kenya, as listed in Appendix V. These institutions collectively operated multiple branches across the selected counties of Kirinyaga, Murang'a, Kiambu and Nyeri. Given the relatively small number of institutions in the region, a census study design was deemed both statistically appropriate and methodologically sound, rather than relying on a sample-based approach. This census method ensured the inclusion of all 37 institutions, thus eliminating sampling bias and enhancing the representativeness and validity of the findings.

Each institution in the sampling frame played a crucial role in the study, as they provided a wide range of financial products to diverse client bases. By including all 37 COMFIs, the study was able to capture a comprehensive array of perspectives and experiences related to credit management practices, operational challenges and client interactions. This broad inclusion bolstered the

reliability of the data and ensured that the findings could be generalized to the entire population of credit-only microfinance institutions in Central Kenya.

Within each institution, purposive sampling was applied to select the three respondents from the credit management function, because the study required information from officers directly involved in borrower screening, credit assessment, credit policy implementation, loan monitoring and regulatory compliance. This ensured that data were obtained from respondents with direct knowledge of the study variables.

3.8 Research Instruments

Data collection for this study was conducted primarily through the use of questionnaires and interviews. The questionnaire, which served as the primary research instrument, included both open-ended and closed-ended questions to capture a mix of qualitative and quantitative data. This method was chosen for its ease of administration, cost-effectiveness and the ability to efficiently gather responses from a broad range of respondents, particularly credit officers and field credit officers.

The questionnaire was organized into six sections. The first section collected demographic information such as age, gender, education level, years of service and job title, providing a comprehensive profile of the respondents. The subsequent sections were designed to address the study's objectives, with each section containing targeted questions that aligned with specific research goals.

To ensure that diverse perspectives were captured, the questionnaire was tailored to the different roles within the institutions. Junior credit officers completed sections focusing on their daily

responsibilities, challenges in credit assessment and customer interactions. Field credit officers answered questions regarding the operational aspects of credit collection and follow-up procedures. Additionally, interviews were conducted with credit managers to gain insights into the strategic direction and management of credit policies within the institutions. These interviews were scheduled at times and locations convenient for the respondents, ensuring their comfort and minimizing disruption to their work schedules. For consistency, clarity and confidentiality in reporting the qualitative findings, the study adopted a respondent coding system. As all interview respondents held the position of Credit Manager within their respective institutions, they were identified sequentially as Credit Manager 1 to Credit Manager 31, based on the order in which interviews were conducted, to maintain clarity and consistency throughout the qualitative findings.

3.9 Pilot Study

A pilot study is a small-scale preliminary investigation conducted prior to the main data collection to assess the clarity, reliability, and feasibility of research instruments and procedures (Creswell & Creswell, 2023; Saunders, Lewis, & Thornhill, 2023). The purpose of a pilot study is to identify ambiguities in questionnaire items, test the logical flow of questions, evaluate response time, and detect potential weaknesses in the data collection process before full implementation. Conducting a pilot enhances instrument validity, reduces measurement error, and improves overall research rigor (Hair et al., 2022).

In this study, the pilot test was conducted in Embu County. Respondents were drawn from credit-only microfinance institutions operating in Embu, that is, outside the selected counties of Kirinyaga, Nyeri, Murang'a and Kiambu, in order to ensure independence from the main study sample. Embu County was chosen because its credit-only microfinance institutions share

comparable institutional characteristics, client profiles and operating conditions with those in the study counties, while lying wholly outside the sampling frame. The pilot participants were therefore not part of the final sampling frame, which preserved the representativeness and integrity of the primary dataset. The pilot sample was selected to reflect institutional characteristics similar to those of the target population while remaining methodologically separate from the main respondents.

The pilot exercise focused specifically on testing the structured questionnaire. Participants were requested to comment on question clarity, wording, sequence, and relevance. Reliability testing was also performed using Cronbach's alpha to assess internal consistency of the measurement scales. Based on feedback and statistical results, minor modifications were made to refine ambiguous items and improve coherence prior to full-scale data collection. This process strengthened the validity and reliability of the instrument and ensured that the final survey tool was suitable for quantitative analysis.

The pilot sample comprised twelve respondents drawn from four credit-only microfinance institutions in Embu County, representing approximately eleven per cent of the main study sample of 111 respondents and falling within the range of one to ten per cent of the target sample that is conventionally recommended for pilot testing. The twelve respondents were distributed across the same three functional levels used in the main study, namely credit managers, junior credit officers and field credit officers, so that the instrument was tested against every category of respondent it would later be administered to. All twelve questionnaires issued during the pilot were completed and returned, giving a pilot response rate of 100 per cent.

3.10 Validity of the Research Instruments

Validity refers to the extent to which a research instrument accurately measures what it is intended to measure. It is a critical aspect of research design because it determines the credibility and accuracy of the study findings (Nachmias, Nachmias, & DeWaard, 2022). In this study, validity was assessed to ensure that the questionnaires and interview guides adequately captured the constructs relating to credit risk management and loan performance in credit-only microfinance institutions in Central Kenya.

Content validity refers to the degree to which the items on a research instrument sufficiently represent the domain of the concept being measured (Kothari, 2022). To establish content validity, the research instruments were developed in alignment with the study objectives and informed by relevant literature on credit risk management and loan performance. The items were structured to reflect the dimensions under investigation. In addition, the instruments were subjected to expert review by professionals with knowledge in microfinance and credit risk management to assess clarity, relevance, and comprehensiveness. Feedback from the expert review informed refinement of wording and elimination of ambiguous items.

Construct validity refers to the extent to which a research instrument measures the theoretical construct it purports to measure (Kothari, 2022). Construct validity was assessed during the pilot study phase, where the questionnaires were administered to respondents drawn from institutions outside the main study area to preserve the integrity of the primary sample. Analysis of the pilot responses helped identify issues related to interpretation, coherence, and alignment of items with the intended constructs. Necessary adjustments were made prior to full-scale data collection to enhance the precision and appropriateness of the measurement scales.

3.11 Reliability of the Research Instruments

Reliability refers to the extent to which a research instrument produces consistent and stable results when measuring a construct under similar conditions (Saunders, Lewis, & Thornhill, 2023). In quantitative research, reliability is particularly concerned with internal consistency, which assesses whether items designed to measure the same construct yield correlated responses (Hair et al., 2022). Establishing reliability is essential to minimize measurement error and enhance the credibility of statistical findings.

In this study, internal consistency reliability of the questionnaire scales was assessed using Cronbach's alpha coefficient (α). Cronbach's alpha is widely applied in survey-based research to evaluate the degree to which items within a scale are interrelated and measure the same underlying construct (Taber, 2018). The analysis was conducted using Statistical Package for the Social Sciences software. Prior to reliability testing, items were reviewed to ensure directional consistency so that scale responses were appropriately aligned. A Cronbach's alpha coefficient of 0.70 and above is generally regarded as indicating acceptable internal consistency in social science research (Hair et al., 2022). Reliability analysis results are presented in Chapter Four.

3.12 Data Collection Procedures

The data collection procedure refers to the systematic process of gathering information from various sources to answer the research questions and meet the study's objectives. This process is critical for ensuring that the data collected is accurate, reliable and relevant to the research topic (Nachmias, Nachmias, & Dewaard, 2022). The study began with obtaining formal authorization to conduct the research. This involved submitting a request for approval from the relevant authorities, including an introductory letter from the university and the necessary approval from

the National Commission for Science, Technology and Innovation (NACOSTI). These documents outlined the purpose of the research and detailed the ethical considerations for participant involvement, ensuring that the study complied with institutional and national guidelines.

After receiving approval from NACOSTI, official emails were sent to the Credit-Only Microfinance Institutions (COMFIs), notifying them of the research and formally requesting their participation. These emails explained the purpose of the study, the importance of their contribution and included a request for suitable times for interviews and filling out the questionnaires. The initial communication aimed to establish a professional relationship and facilitate smooth collaboration throughout the data collection process.

Once an institution agreed to participate, the researcher administered the questionnaires personally at their head offices. This approach was designed to increase the return rate of the questionnaires, ensuring a higher response rate and enhancing the quality of the data collected. To facilitate this, the drop-and-pick method was employed, where the researcher delivered the questionnaires to the respondents and arranged to return at a later date to collect them. This allowed respondents ample time to complete the questionnaires at their convenience, leading to more thoughtful and complete responses.

3.13 Operationalisation of Variables

Operationalization refers to the process of defining variables in measurable terms to enable the collection of data and testing of hypotheses effectively (Kothari, 2022). In this study, the operationalization of key variables related to credit risk management and loan performance was essential for understanding how these concepts interact and influence outcomes within Credit-Only Microfinance Institutions (COMFIs) in Central Kenya. The operationalization of the

variables aligned with the study's conceptual framework, comprising Credit Risk Identification, Credit Risk Assessment, Credit Policy, Credit Risk Oversight, Loan Performance and Government Regulation.

Credit Risk Assessment included several constructs such as business risk, environmental risk, personal risk and the evaluation of business plans. These constructs were assessed through the review of documented risks associated with the borrower's profile. Specifically, credit reference bureau reports and loan application forms were used to evaluate the financial stability and risk factors of borrowers. This process enabled the identification of key risk elements that could affect loan performance within the microfinance context.

Credit Risk Identification focused on the use of credit reference bureau reports and loan application forms to identify potential risks associated with borrowers. This process was essential in determining borrowers' creditworthiness before loan approval. Information captured from these documents enabled the study to examine how effectively COMFIs identify and classify credit risks, thereby influencing subsequent lending decisions and loan performance.

Credit Policy was operationalised by examining various aspects of credit management, including credit evaluation procedures, loan monitoring practices and compliance with established lending guidelines. This involved analysing the credit evaluation approaches employed by COMFIs to determine their effectiveness in managing credit risk. Particular attention was given to how these policies contributed to improved loan performance through minimizing loan defaults and promoting sustainable microfinance operations. The study further assessed the extent to which institutions consistently implemented these policies across different borrower profiles and lending conditions.

Credit Risk Oversight was operationalised by assessing institutional mechanisms for monitoring loan products and reviewing loan portfolio performance. Particular emphasis was placed on the number of loan products issued together with the internal control mechanisms governing each product, as well as the frequency of loan portfolio performance reviews. These measures enabled the study to evaluate the effectiveness of oversight structures in supporting prudent credit risk management and sustaining loan portfolio quality.

Loan Performance was operationalised using indicators that reflected the quality and repayment status of the loan portfolio. Specifically, loan performance was measured using the default rate and the number of non-performing loans maintained by each institution. These indicators provided objective measures for evaluating the effectiveness of credit risk management practices in promoting timely loan repayment and maintaining healthy loan portfolios.

Government Regulation was operationalised by examining the regulatory framework governing the operations of Credit-Only Microfinance Institutions. Particular attention was given to the number of government regulations affecting credit operations, adjustments made to institutional credit risk management policies in response to regulatory requirements, and fines or penalties imposed for non-compliance. These measures enabled the study to determine how the prevailing regulatory environment influenced institutional credit risk management practices and loan performance. The operationalization of all study variables is presented in Table 3.2.

Table 3.2: Operationalisation of Variables

Variables	Constructs	Units of Measure	Scale	How to Conduct the Test (Exact Measurement)

Credit Risk Identification	Borrower background checks	Number/status of background checks conducted	Nominal/Ratio	Review borrower files and record whether background checks were conducted; count the number of completed checks.
	Third-party data, e.g., credit bureaus	Number of credit bureau/third-party checks	Nominal/Ratio	Review credit reference bureau reports and record whether third-party data was used; count checks per borrower.
	Credit scoring models or risk matrices	Credit score/risk matrix rating	Ordinal/Interval	Examine documented credit scoring tools or risk matrices and record the assigned risk score or category.
	Vetting and psychometric testing	Vetting/psychometric test score	Ordinal/Interval	Review vetting records and psychometric test results, then assign or record scores based on institutional criteria.
Credit Risk Assessment	Business risk	Risk score based on documented business risks	Ordinal/Interval	Use a standardized 1–5 scoring rubric to evaluate documented business risks in borrower files.
	Environmental risk	Risk score based on environmental assessments	Ordinal/Interval	Review environmental risk information and assign scores based on severity and likelihood of risk.
	Personal risk	Risk score based on borrower profile	Ordinal/Interval	Analyze borrower profiles, including income stability, repayment history, and credit history, then assign risk scores.
	Business plan	Business plan evaluation score	Ordinal/Interval	Use a 1–5 rubric to assess feasibility, sustainability, and risk mitigation strategies in the business plan.

Credit Policy	Default credit management procedures	Procedure compliance score	Ordinal/Interval	Review documented default management procedures and score their completeness and application.
	Monitoring and enforcement	Monitoring frequency and enforcement score	Ordinal/Interval	Assess how often loans are monitored and whether enforcement actions are documented and applied.
	Loan terms and conditions	Terms and conditions compliance score	Ordinal/Interval	Review loan agreements to determine clarity, appropriateness, and compliance with institutional policy.
	Loan repayment structure	Repayment structure suitability score	Ordinal/Interval	Examine repayment schedules and assess whether they match borrower capacity and loan purpose.
	Staff awareness	Staff awareness/training score	Ordinal/Interval	Review staff training records or responses to determine awareness of credit policy requirements.
Credit Risk Oversight	Number of loan products issued and controls	Number of loan products and control mechanisms	Ratio/Ordinal	Count the number of loan products issued and assess the controls attached to each product.
	Loan portfolio performance review	Frequency of portfolio review	Ordinal/Ratio	Review institutional records to determine how often loan portfolio performance is assessed.
Loan Performance	Default rate	Percentage of loan defaults	Ratio	Calculate default rate as: defaulted loans ÷ total loans issued × 100.
	Non-performing loan (NPL) ratio	Value of non-performing loans as a percentage of the gross loan portfolio	Ratio	Review institutional loan records and count loans classified as non-performing.

Government Regulations	Number of regulations by the government	Count of relevant regulations	Ratio	Review regulatory documents and count regulations affecting COMFI credit operations.
	Credit risk management policy adjustments	Number/frequency of policy adjustments	Ratio/Ordinal	Review policy documents to identify changes made in response to regulatory requirements.
	Fines or penalties for non-compliance	Number/value of penalties	Ratio	Review compliance records and record the number or number of fines and penalties imposed.

3.14 Ethical Considerations

Ethical issues refer to the principles and guidelines that govern the conduct of research, ensuring that participants' rights, dignity, and welfare are protected throughout the study. These principles serve to maintain the integrity of the research process and ensure that participants are treated with respect, that their privacy is maintained and that the research is conducted responsibly. Ethical issues encompass concerns about informed consent, confidentiality and the minimization of potential risks to participants, as well as the proper attribution of secondary data used in research. By adhering to these ethical principles, researchers ensure that their findings are credible, valid, and ethically sound (Kothari, 2022).

In this study, ethical considerations were diligently addressed. Ethical approval was obtained from both the university's ethics review board and the National Commission for Science, Technology, and Innovation (NACOSTI). Informed consent was obtained from all participants, with clear communication about the study's purpose, procedures, risks and benefits. Participants were also informed of their right to withdraw at any time without any negative consequences. Data

confidentiality and participant anonymity were maintained by ensuring that no personally identifiable information was disclosed. Additionally, secondary data sources were properly cited to avoid plagiarism and uphold academic integrity. By ensuring that these ethical protocols were followed, the study aimed to foster trust and transparency with all stakeholders involved (Nachmias, Nachmias, & Dewaard, 2022).

3.15 Data Analysis

The data analysis method referred to the systematic application of statistical and analytical techniques to interpret and derive meaningful insights from the collected data. This process involved several stages, including data preparation, coding and the application of appropriate statistical tests or models to assess relationships, differences or trends within the data. Once the questionnaires were collected, they were scrutinized to ensure that they were duly completed and consistent. Afterwards, they were numbered and all items were checked to confirm that responses adhered to the given instructions to minimize errors and maintain the validity of the data.

The researcher analyzed the data by tallying the responses from the closed-ended questions. The data was coded and entered into a computer for analysis using the Statistical Package for the Social Sciences (SPSS). The analyzed data was presented in the form of frequency tables, while explanations of the tables, graphs and the analysis of content from the open-ended questions were presented in prose form.

Inferential analysis was used to test the study hypotheses. Pearson product-moment correlation was first computed to establish the strength and direction of the association between each credit risk management practice and loan performance. Simple linear regression was then used to test hypotheses Ho_1 to Ho_4, with the decision on each null hypothesis based on the significance of the

beta coefficient at the five per cent level, supported by the t statistic, the F statistic from the analysis of variance and the coefficient of determination. Multiple linear regression was used to estimate the combined effect of the four practices. Hypothesis Ho_5 was tested through hierarchical moderated regression, in which the mean-centred predictors were entered at the first step and the interaction terms between each practice and government regulations at the second step; moderation was inferred from the significance of the individual interaction coefficients and the significance of the change in the coefficient of determination between the two steps. All inferential tests were conducted at the five per cent level of significance using SPSS.

3.15.1 Diagnostic Tests

Diagnostic tests are critical for ensuring that the data meet the assumptions of Ordinary Least Squares (OLS) regression and are suitable for statistical analysis. These tests assess the quality, reliability and validity of the data, ensuring that the results are robust and interpretable. The following diagnostic checks were conducted to assess key OLS assumptions, including multicollinearity, heteroscedasticity, normality, linearity and autocorrelation, as well as to detect and evaluate the presence of outliers that could potentially distort the regression results.

Multicollinearity occurs when independent variables in a regression model are highly correlated, which may lead to unreliable and unstable estimates of regression coefficients. In this study, multicollinearity was tested using the Variance Inflation Factor (VIF) and a correlation matrix. A VIF value greater than 10 was considered an indication of severe multicollinearity, while correlation coefficients greater than 0.8 were used to identify highly correlated pairs of variables (Gujarati & Porter, 2009). The results of these tests were used to confirm whether the independent

variables were sufficiently distinct and appropriate for inclusion in the regression model. Since the diagnostic results did not indicate severe multicollinearity, no corrective remedies were applied.

Heteroscedasticity, which refers to the unequal variance of residuals across the range of predicted values, was tested using White's test. A significant p-value of less than 0.05 indicated the presence of heteroscedasticity, while a p-value greater than 0.05 indicated that the assumption of constant variance was not violated. The results of White's test were used to determine whether the residuals had constant variance and whether the regression model satisfied the homoscedasticity assumption. Where heteroscedasticity was detected, the study applied robust standard errors to improve the reliability of statistical inference without changing the original model specification.

Normality was assessed to determine whether the residuals of the regression model were normally distributed, as required in OLS regression. In this study, the Kolmogorov-Smirnov and Shapiro-Wilk tests were used to test the normality assumption. A p-value greater than 0.05 indicated that the residuals were normally distributed, while a p-value less than 0.05 indicated a violation of the normality assumption (Shapiro & Wilk, 1965). Where non-normality was detected, the study relied on the robustness of regression analysis for sufficiently large samples and interpreted the results with caution. Therefore, the normality test was limited to the Kolmogorov-Smirnov and Shapiro-Wilk tests.

Linearity refers to the assumption that there is a linear relationship between the independent variables and the dependent variable in Ordinary Least Squares (OLS) regression analysis. In this study, linearity was assessed using scatter plots of standardized residuals against standardized predicted values. The assumption of linearity was considered satisfied where the residuals were randomly scattered around the horizontal axis with no clear systematic pattern, while the presence

of curves or clustering of residuals indicated violation of the assumption. Where non-linearity was detected, remedial measures such as variable transformation, inclusion of polynomial terms, or adoption of alternative model specifications were considered.

Autocorrelation was assessed to determine whether the residuals of the regression model were independent from one another, as required in OLS regression analysis. In this study, the Durbin-Watson statistic was used to test the autocorrelation assumption. A Durbin-Watson value close to 2 indicated the absence of autocorrelation, values below 2 indicated positive autocorrelation, while values above 2 indicated negative autocorrelation (Durbin & Watson, 1951). Where autocorrelation was detected, the study interpreted the regression results with caution to reduce the possibility of biased regression estimates. Therefore, the autocorrelation test was limited to the Durbin-Watson statistic.

3.15.2 Data Analysis Models

Regression analysis was used to establish the nature and strength of the relationships among the study variables, using the models specified below.

Regression analysis was used to test each of the study hypotheses. In order to permit precise hypothesis testing, a separate regression model was specified for each hypothesis, rather than relying on a single aggregated equation. Models 1 to 4 are simple linear regression models, each estimating the effect of one credit risk management practice on loan performance and corresponding to hypotheses Ho_1 to Ho_4 respectively. Model 5 is a multiple regression model estimating the combined direct effect of the four practices. Model 6 is the moderated model corresponding to Ho_5, which introduces government regulations and the interaction terms required

to test moderation. The models were estimated hierarchically, with Model 5 entered at the first step and the interaction terms entered at the second step, so that the incremental variance explained by moderation could be isolated.

Model 1: Credit Risk Identification and Loan Performance (Ho_1)

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon$$

Model 2: Credit Risk Assessment and Loan Performance (Ho_2)

$$Y = \beta_0 + \beta_2 X_2 + \varepsilon$$

Model 3: Credit Policy and Loan Performance (Ho_3)

$$Y = \beta_0 + \beta_3 X_3 + \varepsilon$$

Model 4: Credit Risk Oversight and Loan Performance (Ho_4)

$$Y = \beta_0 + \beta_4 X_4 + \varepsilon$$

Model 5: Combined Direct Effects Model

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Model 6: Moderated Model (Ho_5)

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 M + \beta_6 (X_1 \times M) + \beta_7 (X_2 \times M) + \beta_8 (X_3 \times M) + \beta_9 (X_4 \times M) + \varepsilon$$

Where:

Y = Loan performance of COMFIs

X_1 = Credit risk identification

X_2 = Credit risk assessment

X_3 = Credit policy

X_4 = Credit risk oversight

M = Government regulations (moderating variable)

$X_1 \times M$ = Interaction between credit risk identification and government regulations

$X_2 \times M$ = Interaction between credit risk assessment and government regulations

$X_3 \times M$ = Interaction between credit policy and government regulations

$X_4 \times M$ = Interaction between credit risk oversight and government regulations

β_0 = Constant term

$\beta_1 - \beta_9$ = Regression coefficients

ε = Error term

Models 1 to 4 permitted each null hypothesis to be tested independently, so that the statistical significance of each credit risk management practice could be established without the confounding influence of the remaining predictors. Model 5 established the joint explanatory power of the four practices. Model 6 tested Ho_5 by entering government regulations as a moderator together with its interaction with each independent variable. Moderation was inferred not from the joint relationship expressed in the main effects, but from the statistical significance of the individual interaction coefficients β_6 to β_9 and from the significance of the change in R^2 between Model 5 and Model 6. A significant positive interaction coefficient indicates that government regulation strengthens the relationship between the relevant practice and loan performance, a significant negative coefficient indicates that it weakens that relationship, and a non-significant coefficient indicates that no

moderating effect is present for that practice. All variables entering the interaction terms were mean-centred prior to the computation of the product terms in order to reduce non-essential multicollinearity.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the research findings and results of the study. Data analysis was conducted in line with the study objectives and variables. Descriptive statistics were used to summarize the responses through frequencies, percentages, means and standard deviations. The chapter also presents inferential statistics, including correlation and regression analysis, hypothesis testing and interpretations drawn from the findings.

4.2 Response Rate

The response rate was computed from the number of questionnaires distributed to the sampled credit personnel and the number returned fully completed. The results are presented in Table 4.1.

Table 4.1: Questionnaire Response Rate

Item	Frequency	% Response Rate
Returned	108	97.30
Unreturned and Partially Filled	3	2.70
Total	**111**	**100**

As shown in Table 4.1, a total of 111 questionnaires were distributed to the participants. Out of these, 108 questionnaires were duly completed and returned, while 3 were incomplete. Consequently, 108 questionnaires were included in the final analysis, representing a response rate of 97%. For survey-based research, a response rate above 50% is generally considered adequate for analysis and reporting (Mellahi & Harris, 2016), while response rates exceeding 80% are regarded as highly robust because they help minimize non-response bias (Babbie, 2021).

Therefore, the 97% response rate achieved in this study was sufficient for statistical analysis and enhanced the representativeness and validity of the study findings.

4.3 Reliability Test

The reliability of a research instrument measures how consistently it produces stable and predictable results. In this study, the reliability of the questionnaires was assessed using Cronbach's Alpha (α) with the help of SPSS. According to Taber (2018), Cronbach's Alpha values above 0.7 indicate acceptable internal consistency, meaning that the items within each construct reliably measure the same underlying concept. The results of the reliability test for each key variable in the study are presented in Table 4.2.

Table 4.2: Cronbach's Alpha Reliability Coefficients

Variable	Number of Items	Cronbach's Alpha (α)
Credit Risk Identification	8	0.72
Credit Risk Assessment	8	0.75
Credit Policy	8	0.78
Credit Risk Oversight	8	0.81
Government Regulations (Moderating Role)	8	0.79
Loan Performance	8	0.83
Average alpha		**0.850**

The Cronbach's alpha value for credit risk identification was 0.72, indicating acceptable internal consistency. The alpha value for credit risk assessment was 0.75, demonstrating that the items measuring this construct were reliable. Credit policy recorded a Cronbach's alpha of 0.78, suggesting good internal consistency among its measurement items. The reliability analysis further showed that credit risk oversight had a Cronbach's alpha of 0.81, reflecting a high level of

consistency. The alpha value for government regulations was 0.79, which also indicates good reliability. Finally, loan performance achieved a Cronbach's alpha of 0.83, signifying strong internal consistency.

Overall, all the Cronbach's alpha values exceeded the recommended threshold of 0.7, implying that the constructs measured were reliable and credible, thereby justifying progression to deeper stages of statistical analysis.

4.4 Demographic Characteristics

This section of the study presents the demographic characteristics of the sampled respondents. The analysis focuses on key background variables, including age, gender, position within the organization, level of education, years of experience in the credit-only microfinance sector, type of employment, organizational characteristics and geographical location. These demographic attributes provide important context for understanding the profile of the respondents and for interpreting the subsequent findings of the study.

4.4.1 Age Distribution of Respondents

Respondents were asked to indicate their age bracket, since age is associated with work experience and exposure to credit risk management practices. The distribution of their responses is presented in Figure 4.1.

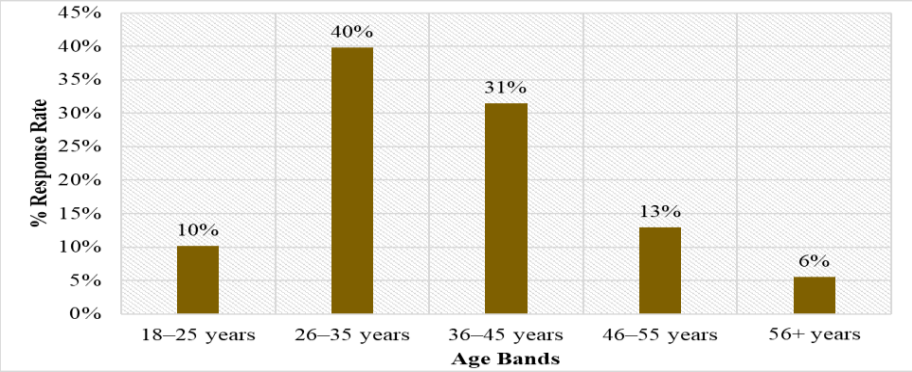

Figure 4.1: Age Distribution of Respondents

Figure 4.1 shows that most respondents, 40%, were between 26 and 35 years old, indicating that the majority of participants were young adults likely to be active in adopting or using new financial services, which can influence the study's findings on financial behaviour and technology adoption. This was followed by 31% of respondents in the 36–45 years age group, suggesting that a significant portion of the sample were mid-career adults, whose financial decisions might be influenced by family responsibilities and career stability. Respondents aged 46–55 made up 13% of the sample, highlighting a smaller but relevant group of experienced adults whose insights might reflect long-term financial habits. Those in the 18–25 years range accounted for 10%, representing young adults who may be less experienced financially but are more receptive to innovation. The smallest group consisted of respondents aged 56 years and older, at 6%, indicating that older adults were underrepresented, which may limit the generalizability of findings to this age bracket.

Overall, the age distribution shows that the study sample was dominated by younger and mid-aged adults (26–45 years), who are likely to be more engaged with financial innovations. This implies that the study's findings will largely reflect the perspectives and behaviors of these age groups, informing recommendations targeted at enhancing financial service adoption among the most active age cohorts.

4.4.2 Gender Distribution of the Respondents

The study sought to establish the gender composition of the respondents in order to determine whether the views of both men and women were represented. The results are presented in Figure 4.2.

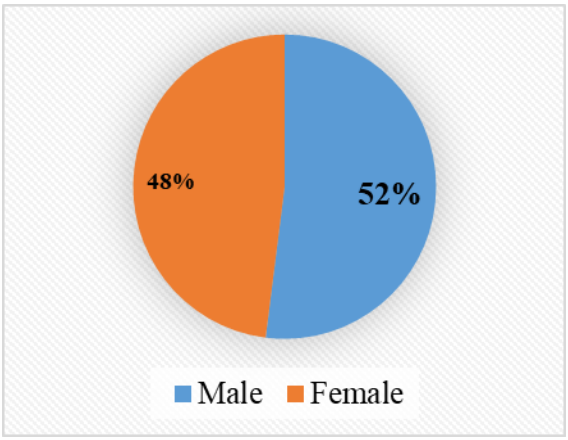

Figure 4.2: Gender Distribution of Respondents

Figure 4.2 shows that the majority of respondents, 52%, were male, while 48% were female. This indicates a nearly balanced gender representation, with only a slight male majority. The findings suggest that male perspectives may have marginally influenced responses on credit risk management practices and loan performance. However, the substantial representation of female respondents ensures that women's views, borrowing experiences, and risk perceptions were also adequately captured.

The gender distribution implies that the study's findings on the effect of credit risk management on loan performance are informed by perspectives from both men and women, allowing for more comprehensive recommendations. Understanding gender differences in credit behavior can help microfinance institutions design more effective risk management strategies that cater to both male and female clients, thereby improving overall loan performance.

4.4.3 Position within the Organization

Respondents were asked to indicate their position within their organizations, because the level at which a respondent works determines the credit risk management practices with which that respondent is directly involved. The results are presented in Figure 4.3.

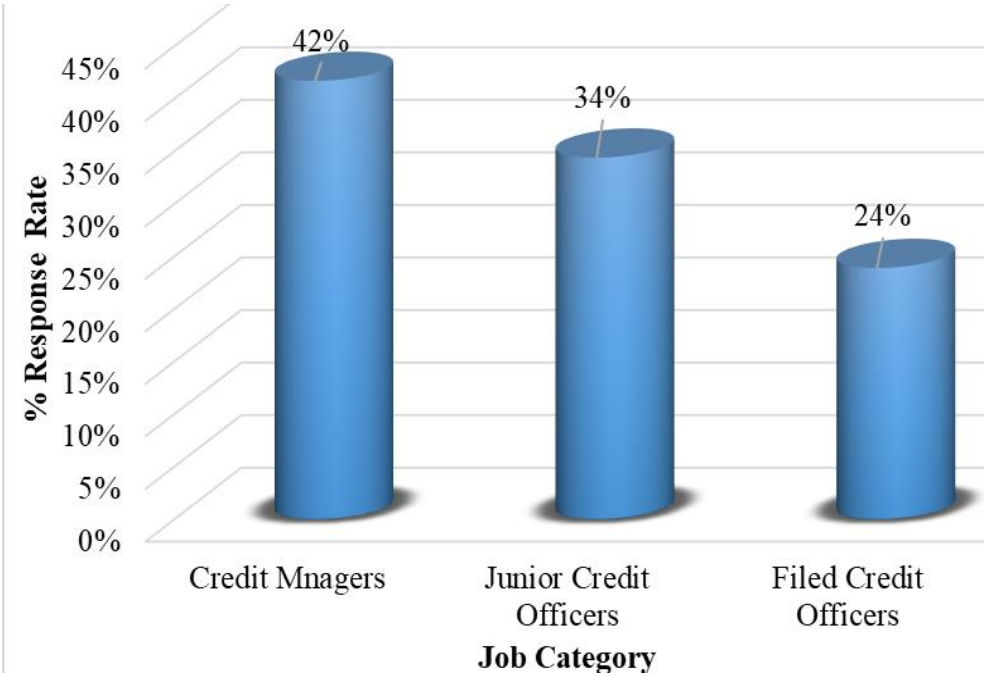

Figure 4.3: Distribution of Respondents by Position within the Organization

Figure 4.3 reveals that the largest group were junior credit officers, who made up 42% of the respondents. Field credit officers followed at 34%, while credit managers accounted for 24% of the total. These findings imply that the study integrates views from multiple organizational levels, combining operational, client-facing, and managerial perspectives. This is crucial for understanding the effect of credit risk management on loan performance, as it allows the study to consider both the implementation of credit policies and their outcomes on loan performance in credit-only microfinance institutions in Central Kenya.

4.4.4 Years of Experience in the Credit-Only Microfinance Sector

The study sought to determine the respondents' work experience in the credit-only microfinance sector, since experience shapes familiarity with credit appraisal, monitoring and recovery procedures. The results are presented in Figure 4.4.

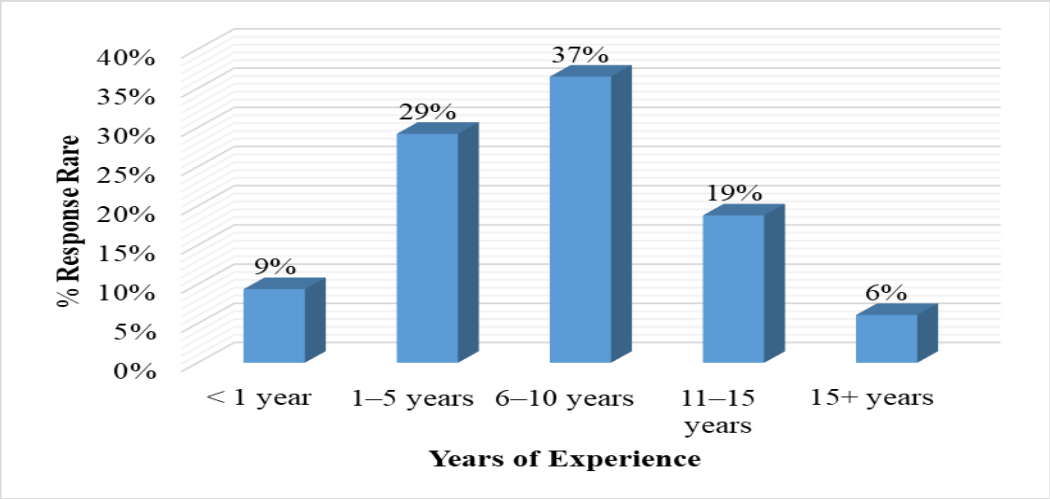

Figure 4.4: Respondents' Years of Experience in the COMFI Sector

As illustrated in Figure 4.4, the largest proportion of respondents (36%) had between 6–10 years of experience. This was followed by those with 1–5 years of experience at 29%, while 19% had 11–15 years of experience. A smaller proportion, 9%, reported having less than one year of experience, and only 6% had more than 15 years of experience in the sector.

These findings revealed that the study effectively captured a balanced mix of experience levels, combining operational knowledge, practical field insights, and managerial understanding. This diversity strengthens the analysis of how credit risk management affects loan performance in credit-only microfinance institutions in Central Kenya, as it integrates perspectives from both emerging and experienced personnel within the sector.

4.4.5 Education Level of Respondents

Respondents were asked to indicate their highest level of education, which reflects their capacity to understand and apply credit risk management procedures. The results are presented in Table 4.3.

Table 4.3: Distribution of Respondents by Level of Education

Education Level	Frequency (n)	% Freq.
High school diploma	5	5%
Certificate	15	14%
Diploma	26	24%
Bachelor's degree	50	46%
Master's degree	9	8%
Doctorate	3	3%
Total	**108**	**100**

As shown in Table 4.3, the majority of respondents (46%) held a bachelor's degree. Respondents with a diploma formed the second largest group at 24%, while certificate holders represented 15%. A further 8% had attained a master's degree, 5% reported high school diploma as their highest qualification, and the smallest proportion, 3%, held a doctorate.

These results suggest that the study captures a well-educated workforce whose levels of formal education support an informed understanding of credit risk management practices. This diversity in education enhances the credibility of the study's analysis of loan performance in credit-only microfinance institutions in Central Kenya, ensuring that recommendations are grounded in both practical experience and academic understanding.

4.4.6 Organization Size

The study sought to establish the size of the respondents' organizations, measured by the number of employees, as an indicator of institutional capacity to implement credit risk management practices. The results are presented in Table 4.4.

Table 4.4: Size of Respondents' Organizations by Number of Employees

Organization Size	Frequency (n)	% Freq.
Less than 10	10	9%
10–50	40	37%
51–100	30	28%
101–500	21	19%
More than 500	7	6%
Total	**108**	**100%**

As presented in Table 4.4, most respondents (37%) were drawn from organizations with 10–50 employees, followed by 28% from organizations with 51–100 employees. Respondents from organizations with 101–500 employees accounted for 19%, while those from very small organizations with fewer than 10 employees made up 9%. The least represented group, at 6%, came from organizations with more than 500 employees.

Overall, this distribution implies that the study's findings largely reflect the operational realities of small- and medium-sized credit-only microfinance institutions. This is significant in informing the study, as credit risk management practices and loan performance are often influenced by organizational size, resource availability and institutional structure. Consequently, the findings are particularly relevant for policy formulation and managerial decision-making within similarly sized microfinance institutions in Central Kenya.

4.4.7 Monthly Loan Portfolio Size

Respondents were asked to indicate the size of the monthly loan portfolio they managed, as an indicator of the scale of credit exposure handled by their institutions. The results are presented in Figure 4.5.

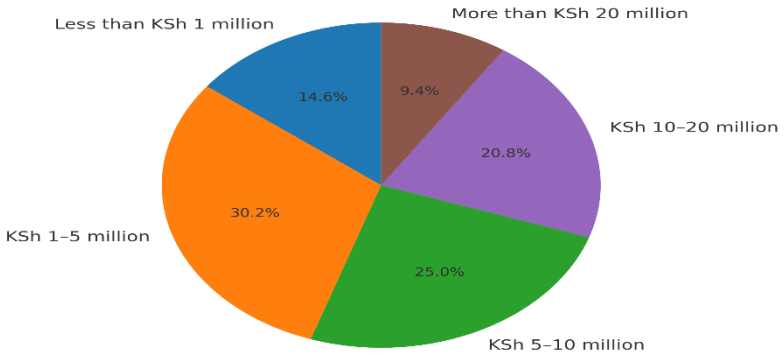

Figure 4.5: Monthly Loan Portfolio Size

Figure 4.5 indicates that the highest proportion of respondents (30.2%) managed monthly loan portfolios of KSh 1–5 million. This was followed by 25.0% whose portfolios ranged between KSh 5–10 million, while 20.8% handled KSh 10–20 million. In comparison, 14.6% managed portfolios below KSh 1 million, whereas the lowest proportion, 9.4%, reported monthly loan portfolios exceeding KSh 20 million.

The findings indicate that the study captures credit-only microfinance institutions operating across varying levels of loan portfolio size and credit exposure. This diversity directly informs the purpose of the study by enabling an assessment of how different credit risk management practices influence loan performance under varying levels of lending scale. Consequently, the results provide meaningful insights into the effectiveness of credit risk management in improving loan performance across small, medium, and large credit-only microfinance institutions in Central Kenya.

4.4.8 Duration of Organization's Operation in Credit-Only Microfinance

The study sought to establish how long the respondents' organizations had been operating in the credit-only microfinance sector, as institutional age reflects accumulated lending experience. The results are presented in Figure 4.6.

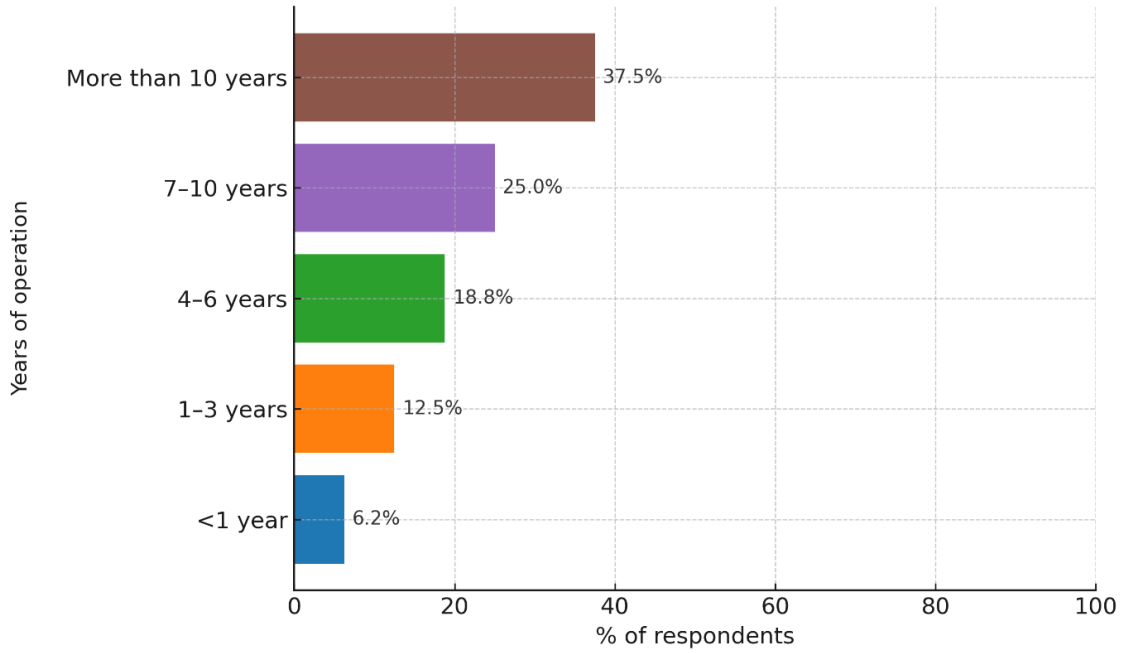

Figure 4.6: Duration of Organizations' Operation in Credit-Only Microfinance

As presented in Figure 4.6, the majority of organizations (37.5%) had been in operation for more than 10 years. A further 25.0% had operated for 7–10 years, while 18.8% had been in operation for 4–6 years. Smaller proportions were recorded among younger institutions, with 12.5% having operated for 1–3 years and only 6.2% for less than one year.

The findings suggests that the study largely draws evidence from mature and experienced credit-only microfinance institutions. This directly informs the purpose of the study by enabling an examination of how established credit risk management practices influence loan performance.

Consequently, the results provide credible insights into the relationship between credit risk management and loan performance among credit-only microfinance institutions in Central Kenya.

4.4.9 Type of Employment

Respondents were asked to indicate their terms of employment within their organizations, since the stability of employment affects continuity in credit management roles. The results are presented in Figure 4.7.



Figure 4.7: Respondents' Type of Employment

Figure 4.7 reveals that the majority of respondents were employed on a full-time basis, accounting for 62.5% of the total. Respondents on contractual terms made up 18.8%, while part-time employees represented 12.5%. The smallest group were those working as interns or temporary staff, who accounted for 6.2% of the respondents.

This distribution indicates that the study primarily draws insights from stable and experienced employees who are directly involved in credit management processes. Consequently, the credibility of the study's findings on the effect of credit risk management on loan performance in credit-only microfinance institutions in Central Kenya is enhanced, as the responses are informed by individuals with sustained exposure to institutional credit practices and operational realities.

4.4.10 Location of Respondents' Organizations

The study sought to establish the county in which each respondent's organization was located, in order to confirm that all four study counties were represented. The results are presented in Figure 4.8.

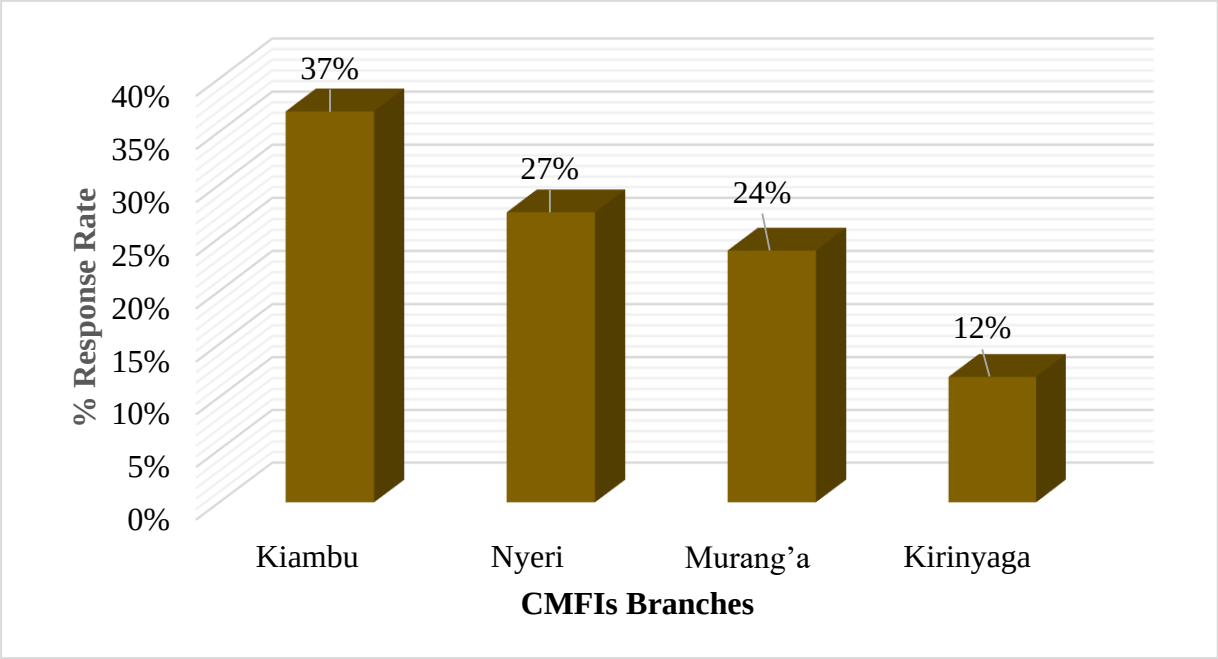

Figure 4.8: Location of Respondents' Organizations

Figure 4.8 reveals that the highest proportion of respondents were drawn from Kiambu County, accounting for 37% of the total. This was followed by Nyeri County with 27% and Murang'a County with 24%, while the smallest proportion, 12%, came from Kirinyaga County.

The findings indicate that the study captures geographical diversity within Central Kenya, encompassing both highly commercialized and predominantly agricultural regions. This regional variation directly informs the purpose of the study by allowing an assessment of how credit risk management practices affect loan performance across different economic and operational contexts. Consequently, the results provide more comprehensive and regionally relevant insights into the

effect of credit risk management on loan performance among credit-only microfinance institutions in Central Kenya.

4.5 Descriptive Statistics

This section presents the descriptive statistics for the study variables, namely credit risk identification, credit risk assessment, credit policy, credit risk oversight, government regulations and loan performance. Respondents rated each statement on a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5). For each variable, the frequencies and percentages of responses, the mean and the standard deviation of each statement are presented in a table, followed by an interpretation of the results, a thematic analysis of the open-ended responses and, where applicable, the evidence obtained from the interviews with credit managers.

4.5.1 Credit Risk Identification and Loan Performance

The first objective of the study was to assess the effect of credit risk identification on loan performance. Respondents were asked to indicate their level of agreement with eight statements on the practices their institutions use to identify credit risk before and after lending. The results are presented in Table 4.5.

Table 4.5: Descriptive Statistics for Credit Risk Identification

Statement	SD (1) n (%)	D (2) n (%)	N (3) n (%)	A (4) n (%)	SA (5) n (%)	Mean	Std. Dev
Our COMFI effectively uses credit reference bureau (CRB) reports when assessing loan applications.	3 (2.8%)	5 (4.6%)	9 (8.3%)	38 (35.2%)	53 (49.1%)	4.18	0.98
The information provided in loan application forms is thoroughly verified before loan approval.	2 (1.9%)	6 (5.6%)	11 (10.2%)	46 (42.6%)	43 (39.8%)	4.16	0.96
Our COMFI has a clear and consistent process for identifying potential credit risks in loan applications.	3 (2.8%)	7 (6.5%)	14 (13.0%)	49 (45.4%)	35 (32.4%)	4.07	0.97
Borrower credit history is a key factor in our loan approval process.	1 (0.9%)	5 (4.6%)	9 (8.3%)	34 (31.5%)	59 (54.6%)	4.25	0.88
Our COMFI utilizes data analytics to identify risk patterns in loan applications.	5 (4.6%)	8 (7.4%)	13 (12.0%)	47 (43.5%)	35 (32.4%)	3.99	1.07
Background checks on borrowers are conducted to identify any hidden risks.	4 (3.7%)	7 (6.5%)	12 (11.1%)	51 (47.2%)	34 (31.5%)	4.02	1.00
Our credit officers are trained to identify credit risk indicators in loan applications.	2 (1.9%)	6 (5.6%)	12 (11.1%)	45 (41.7%)	43 (39.8%)	4.15	0.97
External sources (e.g., government databases) are consulted to validate borrower information.	4 (3.7%)	7 (6.5%)	12 (11.1%)	46 (42.6%)	39 (36.1%)	4.04	1.03

The results in Table 4.5 indicate that most respondents agreed that COMFIs effectively use Credit Reference Bureau (CRB) reports in assessing loan applications, as reflected by a high level of agreement (49.1% strongly agree; 35.2% agree) and a mean score of 4.18 (SD = 0.98). This demonstrates that structured external credit information is central to credit risk management. By leveraging CRB data, COMFIs can identify high-risk clients, minimize adverse selection and make informed lending decisions. The finding aligns with Ali et al. (2022), who emphasized that structured credit information improves borrower assessment and reduces defaults. Both studies show that integrating CRB reports strengthens portfolio quality, reduces non-performing loans, and enhances institutional financial stability, illustrating the critical role of external verification in ensuring effective loan performance within credit-only microfinance institutions.

Regarding verification of loan application information, the results indicate that most respondents agreed that borrower details are thoroughly reviewed before loan approval, as reflected by a high level of agreement (39.8% strongly agree; 42.6% agree) and a mean score of 4.16 (SD = 0.96). This underscores COMFIs' commitment to internal controls, ensuring accuracy and completeness in borrower documentation. Thorough verification reduces the risk of lending to high-risk or misrepresented clients, thereby improving portfolio quality and loan performance. Busari (2023) similarly found that multi-indicator verification safeguards institutional resources and prevents defaults. Both studies highlight that careful appraisal of borrower information is essential for effective credit risk management, enabling COMFIs to make prudent lending decisions, strengthen operational efficiency, and maintain overall financial stability in the microfinance sector.

With respect to structured processes for identifying potential credit risks, the results indicate that most respondents agreed that COMFIs have institutionalized frameworks for systematically

evaluating borrower risk, as reflected by a high level of agreement (32.4% strongly agree; 45.4% agree) and a mean score of 4.07 (SD = 0.97). This finding shows that COMFIs have institutionalized frameworks for systematically evaluating borrower risk, enhancing consistency and fairness in lending decisions. Ali et al. (2022) and Muindi and Ambrose (2023) similarly emphasize that formalized risk identification minimizes subjectivity and supports predictive portfolio management. Both studies indicate that structured procedures improve loan recovery rates, mitigate potential losses from poorly evaluated applicants, and ensure sustainable lending. The adoption of consistent risk assessment frameworks demonstrates how COMFIs can institutionalize credit evaluation processes to support overall loan performance and maintain financial stability.

The results reveal that most respondents agreed that borrower credit history is a key determinant in loan approval, as reflected by a high level of agreement (54.6% strongly agree; 31.5% agree) and a mean score of 4.25 (SD = 0.88). This emphasizes the reliance on historical repayment behavior to assess borrower reliability. By prioritizing credit history, COMFIs can anticipate default risks, differentiate high- from low-risk clients and reduce non-performing loans. Muindi and Ambrose (2023) support these findings, showing that comprehensive profiling enhances predictability of loan performance. Both studies demonstrate that integrating credit history into risk assessment frameworks strengthens portfolio quality, ensures prudent lending and promotes institutional financial stability, highlighting historical repayment behavior as a cornerstone of effective credit risk management in credit-only microfinance institutions.

The findings indicate that most respondents agreed that data analytics tools are used to identify risk patterns, as reflected by a high level of agreement (32.4% strongly agree; 43.5% agree) and a

mean score of 3.99 (SD = 1.07). This suggests that COMFIs increasingly adopt modern analytical approaches to detect subtle trends and anticipate borrower defaults. Acheampong and Elshandidy (2021) similarly report that combining hard and soft information enhances the accuracy of risk evaluation. Both studies demonstrate that analytical tools improve predictive precision, enable proactive management of high-risk borrowers and optimize portfolio performance. Integrating such tools highlights an evolution in credit risk assessment practices, bridging traditional methods and emerging technology to improve efficiency and loan outcomes within credit-only microfinance institutions.

Regarding borrower background checks, the results indicate that most respondents agreed that background checks are conducted to identify hidden risks, as reflected by a high level of agreement (31.5% strongly agree; 47.2% agree) and a mean score of 4.02 (SD = 1.00). Routine checks reduce exposure to fraudulent or high-risk clients, strengthening loan portfolios and promoting responsible lending practices. Busari (2023) similarly found that comprehensive vetting enhances the accuracy of credit assessments and mitigates default risks. Both studies underscore the importance of proactive borrower verification as a central component of credit risk management, demonstrating that consistent background checks enhance portfolio security and support sustainable loan performance within credit-only microfinance institutions in Central Kenya.

The results in Table 4.5 show that most respondents agreed that credit officers are adequately trained to identify credit risk indicators in loan applications, as reflected by a high level of agreement (39.8% strongly agree; 41.7% agree) and a mean score of 4.15 (SD = 0.97). In the context of credit-only microfinance institutions, this suggests that staff competence plays an important role in strengthening credit appraisal and reducing the likelihood of poor lending

decisions. Well-trained credit officers are better able to detect early warning signs, assess borrower reliability, and apply institutional lending procedures consistently. This finding agrees with Chhetri (2022) and Karanja and Simiyu (2022), who emphasized that staff competence and continuous capacity-building are critical in minimizing defaults. Therefore, investment in credit officer training enhances decision-making, reduces appraisal errors, and improves loan performance among credit-only microfinance institutions.

Finally, regarding external validation of borrower information, the results indicate that most respondents agreed that external sources, such as government databases, are consulted to validate borrower information, as reflected by a high level of agreement (36.1% strongly agree; 42.6% agree) and a mean score of 4.04 (SD = 1.03). This illustrates that COMFIs consult independent sources, such as government databases, to verify borrower details and strengthen risk assessments. Ali et al. (2022) similarly found that integrating external data reduces information asymmetry, mitigates over-indebtedness, and enhances loan performance. Both studies suggest that combining internal and external data improves accuracy, enhances portfolio stability, and supports prudent lending. The use of external validation highlights its central role in effective credit risk management, enabling COMFIs to make informed lending decisions while maintaining sustainable financial outcomes.

Respondents were asked, through an open-ended question, to identify the challenges encountered in effectively identifying credit risks within their credit-only microfinance institutions. The responses were analyzed using thematic content analysis, where they were reviewed, coded and grouped into five key themes: incomplete or inaccurate borrower information, limited access to formal credit histories, constrained technological resources, difficulty assessing informal or small-

scale business clients and staff capacity constraints. Based on the coding, incomplete or inaccurate borrower information was the most cited challenge, reported by 32 respondents (29.6%), followed by limited access to formal credit histories, mentioned by 27 respondents (25.0%). Constrained technological resources were reported by 21 respondents (19.4%), while 18 respondents (16.7%) noted difficulty assessing informal or small-scale business clients due to scarce financial records and reliance on subjective indicators such as community reputation. Lastly, staff capacity constraints were reported by 10 respondents (9.3%). These findings suggest that COMFIs operate in a high-uncertainty environment where information gaps, weak credit histories, limited technology and inadequate staff capacity may increase default risk and compromise loan performance, consistent with Karanja and Simiyu (2022).

To address these challenges, respondents' recommendations were also analyzed using thematic content analysis and grouped into four main themes: adoption of advanced analytical tools, integration of mobile banking and transactional data, use of credit scoring systems and fintech partnerships and structured training for credit officers. The most cited recommendation was adopting advanced analytical tools, reported by 34 respondents (31.5%), followed by integration of mobile banking and transactional data, mentioned by 28 respondents (25.9%). Further, 25 respondents (23.1%) recommended use of credit scoring systems and partnerships with fintech platforms, while 21 respondents (19.4%) emphasized structured training for credit officers. These recommendations suggest that COMFIs need to combine technological innovation with human capacity development to improve the accuracy and efficiency of credit evaluation. The findings align with Solanki (2023) and Yu (2023), who demonstrated that data analytics and predictive models enhance credit.

The interview schedule administered to credit managers produced evidence consistent with these responses. Findings from Credit Manager 11 indicated that “using both formal credit reports and community knowledge of borrowers has reduced the risk of lending to serial defaulters.” Findings from Credit Manager 14 revealed that “background verification allows us to separate genuine borrowers from opportunistic ones before disbursing loans.” Similarly, Credit Manager 19 observed that “digital footprints and mobile transaction histories have become powerful tools in profiling clients accurately, which lowers exposure to risky borrowers.”

In line with this, Credit Manager 23 emphasized that “credit checks, when combined with field visits, give us confidence in who we are lending to.” Similarly, Credit Manager 29 added that “integrating data analytics into our credit vetting has improved the quality of our loan books significantly.” These accounts indicate that identification in practice combines documentary verification with local knowledge and, increasingly, digital data sources.

4.5.2 Credit Risk Assessment and Loan Performance

The second objective of the study was to examine the effect of credit risk assessment on loan performance. Respondents were asked to indicate their level of agreement with eight statements on how their institutions appraise the creditworthiness of borrowers before approving loans. The results are presented in Table 4.6.

Table 4.6: Descriptive Statistics for Credit Risk Assessment

Statement	SD (1) n (%)	D (2) n (%)	N (3) n (%)	A (4) n (%)	SA (5) n (%)	Mean	Std. Dev
Business risks are carefully reviewed before approving loans	2 (1.9%)	4 (3.7%)	10 (9.3%)	45 (41.7%)	47 (43.5%)	4.23	0.88

Environmental risks are adequately considered in the loan assessment	1 (0.9%)	6 (5.6%)	16 (14.8%)	41 (38.0%)	44 (40.7%)	4.17	0.90
Borrowers' financial stability and credit history are critically assessed	3 (2.8%)	5 (4.6%)	15 (13.9%)	40 (37.0%)	45 (41.7%)	4.12	0.99
The borrower's business plan is evaluated as part of the loan assessment	2 (1.9%)	7 (6.5%)	12 (11.1%)	41 (38.0%)	46 (42.6%)	4.15	0.96
Our COMFI employs comprehensive risk assessment tools for loan applications	4 (3.7%)	8 (7.4%)	18 (16.7%)	38 (35.2%)	40 (37.0%)	4.01	1.07
Collateral valuation is an essential component of credit risk assessment	3 (2.8%)	6 (5.6%)	14 (13.0%)	43 (39.8%)	42 (38.9%)	4.10	0.98
Our COMFI conducts regular training on risk assessment for credit officers	2 (1.9%)	5 (4.6%)	20 (18.5%)	36 (33.3%)	45 (41.7%)	4.14	0.95
Borrowers' repayment abilities are assessed using historical loan performance data	3 (2.8%)	7 (6.5%)	15 (13.9%)	41 (38.0%)	42 (38.9%)	4.06	1.00

The results in Table 4.6 indicate that most respondents agreed that business risks are carefully reviewed before approving loans, as reflected by a high level of agreement (43.5% strongly agree; 41.7% agree) and a mean score of 4.23 (SD = 0.88). In the context of COMFIs, this suggests that reviewing business risks helps institutions assess the viability of borrowers' income-generating activities before credit approval. This is important because weak business performance may reduce repayment capacity and increase default risk. This finding aligns with Busari (2023), who emphasized that careful borrower assessment safeguards institutional resources and reduces loan default.

The findings further show that most respondents agreed that environmental risks are adequately considered in loan assessment, as reflected by a high level of agreement (40.7% strongly agree;

38.0% agree) and a mean score of 4.17 (SD = 0.90). This implies that COMFIs consider external conditions that may affect borrowers' ability to repay loans, such as market changes, economic conditions, and sector-specific risks. Considering such risks strengthens credit decisions and supports loan performance. This finding is consistent with Agaba, Tamwesigire and Eton (2022), who noted that broader risk assessment practices improve credit management and loan recovery.

Regarding borrowers' financial stability and credit history, the results indicate that most respondents agreed that these factors are critically assessed, as shown by a high level of agreement (41.7% strongly agree; 37.0% agree) and a mean score of 4.12 (SD = 0.99). In the context of COMFIs, this suggests that borrower profiling is central to determining repayment ability and creditworthiness. Assessing financial stability and past repayment behavior helps institutions distinguish between low-risk and high-risk borrowers. This finding agrees with Muindi and Ambrose (2023), who found that comprehensive borrower profiling enhances the predictability of loan performance.

The results also indicate that most respondents agreed that the borrower's business plan is evaluated as part of loan assessment, as reflected by a high level of agreement (42.6% strongly agree; 38.0% agree) and a mean score of 4.15 (SD = 0.96). This suggests that COMFIs assess the feasibility of borrowers' proposed business activities and projected returns before approving loans. In practice, this helps determine whether the borrower has a realistic capacity to generate income and repay the loan. This finding aligns with Busari (2023), who emphasized that careful evaluation of borrower information improves lending accuracy and reduces default exposure.

Furthermore, concerning comprehensive risk assessment tools, the findings suggest that most respondents agreed that COMFIs employ these tools when evaluating loan applications, as shown

by 37.0% who strongly agreed and 35.2% who agreed, with a mean score of 4.01 (SD = 1.07). This implies that structured tools support consistency and objectivity in credit assessment. However, the relatively lower mean score suggests some variation in their application across institutions. These findings are consistent with Acheampong and Elshandidy (2021), who noted that analytical tools improve the accuracy of risk evaluation and strengthen credit decision-making.

Regarding collateral valuation, the results indicate that most respondents agreed that collateral valuation is an essential component of credit risk assessment, as reflected by a high level of agreement (38.9% strongly agree; 39.8% agree) and a mean score of 4.10 (SD = 0.98). In the context of credit-only microfinance institutions, collateral valuation provides a safeguard against potential loan default by improving recovery prospects where borrowers fail to repay. This finding aligns with Busari (2023), who observed that comprehensive borrower vetting and security assessment help reduce credit losses and protect loan portfolios.

The findings further show that most respondents agreed that COMFIs conduct regular training on risk assessment for credit officers, as reflected by a high level of agreement (41.7% strongly agree; 33.3% agree) and a mean score of 4.14 (SD = 0.95). This suggests that staff capacity development is an important part of effective credit risk assessment. Trained credit officers are better able to interpret borrower information, identify warning signs, and apply risk assessment procedures consistently. This finding agrees with Chhetri (2022) and Karanja and Simiyu (2022), who emphasized that staff competence and continuous training are critical in minimizing defaults.

Finally, most respondents agreed that borrowers' repayment abilities are assessed using historical loan performance data, as reflected by a high level of agreement (38.9% strongly agree; 38.0% agree) and a mean score of 4.06 (SD = 1.00). This suggests that COMFIs rely on previous

repayment patterns to predict future repayment behavior and identify likely default risks. The use of historical loan performance data supports evidence-based credit decisions and improves portfolio quality. This finding is consistent with Muindi and Ambrose (2023), who noted that historical borrower profiling enhances the predictability of loan performance and supports prudent lending.

Respondents were asked, through an open-ended question, to indicate how their COMFIs enhance the accuracy of credit risk assessment. The responses were analyzed using thematic content analysis, where they were reviewed, coded and grouped into four key themes: systematic evaluation of borrower information, use of external data sources, internal verification processes, and staff expertise. Based on the coding, systematic evaluation of borrower information was the most cited approach, reported by 34 respondents (31.5%), followed by use of external data sources such as CRB reports and validation databases, mentioned by 29 respondents (26.9%). Internal verification processes, including reviewing business plans, projected returns, and supporting documents, were reported by 24 respondents (22.2%), while staff expertise was cited by 21 respondents (19.4%). These findings suggest that COMFIs enhance credit risk assessment accuracy by combining structured data, internal verification, and professional judgment, consistent with Busari (2023) and Muindi and Ambrose (2023).

Respondents were also asked how their COMFIs balance thorough risk assessment with timely loan processing. The responses were analyzed using thematic content analysis and grouped into four key themes: structured procedures, technology-assisted workflows, standardized evaluation frameworks, and staff capacity. Based on the coding, structured procedures were the most cited strategy, reported by 33 respondents (30.6%), followed by technology-assisted workflows,

mentioned by 30 respondents (27.8%). Standardized evaluation frameworks, including checklists for document verification and borrower profiling, were reported by 25 respondents (23.1%), while staff capacity was cited by 20 respondents (18.5%). These findings indicate that COMFIs balance speed and accuracy by integrating technology with human expertise, thereby improving operational efficiency, client satisfaction, and loan performance, consistent with Solanki (2023) and Yu (2023).

The interview schedule produced supporting evidence on assessment practice. Findings from Credit Manager 12 revealed that "a thorough assessment process helps us understand the borrower's ability and willingness to repay, which reduces cases of default." Similarly, Credit Manager 18 noted that "when we carefully evaluate clients before issuing loans, we minimize risks and improve repayment rates." These perspectives emphasize that comprehensive assessment enables institutions to screen borrowers effectively and reduce exposure to high-risk clients.

Further support is provided by Credit Manager 21, who observed that "our improved assessment procedures have helped us avoid lending to high-risk clients, which has significantly reduced non-performing loans." As noted by Credit Manager 15, "consistent application of assessment guidelines ensures that all clients are evaluated fairly and objectively, leading to better credit decisions."

4.5.3 Credit Policy and Loan Performance

The third objective of the study was to evaluate the effect of credit policy on loan performance. Respondents were asked to indicate their level of agreement with eight statements on the lending guidelines, procedures and risk-sharing arrangements applied by their institutions. The results are presented in Table 4.7.

Table 4.7: Descriptive Statistics for Credit Policy

Statement	SD (1) n (%)	D (2) n (%)	N (3) n (%)	A (4) n (%)	SA (5) n (%)	Mean	Std. Dev
Our COMFI has effective credit evaluation strategies to minimize loan defaults.	3 (2.8%)	6 (5.6%)	12 (11.1%)	50 (46.3%)	37 (34.3%)	4.06	0.95
Credit monitoring practices in our COMFI help detect potential loan defaults early.	1 (0.9%)	4 (3.7%)	10 (9.3%)	35 (32.4%)	58 (53.7%)	4.36	0.81
Our credit procedures guide the loan approval and management processes effectively.	2 (1.9%)	5 (4.6%)	15 (13.9%)	52 (48.1%)	34 (31.5%)	4.09	0.92
We update our credit policies regularly to reflect changes in risks.	2 (1.9%)	6 (5.6%)	12 (11.1%)	38 (35.2%)	50 (46.3%)	4.28	0.99
Our COMFI offers diverse loan products to mitigate risk exposure.	3 (2.8%)	7 (6.5%)	18 (16.7%)	50 (46.3%)	30 (27.8%)	4.07	0.94
Loan restructuring options are provided to assist at-risk borrowers.	2 (1.9%)	5 (4.6%)	12 (11.1%)	28 (25.9%)	61 (56.5%)	4.38	0.84
We collaborate with external partners to share credit risks on large loans.	3 (2.8%)	7 (6.5%)	14 (13.0%)	30 (27.8%)	54 (50.0%)	4.32	0.88
We have sufficient reserves to absorb losses from defaulted loans.	4 (3.7%)	8 (7.4%)	20 (18.5%)	49 (45.4%)	27 (25.0%)	4.05	0.96

The results in Table 4.7 show that most respondents agreed that their COMFI has effective credit evaluation strategies to minimize loan defaults, as reflected by a high level of agreement (34.3%

strongly agree; 46.3% agree) and a mean score of 4.06 (SD = 0.95). This indicates that structured evaluation of borrower information is central to minimizing loan defaults. By applying clear procedures and lending guidelines, COMFIs can anticipate high-risk clients, assess repayment capacity and ensure prudent loan approvals. These practices enhance portfolio quality, reduce non-performing loans and strengthen institutional financial stability. The finding aligns with Agola and Tonny (2023), who noted that well-structured credit evaluation and risk management policies significantly improve loan performance and reduce default rates in credit-only microfinance institutions. Both studies underscore the importance of systematic credit appraisal in supporting sustainable lending and overall financial efficiency.

Regarding credit monitoring practices, the results indicate that most respondents agreed that ongoing surveillance helps detect potential defaults early, as reflected by a high level of agreement (53.7% strongly agree; 32.4% agree) and a mean score of 4.36 (SD = 0.81). This demonstrates that continuous oversight of loan portfolios allows COMFIs to identify early signs of repayment challenges and intervene proactively. Timely actions, such as reminders, repayment restructuring, or follow-ups, mitigate the risk of non-performing loans and protect institutional resources. These findings align with Mbithi and Ogilo (2023), who emphasized that proactive portfolio monitoring enhances financial stability and ensures sustainable loan performance. Both studies highlight that integrating continuous monitoring into credit policy strengthens risk management and contributes to institutional resilience within credit-only microfinance institutions.

The results further indicate that most respondents agreed that credit procedures effectively guide loan approval and management processes, as reflected by a high level of agreement (31.5% strongly agree; 48.1% agree) and a mean score of 4.09 (SD = 0.92). This suggests that formalized procedures enhance consistency and fairness when evaluating borrower applications, reducing

subjectivity and errors. By standardizing the loan approval process, COMFIs ensure predictable loan performance, support staff adherence to best practices, and maintain operational efficiency. These findings are consistent with Kimondo and Nicolette (2023), who reported that clearly defined credit procedures provide a robust framework for managing loan portfolios and improving institutional outcomes. Both studies demonstrate that procedural clarity underpins prudent lending, reducing default risks and reinforcing portfolio stability.

With respect to updating credit policies, the findings show that most respondents agreed that policies are regularly revised to reflect emerging financial risks, as reflected by a high level of agreement (46.3% strongly agree; 35.2% agree) and a mean score of 4.28 (SD = 0.90). This highlights the importance of proactive policy adjustments in responding to changing economic and market conditions. By keeping lending criteria relevant, COMFIs can manage evolving threats, reduce exposure to non-performing loans, and maintain portfolio quality. Agaba et al. (2022) similarly observed that regularly updating credit frameworks strengthens financial resilience and ensures continued loan performance. Both studies indicate that dynamic policy management is essential for sustaining institutional stability and mitigating credit risk in microfinance operations.

The results also reveal that most respondents agreed that their COMFI offers diverse loan products to mitigate risk exposure, as reflected by a high level of agreement (27.8% strongly agree; 46.3% agree) and a mean score of 4.07 (SD = 0.94). Offering a variety of loan types allows institutions to distribute risk across different borrowers and purposes, reducing concentration risk and enhancing repayment reliability. Diversified products align repayment schedules with client capacities, improve satisfaction and expand market reach. Mutegi et al. (2018) similarly highlighted that product diversification strengthens portfolio performance and supports financial

sustainability. Both studies emphasize that tailoring loan offerings to client needs is a key strategy in managing institutional risk and enhancing overall loan outcomes.

Regarding loan restructuring, the results indicate that most respondents agreed that at-risk borrowers are supported through flexible repayment options, as reflected by a high level of agreement (56.5% strongly agree; 25.9% agree) and a mean score of 4.38 (SD = 0.84). Restructuring mechanisms, such as adjusted repayment schedules or partial deferrals, allow borrowers to meet obligations while safeguarding institutional resources. This proactive support reduces defaults, maintains portfolio quality and enhances client relationships. Kipkirui and Omagwa (2018) similarly found that providing restructuring options improves loan recovery and overall financial performance. Both studies underscore the role of adaptive credit management in promoting institutional resilience and sustaining loan portfolio health.

The findings further indicate that most respondents agreed that COMFIs collaborate with external partners to share credit risks on large loans, as reflected by a high level of agreement (50.0% strongly agree; 27.8% agree) and a mean score of 4.32 (SD = 0.88). Partnering with other institutions reduces exposure to high-risk loans, enables larger lending, and spreads potential losses across multiple stakeholders. Agola and Tonny (2023) also observed that collaborative risk-sharing improves loan recovery rates and strengthens financial stability. Both studies demonstrate that such partnerships enhance institutional resilience, promote prudent lending and contribute to sustainable portfolio performance within credit-only microfinance institutions.

Finally, the results show that most respondents agreed that their COMFI maintains sufficient reserves to absorb losses from defaulted loans, as reflected by a high level of agreement (25.0% strongly agree; 45.4% agree) and a mean score of 4.05 (SD = 0.96). Maintaining financial buffers safeguards liquidity, ensures operational continuity, and protects against unforeseen borrower

defaults. Mbithi and Ogilo (2023) similarly emphasized that reserve management is critical for sustaining institutional stability and long-term loan performance. Both studies highlight that integrating reserve strategies into credit policy strengthens financial resilience, maintains client confidence, and supports the sustainable performance of credit-only microfinance institutions.

Respondents were asked, through an open-ended question, to indicate the strategies their COMFIs use to manage credit risk and enhance loan performance. The responses were analyzed using thematic content analysis, where they were reviewed, coded and grouped into five key themes: structured credit evaluation procedures, strict adherence to lending policies, periodic borrower monitoring, portfolio diversification, and timely loan restructuring. Based on the coding, structured credit evaluation procedures were the most cited strategy, reported by 31 respondents (28.7%), followed by strict adherence to lending policies, mentioned by 26 respondents (24.1%). Periodic borrower monitoring was reported by 22 respondents (20.4%), while portfolio diversification was cited by 16 respondents (14.8%). Timely loan restructuring was mentioned by 13 respondents (12.0%). These findings suggest that COMFIs manage credit risk through disciplined appraisal, continuous monitoring and proactive borrower support, consistent with Agola and Tonny (2023) and Kipkirui and Omagwa (2018).

Additionally, respondents were asked to indicate the role of external credit reference tools in mitigating credit risks. The responses were analyzed thematically and grouped into three main themes: use of CRB reports, use of government databases, and integration of external data with internal assessments. Based on the coding, use of CRB reports was the most cited theme, reported by 45 respondents (41.7%), followed by integration of external data with internal assessments, mentioned by 35 respondents (32.4%). Use of government databases was cited by 28 respondents (25.9%). These findings indicate that COMFIs rely on external verification tools to confirm

borrower credit histories, identify high-risk clients, and reduce over-indebtedness, thereby enhancing portfolio quality and sustainable loan performance, consistent with Ali, Gueyie and Chrysostome (2022).

The interview evidence reinforced these responses. Credit Manager 12 stated that "policies give us a clear framework, and when we follow them, the chances of default reduce drastically," suggesting that structured lending rules improve repayment discipline. Credit Manager 14 supported this by observing that "strict adherence to credit policies ensures that all borrowers are evaluated uniformly, which reduces inconsistencies in lending decisions." Credit Manager 20 confirmed this by stating that "credit policy acts as a guide that controls how loans are approved, ensuring only qualified borrowers are financed."

4.5.4 Credit Risk Oversight and Loan Performance

The fourth objective of the study was to analyse the effect of credit risk oversight on loan performance. Respondents were asked to indicate their level of agreement with eight statements on the monitoring and review of loans after disbursement. The results are presented in Table 4.8.

Table 4.8: Descriptive Statistics for Credit Risk Oversight

Statement	SD (1) n (%)	D (2) n (%)	N (3) n (%)	A (4) n (%)	SA (5) n (%)	Mean	Std. Dev
Our COMFI has effective monitoring systems to track loan performance post-disbursement.	2 (1.9%)	4 (3.7%)	12 (11.1%)	55 (50.9%)	35 (32.4%)	4.11	0.92
Regular credit limit reviews are conducted based on borrower performance.	1 (0.9%)	3 (2.8%)	10 (9.3%)	38 (35.2%)	56 (51.9%)	4.39	0.83
Loan performance data is analyzed frequently to identify risk trends.	3 (2.8%)	5 (4.6%)	14 (13.0%)	50 (46.3%)	36 (33.3%)	4.16	0.91

Our COMFI has a team dedicated to ongoing credit risk monitoring and oversight.	2 (1.9%)	4 (3.7%)	11 (10.2%)	35 (32.4%)	56 (51.9%)	4.39	0.84
Corrective actions are promptly taken when risks are identified.	1 (0.9%)	3 (2.8%)	13 (12.0%)	52 (48.1%)	39 (36.1%)	4.2	0.88
Our COMFI collaborates with external experts to improve credit oversight.	4 (3.7%)	5 (4.6%)	15 (13.9%)	38 (35.2%)	46 (42.6%)	4.13	0.96
Credit oversight procedures are adapted based on changes in market conditions.	2 (1.9%)	4 (3.7%)	12 (11.1%)	36 (33.3%)	54 (50.0%)	4.34	0.86
We use feedback from previous loans to improve future credit oversight.	3 (2.8%)	6 (5.6%)	14 (13.0%)	50 (46.3%)	35 (32.4%)	4.11	0.92

The results in Table 4.8 show that most respondents agreed that their COMFI has effective monitoring systems to track loan performance post-disbursement, as reflected by a high level of agreement (50.9% agree; 35.2% strongly agree) and a mean score of 4.11 (SD = 0.92). This demonstrates that systematic post-disbursement monitoring is essential for early detection of repayment challenges. By consistently tracking loan performance, COMFIs can identify high-risk borrowers and implement corrective actions promptly. These findings align with Agaba et al. (2022), who emphasized that structured credit policies enhance consistent lending, thorough borrower vetting and reduction of non-performing loans. Both studies underscore that effective monitoring systems strengthen portfolio quality and institutional financial stability.

The findings further show that most respondents agreed that regular credit limit reviews are conducted based on borrower performance, as reflected by a high level of agreement (51.9% strongly agree; 32.4% agree) and a mean score of 4.39 (SD = 0.83). This highlights the importance of proactive evaluation of borrowers' repayment capacity to mitigate over-indebtedness and potential defaults. Continuous review ensures that lending decisions remain aligned with clients'

evolving financial situations. This finding is consistent with Muindi and Ambrose (2023), who noted that clear credit assessment policies improve portfolio quality and reduce default risks. Both studies demonstrate that periodic credit limit reviews enhance repayment rates and institutional stability.

The results also indicate that most respondents agreed that loan performance data is analyzed frequently to identify risk trends, as reflected by a high level of agreement (46.3% agree; 38.0% strongly agree) and a mean score of 4.16 (SD = 0.91). Frequent analysis of repayment behavior allows COMFIs to detect potential defaults early and implement timely interventions. These findings align with Wafula (2023), who highlighted that structured risk assessment frameworks are strongly associated with improved loan performance. Both studies emphasize that data-driven oversight strengthens portfolio recovery and institutional sustainability.

Similarly, the findings show that most respondents agreed that their COMFI has a dedicated team for ongoing credit risk monitoring and oversight, as reflected by a high level of agreement (51.9% strongly agree; 33.3% agree) and a mean score of 4.39 (SD = 0.84). This underscores the importance of specialized personnel in ensuring consistent monitoring and prompt implementation of corrective measures. These findings are supported by Olatunbosun et al. (2022), who reported that structured monitoring and collection policies reduce defaults and improve portfolio quality. Both studies highlight that dedicated oversight teams enhance institutional resilience and loan performance.

The results further reveal that most respondents agreed that corrective actions are promptly taken when risks are identified, as reflected by a high level of agreement (48.1% agree; 38.0% strongly agree) and a mean score of 4.20 (SD = 0.88). Timely interventions are critical in preventing

escalation of credit risk and safeguarding institutional resources. These findings align with Ndonga and Jediddah (2017), who emphasized that prompt adherence to risk management frameworks improves loan recovery and operational efficiency. Both studies indicate that proactive intervention strengthens portfolio quality and reduces default rates.

In addition, most respondents agreed that their COMFI collaborates with external experts to improve credit oversight, as reflected by a high level of agreement (42.6% strongly agree; 38.0% agree) and a mean score of 4.13 (SD = 0.96). Engaging external expertise enhances risk evaluation accuracy and provides additional insights into complex borrower profiles. These findings correspond with Solanki (2023) and Yu (2023), who found that integrating expert knowledge and analytical tools improves credit assessment precision. Both studies demonstrate that external collaboration enhances predictive capacity and reduces loan defaults.

The findings also show that most respondents agreed that credit oversight procedures are adapted based on changes in market conditions, as reflected by a high level of agreement (50.0% strongly agree; 35.2% agree) and a mean score of 4.34 (SD = 0.86). This indicates that dynamic adjustment of oversight practices is essential in responding to economic fluctuations and regulatory changes. These findings align with Chiamaka (2023) and Boateng et al. (2024), who highlighted that economic variability requires flexible credit management strategies. Both studies emphasize that adaptive oversight supports sustained portfolio performance and institutional stability.

Finally, the results indicate that most respondents agreed that feedback from previous loans is used to improve future credit oversight, as reflected by a high level of agreement (46.3% agree; 35.2% strongly agree) and a mean score of 4.11 (SD = 0.92). This demonstrates that learning from past loan performance enhances risk management practices and improves decision-making. These

findings correspond with Kahihu et al. (2021), who noted that feedback mechanisms strengthen credit assessment and reduce sector-specific vulnerabilities. Both studies underscore that continuous learning improves loan performance and supports sustainable financial outcomes.

Respondents were asked, through an open-ended question, to indicate the loan monitoring practices their COMFIs use to manage emerging risks after loan disbursement. The responses were analyzed using thematic content analysis, where they were reviewed, coded, and grouped into four key themes: regular tracking of repayment behavior, portfolio reviews, use of early-warning indicators, and timely intervention measures. Based on the coding, regular tracking of repayment behavior was the most cited practice, reported by 36 respondents (33.3%), followed by portfolio reviews, mentioned by 29 respondents (26.9%). Use of early-warning indicators such as missed payments or irregular transaction patterns was reported by 24 respondents (22.2%), while timely intervention measures, including reminders, repayment restructuring and customized follow-ups, were cited by 19 respondents (17.6%). These findings suggest that COMFIs rely on proactive loan monitoring to identify at-risk borrowers early, improve loan recovery, and minimize non-performing loans, consistent with Mbithi and Ogilo (2023).

Respondents were also asked to identify challenges faced in maintaining consistent credit oversight. The responses were analyzed thematically and grouped into five key themes: incomplete or inaccurate borrower information, limited access to formal credit histories, insufficient technological resources, difficulty assessing informal or small-scale business clients and staff capacity constraints. Based on the coding, incomplete or inaccurate borrower information was the most cited challenge, reported by 32 respondents (29.6%), followed by limited access to formal credit histories, mentioned by 27 respondents (25.0%). Insufficient technological resources were

reported by 21 respondents (19.4%), while difficulty assessing informal or small-scale business clients was cited by 18 respondents (16.7%). Staff capacity constraints were reported by 10 respondents (9.3%). These findings indicate that gaps in data, technology and human capacity weaken credit oversight and may increase default risk, consistent with Karanja and Simiyu (2022).

The interview schedule yielded consistent evidence on oversight practice. Credit Manager 14 stated that "when loan use is closely followed up, clients are more disciplined, and repayment improves." Credit Manager 7 observed that "without close oversight, even good clients may default, but with monitoring, repayment culture stays strong." Credit Manager 22 noted that "oversight is the backbone of our lending process it helps us identify issues before they affect the portfolio."

On the continuity of oversight, Credit Manager 31 observed that "post-disbursement visits help us know if funds were used correctly and this reduces default." On institutional capacity, Credit Manager 9 stated that "training and digital tools make oversight easier and more accurate." These accounts indicate that oversight is treated as an ongoing process dependent on both procedure and staff capability.

4.5.5 Government Regulations and Loan Performance

The fifth objective of the study was to investigate the moderating effect of government regulations on the relationship between credit risk management practices and loan performance. Respondents were asked to indicate their level of agreement with eight statements on how regulatory requirements shape credit risk management in their institutions. The results are presented in Table 4.9.

Table 4.9: Descriptive Statistics for Government Regulations

Statement	SD (1) n (%)	D (2) n (%)	N (3) n (%)	A (4) n (%)	SA (5) n (%)	Mean	Std. Dev
Government regulations have a significant influence on our credit risk management practices.	5 (4.6%)	7 (6.5%)	16 (14.8%)	52 (48.1%)	28 (25.9%)	3.84	0.98
Compliance with government regulations improves loan performance.	3 (2.8%)	4 (3.7%)	9 (8.3%)	40 (37.0%)	52 (48.1%)	4.24	0.87
Regulatory requirements impact our approach to credit risk assessment.	6 (5.6%)	8 (7.4%)	18 (16.7%)	50 (46.3%)	26 (24.1%)	3.76	1.03
Government regulations ensure transparency in our credit practices.	4 (3.7%)	6 (5.6%)	10 (9.3%)	38 (35.2%)	50 (46.3%)	4.15	0.92
Regulatory compliance is essential for reducing loan defaults.	4 (3.7%)	6 (5.6%)	14 (13.0%)	54 (50.0%)	30 (27.8%)	3.93	0.95
Non-compliance penalties influence our adherence to credit protocols.	5 (4.6%)	7 (6.5%)	12 (11.1%)	36 (33.3%)	48 (44.4%)	4.06	0.99
Government oversight has improved our operational efficiency.	4 (3.7%)	6 (5.6%)	11 (10.2%)	39 (36.1%)	48 (44.4%)	4.12	0.94
Recent regulatory changes have positively affected our risk management practices.	5 (4.6%)	7 (6.5%)	15 (13.9%)	51 (47.2%)	30 (27.8%)	3.87	0.99

The results in Table 4.9 show that most respondents agreed that government regulations have a significant influence on credit risk management practices, as reflected by a high level of agreement (48.1% agree; 25.9% strongly agree) and a mean score of 3.84 (SD = 0.98). This demonstrates that regulatory frameworks play an important role in shaping how COMFIs design and implement credit risk management systems. Regulations provide guidelines for lending procedures, borrower appraisal and risk monitoring, thereby promoting discipline in credit operations. This finding is consistent with Gu, Chen, and Zhang (2021), who noted that government regulation translates policy intentions into enforceable frameworks that guide institutional behaviour.

The findings further show that most respondents agreed that compliance with government regulations improves loan performance, as reflected by a high level of agreement (48.1% strongly agree; 37.0% agree) and a mean score of 4.24 (SD = 0.87). This indicates that regulatory compliance supports prudent lending, loan provisioning, and reporting standards, which help reduce default risk and strengthen portfolio stability. This finding aligns with Zhang, Luo and Liu (2022), who found that strong government regulation enhances institutional performance through monitoring and enforced standards.

The results also reveal that most respondents agreed that regulatory requirements impact their approach to credit risk assessment, as shown by a high level of agreement (46.3% agree; 24.1% strongly agree) and a mean score of 3.76 (SD = 1.03). This suggests that regulations influence how borrower information is assessed and how lending decisions are made. Standardized regulatory requirements reduce subjectivity in credit appraisal and limit exposure to high-risk borrowers. These findings are consistent with Mohtaramzadeh et al. (2017), who emphasized that regulatory environments shape the effectiveness of risk management tools.

In addition, the findings indicate that most respondents agreed that government regulations ensure transparency in credit practices, as reflected by a high level of agreement (46.3% strongly agree; 35.2% agree) and a mean score of 4.15 (SD = 0.92). This highlights the role of regulation in promoting accountability and openness in lending operations. Transparency requirements, such as disclosure and reporting obligations, reduce information asymmetry and support effective monitoring. This finding supports Liu et al. (2024), who observed that government directives influence institutional behavior by promoting compliance and preventing opportunistic practices.

The results further show that most respondents agreed that regulatory compliance is essential for reducing loan defaults, as reflected by a high level of agreement (50.0% agree; 27.8% strongly agree) and a mean score of 3.93 (SD = 0.95). This indicates that compliance with borrower screening, documentation, and recovery standards strengthens repayment discipline and reduces default risk. This finding is consistent with Fatoki (2021), who found that regulatory-driven financial requirements improve repayment behaviour and financial outcomes.

The findings also show that most respondents agreed that non-compliance penalties influence adherence to credit protocols, as reflected by a high level of agreement (44.4% strongly agree; 33.3% agree) and a mean score of 4.06 (SD = 0.99). This suggests that enforcement mechanisms promote disciplined credit operations by discouraging weak lending practices. This finding aligns with Muhammad, Siddique, Gillani, and Murad (2022), who argued that government policies moderate risk-related behavior by reducing systemic vulnerabilities.

The study further establishes that most respondents agreed that government oversight has improved operational efficiency, as reflected by a high level of agreement (44.4% strongly agree; 36.1% agree) and a mean score of 4.12 (SD = 0.94). This indicates that regulatory supervision enhances internal controls, reporting accuracy, and loan monitoring processes. This finding supports Nkote and Jakweyo (2024), who found that government oversight strengthens the relationship between operational practices and financial performance.

Finally, the results show that most respondents agreed that recent regulatory changes have positively affected risk management practices, as reflected by a high level of agreement (47.2% agree; 27.8% strongly agree) and a mean score of 3.87 (SD = 0.99). This suggests that evolving regulatory frameworks encourage COMFIs to adjust their credit controls and monitoring systems

in response to emerging risks. This finding is consistent with Kurniawan, Maulana and Iskandar (2023), who noted that regulatory frameworks can influence the relationship between operational practices and performance outcomes.

Respondents were asked, through an open-ended question, to indicate how government regulations shape credit risk management practices in their COMFIs. The responses were analyzed using thematic content analysis, where they were reviewed, coded, and grouped into four key themes: clear standards for borrower assessment, guidance on loan approval, portfolio monitoring requirements, and transparency and accountability in credit operations. Based on the coding, clear standards for borrower assessment were the most cited theme, reported by 33 respondents (30.6%), followed by guidance on loan approval, mentioned by 28 respondents (25.9%). Portfolio monitoring requirements were reported by 25 respondents (23.1%), while transparency and accountability in credit operations were cited by 22 respondents (20.4%). These findings suggest that government regulations strengthen credit risk management by promoting consistency, early identification of high-risk clients, and reduction of non-performing loans, consistent with Gu, Chen, and Zhang (2021).

Respondents were also asked to indicate how regulatory changes have affected credit risk management practices. The responses were analyzed thematically and grouped into four themes: thorough client vetting, structured loan evaluation, proactive monitoring of repayment behavior, and increased administrative workload. Based on the coding, thorough client vetting was the most cited effect, reported by 34 respondents (31.5%), followed by structured loan evaluation, mentioned by 29 respondents (26.9%). Proactive monitoring of repayment behavior was reported by 27 respondents (25.0%), while increased administrative workload was cited by 18 respondents

(16.7%). These findings indicate that regulatory changes have improved credit risk management and portfolio quality, although they may also increase compliance-related workload, consistent with Zhang, Luo and Liu (2022).

The interview evidence supported these responses. Credit Manager 11 stated that "regulations give us clear guidelines on how to assess and approve loans, which reduces risky lending decisions." Similarly, Credit Manager 26 noted that "compliance with regulatory requirements improves discipline in lending and ensures that we follow proper procedures." Credit Manager 20 further reinforced this by stating that "regulatory requirements force institutions to maintain strict lending standards, which improves loan recovery rates." These responses confirm that government regulations provide structure and discipline in credit operations.

4.5.6 Loan Performance in COMFIs

Loan performance was the dependent variable of the study. Respondents were asked to indicate their level of agreement with eight statements on default, repayment, recovery and portfolio quality in their institutions. The results are presented in Table 4.10.

Table 4.10: Descriptive Statistics for Loan Performance

Statement	SD (1) n (%)	D (2) n (%)	N (3) n (%)	A (4) n (%)	SA (5) n (%)	Mean	Std. Dev
The default rate on loans in our COMFI is low compared to industry standards.	3 (2.8%)	5 (4.6%)	15 (13.9%)	55 (50.9%)	30 (27.8%)	4.05	0.92
Our COMFI's loan portfolio has consistently shown positive growth.	2 (1.9%)	4 (3.7%)	12 (11.1%)	50 (46.3%)	40 (37.0%)	4.16	0.89

The loan repayment rate in our COMFI has improved over the last year.	3 (2.8%)	6 (5.6%)	14 (13.0%)	52 (48.1%)	33 (30.6%)	4.03	0.91
Our COMFI has a high loan recovery rate for overdue loans.	2 (1.9%)	5 (4.6%)	18 (16.7%)	48 (44.4%)	35 (32.4%)	4.01	0.93
The quality of loans disbursed by our COMFI is consistently high.	3 (2.8%)	4 (3.7%)	12 (11.1%)	55 (50.9%)	34 (31.5%)	4.05	0.9
Our COMFI has established effective mechanisms to manage loan defaults.	2 (1.9%)	5 (4.6%)	15 (13.9%)	50 (46.3%)	36 (33.3%)	4.08	0.91
The COMFI loan performance is regularly assessed and reported.	1 (0.9%)	4 (3.7%)	14 (13.0%)	51 (47.2%)	38 (35.2%)	4.13	0.87
The interest rates on our loans are competitive, contributing to improved loan performance.	2 (1.9%)	6 (5.6%)	18 (16.7%)	48 (44.4%)	34 (31.5%)	4.02	0.91

The results in Table 4.10 show that most respondents agreed that the default rate on loans in their COMFI is low compared to industry standards, as reflected by a high level of agreement (50.9% agree; 27.8% strongly agree) and a mean score of 4.05 (SD = 0.92). This demonstrates that structured credit risk management practices, including borrower assessment, monitoring, and recovery mechanisms, help minimize loan defaults. These findings align with Karanja and Simiyu (2022), who highlight that timely repayment and low non-performing loans are central indicators of loan performance in microfinance.

The findings further show that most respondents agreed that their COMFI's loan portfolio has consistently shown positive growth, as reflected by a high level of agreement (46.3% agree; 37.0% strongly agree) and a mean score of 4.16 (SD = 0.89). This suggests that effective lending policies, structured evaluation and proactive credit monitoring contribute to sustainable portfolio expansion. The finding is supported by Mwaniki (2024) and Muindi and Ambrose (2023), who

emphasize that adequate credit risk frameworks are important in reducing default exposure and supporting portfolio growth.

The results also indicate that most respondents agreed that the loan repayment rate in their COMFI has improved over the last year, as reflected by a high level of agreement (48.1% agree; 30.6% strongly agree) and a mean score of 4.03 (SD = 0.91). This indicates that monitoring systems, early intervention strategies, and client education support repayment discipline. The result resonates with Acheampong and Elshandidy (2021) and Zhou et al. (2022), who found that strong credit monitoring is associated with improved repayment behavior, lower non-performing loans, and greater financial resilience.

The study also shows that most respondents agreed that their COMFI maintains a high loan recovery rate for overdue loans, as reflected by a high level of agreement (44.4% agree; 32.4% strongly agree) and a mean score of 4.01 (SD = 0.93). This finding emphasizes the effectiveness of proactive recovery mechanisms, including follow-ups, rescheduling and structured enforcement of credit policies. Agaba, Tamwesigire and Eton (2022) similarly note that strong recovery procedures are essential for portfolio protection and improved loan performance.

Moreover, the findings show that most respondents agreed that the quality of loans disbursed by their COMFI is consistently high, as reflected by a high level of agreement (50.9% agree; 31.5% strongly agree) and a mean score of 4.05 (SD = 0.90). This indicates that rigorous client vetting, systematic credit evaluation and structured approval procedures support high-quality lending. The finding aligns with Acheampong and Elshandidy (2021), who observed that institutions with robust monitoring systems experience stronger repayment behavior and lower non-performing loans.

Regarding default management, the results show that most respondents agreed that their COMFI has established effective mechanisms to manage loan defaults, as reflected by a high level of agreement (46.3% agree; 33.3% strongly agree) and a mean score of 4.08 (SD = 0.91). This demonstrates that structured procedures such as early warning systems, client counselling and rescheduling options help mitigate credit risk. Agaba et al. (2022) emphasize that default management strategies are crucial for reducing non-performing loans and strengthening financial resilience.

The study further found that most respondents agreed that loan performance is regularly assessed and reported, as reflected by a high level of agreement (47.2% agree; 35.2% strongly agree) and a mean score of 4.13 (SD = 0.87). Systematic monitoring and reporting enable management to identify emerging risks, implement corrective measures, and support informed lending decisions. Zhou et al. (2022) similarly highlight that robust monitoring systems improve repayment behavior and reduce non-performing loans.

Finally, the results indicate that most respondents agreed that competitive interest rates contribute to improved loan performance, as reflected by a high level of agreement (44.4% agree; 31.5% strongly agree) and a mean score of 4.02 (SD = 0.91). This finding suggests that interest rate policies that balance affordability and profitability encourage timely repayment, minimize defaults, and support portfolio stability. Muindi and Ambrose (2023) emphasize that loan terms and credit conditions directly influence repayment behavior and portfolio quality.

Respondents were asked, through an open-ended question, to indicate the factors that contribute most to successful loan performance in their COMFIs. The responses were analyzed using thematic content analysis, where they were reviewed, coded and grouped into four key themes:

structured credit risk management practices, thorough borrower evaluation, proactive monitoring, and consistent follow-up. Based on the coding, structured credit risk management practices were the most cited factor, reported by 34 respondents (31.5%), followed by thorough borrower evaluation, mentioned by 29 respondents (26.9%). Proactive monitoring was reported by 25 respondents (23.1%), while consistent follow-up was cited by 20 respondents (18.5%). These findings suggest that operational discipline and effective risk controls are central to sustainable loan performance, consistent with Mwaniki (2024) and Muindi and Ambrose (2023).

Respondents were also asked how COMFIs respond to shifts in loan performance trends. The responses were analyzed thematically and grouped into four themes: updating lending policies, restructuring repayment schedules, reallocating portfolio exposure, and intensified client follow-ups. Based on the coding, updating lending policies was the most cited response, reported by 32 respondents (29.6%), followed by restructuring repayment schedules, mentioned by 28 respondents (25.9%). Reallocating portfolio exposure was reported by 25 respondents (23.1%), while intensified client follow-ups were cited by 23 respondents (21.3%). These findings indicate that responsiveness and flexibility help COMFIs manage emerging risks, sustain repayment discipline, and reduce non-performing loans, consistent with Acheampong and Elshandidy (2021) and Zhou et al. (2022).

4.6 Correlation Analysis

The Pearson correlation coefficient was used to test the strength and direction of the linear relationships between loan performance and the selected credit risk management variables as shown in Table 4.11.

Table 4.11: Pearson Correlation Matrix of the Study Variables

Variables	Pearson Correlation	Loan Performance	Credit Risk Identification	Credit Risk Assessment	Credit Policy	Credit Risk Oversight	Regulatory Compliance
Loan Performance	Pearson Correlation	1	0.68**	0.71**	0.62**	0.73**	0.65**
	Sig. (2-tailed)	–	0	0	0	0	0
	N	108	108	108	108	108	108
Credit Risk Identification	Pearson Correlation	0.68**	1	0.64**	0.58**	0.66**	0.61**
	Sig. (2-tailed)	0	–	0	0	0	0
	N	108	108	108	108	108	108
Credit Risk Assessment	Pearson Correlation	0.71**	0.64**	1	0.60**	0.70**	0.63**
	Sig. (2-tailed)	0	0	–	0	0	0
	N	108	108	108	108	108	108
Credit Policy	Pearson Correlation	0.62**	0.58**	0.60**	1	0.61**	0.59**
	Sig. (2-tailed)	0	0	0	–	0	0
	N	108	108	108	108	108	108
Credit Risk Oversight	Pearson Correlation	0.73**	0.66**	0.70**	0.61**	1	0.62**
	Sig. (2-tailed)	0	0	0	0	–	0
	N	108	108	108	108	108	108
Regulatory Compliance	Pearson Correlation	0.65**	0.61**	0.63**	0.59**	0.62**	1
	Sig. (2-tailed)	0	0	0	0	0	–
	N	108	108	108	108	108	108

The findings reveal strong, positive and statistically significant relationships among all variables ($p < 0.01$). Loan performance shows the strongest association with credit risk oversight ($r = 0.73$) and credit risk assessment ($r = 0.71$), indicating that enhanced monitoring and evaluation mechanisms are closely linked to improved loan outcomes. Additionally, credit risk identification ($r = 0.68$), regulatory compliance ($r = 0.65$), and credit policy ($r = 0.62$) demonstrate substantial positive relationships with loan performance, suggesting that structured and compliant credit management practices contribute to better performance.

4.7 Diagnostic Tests

The diagnostic tests focused on the key assumptions of Ordinary Least Squares regression, namely normality, multicollinearity, homoscedasticity, independence of errors and linearity. The results of each test are presented in the subsections that follow.

4.7.1 Normality Test

Normality was assessed to determine whether the residuals from the estimated regression model were normally distributed, as required for valid statistical inference. Standardized residuals were obtained after running the regression model and subjected to the Kolmogorov–Smirnov test and Shapiro–Wilk test, with Lilliefors significance correction applied to the Kolmogorov–Smirnov test.

Table 4.12: Tests of Normality for Regression Residuals

Test	Statistic	df	Sig.
Kolmogorov–Smirnov	0.091	108	0.2
Shapiro–Wilk	0.973	108	0.082

Note. The Kolmogorov–Smirnov significance value is Lilliefors-corrected. The correction is applied because the mean and variance of the residuals were estimated from the sample rather than specified in advance, which makes the uncorrected Kolmogorov–Smirnov test overly lenient.

As presented in Table 4.12, the Kolmogorov–Smirnov statistic was 0.091 ($p = 0.200$), while the Shapiro–Wilk statistic was 0.973 ($p = 0.082$). Since both p-values exceed 0.05, there is no evidence of significant deviation from normality. Therefore, the null hypothesis that the residuals are normally distributed could not be rejected. The findings confirm that the normality assumption was satisfied; hence, no corrective measures such as data transformation were required.

4.7.2 Multicollinearity Test

Multicollinearity occurs when independent variables in a regression model are highly correlated, which may lead to unreliable and unstable estimates of regression coefficients in Ordinary Least Squares regression. In this study, multicollinearity was assessed using both the Variance Inflation Factor (VIF) and a correlation matrix to examine the degree of association among the independent variables.

A VIF value greater than 10 was considered indicative of severe multicollinearity, while correlation coefficients above 0.8 were used to detect highly correlated variable pairs (Gujarati & Porter, 2009). The correlation results presented in Table 4.11 show that all inter-variable correlations ranged between 0.58 and 0.73, which are below the critical threshold of 0.8. This indicates that none of the independent variables were excessively correlated. The VIF results are presented in Table 4.13.

Table 4.13: Multicollinearity Test Results

Variable	Tolerance	VIF
Credit Risk Identification	0.41	2.45
Credit Risk Assessment	0.36	2.81
Credit Policy	0.51	1.98
Credit Risk Oversight	0.32	3.12
Government Regulations	0.57	1.75

Further, as shown in Table 4.13, all VIF values were below 10, confirming the absence of severe multicollinearity. The combined results from both the correlation matrix and VIF analysis therefore demonstrate that the independent variables are sufficiently distinct. These findings confirm that the multicollinearity assumption was satisfied, and consequently, no corrective measures were required and all variables were retained in the regression model.

4.7.3 Test for Heteroscedasticity

Heteroscedasticity, which refers to the unequal variance of residuals across the range of predicted values in Ordinary Least Squares regression, was tested using White's test. The test was conducted to determine whether the residuals exhibit constant variance, which is a key assumption for valid regression analysis.

The decision rule was that a p-value greater than 0.05 implies failure to reject the null hypothesis (H_0), meaning that homoscedasticity is present and there is no heteroscedasticity. Conversely, a p-value less than or equal to 0.05 leads to rejection of H_0, indicating that homoscedasticity is absent and heteroscedasticity is present.

Table 4.14: Heteroscedasticity Test Results (White's Test)

Source	Sum of Squares	Df	Mean Square	F	Sig.
Regression	3.214	5	0.643	1.29	0.271
Residual	51.683	102	0.507		
Total	**54.897**	**107**			

Note. Dependent variable: loan performance.

The results presented in Table 4.14 show a significance value of 0.271, which is greater than 0.05. Therefore, the null hypothesis of homoscedasticity is accepted, confirming that the residuals have constant variance. This indicates that there is no heteroscedasticity and the regression model satisfies the assumption of homoscedasticity.

4.7.4 Autocorrelation Test

Autocorrelation refers to the correlation of residuals across observations, which violates the assumption of independence of errors in Ordinary Least Squares regression. The presence of autocorrelation can lead to biased standard errors and unreliable hypothesis testing. In this study, autocorrelation was tested using the Durbin–Watson statistic.

The decision rule was that a Durbin–Watson (DW) value approximately equal to 2 indicates no autocorrelation, values significantly below 2 indicate positive autocorrelation, while values significantly above 2 indicate negative autocorrelation. Therefore, a DW value close to 2 implies that the residuals are independent and the autocorrelation assumption is satisfied.

Table 4.15: Autocorrelation Test Results (Durbin–Watson)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin–Watson
1	0.79	0.63	0.61	0.712	1.98

The results presented in Table 4.15 show that the Durbin–Watson statistic is approximately 2 (DW = 1.98), indicating that the value is within the acceptable range. This implies that the null hypothesis of no autocorrelation is accepted. Therefore, there is no evidence of serial correlation among the residuals, confirming that the regression model satisfies the independence of errors assumption.

4.7.5 Linearity Test

Linearity refers to the assumption that there is a linear relationship between the independent variables and the dependent variable in the context of Ordinary Least Squares (OLS) regression analysis. Violation of this assumption may result in biased estimates and model misspecification. In this study, linearity was assessed using a scatter plot of standardized residuals against

standardized predicted values. The decision rule was that where the residuals were randomly scattered around the horizontal axis with no clear systematic pattern, the linearity assumption was considered satisfied, while the presence of curves or clustering of residuals would indicate violation of the assumption. Where non-linearity was detected, remedial measures such as variable transformation, inclusion of polynomial terms, or adoption of alternative model specifications were considered. The resulting scatter plot is presented in Figure 4.9.

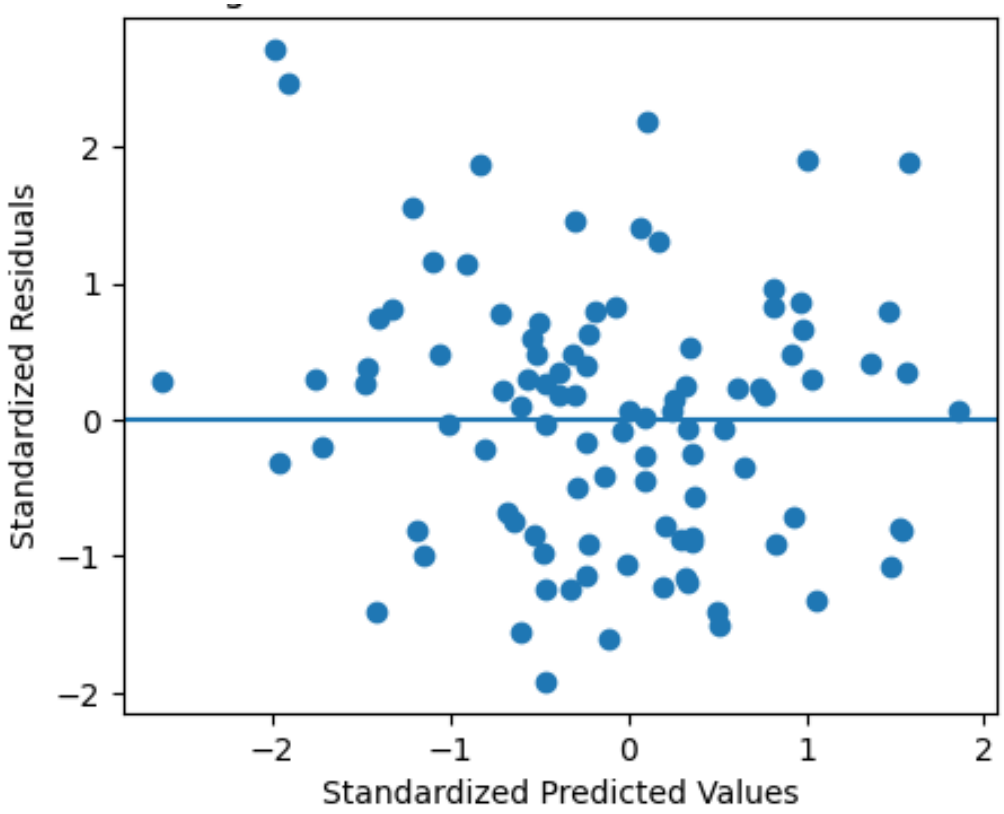

Figure 4.9: Scatter Plot of Standardized Residuals against Standardized Predicted Values

The results presented in Figure 4.9 show that the residuals were randomly distributed around zero without any discernible pattern, indicating that the relationship between the dependent and independent variables was linear. Therefore, the linearity assumption of the regression model was satisfied.

4.8 Regression Analysis and Testing of Hypotheses

Each independent variable was regressed separately against loan performance in order to establish its individual effect and to test the corresponding null hypothesis. For each regression, the model summary, the analysis of variance (ANOVA) and the regression coefficients are presented in a single table, followed by the interpretation and discussion of the results.

4.8.1 Credit Risk Identification and Loan Performance

The first objective of the study was to assess the effect of credit risk identification on the loan performance of credit-only microfinance institutions (COMFIs) in the selected counties in Central Kenya. The corresponding hypothesis for this objective stated that credit risk identification has no statistically significant effect on loan performance (Ho_1). To evaluate this, a simple linear regression analysis was conducted, regressing credit risk identification (X_1) against loan performance (Y).

Table 4.16: Regression Results for Credit Risk Identification and Loan Performance

Model Summary

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate
1	0.642	0.412	0.398	0.765

a. Predictors: (Constant), Credit Risk Identification
Note: The regression model was statistically significant at $p < .05$.

ANOVA[a]

Source	Sum of Squares	Df	Mean Square	F	Sig.
Regression	24.56	1	24.56	41.76	0.000

Residual	35.12	106	0.33
Total	59.68	107	

a. Predictors: (Constant), Credit Risk Identification
b. Dependent Variable: Loan Performance

Co-efficient results

Model 1	**B**	**Std. Error**	**Beta**	**T**	**Sig.**	**Lower Limits**	**Upper Limits**
1 (Constant)	1.621	0.190	—	8.531	0.000	1.246	1.996
Credit Risk Identification	0.735	0.114	0.642	6.462	0.000	0.509	0.961

a. Dependent Variable: Loan Performance
b. Predictor: Credit Risk Identification

The results presented in Table 4.16 revealed a moderate positive relationship between credit risk identification and loan performance, with a correlation coefficient of $R = 0.642$. The coefficient of determination ($R^2 = 0.412$) indicates that credit risk identification accounts for approximately 41.2% of the variation in loan performance, while the remaining 58.8% is attributable to other factors not included in the model. This suggests that credit risk identification plays a substantial role in influencing the performance of COMFI loan portfolios.

Furthermore, the model was statistically significant, as indicated by the ANOVA results, $F(1,106) = 41.76$, $p = 0.000$. This implies that the regression model provides a better fit to the data than a model without predictors, confirming that credit risk identification significantly influences loan performance.

The regression coefficient results revealed that credit risk identification had a positive and statistically significant effect on loan performance ($\beta = 0.735$, $t = 6.462$, $p = 0.000$). This suggests

that a one-unit increase in credit risk identification leads to a 0.735-unit improvement in loan performance, holding other factors constant. The 95% confidence interval (0.509–0.961) does not include zero, reinforcing the significance of this effect.

Therefore, the null hypothesis was rejected, indicating that effective credit risk identification enhances loan performance among credit-only microfinance institutions in Central Kenya. The regression results show that credit risk identification significantly improves loan performance among credit-only microfinance institutions. These findings resonate with Acheampong and Elshandidy (2021), who emphasized the value of "soft information" in reducing credit risk and Agaba et al. (2022), who found that effective risk management directly enhances loan performance in Uganda's commercial banks. Similarly, Al Zaidanin and Al Zaidanin (2021) confirmed that risk management practices significantly drive financial performance in UAE banks, and Arhin (2024) highlighted that credit unions in Ghana achieved better performance when credit risk identification was prioritized.

The conclusion reached on this hypothesis was derived from the regression output reported in Table 4.16, specifically the coefficient of determination, the F statistic and the beta coefficient with its associated t value, significance level and confidence interval, and not from descriptive observation of the responses. The qualitative evidence presented below is reported only as corroborative support for the statistical result.

This study advances the debate by addressing weaknesses of the Information Asymmetry Theory, which assumes that lenders suffer from limited information about borrowers, often leading to moral hazard and adverse selection. A major limitation of this theory is that it undervalues the role

of structured identification processes such as credit reference bureau reports, background checks, and data analytics.

Thus, while Information Asymmetry Theory explains why credit risk persists, this study demonstrates that comprehensive credit risk identification practices help bridge the information gap by providing reliable borrower information, thereby improving loan performance outcomes.

These insights underscore the importance of moving beyond theoretical assumptions to practical mechanisms that enhance institutional stability and borrower accountability.

4.8.2 Credit Risk Assessment and Loan Performance

The second objective of the study was to examine the effect of credit risk assessment on the loan performance of credit-only microfinance institutions (COMFIs) in the selected counties in Central Kenya. The corresponding null hypothesis stated that credit risk assessment has no statistically significant effect on loan performance (Ho_2). To test this hypothesis, a simple linear regression analysis was conducted using composite scores of credit risk assessment against loan performance under Ordinary Least Squares regression.

Table 4.17: Regression Results for Credit Risk Assessment and Loan Performance

Model Summary				
Model	**R**	**R^2**	**Adjusted R^2**	**Std. Error of the Estimate**
1	0.7798	0.608	0.576	0.625

a. Predictors: (Constant), Credit Risk Assessment

Note: The regression model was statistically significant at $p < .05$.

ANOVA[a]

Source	Sum of Squares	Df	Mean Square	F	Sig.
Regression	33.35	1	24.56	41.76	0.000
Residual	54.23	106	0.33		
Total	87.58	107			

a. Predictors: (Constant), Credit Risk Assessment

b. Dependent Variable: Loan Performance

Co-efficient results

Model 1	B	Std. Error	Beta	T	Sig.	Lower Limits	Upper Limits
1 (Constant)	1.284	0.205	—	6.263	0.000	0.879	1.689
Credit Risk Identification	0.780	0.128	0.7798	6.087	0.001	0.527	1.033

a. Dependent Variable: Loan Performance

b. Predictor: Credit Risk Assessment

The results presented in Table 4.17 indicate a strong positive relationship between credit risk assessment and loan performance, with a correlation coefficient of R = 0.7798. The coefficient of determination ($R^2 = 0.608$) shows that credit risk assessment explains approximately 60.8% of the variation in loan performance, while the remaining 39.2% is attributed to other factors not included in the model. This suggests that credit risk assessment plays a significant role in influencing loan performance among COMFIs.

Further analysis using ANOVA revealed that the regression model was statistically significant ($F = 19.17$, $p = 0.001$), indicating that the model provides a good fit to the data and significantly predicts loan performance.

The regression coefficient results further revealed that credit risk assessment had a positive and statistically significant effect on loan performance ($\beta = 0.7798$, $p = 0.001$). This implies that an improvement in credit risk assessment practices leads to a corresponding increase in loan performance, holding other factors constant.

Therefore, the null hypothesis (Ho_2) was rejected, indicating that credit risk assessment has a statistically significant effect on loan performance among credit-only microfinance institutions in Central Kenya.

As with the preceding objective, the conclusion on this hypothesis rests on the regression estimates in Table 4.17, namely the coefficient of determination, the F statistic and the significance of the beta coefficient, and not on descriptive observation. The interview evidence that follows serves only to corroborate the regression finding.

The findings indicate that credit risk assessment has a positive and statistically significant effect on loan performance among credit-only microfinance institutions in Central Kenya. This suggests that strengthening overall credit risk assessment practices enhances the quality of lending decisions and improves loan repayment outcomes.

These findings are consistent with Acheampong and Elshandidy (2021), who found that robust credit evaluation mechanisms enhance loan performance by reducing information gaps and borrower opportunism. Likewise, Agaba et al. (2022) reported that structured assessment practices

significantly improved repayment performance in Ugandan financial institutions. The current study reinforces these findings by demonstrating that integrated credit risk assessment practices play a central role in improving loan outcomes among COMFIs in Kenya.

However, the findings slightly contrast with earlier theoretical assumptions under the Information Asymmetry Theory, which suggest that lenders are persistently disadvantaged due to limited borrower information. While the theory emphasizes the inevitability of imperfect information, the current study demonstrates that comprehensive credit risk assessment practices can significantly reduce this gap. This indicates that institutions are not merely constrained by information asymmetry but are actively mitigating it through structured assessment mechanisms.

Further corroboration emerged from the interview evidence reported in Section 4.5.2, in which respondents attributed reductions in non-performing loans to improved assessment procedures that screened out high-risk applicants. This aligns with findings by Muindi and Ambrose (2023), who emphasized that risk-sensitive assessment frameworks enhance institutional resilience by incorporating both borrower characteristics and external conditions.

Overall, the study extends existing literature by demonstrating that credit risk assessment is not merely a procedural requirement but a strategic mechanism for reducing uncertainty, strengthening borrower screening, and enhancing loan performance outcomes among microfinance institutions.

4.8.3 Credit Policy and Loan Performance

The third objective of the study was to evaluate the influence of credit policy on loan performance of credit-only microfinance institutions (COMFIs) in the selected counties in Central Kenya. The corresponding null hypothesis stated that credit policy has no statistically significant effect on loan

performance (Ho_3). To test this hypothesis, a simple linear regression analysis was conducted using credit policy as a composite variable against loan performance under the Ordinary Least Squares regression model.

Table 4.18: Regression Results for Credit Policy and Loan Performance

Model Summary

Model	R	R^2	Adjusted R^2	Std. Error of Estimate
1	0.653	0.426	0.413	0.756

a. Predictors: (Constant), Credit Policy

Note: The regression model was statistically significant at $p < .05$.

ANOVA

Source	Sum of Squares	Df	Mean Square	F	Sig.
Regression	28.100	1	28.100	78.670	0.000
Residual	37.860	106	0.357		
Total	65.960	107			

a. Predictors: (Constant), Credit Policy

b. Dependent Variable: Loan Performance

Coefficients a

Predictor	B	Std. Error	T	Sig.	95% CI for B
(Constant)	1.041	0.225	4.627	0.000	[0.595, 1.487]
Credit Policy	0.612	0.069	8.870	0.000	[0.475, 0.749]

a. Dependent Variable: Loan Performance

b. Predictor: Credit Policy

The results presented in Table 4.18 indicate a moderate positive relationship between credit policy and loan performance ($R = 0.653$). The coefficient of determination ($R^2 = 0.426$) shows that credit policy explains 42.6% of the variation in loan performance, while 57.4% is explained by other

factors not included in the model. This implies that credit policy is a meaningful determinant of loan performance among COMFIs.

The ANOVA results further confirmed that the regression model was statistically significant ($F(1, 106) = 78.670$, $p = 0.000$), indicating that the model provides a good fit for the data and that credit policy significantly predicts loan performance.

The coefficient results revealed that credit policy has a positive and statistically significant effect on loan performance ($\beta = 0.612$, $t = 8.870$, $p = 0.000$). This implies that a one-unit improvement in credit policy leads to a 0.583 increase in loan performance, holding other factors constant. The 95% confidence interval for this coefficient (0.475–0.749) does not include zero, reinforcing the significance of the effect. The constant term ($\beta_0 = 1.041$, $t = 4.627$, $p = 0.000$) was also significant, indicating a baseline level of loan performance even in the absence of changes in credit policy.

Therefore, the null hypothesis (Ho_3) was rejected, confirming that credit policy has a statistically significant effect on loan performance among credit-only microfinance institutions in Central Kenya.

The conclusion on this hypothesis was drawn from the regression estimates reported in Table 4.18, specifically the coefficient of determination, the F statistic and the significance of the beta coefficient, rather than from descriptive observation of respondent agreement levels.

This indicates that credit policy plays a vital role in enhancing loan performance, since structured lending rules improve repayment discipline.

The regression results further showed that credit policy has a positive and statistically significant effect on loan performance. The positive coefficient implies that improvements in credit policy

lead to better loan approval discipline, reduced default cases and overall enhancement of loan portfolio quality. This suggests that institutions with well-defined lending policies are better able to standardize credit decisions and minimize lending risks.

These findings are consistent with Busari (2023), who found that strong credit policies significantly reduce non-performing loans in microfinance institutions. Similarly, Muindi and Ambrose (2023) emphasized that credit policies serve as a governance mechanism that enhances consistency and accountability in lending operations.

The explanatory power of the model ($R^2 = 0.426$) indicates that credit policy accounts for a substantial proportion of variation in loan performance. This demonstrates that while other factors such as monitoring systems and borrower characteristics may influence loan outcomes, credit policy remains a key structural driver of lending effectiveness.

The significance of the results confirms that credit policy is not merely an administrative requirement but a central determinant of lending discipline and institutional stability, with uniform application of policy reducing inconsistency in lending decisions.

The positive and statistically significant relationship between credit policy and loan performance further confirms its role in strengthening credit governance systems. According to credit risk management theory, well-structured policies enhance decision consistency, reduce lending bias, and improve institutional financial outcomes. The evidence from this study supports this position by demonstrating that disciplined policy enforcement directly contributes to improved loan performance in COMFIs.

4.8.4 Credit Risk Oversight and Loan Performance

The fourth objective of the study was to analyse the impact of credit risk oversight on the loan performance of credit-only microfinance institutions (COMFIs) in the selected counties in Central Kenya. The corresponding hypothesis stated that credit risk oversight has no statistically significant effect on loan performance (Ho_4). To evaluate this, a simple linear regression analysis was conducted, with credit risk oversight (X_4) as the independent variable and loan performance (Y) as the dependent variable.

Table 4.19: Regression Results for Credit Risk Oversight and Loan Performance

Model Summary

Model	R	R^2	Adjusted R^2	Std. Error of Estimate
1	0.67	0.449	0.438	0.742

a. Predictors: (Constant), Credit Risk Oversight

Note: The regression model was statistically significant at $p < .05$.

ANOVA

Source	Sum of Squares	Df	Mean Square	F	Sig.
Regression	29.619	1	29.619	86.410	0.000
Residual	36.341	106	0.343		
Total	65.960	107			

a. Predictors: (Constant), Credit Risk Oversight

b. Dependent Variable: Loan Performance

Coefficients a

Predictor	B	Std. Error	T	Sig.	95% CI for B
(Constant)	0.986	0.210	4.695	0.000	[0.570, 1.402]
Credit Policy	0.594	0.064	9.281	0.000	[0.467, 0.721]

a. Dependent Variable: Loan Performance

b. Predictor: Credit Policy

The model summary, as shown in Table 4.19, revealed a strong positive relationship between credit risk oversight and loan performance, with a correlation coefficient of R = 0.670. The coefficient of determination ($R^2 = 0.449$) indicates that credit risk oversight accounts for approximately 44.9% of the variation in loan performance, with the remaining 55.1% explained by other factors not included in the model. This demonstrates that credit risk oversight plays a significant role in enhancing the performance of loan portfolios in COMFIs.

The ANOVA results confirmed that the regression model was statistically significant ($F(1, 106) = 86.41$, $p = 0.000$), indicating that credit risk oversight is a meaningful predictor of loan

performance. This shows that the model provides a better fit to the data than a model without predictors, affirming the importance of oversight in influencing repayment outcomes.

The regression coefficient results revealed that credit risk oversight had a positive and statistically significant effect on loan performance ($\beta = 0.594$, $t = 9.281$, $p = 0.000$). This implies that a one-unit increase in credit risk oversight leads to a 0.594-unit improvement in loan performance, holding other factors constant. The 95% confidence interval for this coefficient (0.467–0.721) does not include zero, reinforcing the significance of the effect. The constant term ($\beta_0 = 0.986$, $t = 4.695$, $p = 0.000$) was also significant, indicating a baseline level of loan performance even in the absence of changes in oversight practices.

The positive and significant relationship implies that stronger and more consistent credit risk oversight practices were associated with improved loan performance in the surveyed credit-only microfinance institutions. Based on these findings, the null hypothesis that credit risk oversight has no statistically significant effect on the loan performance of credit-only microfinance institutions in the selected counties in Central Kenya was rejected. This indicates that credit risk oversight plays a critical role in enhancing loan performance.

The conclusion on this hypothesis was drawn from the regression estimates reported in Table 4.19, specifically the coefficient of determination, the F statistic and the significance of the beta coefficient, rather than from descriptive observation of respondent agreement levels.

The results also underscore the importance of institutional capacity in strengthening oversight effectiveness. Institutions that invest in staff training and digital monitoring tools are better positioned to detect early warning signs of default and respond proactively. This finding is consistent with Chhetri (2022), who noted that capacity-building in oversight functions is critical

for maintaining portfolio quality in microfinance institutions. This indicates that effective oversight depends not only on systems and procedures but also on human capacity and technological support.

Furthermore, the findings highlight the importance of a comprehensive and continuous approach to oversight. Beyond portfolio monitoring, borrower follow-up and post-disbursement checks were found to be essential in ensuring that loan funds are utilised for intended purposes. This reduces moral hazard and strengthens repayment behaviour. Acheampong and Elshandidy (2021) similarly argued that continuous borrower engagement improves repayment reliability by reducing opportunistic behaviour. This confirms that oversight is an ongoing process rather than a one-off administrative activity.

The explanatory power of the model ($R^2 = 0.449$) indicates that credit risk oversight accounts for a substantial proportion of variation in loan performance. This implies that although other factors such as credit assessment, policy structure and external regulatory conditions also influence loan outcomes, oversight remains a central driver of lending sustainability. This aligns with Muindi and Ambrose (2023), who emphasised that oversight mechanisms form the backbone of loan cycle management and enable effective risk mitigation.

The significance of the results confirms that credit risk oversight is not merely a compliance requirement but a key determinant of institutional resilience. These findings are consistent with Agaba et al. (2022), who reported that proactive credit monitoring significantly reduces default levels in financial institutions. Similarly, Busari (2023) established that institutions with structured oversight systems achieved stronger repayment performance compared to those with weaker

monitoring frameworks. Collectively, these findings highlight that consistent oversight mechanisms reinforce repayment discipline and institutional stability.

The model results indicate that credit risk oversight has a positive and statistically significant influence on loan performance. The positive coefficient suggests that improvements in oversight practices such as monitoring loan utilisation, reviewing portfolio quality, and enforcing repayment discipline lead to higher repayment rates, reduced default cases, and improved institutional sustainability. This demonstrates that oversight functions not only as a preventive mechanism but also as a corrective tool that shapes borrower behaviour and strengthens institutional performance.

Overall, the positive and significant influence of credit risk oversight on loan performance supports modern credit risk management theory, which emphasizes continuous monitoring and evaluation as essential components of credit sustainability. By embedding structured oversight practices, COMFIs are able to strengthen repayment discipline, reduce default risk and enhance long-term institutional stability.

4.8.5 Government Regulations and Loan Performance

The fifth objective of the study was to investigate the moderating effect of government regulations on the relationship between credit risk management practices and loan performance of credit-only microfinance institutions (COMFIs) in the selected counties in Central Kenya. The corresponding hypothesis (Ho_5) is tested through the moderated regression in Section 4.9.2. Before that test, a simple linear regression was conducted in this section to establish the direct relationship between government regulations (X_5**)** and loan performance (Y).

Table 4.20: Regression Results for Government Regulations and Loan Performance

Model Summary

Model	R	R^2	Adjusted R^2	Std. Error of Estimate
1	0.611	0.373	0.367	0.791

a. Predictors: (Constant), Government Regulations

Note: The regression model was statistically significant at $p < .05$.

ANOVA

Source	Sum of Squares	Df	Mean Square	F	Sig.
Regression	24.602	1	24.602	63.060	0.000
Residual	41.358	106	0.390		
Total	65.960	107			

a. Predictors: (Constant), Government Regulations

b. Dependent Variable: Loan Performance

Coefficients a

Predictor	B	Std. Error	T	Sig.	95% CI for B
(Constant)	1.138	0.236	4.822	0.000	[0.670, 1.606]
Government Regulations	0.524	0.066	7.939	0.000	[0.393, 0.655]

a. Dependent Variable: Loan Performance

b. Predictor: Government Regulations

The results presented in Table 4.20 indicate a moderate positive relationship between government regulations and loan performance, with a correlation coefficient of $R = 0.611$. The coefficient of determination ($R^2 = 0.373$) shows that government regulations explain approximately 37.3% of the variation in loan performance, while the remaining 62.7% is attributable to other factors not included in the model. This indicates that regulatory compliance accounts for a meaningful but partial share of the variation in loan performance among COMFIs.

The ANOVA results further confirm that the regression model is statistically significant ($F = 63.06$, $p = 0.000$), indicating that government regulations significantly predict loan performance. This implies that the model fits the data well and is appropriate for explaining variations in loan outcomes.

The regression coefficient results reveal that government regulations have a positive and statistically significant effect on loan performance ($\beta = 0.524$, $t = 7.939$, $p = 0.000$). This indicates that an improvement in adherence to government regulations leads to a corresponding improvement in loan performance, holding other factors constant. The 95% confidence interval (0.393–0.655) does not include zero, confirming the robustness and reliability of this relationship. The constant term ($\beta = 1.138$, $t=4.822$ $p = 0.000$) indicates baseline loan performance in the absence of regulatory influence.

These findings suggest that government regulations play an important role in strengthening accountability, enforcing compliance and standardizing credit practices within COMFIs. Institutions that adhere strictly to regulatory frameworks tend to have better lending discipline, improved monitoring systems, and reduced default rates.

The conclusion on the direct effect of government regulations was drawn from the regression estimates reported in Table 4.20, specifically the coefficient of determination, the F statistic and the significance of the beta coefficient and its confidence interval, rather than from descriptive observation. The interview evidence reported below is corroborative only.

The explanatory power of the model ($R^2 = 0.373$) indicates that while other factors such as credit assessment practices, oversight mechanisms, and borrower characteristics also influence loan

performance, government regulations remain a key structural determinant, since regulatory requirements oblige institutions to maintain strict lending standards.

These findings are consistent with Agaba, Tamwesigire and Eton (2022), who found that regulatory oversight strengthens internal credit management systems and reduces default rates in microfinance institutions. Similarly, Busari (2023) established that institutions operating under strong regulatory frameworks tend to record better repayment performance due to improved compliance and accountability structures.

Overall, the findings confirm that government regulations have a direct, positive and statistically significant effect on loan performance in COMFIs, indicating that regulatory frameworks are a key determinant of sustainable lending performance in credit-only microfinance institutions in Kenya. This direct effect does not constitute the test of Ho_5, which concerns the moderating effect of government regulations on the relationship between credit risk management practices and loan performance. Ho_5 is tested in Section 4.9.2.

4.9 Multiple Linear Regression Analysis

This section presents the results of the multiple linear regression analysis conducted to determine the influence of credit risk management practices on loan performance of credit-only microfinance institutions (COMFIs) in the selected counties in Central Kenya. The analysis further examined the moderating effect of government regulations on the relationship between credit risk management practices and loan performance.

The study adopted a hierarchical regression approach. First, the main effects model was estimated to determine the direct effect of credit risk identification, credit risk assessment, credit policy,

credit risk oversight, and government regulations on loan performance. Secondly, the moderated model was estimated by introducing interaction terms between government regulations and each credit risk management variable.

4.9.1 Main Effects Model

The first model tested the direct relationship between the independent variables, the moderating variable and loan performance. The model was specified as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 M + \varepsilon$$

In this model, β_0 represents the constant term, while β_1 to β_5 represent the coefficients of credit risk identification, credit risk assessment, credit policy, credit risk oversight and government regulations respectively. Each coefficient shows the expected change in loan performance resulting from a one-unit change in the relevant predictor, while holding all other variables constant. The error term captures other factors affecting loan performance that were not included in the model.

Table 4.21: Multiple Regression Results for the Main Effects Model

Model Summary				
Model	**R**	**R^2**	**Adjusted R^2**	**Std. Error of the Estimate**
1	0.842	0.709	0.692	0.418

a. Predictors: (Constant), Credit risk identification, Credit risk assessment, Credit policy, credit risk oversight, government regulations
Note: The regression model was statistically significant at $p < .05$.

ANOVA[a]					
Source	**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
Regression	37.284	5	7.457	49.637	0.000
Residual	15.321	102	0.15		
Total	52.605	107			

a. Predictors: (Constant), Credit risk identification, Credit risk assessment, Credit policy, credit risk oversight, government regulations
b. Dependent Variable: Loan Performance

Co-efficient results							
Model 1	**B**	**Std. Error**	**Beta**	**T**	**Sig.**	**Lower Limits**	**Upper Limits**
Constant	0.742	0.183		4.055	0.000	0.379	1.105
Credit Risk Identification	0.156	0.034	0.221	4.588	0.000	0.089	0.223
Credit Risk Assessment	0.218	0.041	0.301	5.317	0.000	0.137	0.299
Credit Policy	0.174	0.038	0.247	4.579	0.000	0.099	0.249
Credit Risk Oversight	0.137	0.035	0.189	3.914	0.000	0.068	0.206
Government Regulations	0.126	0.033	0.173	3.818	0.000	0.061	0.191

a. Dependent Variable: Loan Performance
b. Predictor: Credit risk identification, Credit risk assessment, Credit policy, credit risk oversight, government regulations

Table 4.21 shows that the model had an R value of 0.842, indicating a strong positive relationship between the predictor variables and loan performance. The R^2 value of 0.709 indicates that credit

risk identification, credit risk assessment, credit policy, credit risk oversight, and government regulations jointly explained 70.9% of the variation in loan performance among COMFIs. The adjusted R^2 value of 0.692 confirms that the model remained robust after adjusting for the number of predictors. The standard error of estimate was 0.418, indicating a relatively low level of prediction error. These findings imply that credit risk management practices and government regulations are important determinants of loan performance among credit-only microfinance institutions.

The ANOVA results presented in Table 4.21 show that the regression model was statistically significant, $F(5,102) = 49.637$, $p < 0.05$. This indicates that the predictor variables jointly had a significant effect on loan performance. Therefore, the main effects model results indicate that credit risk identification, credit risk assessment, credit policy, credit risk oversight, and government regulations significantly explain variations in loan performance of COMFIs in the selected counties in Central Kenya. The findings imply that effective credit risk management practices and supportive regulatory frameworks are important determinants of loan performance.

Based on the coefficients in Table 4.21, the main effects regression equation was:

$$Y = 0.742 + 0.156X_1 + 0.218X_2 + 0.174X_3 + 0.137X_4 + 0.126M + \varepsilon$$

The equation shows that when the predictor variables are held constant, the baseline level of loan performance is 0.742. The coefficient for credit risk identification is 0.156, meaning that a one-unit improvement in credit risk identification is associated with a 0.156-unit increase in loan performance, holding other variables constant. Credit risk identification has a significant positive effect on loan performance of COMFIs ($p < 0.05$). This implies that improved practices in

identifying credit risks are associated with improved loan performance. The coefficient for credit risk assessment is 0.218, indicating that credit risk assessment had the strongest contribution to loan performance. Credit risk assessment significantly influences loan performance of COMFIs, ($p < 0.05$) indicating that effective assessment of borrowers' creditworthiness contributes to improved loan performance. Similarly, a one-unit improvement in credit policy is associated with a 0.174-unit increase in loan performance. Credit policy has a significant positive effect on loan performance of COMFIs ($p < 0.05$) suggesting that well-designed and effectively implemented credit policies contribute to better loan outcomes. Additionally, one-unit improvement in credit risk oversight is associated with a 0.137-unit increase in loan performance. Credit risk oversight significantly improves loan performance of COMFIs, ($p < 0.05$) implying that stronger monitoring, control, and governance mechanisms enhance loan performance. Government regulations also had a positive coefficient of 0.126, with a significant direct effect on loan performance of COMFIs ($p < 0.05$), implying that effective regulatory frameworks contribute to improved loan performance.

The results indicate that all the predictor variables had positive and statistically significant effects on loan performance among COMFIs.

4.9.2 Moderation (Interaction) Model

Moderation analysis was conducted to determine whether government regulations changed the strength or direction of the relationship between credit risk management practices and loan performance. Before creating the interaction terms, the independent variables and the moderating variable were mean-centered to reduce potential multicollinearity.

The moderated regression model was specified as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 M + \beta_6 X_1 M + \beta_7 X_2 M + \beta_8 X_3 M + \beta_9 X_4 M + \varepsilon$$

In the moderated model, the interaction terms test whether government regulations alter the effect of each credit risk management practice on loan performance. A statistically significant interaction coefficient indicates that moderation exists. A positive and significant interaction coefficient means that government regulations strengthen the relationship between the relevant credit risk management practice and loan performance, while a negative coefficient would suggest a weakening effect.

Table 4.22: Moderated Multiple Regression Results for Main Effects and Interactions

Model Summary

Model	R	R^2	Adjusted R^2	R^2 Change	Std. Error of the Estimate
Model 1: Main effects	0.842	0.709	0.692	-	0.418
Model 2: Main effects + interactions	0.879	0.773	0.751	0.064	0.376

a. Predictors for Model 1: Constant, credit risk identification, credit risk assessment, credit policy, credit risk oversight, and government regulations.
b. Predictors for Model 2: Constant, credit risk identification, credit risk assessment, credit policy, credit risk oversight, government regulations, $X_1 \times M$,$X_2 \times M$,$X_3 \times M$ and $X_4 \times M$
c. Dependent Variable: Loan Performance

ANOVA[a]

Source	Sum of Squares	Df	Mean Square	F	Sig.
Regression	40.664	9	4.518	37.053	0.000
Residual	11.941	98	0.122		

Total	52.605	107

a. Predictors: (Constant), Credit risk identification, credit risk assessment, credit policy, credit risk oversight, government regulations, $X_1 \times M$,$X_2 \times M$,$X_3 \times M$ and $X_4 \times M$
b. Dependent Variable: Loan Performance

Co-efficient results

Model 1	**B**	**Std. Error**	**Beta**	**T**	**Sig.**
Constant	0.684	0.169	-	4.047	0.000
Credit Risk Identification	0.142	0.033	0.201	4.303	0.000
Credit Risk Assessment	0.196	0.039	0.271	5.026	0.000
Credit Policy	0.158	0.037	0.224	4.27	0.000
Credit Risk Oversight	0.127	0.035	0.178	3.629	0.001
Government Regulations	0.119	0.031	0.166	3.839	0.000
$X_1 \times$ M	0.073	0.029	0.104	2.517	0.014
$X_2 \times$ M	0.091	0.03	0.132	3.033	0.003
$X_3 \times$ M	0.057	0.027	0.081	2.111	0.037
$X_4 \times$ M	0.041	0.026	0.059	1.577	0.118

a. *Dependent Variable: Loan Performance*
b. Predictor: Credit risk identification, credit risk assessment, credit policy, credit risk oversight, government regulations, $X_1 \times M$,$X_2 \times M$,$X_3 \times M$ and $X_4 \times M$
c.Interaction terms: $X_1 \times M$ = credit risk identification × government regulations; $X_2 \times M$ = credit risk assessment × government regulations; $X_3 \times M$ = credit policy × government regulations; $X_4 \times M$ = credit risk oversight × government regulations.

Table 4.22 shows that after the interaction terms were introduced, the R value increased from 0.842 to 0.879, while R^2 increased from 0.709 to 0.773. This means that the moderated model explained

77.3% of the variation in loan performance, compared to 70.9% explained by the main effects model.The R^2 change of 0.064 indicates that the interaction terms contributed an additional 6.4% explanatory power to the model. This suggests that government regulations improved the predictive strength of the model and played a moderating role in the relationship between credit risk management practices and loan performance.

The ANOVA results in Table 4.22 indicate that the moderated regression model was statistically significant, $F(9,98) = 37.053$, $p < 0.05$. This shows that the independent variables, government regulations, and the interaction terms jointly explained a significant proportion of the variation in loan performance among COMFIs.

The coefficient results show that all direct predictors remained positive and statistically significant after the interaction terms were introduced. Credit risk assessment had the strongest direct effect on loan performance, $B = 0.196$, $p < 0.05$, followed by credit policy, $B = 0.158$, $p < 0.05$, credit risk identification, $B = 0.142$, $p < 0.05$, credit risk oversight, $B = 0.127$, $p < 0.05$, and government regulations, $B = 0.119$, $p < 0.05$. This implies that each of these variables made a positive contribution to loan performance even after accounting for the moderating role of government regulations.

The interaction results further show that government regulations significantly moderated some of the relationships between credit risk management practices and loan performance. The interaction between credit risk identification and government regulations was positive and statistically significant, $B = 0.073$, $p = 0.014$. This indicates that government regulations strengthened the relationship between credit risk identification and loan performance.

The interaction between credit risk assessment and government regulations was also positive and statistically significant, B = 0.091, p = 0.003. This was the strongest interaction effect, suggesting that government regulations had the greatest moderating influence on the relationship between credit risk assessment and loan performance.

Similarly, the interaction between credit policy and government regulations was positive and statistically significant, B = 0.057, p = 0.037. This implies that government regulations enhanced the contribution of credit policy to improved loan performance.

However, the interaction between credit risk oversight and government regulations was positive but statistically insignificant, B = 0.041, p = 0.118. This means that government regulations did not significantly moderate the relationship between credit risk oversight and loan performance.

Overall, the findings indicate that government regulations significantly moderated the relationships between credit risk identification, credit risk assessment, credit policy, and loan performance. However, no significant moderation effect was established for credit risk oversight. Therefore, the interaction model confirms that government regulations strengthen the effectiveness of selected credit risk management practices in improving loan performance among COMFIs in the selected counties in Central Kenya.

Hypothesis Ho_5 stated that government regulations have no statistically significant moderating effect on the relationship between credit risk management practices and loan performance of credit-only microfinance institutions in selected counties in Central Kenya. As specified in Section 3.15, the decision on this hypothesis was based on the significance of the individual interaction coefficients in Table 4.22 at the 5% level, together with the change in the coefficient of determination between the main effects model and the moderated model (R^2 change = 0.064).

The interaction terms for credit risk identification (B = 0.073, p = 0.014), credit risk assessment (B = 0.091, p = 0.003) and credit policy (B = 0.057, p = 0.037) were statistically significant. Therefore, the null hypothesis (Ho_5) was rejected with respect to credit risk identification, credit risk assessment and credit policy, indicating that government regulations significantly moderate the relationship between each of these practices and loan performance. The interaction term for credit risk oversight was not statistically significant (B = 0.041, p = 0.118). Therefore, the study failed to reject the null hypothesis (Ho_5) with respect to credit risk oversight, indicating that government regulations do not significantly moderate the relationship between credit risk oversight and loan performance. Ho_5 was thus partially rejected.

Based on the moderated regression coefficients in Table 4.22, the estimated moderated regression equation was:

$$Y = 0.684 + 0.142X_1 + 0.196X_2 + 0.158X_3 + 0.127X_4 + 0.119M + 0.073X_1M + 0.091X_2M + 0.057X_3M + 0.041X_4M + \varepsilon$$

The equation shows that when all predictor variables and interaction terms are held constant, the baseline level of loan performance is 0.684. The coefficient for credit risk identification is 0.142, meaning that a one-unit increase in credit risk identification leads to a 0.142-unit increase in loan performance, holding other variables constant. The coefficient for credit risk assessment is 0.196, indicating that it had the strongest direct effect on loan performance.

Similarly, a one-unit increase in credit policy leads to a 0.158-unit increase in loan performance, while a one-unit increase in credit risk oversight results in a 0.127-unit increase in loan performance. Government regulations also had a positive coefficient of 0.119, implying that improved regulatory compliance contributes to better loan performance.

The interaction terms further show that government regulations modify the relationship between credit risk management practices and loan performance. For instance, the coefficient for the interaction between credit risk identification and government regulations is 0.073, indicating that government regulations strengthen the effect of credit risk identification on loan performance. Similarly, the interaction between credit risk assessment and government regulations ($\beta = 0.091$) shows the strongest moderating effect, meaning that government regulations significantly enhance the impact of credit risk assessment on loan performance.

The interaction between credit policy and government regulations ($\beta = 0.057$) also indicates a strengthening effect. However, although the interaction between credit risk oversight and government regulations is positive ($\beta = 0.041$), it is relatively weak and statistically insignificant, suggesting that government regulations do not meaningfully alter the relationship between credit risk oversight and loan performance.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the culmination of the study that investigated the effect of credit risk management practices on loan performance among credit-only microfinance institutions in Kenya's central counties of Kiambu, Nyeri, Murang'a and Kirinyaga. The chapter summarizes the key findings of the study, discusses the conclusions drawn from the data analysis, and outlines recommendations based on the research objectives. It also sets out the contribution of the study to theory, empirics, methodology and practice, and suggests possible areas for further investigation that could enhance the understanding of credit risk management in the microfinance sector. The

chapter thus brings together the major insights from the previous chapters and translates them into practical and actionable measures aimed at improving loan performance and institutional sustainability within credit-only microfinance institutions.

5.2 Summary of Research Findings

The study was guided by five specific objectives that sought to establish the influence of credit risk identification, credit risk assessment, credit policy, credit risk oversight, and government regulation on loan performance. A descriptive and explanatory research design was adopted, and both quantitative and qualitative methods were employed to collect and analyze data from 108 respondents representing 37 credit-only microfinance institutions. The findings from each objective provided critical insights into how credit risk management practices contribute to the effectiveness of lending operations and the maintenance of healthy loan portfolios.

The first objective aimed to assess the effect of credit risk identification on loan performance. The findings revealed that institutions with well-developed credit risk identification processes reported better loan repayment performance and lower default rates. Borrower screening, background verification, and the use of credit reference bureau data were particularly effective in identifying high-risk clients. Regression results confirmed a strong positive relationship between credit risk identification and loan performance, indicating that institutions that invest in comprehensive risk identification frameworks are more likely to maintain quality loan portfolios. These results underscore the importance of early detection of potential defaulters, which enables institutions to take preventive measures before disbursing loans.

The second objective sought to examine the effect of credit risk assessment on loan performance. The study found that thorough assessment of borrowers' repayment capacity, financial standing,

and business viability significantly influences loan repayment outcomes. Institutions that applied structured appraisal systems integrating both quantitative and qualitative evaluation recorded higher loan recovery rates. Regression analysis demonstrated a statistically significant relationship between credit risk assessment and loan performance, confirming that strong appraisal practices are essential for reducing loan delinquency. The findings further indicated that well-trained credit officers who possess analytical skills and sound financial judgement make more accurate lending decisions, leading to improved institutional profitability.

The third objective investigated the role of credit policy in determining loan performance. The findings revealed that the existence of clear, comprehensive and consistently enforced credit policies enhances the quality of loan portfolios. Institutions with well-documented procedures governing loan approval, collateral requirements and repayment terms showed superior performance compared to those without formal policies. Moreover, institutions that periodically reviewed and updated their credit policies in response to market changes demonstrated greater resilience and adaptability. The study highlighted that well-structured credit policies create operational discipline, promote accountability, and ensure consistency in decision-making, all of which contribute to sustainable loan performance.

The fourth objective evaluated the influence of credit risk oversight on loan performance. The results indicated that oversight mechanisms, such as regular portfolio reviews, internal audits, and management supervision, play a critical role in reducing default rates. Institutions that maintained continuous monitoring of loan accounts, held regular performance meetings and conducted follow-ups with borrowers recorded better loan recovery outcomes. Oversight was found to promote transparency, accountability, and timely corrective action, particularly in institutions that

integrated feedback mechanisms into their risk management frameworks. The findings therefore demonstrated that strong credit oversight enhances institutional governance and mitigates operational risks associated with loan management.

The final objective assessed the moderating effect of government regulation on the relationship between credit risk management and loan performance. The results showed that regulation significantly strengthens the relationship between credit risk practices and loan outcomes. Institutions that adhered closely to regulatory requirements set by the Central Bank of Kenya and the Association of Microfinance Institutions of Kenya were found to exhibit better performance and improved risk management practices. Respondents acknowledged that regulatory compliance enhances institutional credibility and public trust while ensuring uniformity in credit standards. Nevertheless, some challenges were noted, including limited awareness of new regulatory directives and inconsistent enforcement, which sometimes affected institutional compliance. The findings thus underscored that an effective regulatory environment is indispensable in reinforcing prudent credit management practices and promoting institutional sustainability.

Overall, the study established that all five dimensions of credit risk management have a significant positive influence on loan performance. The combination of robust identification, thorough assessment, sound credit policies, effective oversight, and supportive government regulation forms a holistic framework that enhances repayment performance and financial stability in credit-only microfinance institutions.

5.3 Conclusions

This study concludes that credit risk management is a vital determinant of loan performance in credit-only microfinance institutions. The findings confirmed that when risk management

practices are well designed and systematically implemented, they significantly improve the quality of lending operations and ensure institutional sustainability. Each dimension of credit risk management contributes uniquely to enhancing loan performance, and their integration creates a strong and cohesive framework for maintaining financial stability.

It was concluded that credit risk identification is the foundation of effective lending. Institutions that perform detailed screening of borrowers, verify credit histories, and identify potential repayment challenges at the earliest stages are able to reduce loan default rates. Early identification of risk allows for better-informed lending decisions, improves portfolio quality, and strengthens the overall financial health of the institution.

The study also concluded that credit risk assessment is a key determinant of loan performance. Rigorous appraisal procedures that evaluate the borrower's financial capacity, business performance, and collateral adequacy ensure that loans are extended only to creditworthy clients. This enhances recovery rates and minimises the likelihood of non-performing loans. Institutions that invest in training their credit officers to apply standardised evaluation tools are better positioned to achieve sustainable growth and maintain a healthy credit culture.

In relation to credit policy, the study concluded that well-structured and consistently enforced lending policies are instrumental in maintaining operational discipline and accountability. Institutions with clearly defined procedures for credit approval and loan recovery demonstrate improved performance compared to those with informal or inconsistently applied policies. Regular policy reviews aligned with prevailing market and economic conditions help institutions to remain responsive and resilient in an evolving financial environment.

With regard to credit risk oversight, the study concluded that continuous monitoring and review of loan portfolios significantly strengthen loan performance. Institutions that prioritise internal audits, supervision, and post-disbursement follow-up reduce the likelihood of delinquency and default. Effective oversight promotes institutional transparency, enhances governance, and fosters a culture of accountability and proactive management.

Finally, the study concluded that government regulation plays a moderating and reinforcing role in the relationship between credit risk management practices and loan performance. A robust regulatory environment ensures that institutions comply with prudential standards, apply consistent lending principles and uphold ethical practices. Regulation enhances the credibility and stability of the microfinance sector by promoting sound financial management and protecting clients from exploitative lending practices.

Therefore, the study confirmed that credit risk management practices collectively contribute to improved loan performance, stronger financial stability, and long-term institutional sustainability among credit-only microfinance institutions.

5.4 Recommendations

Based on the study objectives and findings, several recommendations are proposed to strengthen credit risk management and improve loan performance among credit-only microfinance institutions.

5.4.1 Strengthening Credit Risk Identification

In line with the first objective, institutions should invest in advanced credit risk identification tools and processes. This includes adopting data-driven systems such as credit scoring models,

integrating information from credit reference bureaus and performing comprehensive borrower profiling. Regular training should be offered to credit officers to enhance their ability to recognize and evaluate potential risk indicators. Early identification of potential defaulters will enable institutions to make more informed lending decisions and minimize loan losses.

5.4.2 Enhancing Credit Risk Assessment Practices

In accordance with the second objective, credit-only microfinance institutions should standardize their credit assessment procedures to ensure uniformity and precision in loan appraisal. The use of structured financial analysis models, cash flow projections, and collateral evaluation should be prioritised. Institutions should also ensure continuous professional development for their staff to strengthen their analytical and decision-making skills. Comprehensive assessment procedures will ensure that only creditworthy clients access loans, thereby reducing the incidence of non-performing assets.

5.4.3 Reviewing and Enforcing Credit Policies

Based on the third objective, institutions should develop, document, and regularly review their credit policies to ensure they remain relevant to changing market conditions. Clear and transparent policies should govern loan approval processes, repayment schedules and interest rates. Management should also ensure that all staff members fully understand and consistently apply these policies. Strengthening policy enforcement will promote accountability, enhance operational efficiency, and reduce the risk of default.

5.4.4 Improving Credit Risk Oversight Mechanisms

In relation to the fourth objective, institutions should establish robust oversight systems to monitor and evaluate loan performance continuously. This should include the formation of dedicated risk management committees, the implementation of internal audit procedures, and the use of periodic portfolio reviews. Institutions should also adopt early warning systems that identify potential repayment challenges before they escalate. Strong oversight mechanisms will enhance transparency, facilitate timely interventions and promote sound governance within lending operations.

5.4.5 Strengthening the Regulatory Environment

In accordance with the fifth objective, government regulatory agencies, such as the Central Bank of Kenya and the Association of Microfinance Institutions of Kenya, should enhance their supervisory frameworks to ensure consistent enforcement of lending standards. Regulatory bodies should also facilitate capacity-building initiatives that help institutions align with compliance requirements. Additionally, improved coordination among regulators, policymakers and microfinance stakeholders will promote information sharing and the standardization of credit management practices across the sector

5.5 Statement of Contribution

This section sets out the contribution continuum of the study across theory, empirics, methodology and practice.

Contribution to theory. The study extends the Information Asymmetry Theory by demonstrating empirically that its two constituent mechanisms operate with different force in credit-only lending:

the pre-disbursement mechanisms captured by credit risk identification and credit risk assessment exerted stronger effects on loan performance than the post-disbursement mechanisms captured by oversight. It extends the Agency Theory by showing that in an unsecured lending context the bonding mechanism represented by credit policy and the monitoring mechanism represented by oversight are not interchangeable substitutes but contribute separately. It extends the Institutional Theory by establishing that coercive regulatory pressure moderates the effect of internal credit practice selectively rather than uniformly, strengthening the effect of identification, assessment and policy while leaving the effect of oversight statistically unchanged, which indicates that regulation reinforces rule-based practices more readily than continuous discretionary ones.

Contribution to empirics. The study contributes county-level evidence from the credit-only microfinance segment in Central Kenya, a segment that prior studies have largely aggregated with deposit-taking institutions. By disaggregating credit risk management into four practices and estimating a separate model for each, it establishes the relative contribution of each practice rather than reporting a composite effect, and it documents the magnitude of the moderating role of regulation in a segment that is licensed but not prudentially supervised.

Contribution to methodology. The study demonstrates the use of hierarchical moderated regression with mean-centred interaction terms to isolate the conditioning effect of regulation, in place of the direct-predictor specification that dominates the reviewed literature. It also demonstrates the integration of interview evidence in a corroborative rather than constitutive role within a positivist design, offering a replicable template for studies where portfolio records are commercially restricted and practice must be measured through institutional respondents at multiple functional levels.

Contribution to practice. For credit-only microfinance institutions, the study identifies borrower appraisal as the practice with the greatest measurable return on investment and indicates that policy documentation yields little unless enforcement is consistent. For regulators and the Association of Microfinance Institutions of Kenya, it provides evidence that regulatory instruments strengthen some credit practices more than others, which is relevant to the design of supervision for the credit-only segment. For practitioners, it supplies a set of observable practice constructs against which an institution may audit its own credit risk management function.

5.6 Recommendations for Further Research

While this study provided significant insights into the relationship between credit risk management and loan performance, several areas remain open for further exploration. Future research could adopt longitudinal designs to examine the long-term effects of credit risk management practices on institutional performance and resilience. Comparative studies between credit-only and deposit-taking microfinance institutions across different regions of Kenya could reveal contextual factors influencing loan performance. Additionally, further studies could investigate how emerging digital technologies, such as artificial intelligence and big data analytics, are transforming credit risk identification and monitoring in the microfinance industry. Research could also explore the role of internal organisational culture, leadership styles, and employee competencies in shaping effective credit management. Finally, future studies should evaluate the broader impact of regulatory reforms on the competitiveness and sustainability of the microfinance sector.

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APPENDICES

APPENDIX I: INTRODUCTION LETTER

JACKSON MAINA RUNYORA
P.O.Box: 143-10300, Kerugoya
Phone: 0721397375

Date

Dear Respondent,

REF: INVITATION TO PARTICIPATE IN A STUDY ON THE EFFECT OF CREDIT RISK MANAGEMENT ON LOAN PERFORMANCE OF CREDIT-ONLY MICROFINANCE INSTITUTIONS IN SELECTED COUNTIES IN CENTRAL KENYA

I am Jackson Maina Runyora, a doctoral candidate at Kirinyaga University pursuing a Ph.D. in Business Administration with a specialization in Finance. As part of my research, I am conducting a study to explore the effects of credit risk management on loan performance within credit-only microfinance institutions in Central Kenya counties.

Your organization's experience and insights are crucial to understanding how various credit risk management practices impact loan performance. Therefore, I am reaching out to request your participation in this study through the completion of the attached questionnaire. Your responses will provide valuable perspectives on current risk management practices and their effectiveness, ultimately contributing to recommendations for improving loan performance within the sector.

Please be assured that all information provided will be handled with strict confidentiality and used solely for academic purposes. The findings of this study will be available to you upon request.

Thank you for your valuable time and contribution to this research.

Sincerely,

Jackson Maina Runyora

APPENDIX II: QUESTIONNAIRE

Instructions: (Please read the instructions given and answer the questions as appropriately as possible). It is advisable you answer or fill in each section as provided. Make an attempt to answer every question fully and correctly.

Section 1: DEMOGRAPHIC INFORMATION

1. **Age**:
    - ☐ 18-25
    - ☐ 26-35
    - ☐ 36-45
    - ☐ 46-55
    - ☐ 56 and above
2. **Gender**:
    - ☐ Male
    - ☐ Female
    - ☐ Prefer not to say
3. **Position within the organization**:
    - ☐ Loan Officer
    - ☐ Credit Analyst
    - ☐ Risk Manager
    - ☐ Branch Manager
    - ☐ Other (please specify): _____
4. **Years of experience in the Credit Only microfinance sector**:
    - ☐ Less than 1 year
    - ☐ 1-3 years
    - ☐ 4-6 years

- ☐ 7-10 years
- ☐ More than 10 years

5. **Education level**:
   - ☐ High school diploma
   - ☐ Certificate
   - ☐ Diploma
   - ☐ Bachelor's degree
   - ☐ Master's degree
   - ☐ Doctorate
6. **Type of employment**:
   - ☐ Full-time
   - ☐ Part-time
   - ☐ Contractual
   - ☐ Intern/Temporary
7. **Organization size (number of employees)**:
   - ☐ Less than 10
   - ☐ 10-50
   - ☐ 51-100
   - ☐ 101-500
   - ☐ More than 500
8. **Monthly loan portfolio size**:
   - ☐ Less than KSh 1 million
   - ☐ KSh 1-5 million
   - ☐ KSh 5-10 million
   - ☐ KSh 10-20 million
   - ☐ More than KSh 20 million

9. **Duration of organization's operation in credit-only microfinance**:
    - ☐ Less than 1 year
    - ☐ 1-3 years
    - ☐ 4-6 years
    - ☐ 7-10 years
    - ☐ More than 10 years

10. **Location (specific county within central Kenya)**:

- ☐ Kirinyaga
- ☐ Murang'a
- ☐ Nyeri
- ☐ Kiambu
- ☐ Nyandarua

Section 2: CREDIT RISK IDENTIFICATION ON LOAN PERFORMANCE

Instructions: Indicate your level of agreement with each statement.

#	Statement	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1	Our COMFI effectively uses credit reference bureau (CRB) reports when assessing loan applications.					
2	The information provided in loan application forms is thoroughly verified before loan approval.					
3	Our COMFI has a clear and consistent process for identifying potential credit risks in loan applications.					
4	Borrower credit history is a key factor in our loan approval process.					

5	Our COMFI utilizes data analytics to identify risk patterns in loan applications.					
6	Background checks on borrowers are conducted to identify any hidden risks.					
7	Our credit officers are trained to identify credit risk indicators in loan applications.					
8	External sources (e.g., government databases) are consulted to validate borrower information.					

9. What challenges do you face in identifying credit risks within your MFI?
   ……
10. Describe any additional tools or methods you believe would improve credit risk identification…….

Section 3: CREDIT RISK ASSESSMENT ON LOAN PERFORMANCE

Instructions: Indicate your level of agreement with each statement.

S/N	Statement	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1	Business risks are carefully reviewed before approving loans.					
2	Environmental risks (e.g., economic conditions) are adequately considered in the loan assessment.					
3	Borrowers' financial stability and credit history are critically assessed.					
4	The borrower's business plan is evaluated as part of the loan assessment.					
5	Our COMFI employs comprehensive risk assessment tools for loan applications.					
6	Collateral valuation is an essential component of credit risk assessment.					

7	Our COMFI conducts regular training on risk assessment for credit officers.					
8	Borrowers' repayment abilities are assessed using historical loan performance data.					

9. In what ways does your COMFI enhance the accuracy of credit risk assessments?
   ……..
10. How does your institution ensure a balance between thorough risk assessment and quick loan
    processing?.....
    .....

Section 4: CREDIT POLICY ON LOAN PERFORMANCE

Instructions: *Indicate your level of agreement with each statement.*

S/N	Statement	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1	Our COMFI has effective credit evaluation strategies to minimize loan defaults.					
2	Credit monitoring practices in our COMFI help detect potential loan defaults early.					
3	Our credit procedures guide the loan approval and management processes effectively.					
4	We update our credit policies regularly to reflect changes in risks.					
5	Our COMFI offers diverse loan products to mitigate risk exposure.					
6	Loan restructuring options are provided to assist at-risk borrowers.					

7	We collaborate with external partners to share credit risks on large loans.					
8	We have sufficient reserves to absorb losses from defaulted loans.					

9. Describe specific strategies your COMFI uses to minimize loan defaults: .....

10. What role do external credit reference tools play in your risk mitigation strategies? .....

Section 5: CREDIT RISK OVERSIGHT ON LOAN PERFORMANCE

Instructions: Indicate your level of agreement with each statement.

S/N	Statement	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1	Our COMFI has effective monitoring systems to track loan performance post-disbursement.					
2	Regular credit limit reviews are conducted based on borrower performance.					
3	Loan performance data is analyzed frequently to identify risk trends.					
4	Our COMFI has a team dedicated to ongoing credit risk monitoring and oversight.					
5	Corrective actions are promptly taken when risks are identified.					
6	Our COMFI collaborates with external experts to improve credit oversight.					
7	Credit oversight procedures are adapted based on					

	changes in market conditions.					
8	We use feedback from previous loans to improve future credit oversight.					

Open-Ended Questions:

9. How does your COMFI monitor loan performance post-disbursement to manage emerging risks?

……

10. Describe any challenges faced by your team in maintaining consistent credit oversight: .....

Section 6: THE MODERATING ROLE OF GOVERNMENT REGULATIONS AND LOAN PERFORMANCE

Instructions: Indicate your level of agreement with each statement.

S/N	Statement	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1	Government regulations have a significant influence on our credit risk management practices.					
2	Compliance with government regulations improves loan performance.					
3	Regulatory requirements impact our approach to credit risk assessment.					
4	Government regulations ensure transparency in our credit practices.					
5	Regulatory compliance is essential for reducing loan defaults.					

6	Non-compliance penalties influence our adherence to credit protocols.					
7	Government oversight has improved our operational efficiency.					
8	Recent regulatory changes have positively affected our risk management practices.					

9. How do government regulations impact your credit risk management practices? .....

10. Describe a recent regulatory change and its effect on your credit risk practices: .....

SECTION 7: LOAN PERFORMANCE

Instructions: *Indicate your level of agreement with each statement.*

S/N	Statement	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1	The default rate on loans in our COMFI is low compared to industry standards.					
2	Our COMFI's loan portfolio has consistently shown positive growth.					
3	The loan repayment rate in our COMFI has improved over the last year.					
4	Our COMFI has a high loan recovery rate for overdue loans.					
5	The quality of loans disbursed by our COMFI is consistently high.					
6	Our COMFI has established effective mechanisms to manage loan defaults.					

7	The COMFI loan performance is regularly assessed and reported.					
8	The interest rates on our loans are competitive, contributing to improved loan performance.					

9. What factors contribute most to the loan performance success in your COMFI?.....
.....

10. How does your COMFI respond to shifts in loan performance trends?.....
.....

APPENDIX III: INTERVIEW SCHEDULE

EFFECT OF CREDIT RISK MANAGEMENT ON LOAN PERFORMANCE OF CREDIT-ONLY MICROFINANCE INSTITUTIONS IN SELECTED COUNTIES IN CENTRAL KENYA

Introduction

This interview schedule is intended to collect qualitative information from Credit Managers of Credit-Only Microfinance Institutions (COMFIs). The information provided will be treated with strict confidentiality and will be used solely for academic purposes. Responses will remain anonymous and no names of respondents or institutions will be disclosed. The interview is expected to take approximately 30–40 minutes.

Respondent Information

Respondent Code: _____

Institution: _____

Position: _____

Years of Service: _____

Section A: Credit Risk Identification

1. Please describe the procedures your institution uses to identify potential credit risks before approving a loan
2. How does your institution utilize Credit Reference Bureau (CRB) reports or other third-party information when identifying potential credit risks?
3. In your opinion, how effective are your institution's credit risk identification practices in improving loan performance?
4. What challenges does your institution encounter during the credit risk identification process?

Section B: Credit Risk Assessment

5. Please explain how your institution assesses the creditworthiness of prospective borrowers before loan approval.
6. How are business plans evaluated before credit decisions are made?
7. In your opinion, how do credit risk assessment practices influence loan repayment performance?
8. What challenges affect effective credit risk assessment within your institution?

Section C: Credit Policy

9. Please describe your institution's credit policy and how it guides lending decisions.
10. How does your institution ensure compliance with established credit policies?
11. In your opinion, how has the implementation of credit policies influenced loan performance?
12. What challenges does your institution experience in implementing its credit policy?

Section D: Credit Risk Oversight

13. Please describe how your institution monitors loans after disbursement.
14. How frequently does your institution review the performance of its loan portfolio?
15. In your opinion, how has credit risk oversight influenced loan performance?
16. What challenges affect effective credit risk oversight within your institution?

Section E: Government Regulation

17. How do government regulations influence your institution's credit risk management practices?
18. Which government regulations have the greatest influence on your institution's lending operations?
19. In your opinion, how do government regulations influence the implementation of credit risk identification, credit risk assessment, credit policy and credit risk oversight?
20. What challenges does your institution experience in complying with government regulations?
21. What recommendations would you make to improve the regulatory environment governing Credit-Only Microfinance Institutions?

Closing Statement

Thank you very much for your participation. Your views and experiences are highly valued and will contribute significantly to this study.

APPENDIX IV: NACOSTI RESEARCH LICENCE

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

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Date of Issue: **12/July/2025**

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This is to Certify that Mr.. Jackson Maina Runyora of Kirinyaga University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Kiambu, Kirinyaga, Muranga, Nyeri on the topic: EFFECT OF CREDIT RISK MANAGEMENT ON LOAN PERFORMANCE OF CREDIT-ONLY MICROFINANCE INSTITUTIONS IN FOUR CENTRAL KENYAN COUNTIES for the period ending : 12/July/2026.

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PPENDIX V: LIST OF CREDIT-ONLY MICROFINANCE INSTITUTIONS

County	Credit Only Microfinance Institutions	Total
Kirinyaga	Progressive Credit	8
	Mwananchi Credit	
	Diversity Micro-Credit Ltd.	
	My Credit. Co.Ke	
	Presta Capital Ltd.	
	Metropol Capital Ltd.	
	Watu Credit Ltd.	
	Platinum Credit Ltd.	
Murang'a	Molyn Credit Ltd.	8
	Mogo Finance Ltd.	
	Strata Micro Credit Ltd.	
	Jijenge Credit Ltd.	
	The Real People	
	Speed Capital Co.Ke	
	Discount Capital Ltd.	
	Platinum Credit Ltd.	
Kiambu	Kariby Credit Ltd.	12
	Aspira Kenya (CIM Credit Kenya)	
	Green Credit	
	Swift Bridge Capital Ltd.	
	Eden Bridge Capital Ltd.	
	Leaston Credit Ltd.	
	Kenalisha Ltd.	
	Momentum Credit Ltd.	
	Premier Credit Ltd.	
	New Bridge Capital Ltd./Tigoni Acceptances	
	Platinum Credit Ltd.	
Nyeri	Meridian Acceptances Ltd.	9
	Samchi Credit Ltd.	
	FSI Capital Ltd.	
	Bridge Credit Africa	
	Jowyn Credit Kenya	
	ASL Credit Ltd.	
	ECL of Kenya	
	Fincredit Services Ltd.	
	Platinum Credit Ltd.	

APPENDIX VI: ABSTRACT OF PUBLICATION I

Maina, J., Gitau, R., & Waita, G. (2026). Moderating effect of government regulations on the relationship between credit risk management and loan performance in credit-only microfinance institutions. *The Strategic Journal of Business & Change Management*, *13*(2), 491–505. https://doi.org/10.61426/sjbcm.v13i1.3528

Abstract

Credit-only microfinance institutions support financial inclusion by providing credit to borrowers who are often underserved by formal banks, yet persistent loan defaults continue to threaten their sustainability. This study examined the moderating effect of government regulations on the relationship between credit risk management practices and loan performance among credit-only microfinance institutions in Kirinyaga, Nyeri, Murang'a and Kiambu counties, Kenya. The study focused on credit risk identification, credit risk assessment, credit policy and credit risk oversight. Anchored on information asymmetry theory, the study adopted a descriptive and explanatory mixed-methods design. Data were collected using questionnaires and interviews administered to credit management personnel in 37 credit-only microfinance institutions. Of the 111 questionnaires administered, 108 were completed and analyzed. Quantitative data were analyzed using descriptive statistics, correlation analysis, multiple regression, and moderated regression analysis, while qualitative data were analyzed thematically. The main-effects model explained 70.9% of the variation in loan performance, while the moderated model explained 77.3%, indicating an additional explanatory power of 6.4%. Government regulations significantly moderated the relationships between credit risk identification and loan performance, credit risk assessment and loan performance, and credit policy and loan performance. However, the moderating effect on the relationship between credit risk oversight and loan performance was insignificant. The study concludes that government regulations partially strengthen the effect of credit risk management practices on loan performance. The findings contribute to microfinance literature by demonstrating that regulation functions not only as a direct institutional factor but also as a conditional mechanism that enhances selected credit risk management practices.

Keywords: *Credit Risk Management, Loan Performance, Government Regulations, Moderating Effect, Microfinance.*

APPENDIX VII: ABSTRACT OF PUBLICATION II

Maina, J., Gitau, R., & Waita, G. (2026). *Assessing the effect of credit risk identification on loan performance in credit-only microfinance institutions in Central Kenya* [Manuscript submitted for publication]. School of Business and Education, Kirinyaga University.

Abstract

Credit-only microfinance institutions play an important role in expanding access to credit among underserved households, micro-entrepreneurs and small businesses in Kenya. However, persistent loan defaults and declining portfolio quality continue to threaten their financial sustainability, particularly because many borrowers operate in informal markets with limited financial records and unstable income streams. This study examined the effect of credit risk identification on loan performance among credit-only microfinance institutions in Kirinyaga, Nyeri, Murang'a and Kiambu counties in Central Kenya. The study was anchored on Information Asymmetry Theory, which explains how limited borrower information can increase adverse selection and moral hazard in lending. A descriptive and explanatory research design was adopted. Data were collected from credit managers, junior credit officers and field credit officers using structured questionnaires and interviews. Quantitative data were analyzed using descriptive statistics and simple linear regression, while qualitative responses were analyzed thematically. The findings showed that credit risk identification had a positive and statistically significant relationship with loan performance. Specifically, credit risk identification explained 41.2% of the variation in loan performance, with regression results indicating a significant positive coefficient, $B = 0.735$, $p < .001$. The results suggest that borrower screening, verification of loan application information, background checks, use of Credit Reference Bureau reports and assessment of borrower credit history are important in improving repayment performance and reducing default risk. The study concludes that effective credit risk identification is a critical determinant of loan performance among credit-only microfinance institutions. It recommends that these institutions strengthen borrower appraisal systems, improve credit information sharing, train credit officers continuously and adopt data-driven tools for early identification of risky borrowers.

Keywords: *Credit risk identification, loan performance, microfinance institutions, non-performing loans, borrower screening, Central Kenya.*