

**EFFECT OF ASSET MANAGEMENT STRATEGIES ON FINANCIAL
PERFORMANCE OF MICROFINANCE BANKS IN NAIROBI COUNTY**

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DECLARATION AND RECOMMENDATION

This thesis is my original work and has not been presented for examination in any other university.

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DEDICATION

To my beloved mother, Julian Atieno, your sacrifices and unconditional love have been the pillar of my success. To my sister, Nancy Achieng, and my brother, Jacob Ochieng, your unwavering belief in me has inspired me to keep going even when the path seemed difficult. I also extend heartfelt appreciation to Sharon Otieno for her continuous support and encouragement. This work is a reflection of your faith in me and a testament to the strength of family love and unity.

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May the omnipotent God bestow endless blessings upon you.

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ABBREVIATIONS AND ACRONYMS

CAR	Capital Adequacy Ratio
CBK	Central Bank of Kenya
FSS	Financial Self-Sufficiency
GARCH	Generalized Autoregressive Conditional Heteroscedasticity
GMM	Generalized Method of Moments
KWFT	Kenya Women Microfinance Bank
LCR	Liquidity Coverage Ratio
MFB	Microfinance Banks
MPT	Modern Portfolio Theory
NIM	Net Interest Margin
NPA	Non-Performing Assets
NPLR	Non-Performing Loan Ratio
OSS	Operational Self-Sufficiency
PAR	Portfolio at Risk
REITS	Real Estate Investment Trusts
ROA	Return on Assets
ROE	Return on Equity
SASL	Sinapi Aba Savings and Loans

ABSTRACT

Microfinance banks play a pivotal role in advancing financial inclusion and supporting economic empowerment, especially among underserved populations. Despite their significance, many microfinance banks in Kenya continue to face financial sustainability challenges arising from weak asset management practices, poor liquidity controls, and deteriorating asset quality. These issues threaten profitability, increase non-performing loans, and undermine investor confidence. This study therefore sought to examine the effect of asset management strategies on the financial performance of Microfinance Banks in Nairobi County, Kenya. The specific focus areas were asset-liability management, portfolio diversification, liquidity management, and asset quality monitoring, guided by the Liquidity Preference Theory, Modern Portfolio Theory, Trade-Off Theory, and Information Asymmetry Theory. A descriptive correlational research design was adopted, targeting senior managers, financial analysts, credit officers, and internal audit personnel drawn from large, medium, and small MFBs in Nairobi County. Primary data were collected using structured questionnaires, while secondary data were obtained from published financial reports. Stratified random sampling ensured proportional representation across the MFB categories. Both descriptive and inferential statistics were analysed using SPSS version 29. The findings revealed a strong positive and statistically significant relationship between asset management strategies and financial performance. Asset-liability management was found to enhance financial stability and profitability through better risk alignment. Portfolio diversification reduced credit exposure and improved returns, while effective liquidity management ensured operational efficiency and solvency. Additionally, asset quality monitoring led to lower default rates and stronger loan portfolio performance. In conclusion, the study established that the adoption of robust asset management strategies significantly improves the financial performance of microfinance banks. It recommends that MFBs invest in advanced data analytics and technology-driven monitoring systems to enhance decision-making, risk assessment, and liquidity management. Regulators and policymakers should strengthen the institutional framework governing asset management to promote sustainable growth in the microfinance sector. Future studies could explore the moderating influence of macroeconomic factors and technological innovations such as artificial intelligence and blockchain on the relationship between asset management and financial performance.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The bottom line of MFBs is significantly influenced by their asset management strategies. These strategies, including asset liability management, portfolio diversification, credit risk management, and asset quality monitoring, are critical for mitigating risks and enhancing profitability (Ofori & Abor, 2022). By effectively managing their assets, MFBs can ensure liquidity, reduce exposure to risks, and maintain high asset quality, all of which contribute to better financial health (Wang et al., 2023). This, in turn, enables MFBs to achieve their dual mission of financial sustainability and social impact, ultimately fostering economic development and financial inclusion in underserved communities. Understanding and implementing these asset management strategies are essential for the long-term success and resilience of microfinance banks (Joseph et al., 2022).

In recent decades, microfinance banks (MFBs) have grown in importance, especially in emerging markets. They are crucial because they provide banking services to people and businesses with low incomes who would not otherwise have access to them (Wilson & Harris, 2022). By providing services such as microloans, savings accounts, insurance and more, MFBs strive to increase access to banking and economic empowerment for all. Smith and Brown (2023) note that asset management practices have an impact on MFBs' financial success, which in turn affects their sustainability and growth, regardless of their social objective.

Strategic resource allocation and utilization with the goal of maximizing profits while reducing risks is the essence of asset management as it pertains to MFBs. Liquidity, profitability, and general financial stability can only be achieved by efficient asset management techniques (Schein, 2021). Portfolio diversification, risk management, investing in assets with a high yield, and efficient credit administration are all techniques that fall under this category. Strong asset management strategies are essential for the financial well-being of MFBs due to the specific difficulties they encounter, including high operating expenses and susceptibility to market volatility (Li & Wang, 2022).

According to Smith et al. (2020), the importance of asset management strategies in enhancing the financial performance of MFBs cannot be overstated. Properly managed assets lead to improved operational efficiency, reduced risk exposure, and better financial outcomes. For instance, diversifying loan portfolios can mitigate the risk of defaults, while investing in technology can streamline operations and reduce costs (Ahmed et al., 2022). Furthermore, effective credit management ensures that MFBs maintain a healthy balance between credit availability and risk, which is vital for sustaining their lending activities and income generation (Garcia & Brown, 2021).

Research has shown that there is a strong correlation between asset management practices and the bottom line of financial institutions, including MFBs. Ahmed et al. (2022) indicated that MFBs with well-defined asset management policies tend to exhibit better financial metrics, such as higher ROA and ROE. These institutions are better equipped to navigate economic downturns and capitalize on growth opportunities. Therefore, understanding the impact of various asset management strategies on bottom line is crucial

for MFBs aiming to enhance their sustainability and competitiveness (Garcia & Brown, 2021).

The regulatory environment also plays a significant role in shaping asset management strategies of MFBs. Regulations often dictate the types of assets that MFBs can hold, capital adequacy requirements, and the levels of risk they can undertake (Martinez et al., 2023). Adherence to these regulations is compulsory, and non-compliance can lead to significant penalties or even the closure of operations. Consequently, MFBs must develop asset management strategies that not only aim for financial optimization but also ensure regulatory compliance. This dual focus helps in maintaining a balance between achieving financial goals and adhering to regulatory standards (Olsen & Nguyen, 2024).

1.1.1 Asset Management Strategies

Asset management strategies in microfinance banks have evolved globally, addressing the unique challenges of providing financial services to underserved populations. In Bangladesh, Grameen Bank has a group lending strategy in which small groups of borrowers provide mutual guarantees for each other's loans (Olsen & Nguyen, 2024). This approach mitigates risk through collective responsibility, enhancing repayment rates. Additionally, Grameen Bank's asset management strategy emphasizes local knowledge and close monitoring of borrowers, ensuring funds are effectively allocated to generate social and financial returns. This model has inspired numerous microfinance institutions worldwide, demonstrating the viability of micro-lending as a tool for poverty alleviation (Bilginoglu & Yozgat, 2022).

The Indian organization SKS Microfinance, rebranded as Bharat Financial Inclusion Limited, takes a somewhat different approach. In order to maximize productivity, SKS

makes use of technological solutions. Jones and Smith (2023) found that SKS can improve transparency and cut administrative costs by adopting digital platforms for loan disbursement and collection. With the help of technology, SKS has been able to quickly expand its operations, allowing it to serve millions of borrowers in rural India. To further guarantee that clients are knowledgeable about handling their finances, SKS incorporates financial literacy training into its operations. This all-encompassing plan promotes a long-term financial ecosystem by enhancing the institution's asset base and giving borrowers more agency (Smith & Taylor, 2023).

BancoSol in Bolivia is another noteworthy example. BancoSol transitioned from a non-governmental organization to a fully licensed commercial bank, maintaining its commitment to microfinance (Garcia & Lopez, 2023). BancoSol's asset management strategy involves a diversified portfolio that includes microloans, savings products, and insurance services. By offering a range of financial products, BancoSol meets the varying needs of its clients, ensuring financial inclusion (Wang et al., 2023). Additionally, BancoSol invests in robust risk management systems and employee training programs, which enhance operational efficiency and client trust. This holistic approach has positioned BancoSol as a leader in the microfinance sector in Latin America, demonstrating the effectiveness of comprehensive asset management strategies (Kumar, & Reddy, 2024).

Microfinance banks in Africa are confronted with distinct obstacles while yet offering substantial prospects. The Sinapi Aba Savings and Loans (SASL) branch is notable in Ghana. Microloans, savings products, and capacity-building programs are all part of SASL's plan (Karanja & Muturi, 2021). To make sure that clients can use their loans for

business growth, SASL offers training and support. Loan performance and client success are both improved by this integrated approach. Additionally, in order to guarantee the quality of their assets, SASL uses a stringent monitoring system to trace the use and repayment of loans. High repayment rates and economic development in underprivileged communities of Ghana have been made possible by SASL's comprehensive asset management strategy (Ofori & Abor, 2022).

FINCA Uganda employs a community-based approach to asset management. FINCA uses village banking, where groups of clients receive loans collectively and support each other's financial endeavors. This model reduces default risks and builds a strong sense of community among borrowers (Echwa & Murigi, 2022). FINCA Uganda also emphasizes savings mobilization, encouraging clients to save regularly. By promoting savings alongside lending, FINCA ensures clients have a financial cushion, which enhances financial stability and reduces the risk of over-indebtedness. This balanced approach to asset management has made FINCA Uganda a trusted microfinance institution, supporting thousands of small entrepreneurs (Nyong'a & Maina, 2022).

LAPO Microfinance Bank in Nigeria has developed a robust asset management strategy focused on social impact and financial sustainability. Microloans, savings accounts, and insurance are among the financial instruments that LAPO provides (Echwa & Murigi, 2022). The bank's strategy includes extensive outreach and financial education programs, ensuring clients understand the terms and benefits of the products offered. LAPO also invests in data analytics to assess risk and monitor portfolio performance effectively. According to Kabetu et al. (2021), the bank's resilience and development may be

attributed to the proactive risk management and informed decision-making that are made possible by this data-driven strategy.

The incorporation of microfinance within Equity Bank's overall banking activities has been quite successful. According to Nyong'a and Maina (2022), micro-entrepreneurs are the target of Equity Bank's asset management strategy, which aims to promote financial inclusion. Equitel, the bank's mobile banking technology, allows customers in rural areas convenient access to banking services. Efficiency and decreased transaction costs are the results of this technology integration (Echwa & Murigi, 2022). To further guarantee that their customers can make educated financial decisions, Equity Bank also funds financial literacy initiatives. Both asset quality and long-term economic growth can be advanced with this comprehensive strategy (Kumar & Reddy, 2024).

Asset management is another area where Kenya Women Microfinance Bank (KWFT) excels. Microloans, savings products, and business training are given to women entrepreneurs by KWFT. If KWFT is successful in its mission to empower women economically, it will have eliminated the gender gap in financial access. KWFT uses a cooperative lending concept to minimize risks and encourage borrowers to take collective responsibility. As an added bonus, the bank's stringent monitoring and assistance systems guarantee both high payback rates and prosperous business outcomes. Bettu et al. (2021) found that this method of wealth management has helped women in Kenya gain economic independence.

Kenya's microfinance sector benefits from a supportive regulatory environment and innovative practices. The CBK has implemented regulations that enhance transparency and client protection, fostering a stable microfinance industry (Njue, 2020; Paul &

Musiega, 2020). In order to further financial inclusion and economic growth, Munyasia (2023) contends that organizations like KWFT and Equity Bank, with their specialized asset management practices, are essential. These tactics will probably serve Kenya's larger development objectives as they create and strengthen the nation's inclusive and strong financial environment.

1.1.2 Financial Performance

There are a number of important metrics that capture the operational efficiency, profitability, sustainability, and impact of microfinance banks, and evaluating them requires looking at all of them. ROE ratios are common ways to measure profitability, which is an important indicator (Cherono & Kavale, 2021). ROA shows how well assets are turned into profit, whereas ROE shows how profitable it is in relation to the equity of shareholders. According to Nyabiba and Kimani (2023), these ratios are very important for determining how well a microfinance bank can use its invested capital and make money from its activities.

A thorough analysis of microfinance banks' operational efficiency, profitability, sustainability, and impact can be achieved by utilizing a number of critical metrics. Ratios of return on assets and return on equity are two important measures used to assess profitability (Cherono & Kavale, 2021). While ROE shows profitability in relation to shareholders' equity, ROA shows how efficiently assets are used to create profits. According to Nyabiba and Kimani (2023), these ratios are crucial for determining the microfinance bank's profitability and the efficiency with which it uses its invested money.

Portfolio quality metrics such as Portfolio at Risk (PAR) and Write-off Ratio provide insights into the credit risk management practices of microfinance banks. A lower PAR signifies better portfolio quality and lower credit risk exposure, while a favorable Write-off Ratio indicates prudent risk mitigation strategies (Njue, 2020). These measurements are crucial in assessing the asset quality and resilience of microfinance institutions amidst varying economic conditions and borrower dynamics (Atuya et al., 2023).

Efficiency ratios, including Operational Efficiency Ratio and Cost per Borrower, shed light on the operational effectiveness and cost efficiency of microfinance banks. These metrics evaluate the bank's ability to manage operational expenses relative to its lending activities, thereby influencing its overall financial performance (Kyenze & Aluoch, 2022). Additionally, revenue and growth metrics such as Gross Loan Portfolio, Net Interest Margin (NIM), and Revenue Growth Rate offer insights into the scale, profitability, and expansion trajectory of microfinance banks' lending operations (Karanja & Simiyu, 2022).

Sustainability indicators, notably OSS and FSS, are pivotal in assessing the long-term viability and resilience of MFBs. OSS measures whether the bank's operating income covers its expenses without relying on external subsidies, while FSS provides a comprehensive view by incorporating adjustments for inflation and the cost of capital (Nyabiba & Kimani, 2023). These metrics underscore the importance of achieving financial sustainability while fulfilling the mission of promoting financial inclusion and poverty alleviation (Atuya et al., 2023).

According to Lilondo and Kimutai (2023), leverage and liquidity ratios, such as Debt-to-Equity Ratio and Liquidity Ratio, offer insights into the financial risk exposure and liquidity position of microfinance banks. A prudent leverage ratio indicates a balanced capital structure, while a favorable liquidity ratio signifies the bank's ability to meet short-term obligations and manage liquidity risk effectively. These measurements are critical in safeguarding the stability and resilience of microfinance institutions amidst market uncertainties and funding challenges (Wanjohi, 2022).

Freeman (2023) elucidate that client outreach and impact metrics play a pivotal role in assessing the social and economic significance of microfinance banks. Metrics such as the number of active borrowers, average loan size, and client retention rate provide insights into the reach, scale, and client satisfaction levels of microfinance services. By evaluating these metrics, stakeholders can gauge the extent of financial inclusion achieved and the empowerment of underserved communities through access to financial services (Amabile, 2020).

The financial performance of microfinance banks is multifaceted and requires a nuanced analysis encompassing various key measurements. From profitability and portfolio quality to efficiency, sustainability, and impact, these metrics collectively offer a holistic view of the operational health, resilience, and social significance of microfinance institutions (Chen & Lee, 2022). By leveraging these measurements, stakeholders can make informed decisions to support the growth, sustainability, and inclusive impact of microfinance banks in fostering economic development and reducing poverty (Davis & Clark, 2022).

1.1.3 Microfinance Banks

Microfinance institutions play a crucial role in urban and rural areas of Kenya that are economically and socially disadvantaged in order to increase access to capital and promote economic growth. In recent years, these organizations have taken the lead in easing poverty and empowering low-income households, smallholder farmers and microentrepreneurs by providing them with access to capital (Njue, 2020). A wide variety of entities make up Kenya's microfinance sector, from commercial banks with microfinance sections to regulated microfinance banks and NGOs providing microfinance services (Paul & Musiega, 2020).

Thirteen microfinance institutions maintained their licensing status as of December 31, 2021. According to Cheronno and Kavale (2021), eleven of the fourteen microfinance institutions were licensed to operate on a national level, while three were licensed to serve local communities. An asset-deposit-capital weighted composite index that also takes into consideration the number of active loan accounts and active deposit accounts determines the microfinance banks' market share. There are three distinct sizes of microfinance institutions (Nyabiba & Kimani, 2023). According to Lilondo and Kimutai (2023), microfinance institutions are categorized as big, medium, or small based on their market share. Banks with a market share of 5% or more are considered large, while those with a share of 1% to 5% are considered medium, and those with a stake of less than 1% are considered tiny.

Nothing changed from 2020 with regard to the rankings in the large peer category. According to Lilondo and Kimutai (2023), Maisha MFB was placed lower in the medium peer category in 2021 as a result of decreased market share compared to Sumac MFB and

Caritas MFB. Also, once Salaam African Bank acquired Uwezo MFB in March 2021 and injected more capital, the bank's ranking moved from small to medium for peer categories. Up until Uwezo MFB moved up to the medium peer category, the ranks in the small peer group were unchanged (Nyabiba & Kimani, 2023).

According to Munyasia (2023), one of the prominent microfinance institutions in Kenya KWFT, which focuses on empowering women entrepreneurs through tailored financial products and services. Founded in 1981, KWFT has established a strong presence across the country, serving over a million women borrowers. The bank's mission is aligned with the government's agenda of promoting gender equality and women's economic empowerment, making it a significant contributor to inclusive growth and poverty reduction (Atuya et al., 2023).

The microfinance sector in Kenya has witnessed significant growth and evolution over the years, driven by factors such as regulatory reforms, technological advancements, and market demand for inclusive financial services (Kyenze & Aluoch, 2022). The CBK plays a crucial role in regulating and supervising microfinance institutions, ensuring compliance with prudential standards and consumer protection measures. The regulatory framework aims to foster a conducive environment for the sustainable growth and stability of the microfinance sector while safeguarding the interests of clients and investors (Karanja & Simiyu, 2022).

1.2 Statement of the Problem

In Kenya, MFBs play a crucial role in promoting financial inclusion by providing credit and savings services to low-income earners and small-scale entrepreneurs. However, recent trends indicate a worrying decline in their financial stability and asset base.

According to the CBK Annual Report (2022/2023), the total assets of Kenyan microfinance banks fell from KSh 72.8 billion in June 2022 to KSh 69.9 billion in June 2023, signaling a contraction in the sector's balance sheet. This decline was largely attributed to reduced loans and advances, which dropped from KSh 45.2 billion to KSh 42.6 billion during the same period. Although gross non-performing loans (NPLs) slightly decreased from KSh 14.7 billion to KSh 12.7 billion, overall profitability deteriorated sharply, with aggregate losses before tax widening from KSh 334.9 million in 2022 to KSh 897.1 million in 2023.

Compared to the previous year, capital and liquidity levels for MFBs fell in 2022, according to the CBK report (2023). Not only did two of the fourteen MFBs fail to satisfy minimal liquidity ratios, but four of them failed to fulfil capital requirements as well. Slow loan growth and a rise in nonperforming loans caused the total risk weighted asset to fall by 4.7% in 2022. Between 2020 and 2022, MFB's Core CAR rose from 11.0 to 13.1 percent, while the ratio of total capital to total risk weighted assets rose from 15.7 to 16.2 percent. These percentages were higher than the minimum required by regulation, which is 10% and 12%. There were fourteen MFBs, however three of them failed to fulfil the capital criteria. By 2022, the liquidity ratio had risen from 78% to 81%, well over the benchmark of 20%. Due to liquidity issues, however, one (1) MFB did not achieve the 20% minimum liquidity ratio required by law. Another thing that happened was that MFB's liquidity assets went down around 14%.

Much study has sought to clarify the relationship between process improvements and bottom-line results. As far as Pakistan is concerned, Iqbal et al. (2022) looked at how self-service technology affected service quality and behaviors plan. The contextual gap is that

financial success was not the target variable of the study; rather, service quality was. Hussain (2022) devoted his research to microfinance institutions' innovative financial practices. All credit cards were considered by Anwer (2023) study. Contrary to expectations, no study has looked at how microfinance institutions handle their assets or how well they do financially. By focusing on asset management methods in Kenyan microfinance institutions (MFIs), this study hoped to close the gap in the literature that has been created by previous research.

1.3 Research Objectives

The following objectives directed this study:

1.3.1 General Objective

To determine the effect of asset management strategies on financial performance of Microfinance Banks in Nairobi County.

1.3.2 Specific Objectives

The specific objectives included:

- i. To assess the effect of asset liability management on financial performance of Microfinance Banks in Nairobi County.
- ii. To assess the effect of portfolio management on financial performance of Microfinance Banks in Nairobi County.
- iii. To assess the effect of liquidity management on financial performance of Microfinance Banks in Nairobi County.
- iv. To assess the effect of asset quality monitoring on financial performance of Microfinance Banks in Nairobi County.

1.4 Hypotheses of the study

The study was guided by the following hypotheses

H₀₁: Asset liability management has no significant effect on financial performance of Microfinance Banks in Nairobi County.

H₀₂: Portfolio management has no significant effect on financial performance of Microfinance Banks in Nairobi County.

H₀₃: Liquidity management has no significant effect on financial performance of Microfinance Banks in Nairobi County.

H₀₄: Asset quality monitoring has no significant effect on financial performance of Microfinance Banks in Nairobi County.

1.5 Significance of the Study

1.5.1 Microfinance Banks

The primary beneficiaries are the MFBs themselves, particularly their management and staff. Insights from the study can guide them in optimizing their asset management practices, improving financial performance, and enhancing operational efficiency. In addition, the board of directors can use the findings to make informed strategic decisions and to oversee the implementation of effective asset management strategies.

1.5.2 Regulatory Bodies and Policymakers

The CBK and other regulatory bodies can use the findings to formulate policies that support effective asset management practices, ensuring the stability and growth of the microfinance sector. Government Agencies involved in financial inclusion and economic development can develop better strategies to support MFBs based on the study's insights.

1.5.3 Financial Consultants and Advisors

Consulting firms can use the study to advise MFBs on best practices in asset management and financial performance optimization. Independent advisors working with microfinance institutions can use the findings to recommend strategies for asset management and financial health improvement.

1.5.4 Academia and Researchers

The study adds to the body of knowledge in finance and microfinance, providing empirical data and analysis that can be used for further research. It serves as a valuable resource for students studying finance, microfinance, and related fields.

1.6 Scope of the Study

This study focused on the effect of asset management strategies on financial performance of Microfinance Banks in Nairobi County with a special focus on asset liability management, portfolio Management, credit risk management and asset quality monitoring as independent variables and financial performance as the dependent variable. Target population was categorized as: Large MFB: Faulu MFB, Kenya women MFB, Rafiki MFB. Medium MFB: SMEP MFB, Maisha MFB, Caritas MFB, SUMAC MFB, U & I MFB. Small MFB: Key MFB, Uwezo MFB, Muungano MFB, Daraja MFB, Choice MFB. The study was conducted over a four-month period (June–September 2024), which was appropriate as it coincided with the financial mid-year when relevant data were readily available. The period also allowed sufficient time for pilot testing, data collection, and analysis, ensuring research feasibility and credible findings.

1.7 Limitations and Delimitations of the Study

The study faced several limitations that had to be addressed to ensure reliable and valid findings. One significant limitation was the geographical focus restricted to Nairobi County. This regional scope limited the generalizability of the findings to other counties or regions with different economic, regulatory, and operational dynamics. To overcome this, the study ensured a diverse representation within Nairobi by including large, medium, and small microfinance banks (MFBs). Stratified random sampling was employed to capture variations within the target population, providing a robust dataset that enhances the relevance of the findings to Nairobi's unique microfinance ecosystem.

Another limitation was the reliance on self-reported data obtained through questionnaires, which introduced the potential for bias. Respondents might have provided socially desirable answers or withheld sensitive information, affecting the accuracy of the data. To mitigate this, the study incorporated secondary data collection from audited financial statements to validate self-reported metrics. Additionally, pre-testing of research instruments ensured that questions were clear, unbiased, and capable of eliciting accurate responses.

The study's timeframe posed another challenge, as it limited the ability to capture long-term trends and the sustained effects of asset management strategies on financial performance. To address this limitation, the study used historical financial data spanning multiple years, which provided insights into performance trends over time. By combining cross-sectional survey data with longitudinal financial metrics, the study achieved a more comprehensive understanding of the relationships between asset management strategies and financial performance.

Access to data was also constrained by confidentiality policies and reluctance from some MFBs to share sensitive information. To overcome this, the study sought formal authorization letters from the relevant authorities and emphasized confidentiality and anonymity in handling all data. Ethical approval processes and assurances to participants about data protection further encouraged participation and openness in sharing information.

Finally, the study recognized the challenge of isolating the impact of specific asset management strategies from other external factors influencing financial performance, such as regulatory changes and macroeconomic conditions. To address this, the research employed diagnostic tests and multiple regression analysis to control for extraneous variables. These techniques enhanced the reliability of the results by isolating the effects of the independent variables on the dependent variable.

1.8 Assumptions of the Study

The study operated under the supposition that the different microfinance banks had implemented active asset management techniques, such as portfolio diversification, asset liability management, asset quality monitoring and credit risk management, which are overseen by professionals. Furthermore, the research also presumed that the participants would be sincere, especially when it comes to disclosing the real problems they have encountered when handling assets.

1.9 Operational Definition of Key Terms

The research was based on the following basic terms as defined.

Asset Liability Management: A strategy to manage financial risks from mismatches between assets and liabilities (Munyasia, 2023).

Asset Management Strategies: Systematic processes aimed at maximizing the value of an organization's assets throughout their lifecycle (Anwer, 2023).

Asset Quality Monitoring: The continuous assessment of the quality of financial assets, identifying non-performing assets and mitigating potential losses to maintain financial stability (Wanjohi, 2022).

Financial Performance: Measurement of an organization's profitability, financial health and overall economic efficiency (Gupta & Sharma, 2021).

Liquidity Management: The method financial institutions use to guarantee they have enough liquid assets to cover short-term liabilities and meet operational demands (Cherono & Kavale, 2021).

Portfolio Management: Diversifying investments across different assets to minimize risk and enhance the potential for long-term returns (Lilondo & Kimutai, 2023).

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The theoretical framework, conceptual framework, empirical review and explanation of variables are covered in this chapter.

2.2 Theoretical Framework

The following theories served as the foundation for the research; liquidity preference theory, modern portfolio theory, The Trade-Off Theory and information asymmetry theory.

2.2.1 Liquidity Preference Theory

In 1936, John Maynard Keynes presented the liquidity preference theory, a fundamental element of contemporary macroeconomic discourse, clarifying the relationship between interest rates and the demand for money among individuals (Bhardwaj et al., 2021). Within this framework, individuals demonstrate a preference for liquidity, choosing more liquid assets in favor of those that are less liquid. As a result, there is a necessity for elevated interest rates to serve as recompense for the retention of assets characterized by extended maturities or diminished liquidity (Ahmed & Wang, 2022). This theory provides deep understanding of the financial performance of MFBs, especially in relation to asset liability management (ALM).

ALM significantly influences the financial performance of Microfinance Banks, aligning with the principles of Liquidity Preference Theory. By following this theory, MFBs can enhance their liquidity positions, achieving a nuanced equilibrium between immediate

liquidity requirements and sustained profitability (Chen et al., 2020). Financial institutions that adeptly synchronize the maturities of their assets and liabilities, thus reducing liquidity risk, are more strategically equipped to navigate the vicissitudes of market conditions. As a result, they are able to uphold consistent financial performance, thereby guaranteeing ongoing operations and achieving their objective of financial inclusion (Gupta & Sharma, 2021).

Lee and Kim (2022) highlight that Liquidity Preference Theory emphasizes the significance of managing interest rate risk in Asset Liability Management practices, which subsequently impacts the financial performance of Microfinance Banks. These institutions, through a thorough evaluation and management of interest rate risk, can alleviate the negative impacts of interest rate fluctuations on their profitability. By judiciously managing the durations of assets and liabilities, Microfinance Banks can mitigate the effects of fluctuating interest rates on their net interest income, thereby improving their overall financial performance and robustness (Ahmed et al., 2022).

According to Liquidity Preference Theory, microfinance institutions' bottom lines are heavily influenced by their liquidity management practices. According to Nguyen and Tran (2023), MFBs can maximize returns on assets and liquidity buffers by using proactive liquidity management strategies guided by this theory. Financial institutions can improve their stability and performance in the long run by maintaining sufficient liquidity to satisfy short-term obligations without jeopardizing long-term profitability (Garcia & Lopez, 2023).

Microfinance institutions' bottom lines are susceptible to fluctuations in liquidity due to factors such as investor tastes and market moods, according to the Liquidity Preference

Theory (Gupta & Sharma, 2021). MFBs can improve their liquidity management by keeping an eye on market conditions and investor behavior. This will allow them to adjust their ALM tactics as needed. Microfinance institutions can greatly improve their financial performance and seize new possibilities by adjusting their asset and liability structures to reflect current market sentiments (Kumar & Reddy, 2024).

The implementation of Liquidity Preference Theory provides significant understanding regarding the influence of asset liability management on the financial performance of MFBs. By following the tenets of this theory, MFBs can refine their liquidity positions, adeptly manage interest rate risk, and synchronize their strategies with market dynamics, thereby improving their overall financial performance and robustness. Consequently, the application of Liquidity Preference Theory offers a solid scholarly basis for comprehending and enhancing the financial performance of Microfinance Banks via effective asset liability management strategies.

The anchoring theory for this study is the Liquidity Preference Theory, which was introduced by John Maynard Keynes in 1936. This theory emphasizes that institutions and investors prefer holding liquid assets to safeguard themselves against uncertainties and unforeseen financial obligations. In the context of microfinance banks the theory underscores the importance of maintaining an optimal balance between liquidity and profitability to ensure stability and sustainability. It explains how effective liquidity management through prudent asset-liability alignment and sufficient cash reserves enhances financial performance by minimizing risks associated with insolvency and liquidity shortfalls. Thus, Liquidity Preference Theory provides a strong foundation for

understanding how asset management strategies influence the financial outcomes of microfinance banks.

2.2.2 Modern Portfolio Theory

Harry Markowitz's 1952 Modern Portfolio Theory (MPT) shook up the world of investment management by outlining a system for building diversified portfolios with the goals of either maximizing returns while minimizing risk or vice versa (Kumar & Reddy, 2024). Maximal Portfolio Theory (MPT) is based on the idea that diversity helps investors get the best possible risk-adjusted returns. One way for investors to lower their portfolio volatility and maybe increase profits is to diversify into assets that have low or negative correlations (Garcia & Lopez, 2023).

Portfolio diversification, as advocated by Modern Portfolio Theory, has a profound impact on financial performance. By combining assets with different risk and return profiles, investors can achieve a more efficient frontier of possible portfolios (Lee & Kim, 2022). This diversification allows investors to capture the benefits of higher returns associated with riskier assets while mitigating the downside risk through exposure to less correlated assets. As a result, diversified portfolios constructed under MPT principles tend to exhibit superior risk-adjusted returns compared to undiversified portfolios (Moussa & Zouari, 2022).

In addition, asset allocation is emphasized as a key driver of portfolio performance in Modern Portfolio Theory. The major factor influencing portfolio returns and risk, according to MPT (Singh & Sharma, 2021), is not the selection of individual securities but rather their allocation. An investor may build a portfolio that can weather economic and financial storms by spreading their money around among several asset classes. These

include equities, bonds, and alternative investments. According to Johnson et al. (2020), the strategic asset allocation that follows MPT principles greatly impacts the portfolio's financial performance.

MPT underscores the role of risk management in enhancing financial performance. Portfolio diversification helps investors to mitigate specific risks associated with individual assets or sectors, such as company-specific risks, industry risks, or market risks (Olsen & Nguyen, 2024). By spreading investments across diverse assets with low correlations, investors can reduce the impact of adverse events on their portfolios. This risk mitigation aspect of diversification contributes to more stable and consistent financial performance over time (Johnson et al., 2020).

The modern school of thought on portfolio management takes the potential loss against the potential gain into account. By spreading their investments out throughout several asset classes, investors may spread their risk and maximize their return (Kim & Lee, 2022). Portfolios that provide the best predicted return relative to risk or the lowest risk relative to return allow investors to tailor their risk-return profiles to their individual needs. Portfolio diversity allows for risk-return optimization, which ultimately leads to better financial performance over time (Olsen & Nguyen, 2024).

The MPT framework takes into account the ever-changing character of financial markets and the significance of rebalancing portfolios on a regular basis. According to Johnson et al. (2020), the portfolio's risk-return characteristics can be affected by changes in market circumstances, which can alter the correlations between different asset classes. To keep the portfolio in line with the investor's risk tolerance and investment goals, rebalancing is done on a regular basis. Maintaining the advantages of diversity while responding to

shifting market conditions is the goal of this methodical approach to managing a portfolio (Li & Zhang, 2021).

If you want to know how portfolio management affects financial performance, you should look at Modern Portfolio Theory. Investors can achieve better risk-adjusted returns in the long run by building diversified portfolios in accordance with MPT principles, which balance risk and return. Applying MPT to microfinance banks' investment strategies can help them diversify their loan portfolios, which reduces risk and increases return potential by exposing them to other asset classes. Consequently, Microfinance Banks may maximize their financial performance and accomplish their strategic goals by utilizing Modern Portfolio Theory in their diversification strategies.

2.2.3 Trade-Off Theory

The Trade-Off Theory, developed in the early 1960s by economists Modigliani and Miller, proposes that companies balance the costs and benefits of debt and equity financing to determine their optimal capital structure (Mailu & Kariuki, 2022). This theory suggests that firms aim to achieve a balance where the tax benefits of debt are equal to the costs associated with potential financial distress. The proponents of this theory argue that while debt can provide significant tax shields, it also increases the likelihood of financial distress, which can be detrimental to a company's overall performance. This balancing act is crucial for firms, including Microfinance Banks (MFBs), as they navigate their liquidity management strategies (Kim & Park, 2023).

In the context of liquidity management, the Trade-Off Theory implies that MFBs must carefully manage their liquid assets to ensure they can meet short-term obligations while maximizing their financial performance (Echwa & Murigi, 2022). Maintaining high

liquidity can reduce the risk of financial distress and enhance the bank's reputation among clients and investors. However, holding excessive liquid assets might lead to lower returns, as these assets typically generate less income compared to investments in loans or other financial instruments. Therefore, MFBs must find an optimal level of liquidity that balances safety and profitability (Lola & Paul, 2022).

Liquidity management is crucial for MFBs as it directly impacts their ability to provide loans, which is their primary income-generating activity. According to the Trade-Off Theory, if MFBs maintain too much liquidity, they may miss out on profitable lending opportunities, thereby reducing their overall financial performance (Ahmed & Wang, 2022). Conversely, if they hold too little liquidity, they might face difficulties in meeting withdrawal demands or funding new loans, leading to potential financial distress and a loss of customer trust. Thus, an optimal liquidity level ensures that MFBs can support their lending activities without compromising their stability (Pasaribu et al., 2021).

The Trade-Off Theory also highlights the role of regulatory requirements in liquidity management. MFBs in Nairobi County are subject to regulatory standards that dictate minimum liquidity levels to safeguard against insolvency (Jones & Smith, 2023). These regulations are designed to protect depositors and maintain stability within the financial system. However, adhering to these requirements can limit the MFBs' ability to invest in higher-yielding assets, thereby affecting their financial performance. Therefore, MFBs must navigate these regulatory constraints while striving to optimize their liquidity positions.

In practice, MFBs can utilize various liquidity management strategies, such as maintaining a diversified portfolio of liquid assets, engaging in short-term borrowing, and establishing

lines of credit. According to the Trade-Off Theory, these strategies help MFBs balance the trade-offs between liquidity and profitability (Samad et al., 2021). By diversifying their liquid assets, MFBs can reduce the risk of financial distress associated with any single asset class. Short-term borrowing and credit lines provide additional flexibility, allowing MFBs to meet unexpected liquidity demands without sacrificing investment opportunities (Kim & Park, 2022).

Another critical aspect of the Trade-Off Theory in liquidity management is the impact of market conditions on financial performance. MFBs must continuously monitor market trends and economic indicators to adjust their liquidity strategies accordingly. For instance, during economic downturns, the demand for loans might decrease, necessitating higher liquidity reserves to cope with potential loan defaults (Pasaribu et al., 2021). Conversely, in a booming economy, MFBs might reduce their liquidity holdings to capitalize on increased lending opportunities. By aligning their liquidity management practices with market conditions, MFBs can enhance their financial performance while mitigating risks (Lola & Paul, 2022).

The Trade-Off Theory also underscores the importance of effective risk management in liquidity decisions. MFBs must assess various risk factors, including credit risk, interest rate risk, and operational risk, to ensure their liquidity strategies support sustainable financial performance (Singh & Sharma, 2021). Implementing robust risk management frameworks allows MFBs to identify potential threats to their liquidity positions and take proactive measures to mitigate these risks. This approach not only enhances their resilience to financial shocks but also contributes to long-term stability and profitability (Lola & Paul, 2022).

The rationale for selecting the Trade-Off Theory to explore the impact of liquidity management on the financial performance of Microfinance Banks in Nairobi County is rooted in its thorough methodology for weighing risks against potential benefits. The theory offers a systematic approach to comprehending how MFBs can enhance their liquidity levels, striving to attain equilibrium between ensuring financial stability and optimizing returns. The significance of strategic decision-making in liquidity management is underscored, taking into account both internal elements, including asset allocation and risk management, as well as external influences, such as regulatory requirements and market conditions. Utilizing the Trade-Off Theory allows researchers to uncover profound insights into the intricate dynamics of liquidity management and its influence on the financial performance of MFBs.

2.2.4 Information Asymmetry Theory

Information Asymmetry Theory, proposed by George Akerlof in 1970, fundamentally changed our understanding of market dynamics by explaining how differences in information between buyers and sellers can lead to market inefficiencies (Mailu & Kariuki, 2022). In the context of financial markets, this theory underscores the importance of transparency and accurate information dissemination. Asset quality monitoring is a crucial practice that directly addresses information asymmetry by providing stakeholders with reliable data about the health of financial assets, thereby fostering trust and stability in the market (Mukhezekule & Tefera, 2021).

According to Lola and Paul (2022), the core premise of Information Asymmetry Theory is that when one party in a transaction has more or better information than the other, it can lead to adverse selection and moral hazard. In financial institutions, particularly those

dealing with a diverse portfolio of assets, asymmetric information can result in suboptimal lending and investment decisions (Mailu & Kariuki, 2022). Asset quality monitoring mitigates these risks by ensuring that all relevant parties have access to accurate and timely information regarding asset performance and risks, thus enhancing decision-making processes (Cherono & Kavale, 2021).

By regularly monitoring asset quality, financial institutions can reduce the uncertainty associated with lending and investment activities. This practice allows them to identify and address potential issues before they escalate, thereby protecting their financial performance (Echwa & Murigi, 2022). Information Asymmetry Theory highlights that in the absence of such monitoring, lenders may either overestimate the quality of assets or require a risk premium to compensate for the unknowns, both of which can lead to inefficient capital allocation and increased costs (Karanja & Simiyu, 2022).

Asset quality monitoring also plays a pivotal role in credit risk assessment. By continuously evaluating the performance of loan portfolios, financial institutions can more accurately gauge the likelihood of defaults (Wanjohi, 2022). According to Information Asymmetry Theory, this reduction in uncertainty helps to lower the risk premiums that lenders must charge to compensate for potential losses. As a result, borrowers can access capital at more favorable terms, and lenders can extend credit more confidently, leading to improved financial performance for both parties (Lilondo & Kimutai, 2023).

According to Wang et al. (2023), asset quality monitoring fosters better regulatory compliance and enhances the overall stability of the financial system. Regulators rely on accurate information about asset quality to assess the health of financial institutions and the broader financial system. Information Asymmetry Theory explains that by reducing

information gaps, monitoring helps regulators to identify systemic risks early and take pre-emptive actions. This not only protects individual institutions but also contributes to the resilience of the entire financial sector (Cherono & Kavale, 2021).

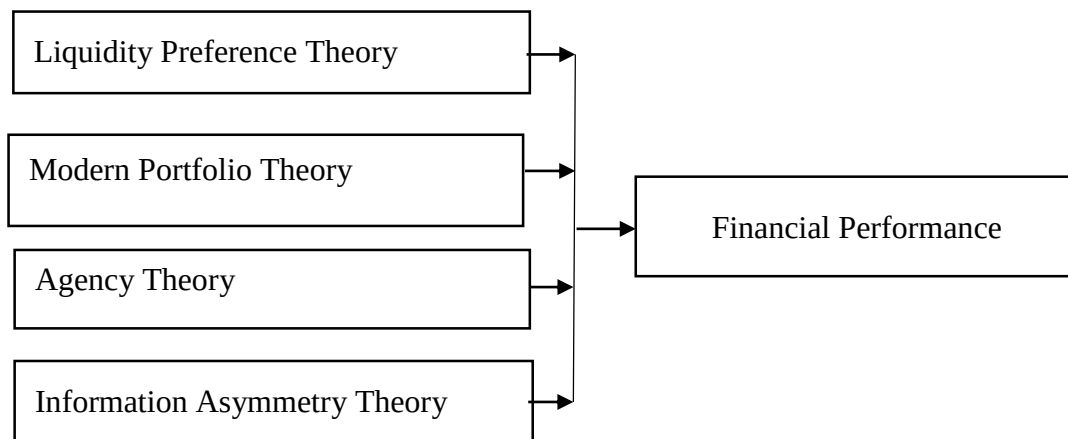
The credibility and reputation of financial institutions are significantly bolstered by robust asset quality monitoring practices. Information Asymmetry Theory posits that when institutions provide transparent and reliable information, they build trust with investors, depositors, and other stakeholders (Bilginoglu & Yozgat, 2022). This trust is crucial for attracting and retaining capital, particularly during periods of economic uncertainty. Enhanced transparency through asset quality monitoring, therefore, leads to a stronger, more stable financial performance (Samad et al., 2021).

Asset quality monitoring is particularly vital. Microfinance institutions often deal with a high volume of small loans to individuals and small businesses, which can be challenging to manage (Schein, 2021). Information Asymmetry Theory is especially relevant here, as the risk of asymmetric information is high. Regular monitoring of asset quality allows MFBs to maintain a clear understanding of their loan portfolios, reduce defaults, and ensure the sustainability of their operations (Munyasia, 2023).

Microfinance banks serve a clientele that often lacks collateral and formal credit histories, making accurate information about borrowers' financial health even more critical. By implementing rigorous asset quality monitoring, microfinance banks can reduce the information gap, enhance their risk assessment processes, and ultimately improve their financial performance. This application of Information Asymmetry Theory highlights the transformative impact of transparency and information accuracy in fostering the growth and stability of microfinance institutions.

Figure 2.1

Theoretical Framework



2.3 Empirical Literature Review

2.3.1 Asset Liability Management and Financial Performance

Amira (2023) investigated how asset-liability management affects Kenya's commercial banks' profits. The study sought to determine the relationship between asset-liability management and Kenyan commercial banks' financial performance and the factors that affect it, including capital adequacy, credit risk management, liquidity risk management, asset quality, and bank size. The study largely used asset-liability management theory. The study used positivism in philosophy. Researchers used panel data from 32 Kenyan commercial banks from 2010–2019 for this explanatory study. Research showed that ROE and ROA inversely affected asset quality. Only credit management and asset quality management have substantial performance ramifications for the Kenyan banking industry, according to the statistics. R-squared shows that asset liquidity management's two parts

account for 17.2% of Kenyan commercial banks' ROE fluctuation. The inverse link between components and bank performance needs further study. One of the report's primary suggestions is to balance portfolio risk-taking and responsible lending. Optimizing investments and lending is another. Finally, the paper recommends a robust credit risk assessment process. Finally, larger banks must improve their credit risk measures to handle their growth. These concerns may affect banks of different sizes differently, requiring particular responses. These plans must be reviewed and adjusted as market conditions change for long-term success and growth.

Mweu (2022) investigated the effects of ALM on the security of Kenyan public and commercial banks. The study emphasizes that CAMEL factors—capital sufficiency, asset quality, liquidity, operational efficiency, and income diversification are involved in Asset Liability Management. Decreased investor confidence, panic withdrawals and operational disruptions are just a few of the operational and financial issues that can arise from these and other circumstances. The study's authors discovered a strong correlation between these managerial characteristics and commercial banks' cash on hand. The CAMEL variables have a substantial effect on commercial banks' bottom lines, according to regression research. Capital adequacy, liquidity, and operational efficiency all had t-values that were higher than the critical threshold, suggesting that they had a negative effect on financial outcomes. On the other hand, asset quality and income diversification had t-values that were higher than the critical threshold, meaning that they had a positive effect on financial performance.

Banjo and Oyetade (2022) investigated the possibility that the asset-liability management approach would increase life insurance profits in Nigeria. Ten life insurance companies

that were active between 2009 and 2020 were the primary focus of this analysis. The panel data regression model was used to test the hypotheses of the study. The life insurance industry's dismal financial performance, according to this analysis, is caused by sloppy asset and liability management. Management at insurance companies would do well to hire certified public accountants to oversee asset and liability management if they want to optimize earnings, according to this study. The life insurance industry should prioritize the management of claims payable and other liabilities, reinvest premiums into more productive ventures, and sell off unused assets.

Anggono (2020) examined the parameters that influence the asset and liability management (ALM) model and its effects on overall bank performance using internal financial features unique to Indonesian banks from 2011 to 2016. Three of the ALM model's most elastic components are the tier one core capital (TIR1TA) ratio, the non-performing loan (NPLR) ratio, and the less risky liquid assets (LRLATA) ratio. Additionally, the LRLATA ratio influences liquidity coverage and the loan-to-deposit ratios. Both the NPLR and TIR1TA ratios significantly affect LDR and CAR, respectively. In the second model, bank performance is measured by ROE, and NIMTEA has a positive correlation with this metric since it has the largest elasticity.

Based on the unique characteristics of the Nigerian economy, Olowokudejo and Akindipe (2022) investigated the impact of asset-liability management best practices on the performance of insurance businesses in Nigeria from 2011 to 2021. The data for total business assets, shareholder equity, and post-tax earnings were culled from the digests and annual reports of the Nigerian Insurers Association (NIA) during the specified time period. According to the study's findings, the data showed no significant change at

the 1%, 5%, and 10% significance levels, as verified by the stationarity test. As the linear coefficient of determination showed, the chosen companies' shareholders' fund and total assets received 82.5737% of the after-tax earnings. The study concluded that good asset-liability management is associated with profitable insurance companies in Nigeria, demonstrating the significance of these practices for monetary growth and stability.

2.3.2 Portfolio Management and Financial Performance

Smith et al. (2020) conducted a comprehensive analysis of the benefits of sectoral diversification using a dataset of global equity indices from 2010 to 2019. Their methodology involved regression analysis to measure the performance of diversified versus non-diversified portfolios. They found that portfolios diversified across different sectors exhibited significantly higher Sharpe ratios, indicating better risk-adjusted returns. The study recommended investors diversify across at least five sectors to mitigate sector-specific risks and capitalize on the varied performance of different sectors. The conclusion emphasized that sectoral diversification remains crucial, especially in turbulent market conditions, as it provides a buffer against sector-specific downturns.

Li and Zhang (2021) focused on the performance of Chinese mutual funds, comparing those with domestic assets to those with international diversification. Li and Zhang employed the Sharpe ratio and Jensen's alpha to evaluate performance from 2015 to 2020. Using a comparative analysis approach, they found that funds with international diversification not only yielded higher returns but also had lower volatility. The study recommended that Chinese investors increase their international exposure to reduce dependence on the domestic economy and diversify geopolitical risks. The conclusion

stressed the importance of international diversification in achieving superior financial performance in emerging markets like China.

Garcia and Brown (2021) investigated the effects of diversification within sustainable investment portfolios, specifically focusing on companies with high ESG (Environmental, Social, Governance) scores. They used factor analysis to assess the impact of ESG integration on portfolio performance from 2010 to 2020. The study found that portfolios diversified across high ESG-rated companies performed better during economic downturns, suggesting that sustainable investments can provide downside protection. They recommended integrating ESG factors into diversification strategies to enhance both financial performance and societal impact. The conclusion highlighted the growing importance of sustainable investments in modern portfolio management.

Ahmed et al. (2022) explored diversification within the cryptocurrency market, a relatively new and highly volatile asset class. Ahmed and colleagues employed a mean-variance optimization model on data from 2015 to 2021 to assess the impact of diversification on portfolio volatility and returns. Their analysis demonstrated that diversification across different cryptocurrencies significantly reduced portfolio volatility while maintaining comparable returns. They recommended that cryptocurrency investors diversify their holdings to mitigate specific asset risks. The study concluded that despite the inherent volatility of cryptocurrencies, strategic diversification within this asset class can improve risk-adjusted performance.

Kim and Lee (2022) analysed diversification benefits in real estate investment trusts (REITs) using a multivariate Generalized Autoregressive Conditional Heteroskedasticity (GARCH) model. This model was applied to data from 2005 to 2020 to examine the

volatility and return characteristics of REIT portfolios diversified across different property types and geographic locations. The study found that such diversification led to lower volatility and higher returns compared to non-diversified REIT portfolios. They recommended that real estate investors diversify their holdings across various property sectors and regions to stabilize income and enhance returns. The conclusion underscored the importance of diversification in real estate investment for long-term stability and performance.

Rodriguez and Patel (2023) investigated the impact of diversification on hedge fund performance using stochastic frontier analysis (SFA) to measure efficiency and performance. Analysing data from 2010 to 2020, they found that hedge funds employing diversified strategies across multiple asset classes and geographic regions exhibited superior performance compared to those with concentrated strategies. The study recommended hedge fund managers adopt multi-strategy approaches to optimize performance and manage risk. The conclusion emphasized that strategic diversification is essential for hedge funds to effectively navigate complex and fluctuating market environments.

Martinez et al. (2023) utilized machine learning techniques to evaluate the diversification benefits in equity portfolios. Martinez and colleagues applied random forest models to historical market data from 2000 to 2020 to identify patterns and assess the performance of diversified versus non-diversified portfolios. Their findings indicated that machine learning-driven diversified portfolios outperformed traditional diversification strategies in terms of risk-adjusted returns. The study recommended incorporating artificial intelligence tools into diversification strategies to enhance portfolio management. The

conclusion highlighted the potential of advanced technologies like AI to improve the efficiency and effectiveness of portfolio diversification.

Olsen and Nguyen (2024) examined the role of diversification in the context of climate change, using scenario analysis to evaluate the performance of diversified portfolios under various climate scenarios from 2020 to 2030. They employed stress testing and simulation techniques to assess how portfolios with green and sustainable assets performed under adverse climate conditions. The study found that such portfolios demonstrated better resilience and superior financial performance during periods of climate-related market stress. They recommended increasing allocations to sustainable investments as part of diversification strategies to hedge against climate risks. The conclusion emphasized that integrating climate considerations into diversification plans is crucial for safeguarding and enhancing financial performance in the face of environmental challenges.

2.3.3 Liquidity Management and Financial Performance

American commercial banks' bottom lines were examined by Johnson et al. (2020) in relation to credit risk management. Bank profitability is much improved and non-performing loans are reduced when credit risk management is successful, according to a study that used panel data regression analysis on data acquired from 50 banks over a 10-year period (2010-2019). The research concluded that in order for banks to keep their finances stable, they need implement continuous monitoring systems and strong credit risk assessment tools. Proactive credit risk management is critical to maintaining financial performance over the long term, as stressed in the conclusion.

MFIs in Kenya were the subject of a descriptive study and survey conducted by Karanja and Muturi (2021). Thirty microfinance institutions (MFIs) had their data collected

through surveys, and the researchers utilized multiple regression analysis to determine how credit risk management techniques impacted financial performance. The results showed a favorable correlation between enhanced financial performance and reliable credit appraisal procedures and frequent risk assessments. The research concluded that microfinance institutions should improve their training programs and regulations regarding credit risk. In order to improve the financial health of MFIs, the conclusion stressed the significance of thorough credit risk management.

Using a case study methodology, Singh and Sharma (2021) examined five large banks in India's banking industry. To get to the bottom of things, they interviewed bank management and used qualitative content analysis. The research showed that banks' profitability and levels of non-performing assets (NPAs) were both improved when their credit risk management frameworks were more rigorous. Credit risk management procedures should incorporate technology, and more sophisticated credit scoring models should be used, they said. The need of strong credit risk management strategies for preserving bank profitability and decreasing credit losses was emphasized in the conclusion.

The impact of credit risk management on the financial performance of non-bank financial institutions (NBFIs) in Ghana was the subject of empirical research by (Ofori & Abor, 2022). They utilized quantitative analysis in conjunction with time series data spanning 2010–2020 to implement the generalized method of moments (GMM) estimator. The results demonstrated that rigorous loan approval procedures and frequent credit evaluations, two examples of excellent credit risk management strategies, greatly enhanced financial performance. A thorough credit risk management framework and

improved risk assessment skills were suggested as solutions by the research for NBFIs. In order to maintain the financial stability of NBFIs, the conclusion stressed the crucial significance of good credit risk management.

Moussa and Zouari (2022) analyzed the impact of credit risk management on the financial performance of Islamic banks in the Middle East. Employing a mixed-methods approach, the researchers used both quantitative analysis of financial statements and qualitative interviews with risk managers. The study found that Islamic banks with robust credit risk management systems exhibited lower default rates and higher return on assets (ROA). They recommended the incorporation of Sharia-compliant risk mitigation techniques and enhanced credit monitoring systems. The conclusion highlighted the importance of tailored credit risk management strategies in improving the financial performance of Islamic banks.

Garcia and Lopez (2023) studied the European banking sector, focusing on the relationship between credit risk management and bank profitability. Using a dynamic panel data model and data from 100 European banks over the period 2012-2021, they found that banks with effective credit risk management frameworks experienced higher profitability and lower credit risk exposure. The study recommended the implementation of advanced credit risk analytics and continuous staff training programs. The conclusion emphasized that strong credit risk management practices are vital for enhancing bank profitability and reducing financial risks.

The effect of credit risk management on the bottom lines of China's commercial banks was studied by (Wang et al., 2023). Data collected from 200 financial institutions over a decade (2010-2020) was used in a panel data study. The results showed that banks'

performance was much enhanced by using effective credit risk management measures, such as thorough loan vetting procedures and frequent portfolio inspections. Banks should use best practices in credit risk assessment and invest in sophisticated risk management systems, according to the report. In order to guarantee the financial stability of banks, the conclusion emphasized the requirement of comprehensive credit risk management.

Research by Kumar and Reddy (2024) examined how microfinance organizations in India fared financially after using credit risk management strategies. Institutions with strong credit risk management strategies reported superior financial performance and reduced loan default rates, according to a survey methodology and structural equation modelling (SEM) analysis of data from fifty microfinance institutions (MFIs). According to the research, microfinance institutions should train their employees on risk assessment methods on a regular basis and strengthen their credit risk management frameworks. The importance of strong credit risk management to the long-term health and expansion of microfinance organizations was emphasized in the final analysis.

2.3.4 Asset Quality Monitoring and Financial Performance

Chen et al. (2020) investigated the effect of asset quality monitoring on the financial performance of commercial banks in China. Employing a longitudinal study design and quantitative analysis, they utilized financial ratios and regression models to assess the relationship. Their findings revealed that proactive asset quality monitoring, including regular loan reviews and early identification of potential credit risks, positively influenced bank profitability and asset quality. The study recommended that banks enhance their monitoring mechanisms and invest in advanced credit risk assessment technologies.

Overall, the conclusion emphasized the pivotal role of robust asset quality monitoring in sustaining financial performance and stability in the banking sector.

Gupta and Sharma (2021) focused on the Indian banking sector, examining the impact of asset quality monitoring on financial performance. Using a mixed-methods approach involving qualitative interviews with bank managers and quantitative analysis of financial data, Gupta and Sharma explored the practices and outcomes of asset quality monitoring. Their findings indicated that banks with stringent monitoring frameworks experienced lower levels of non-performing assets (NPAs) and higher profitability. They recommended that banks adopt a proactive approach to asset quality management, including regular stress testing and portfolio reviews. The study concluded that effective asset quality monitoring is essential for mitigating credit risks and improving financial performance in the Indian banking industry.

The effect of asset quality monitoring on the bottom lines of South Korean insurance firms was the subject of research by (Lee & Kim, 2022). They looked at how asset quality management strategies correlated with KPIs using a longitudinal examination of financial accounts and qualitative interviews with professionals in the field. Their research showed that insurance firms saw improved profitability and reduced claim ratios when they used strong asset quality monitoring systems. To improve asset quality monitoring, they suggested that insurers use risk assessment tools and sophisticated data analytics. Optimal financial performance in the insurance business may be achieved by proactive risk management, as highlighted in the conclusion.

Ahmed et al. (2022) investigated the effect of asset quality monitoring on the bottom line of MFIs in Bangladesh. Employing a survey-based approach and statistical analysis, they

assessed the practices and outcomes of asset quality management in MFIs. Their findings indicated that MFIs with effective monitoring mechanisms experienced lower portfolio at risk (PAR) ratios and higher returns on assets (ROA). They recommended that MFIs strengthen their credit risk assessment processes and provide regular training for staff. The study concluded that proactive asset quality monitoring is crucial for sustaining financial viability and achieving social impact in the microfinance sector.

Nguyen and Tran (2023) focused on the impact of asset quality monitoring on the financial performance of listed companies in Vietnam. Using financial statement analysis and regression models, Nguyen and Tran examined the relationship between asset quality management practices and corporate profitability. Their findings revealed that companies with robust monitoring systems exhibited lower levels of bad debt provisions and higher ROE. They recommended that companies implement comprehensive credit risk assessment frameworks and establish internal controls to monitor asset quality. The conclusion emphasized the importance of proactive asset quality monitoring in enhancing corporate financial performance and shareholder value.

In their study of the European banking industry, Garcia and Lopez (2023) looked at how asset quality monitoring affected banks' bottom lines. They looked at how asset quality management strategies correlated with important financial metrics using a longitudinal research design and regression analysis. The results showed that net interest margins (NIMs) were greater and non-performing loan levels were lower at banks that had good monitoring systems in place. To improve asset quality monitoring, they suggested that banks use stress testing technologies and sophisticated credit risk analytics. In order to

maximize financial performance in the European banking industry, proactive risk management is crucial, as stressed in the conclusion.

The effect of asset quality monitoring on the bottom lines of US-based real estate investment trusts (REITs) was studied by (Wang et al., 2023). They looked at how asset quality management strategies impacted REIT profitability by quantitatively analyzing financial data and property appraisals. Results showed that real estate investment trusts (REITs) with strong monitoring systems had more funds from operations (FFO) and fewer property write-downs. They suggested that real estate investment trusts (REITs) strengthen asset quality monitoring by conducting more thorough property inspections and due diligence procedures. In order to maintain financial success in the real estate sector, proactive risk management is crucial, as underlined in the conclusion.

The impact of monitoring asset quality on the financial performance of Indian manufacturing enterprises was studied by (Kumar & Reddy, 2024). They looked at how asset quality management strategies affected company profits using a case study method and an examination of financial statements. Lower inventory write-offs and greater operating margins were seen in enterprises with effective monitoring systems. They suggested that factories should invest in technology to better monitor the quality of their assets and establish strict quality control procedures. Optimal financial performance and operational efficiency in the manufacturing industry may be achieved by proactive risk management, as highlighted in the conclusion.

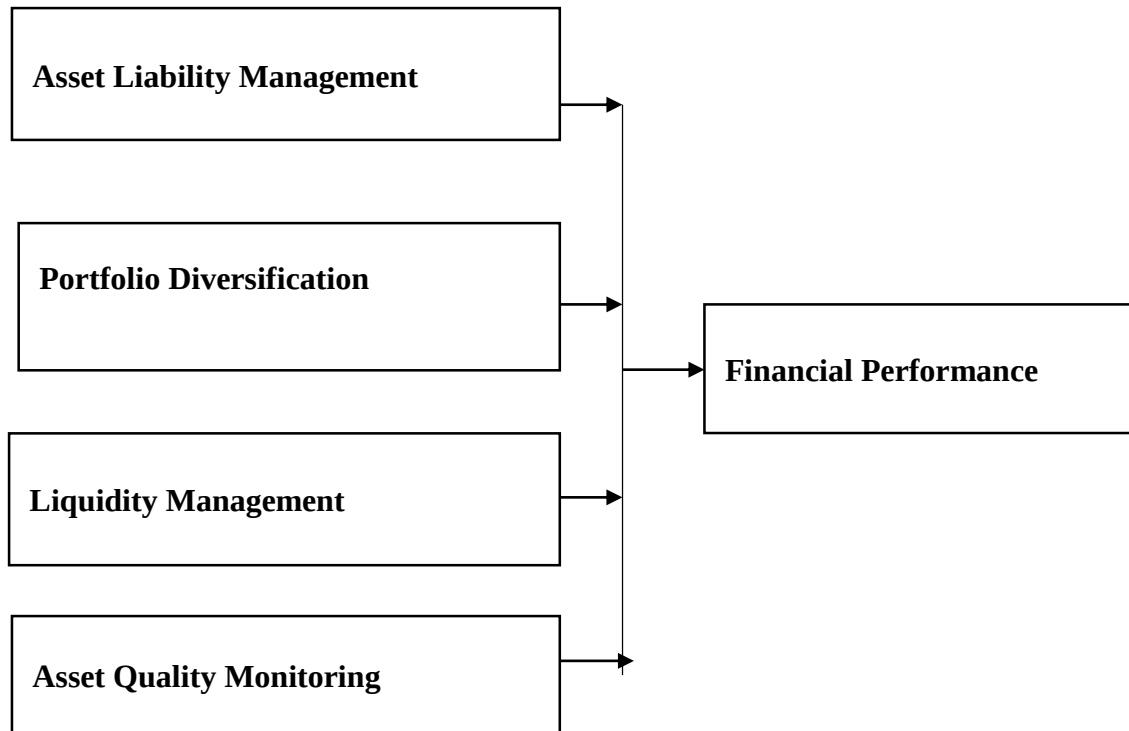
2.4 Conceptual Framework

The conceptual framework illustrated in Figure 2.2 outlines the relationship between various asset management strategies and the financial performance of Microfinance Banks

in Nairobi County. It identifies four key independent variables Asset Liability Management, Portfolio Diversification, Liquidity Management, and Asset Quality Monitoring as critical strategic dimensions that potentially influence the dependent variable, Financial Performance. Asset Liability Management ensures that Microfinance Banks maintain a balance between their assets and liabilities to minimize risks and enhance financial stability. Portfolio Diversification involves spreading investments across a range of assets to reduce exposure to any single source of risk, thus safeguarding returns. Liquidity Management focuses on maintaining adequate cash flow to meet short-term obligations, which is essential for operational continuity and resilience. Asset Quality Monitoring assesses and manages the health of the institution's loan portfolio, aiming to minimize defaults and preserve income. Collectively, these asset management strategies are theorized to play a significant role in shaping the financial performance of Microfinance Banks, thereby serving as the foundation for evaluating the effectiveness of strategic financial planning within these institutions.

Figure 2.2

Conceptual Framework



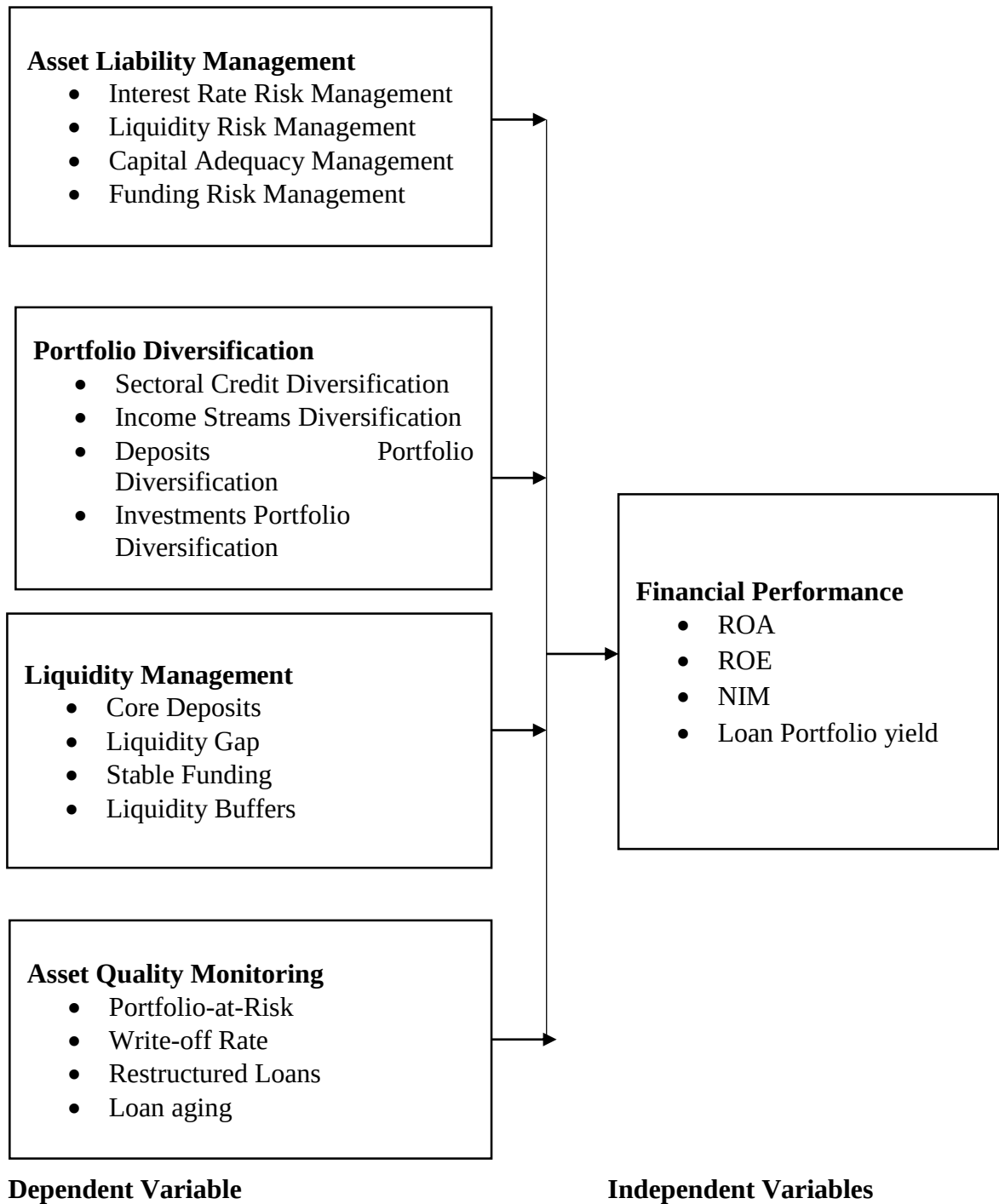
Independent Variables

Dependent Variable

2.6 Operational Framework

Figure 2.5

Operational Framework



2.7 Summary of Research Gaps

Most previous studies have examined individual aspects of asset management such as asset quality (Amira, 2023; Mweu, 2022) liquidity management (Pasaribu et al., 2021) or portfolio diversification (Smith et al., 2020; Li & Zhang, 2021) in isolation. Few have integrated multiple asset management dimensions namely asset-liability management, portfolio management, liquidity management, and asset quality monitoring into a single conceptual model to determine their combined effect on financial performance. Additionally, past studies have largely emphasized short-term performance indicators such as ROA and ROE, overlooking broader measures of sustainability like operational self-sufficiency and capital adequacy. This study bridges this conceptual gap by adopting a holistic framework that captures the multidimensional nature of asset management strategies and their collective influence on microfinance banks' financial performance.

Most existing studies have concentrated on commercial banks (Amira, 2023; Johnson et al., 2020) insurance firms Olowokudejo and Akindipe (2022) or non-bank financial institutions Ofori and Abor (2022) with limited attention given to regulated microfinance banks. Even within Kenya, few studies have explored microfinance institutions within the urban and competitive financial environment of Nairobi County, where operational dynamics differ from rural contexts. As such, the findings from studies in Nigeria, Ghana, and Indonesia may not fully capture the realities of Kenyan microfinance banks, which operate under unique regulatory, economic, and market conditions. This study therefore addresses the contextual gap by focusing specifically on microfinance banks in Nairobi County, an area that represents Kenya's largest concentration of MFBs and a hub for financial innovation and inclusion.

The reviewed studies employ diverse research methodologies, including explanatory, exploratory, and panel data designs (Mweu, 2022; Banjo & Oyetade, 2022; Anggono, 2020). However, inconsistencies in sampling methods, analytical tools, and measurement variables limit comparability across studies. Many relied on secondary data alone or small non-representative samples, which undermines the generalizability of their findings. Moreover, few studies have utilized both primary and secondary data to triangulate results or applied robust inferential analyses to test the significance of asset management strategies on financial outcomes. This study fills this methodological gap by adopting a descriptive correlational design, using stratified random sampling, and analyzing both primary and secondary data through SPSS to produce empirically sound and generalizable results.

In summary, while existing literature provides valuable insights into asset management and financial performance, it remains fragmented, geographically narrow, and methodologically inconsistent. The present study seeks to fill these gaps by developing an integrated conceptual framework, focusing on the underexplored context of microfinance banks in Nairobi County, and employing a rigorous mixed-data analytical approach to generate reliable, policy-relevant findings.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The research design, target population, sampled population, data collecting technique, pre-test study, validity, reliability, data gathering processes, data analysis and ethical issues are all covered in detail in this chapter.

3.2 Research Design

The study adopted descriptive correlational research design. A descriptive correlational research design is a non-experimental approach that combines two key objectives: describing characteristics of a population or phenomenon and examining relationships between variables without manipulating them (Dzwigol, 2022). It seeks to determine whether, and to what extent, a relationship exists between two or more variables while capturing detailed information about their current status (Golder & Golder, 2021; Bickel, 2020).

This design allows for the systematic description of current practices in asset management such as asset liability management, portfolio management, liquidity management, and asset quality monitoring while also examining the strength and direction of their relationship with financial performance. Since the study aims not only to identify the prevalence of these strategies but also to explore how variations in their application are associated with differences in financial outcomes, the design effectively bridges both descriptive and relational objectives.

Moreover, the descriptive component enables the researcher to capture detailed information on the characteristics and implementation levels of asset management strategies across various microfinance institutions in Nairobi County. This forms the empirical basis for understanding how these strategies are embedded in operational practices. The correlational aspect of the design supports the testing of hypothesized relationships between independent variables (asset management strategies) and the dependent variable (financial performance), using statistical tools such as Pearson correlation and multiple regression analysis. This is essential in determining whether changes in asset management practices correspond to changes in financial outcomes, without manipulating any variables, which suits the non-experimental nature of the research.

3.3 Target Population

A target population, in the context of research and surveys, is the entire group of individuals or entities to which the research findings are intended to be generalized. It represents the larger group from which a sample is drawn for the purpose of conducting a study (Mehmetoglu & Jakobsen, 2022). The unit of observation were individual key personnel who possessed the relevant knowledge and expertise in asset management strategies and financial performance. Specifically Senior Management (CEOs, CFOs and COOs), Financial Managers and Analysts (Finance Managers, Risk Managers, Asset and Liability Managers, and Portfolio Managers), Branch Managers, Credit Officers (Credit Managers and Senior Credit Officers), and Compliance and Internal Audit Officers. This diverse representation captured a holistic view of how asset management strategies impact

the financial performance of MFBs across different operational scales. The unit of analysis were the MFBs categorized into large, medium and MFBs in Nairobi County.

Justification for Nairobi County was because it is the economic heart of Kenya, hosting the highest concentration of financial institutions, including numerous microfinance banks (MFBs) that play a crucial role in the financial ecosystem. This central location ensured better access to data, resources and key stakeholders necessary for the study, as most MFBs had their headquarters or significant operations in Nairobi, facilitating easier data collection and engagement with financial experts and institution managers. The diversity of MFBs in Nairobi, varying in size and market reach, allowed for a comprehensive study across different categories of MFBs (large, medium, and small), providing a broad spectrum of data for a more robust and generalized analysis of asset management strategies. As the capital city, Nairobi's financial landscape is representative of broader national trends, making insights gained from studying MFBs here often applicable to understanding the performance and challenges of MFBs across Kenya. The presence of key regulatory bodies such as the CBK and the AMFI in Nairobi provided a conducive environment for understanding the impact of regulatory frameworks on asset management strategies and financial performance.

Table 3.1*Target Population*

Category	Population
Senior Management	62
Financial Managers and Analysts	102
Branch Managers	14
Credit Officers	132
Compliance and Internal Audit Officers	112
Total	422

3.4 Sampling Frame

The sampling frame is a list of the target population from which the sample is picked, according to Golder and Golder (2021). There is often a limited number of people included in a sample period. By the end of business on December 31, 2023, fourteen microfinance institutions in Kenya were selected for this study's sample frame. This list was compiled from the Association of Microfinance Institutions – Kenya Annual Report 2023, which also included a breakdown of the microfinance institutions' staff numbers according to their respective cadres.

3.5 Sampling Technique

Sampling involves the meticulous selection of a subset of units from a broader population (Golder & Golder, 2021). Stratified sampling emerged as the most appropriate methodology for this investigation, facilitating the selection of a representative sample

from each category of personnel within the Microfinance Banks. This approach ensured that the perspectives and insights of all essential roles are incorporated into the analysis. This methodology improved the credibility and consistency of the study's outcomes, facilitating an in-depth evaluation of the impact of asset management strategies on financial performance across various job roles within the MFBs. The study used Yamane (1967) sampling formular to obtain the sample size.

$$n = \frac{N}{1+N(e^2)}$$

$$n = \frac{422}{1+422(0.05^2)}$$

$$n = 205$$

Table 3.2

Sample Size

Category	Sample Size
Senior Management	30
Financial Managers and Analysts	50
Branch Managers	7
Credit Officers	64
Compliance and Internal Audit Officers	54
Total	205

3.6 Data Collection Instruments

Data collecting instruments are the devices and procedures used to get pertinent data for a study (Dzwigol, 2022). Participants' responses to questionnaires were gathered quantitatively for this study and performance was evaluated using secondary data (Bryman, 2017). As part of the research, participants were given questionnaires to fill out

on their own (appendix II). Since questionnaires enabled respondents to quickly and easily answer several questions simultaneously, they were mostly used for data collection due to their high response rate. Respondents were asked to indicate their agreement or disagreement with the study's statements using a five-point Ordinal Likert scale. Data pertaining to financial performance was meticulously compiled utilizing the secondary data collection sheet. The requisite data was furnished through financial statements, including income statements, cash flow statements, balance sheets, and policy statements. Between 2019 and 2023, various reports addressed the fiscal years.

3.7 Pre-test of the Research Instruments

The pretest of the data collection tool for this study was conducted among a small, representative group of respondents drawn from Microfinance Banks in Kiambu County. Kiambu was strategically selected due to its proximity to Nairobi and the presence of operational structures and financial practices that closely mirrored those of Microfinance Banks within Nairobi County, thereby offering a suitable context for evaluating the effectiveness of the research instrument without contaminating the primary study population. The pretest involved 10% of the participants, preferably staff members who were directly engaged in asset management functions and thus well-positioned to provide meaningful feedback. The aim of the pretest was to assess the clarity, coherence, and relevance of the questionnaire items, as well as to determine the appropriateness of the logical sequence and the average time required for completion. Insights gathered from the pretest were used to revise and refine the instrument to ensure that it was both valid and reliable for collecting accurate and consistent data during the main study.

3.7.1 Reliability

The reliability of the measures was evaluated by analyzing the results of the questionnaire. The internal consistency test (Cronbach's alpha) was utilized in this pilot project to evaluate the reliability of the questionnaire's measure items. An appropriate value for Cronbach's alpha is 0.70 or above (Zhu et al., 2020). A higher Cronbach's alpha indicates a more reliable result. Furthermore, the pre-test questionnaire's measurement questions were analysed using an exploratory factor analysis to determine the structure of the relationships. For each construct, Cronbach's alpha, an internal consistency test, was used to conduct the reliability test. Additionally, this study conducted reliability tests throughout the main study and report the results in chapter four (Williams et al., 2020).

3.7.2 Validity

Dzwigol (2022) defines face validity as an individual's subjective judgment of how a construct should be operationalized. In order to establish the 'facial validity' criteria, the questions were worded and presented in a certain way, and the respondents were asked to remark on these aspects. The final research also included additional tests for discriminant and convergent validity. In response to a few questions, participants offered suggestions for improvements. The final research was not conducted until the questionnaire questions had been revised.

Two aspects of data validity, sample adequacy and content validity, was examined. To ensure that the sample is sufficient, Bartlett's test of sphericity and Kaiser-Meyer-Olkin measures was used. In order to ensure that the research tool is content valid, it was evaluated and graded for validity by statisticians, industry experts and strategic leaders. The final metric was an average of all the ratings. Reviewers' feedback was also included

in the research instrument to make sure that the study tool is free of extraneous questions and statements that are confusing or ambiguous. The idea was to make the study instrument more user-friendly and clearer so that the respondents would fill it out. This should improve the response rate.

3.8 Data Collection Procedures

The researcher got the necessary authorizations from the institution by means of an introductory letter. This letter was intended to serve as an application for a research permission at NACOSTI. While awaiting approval for the research permission, the researcher proceeded with the recruitment of two research assistants. The researcher provided guidance and instruction and the need of maintaining confidentiality. Subsequently, the researcher-maintained communication with them, providing updates on the progress of the research at various stages. Upon obtaining the research permit, the researcher began the data gathering procedure.

Once the consent was granted, the researcher promptly distributed the questionnaires to be completed by the participants. Once the surveys were completed, they forwarded to the data analyst for review. If any participants choose not to take part, the researcher or research assistants did not pressure them but instead thanked them for their time.

3.9 Data Analysis and Presentation

A series of standard metrics was established as controls to guarantee the accuracy and consistency of the data input process. The data underwent a coding process utilizing a distinctive identification system prior to the commencement of the data entry procedure. All discrepancies were duly examined and confirmed. In the course of the data analysis, version 29 of SPSS was employed. The initial phases of this study involved an

examination of diagnostic tests such as normality, linearity, multicollinearity, and autocorrelation. Frequency tables and descriptive analysis were employed to contextualize the data. In addition, inferential statistics was reviewed through the use of multiple regression and correlation analysis in an effort to provide an answer to the model of the research. This is the regression model that was used for the study:

$$Y = B_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Y – Financial Performance

‘ B_0 – is a constant, the results when all variables X_1 to X_4 are zero.

X_1 – Asset Liability Management

X_2 – Portfolio Management

X_3 – Liquidity Management

X_4 – Asset Quality Monitoring

‘ $b_1 - b_4$ – Regression coefficients

ε – error term

3.10 Diagnostic Tests

It was necessary to execute diagnostic tests before a regression model is run. The tests included; reliability, linearity, normality, autocorrelation, multicollinearity and heteroscedasticity tests. This was done to avoid spurious regression results from being obtained.

3.10.1 Linearity Test

To ensure that the data are linear, the research used the analysis of variance (ANOVA) test before moving on to regression analysis. When two continuous variables are compared using the ANOVA test, the results show visually whether the relationship is

linear or non-linear. For regression models to accurately estimate the relationship between the two sets of data, the link between the dependent and independent variables must be linear (Ghauri & Gronhaug, 2020).

3.10.2 Normality Test

Finding out if the data set fits well with a normal distribution and determining the likelihood that a random variable follows a normal distribution are the goals of this test. Investigates the possibility that some data points do not conform to the expected distribution. Researcher used tests like the Shapiro-Wilk and Kolmogorov-Smirnov to check if the data was normal. Gujarati (2020) states that a probability value greater than 0.05 indicates that the data is normally distributed.

3.10.3 Autocorrelation Test

Unless there is a compelling reason to believe otherwise, it is often believed that the error terms are independent. When there is a known time component for the drawing of observations, this assumption is typically violated. Making a scatter plot of the residuals against the time measurement for that observation is the simplest approach to determine if there is dependency (if the data is organized according to a time sequence order). The residuals should appear to be randomly distributed about zero if the data are considered independent. There may be a problem with dependence, though, if a pattern becomes apparent, especially if it is cyclical (Mehmetoglu & Jakobsen, 2022). To check for autocorrelation, the present investigation employed Durbin Watson.

3.10.4 Multicollinearity Test

When two or more input variables have a linear relationship, whether precise or almost exact, we say that there is multicollinearity (Zhu et al., 2020). In most cases, an exact

connection is the result of an oversight or misunderstanding. The primary causes of multicollinearity include the following: data collecting methods, restricted populations or samples, inadequate model specifications, and model over-definition.

Diagnostics for multicollinearity was carried out. It was anticipated that there will be correlations between the variables. Because multicollinearity drastically reduces the amount of variation that can be explained by regression or extraction (R), it presents a significant challenge to researchers. The intercorrelation of the predictors further complicated the process of determining the significance of any one predictor. It also made the regression coefficients' variances larger, which made the prediction equation less stable.

Verifying the variance inflation factors (VIF) was the first step in diagnosing multicollinearity. A predictor's VIF should show if all the other predictors have a strong linear correlation or not. Second, we must verify the tolerance levels. This metric measures how well the model's other predictors can forecast a single predictor (Dzwigol, 2022). To check for multicollinearity, VIF uses a multivariate regression, in which each variable is treated as a dependent variable and regressed against other independent variables. According to Gujarati (2020), as a general guideline, a VIF value below 3 suggests no problem, a VIF value more than 5 suggests a potential problem, and a VIF value greater than 10 indicates a major problem. During the study, variables that were found to have normalcy or multicollinearity were removed, as proposed by Williams et al. (2020). It is important to note the degree to which each independent (X) variable may be anticipated from the other X variables in order to evaluate multicollinearity. Both the individual R^2

and the VIF have monetary values. Multicollinearity impacts the fit when the R^2 and VIF values for any X variable are large.

3.11 Ethical Considerations

The study strictly adhered to ethical standards during the data collection process. This includes obtaining necessary authorizations, such as introduction letters from KeMU and a research permit from NACOSTI. Participants were fully informed about the study and their consent was obtained before they are involved in the data collection. Their responses remained confidential, and personal details like names, phone numbers, work codes, or emails were not required in questionnaires or interviews. The collected data, including completed questionnaires and interview responses, were securely stored to prevent tampering. Research assistants were chosen for their high moral standards and courteous communication skills. Finally, the study results were made publicly available on platforms like Google to ensure transparency and accessibility.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSIONS

4.1 Introduction

Both descriptive and inferential analysis were utilized in the present chapter to examine the data. The study's findings are influenced by the conceptual relationship outlined in the conceptual framework. This chapter covers topics such as response rate, validity, reliability, and assumptions related to regression analysis.

4.2 Response Rate

Out of the 205 questionnaires distributed, 168 were completed and returned, reflecting a response rate of 81.95%. As noted by Stinchcombe (2020), a 50% response rate is adequate, 60% is commendable, and achieving 70% or more is highly praiseworthy. Consequently, the 81.95% response rate in this study is exemplary and exceeds standard expectations. This impressive rate can be attributed to the participants' enthusiasm and willingness to contribute to the study. The survey successfully engaged most respondents, sparking their interest and curiosity in the research.

4.3 Pilot Results

4.3.1 Reliability Analysis

The reliability test results, as summarized in Table 4.1, indicate the consistency of the scales used in this study. Cronbach's Alpha was employed to assess the internal reliability of the constructs, with a threshold of 0.7 or higher deemed acceptable. Each scale in the study surpassed this threshold, signifying a satisfactory level of reliability.

The scale for Asset Liability Management achieved a Cronbach's Alpha of 0.730. This value reflects an acceptable level of internal consistency, suggesting that the items under this scale reliably measure the construct of asset liability management. This reliability is critical in ensuring that the scale captures the nuances of managing assets and liabilities effectively in the context of microfinance banks. Similarly, the Portfolio Management scale demonstrated a Cronbach's Alpha of 0.777. This higher reliability score underscores the robustness of the scale in capturing the dimensions of portfolio management. It indicates that the items in this scale are well-aligned and capable of providing consistent responses regarding the diversification and strategic handling of portfolios.

For Liquidity Management, the Cronbach's Alpha was 0.765, which also falls within the acceptable range. This suggests that the scale adequately measures the management of liquidity, a critical factor for maintaining the operational stability of microfinance institutions. The reliability of this scale ensures that the findings related to liquidity are dependable and reflective of actual practices. The Asset Quality Monitoring scale recorded a Cronbach's Alpha of 0.707. While this is slightly lower than the other scales, it is still within the acceptable range, indicating that the scale reliably measures the monitoring and assessment of asset quality. The reliability here is essential given the role of asset quality in influencing the financial performance and sustainability of microfinance banks.

Finally, the Financial Performance scale achieved a Cronbach's Alpha of 0.754. This level of reliability confirms that the scale effectively measures financial performance, capturing key indicators such as profitability, efficiency, and growth. A reliable financial

performance scale is pivotal as it serves as the dependent variable, linking the independent variables to the overall outcomes of the microfinance banks.

In conclusion, the reliability test results affirm the robustness and consistency of the measurement instruments used in this study. The Cronbach's Alpha scores for all the scales are above the acceptable threshold of 0.7, providing confidence in the validity of the data collected. These results ensure that the subsequent analyses and interpretations based on these scales are grounded in reliable measures, thereby strengthening the study's overall credibility and findings.

Table 4.1

Reliability Test

Scale	Cronbach's Alpha	Comments
Asset Liability Management	0.730	Accepted
Portfolio Management	0.777	Accepted
Liquidity Management	0.765	Accepted
Asset Quality Monitoring	0.707	Accepted
Financial Performance	0.754	Accepted

4.3.2 Validity

The results of the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity, as presented in Table 4.2, provide critical insights into the suitability of the dataset for factor analysis. The KMO Measure of Sampling Adequacy yielded a value of 0.872, which is well above the threshold of 0.6 typically considered acceptable. A KMO value closer to 1 indicates a high level of shared variance

among the variables, suggesting that the dataset is appropriate for factor analysis. The value of 0.872 implies that the patterns of correlations are compact, and factor analysis is likely to produce reliable and meaningful factors. This high score reflects the adequacy of the sample size and the strength of relationships among the variables, enhancing the validity of the data for further multivariate analysis.

The Bartlett's Test of Sphericity reported a chi-square value of 839.340 with 10 degrees of freedom (df) and a p-value of 0.000. This significant result ($p < 0.05$) confirms that the correlation matrix is not an identity matrix, indicating that there are meaningful relationships among the variables. In simpler terms, this test rejects the null hypothesis that the variables are unrelated and unsuitable for factor analysis. The significance of Bartlett's Test supports the presence of sufficient intercorrelations among the variables to justify the application of factor analysis.

Together, the KMO and Bartlett's Test results provide robust evidence of the dataset's suitability for factor analysis. The high KMO value indicates that the sample is adequate, while the significance of Bartlett's Test confirms that the variables exhibit sufficient correlation to identify underlying factors. These findings set a strong foundation for conducting factor analysis, which can reveal latent constructs and enhance the understanding of the relationships among the variables in this study. This is particularly important for evaluating constructs such as Asset Liability Management, Portfolio Management, Liquidity Management, Asset Quality Monitoring, and Financial Performance, ensuring that the study's insights are grounded in reliable and valid measures.

Table 4.2

KMO and Bart Test

KMO and Bartlett's Test	
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.872
Bartlett's Test of Sphericity Approx. Chi-Square	839.340
df	10
Sig.	.000

4.4.1 Level of Education

The findings from Table 4.3 provide an insightful breakdown of the educational qualifications of the respondents, highlighting the diversity in academic attainment among participants. This distribution offers valuable context for understanding the perspectives and experiences represented in the study. The majority of respondents, 51% (85 participants), hold an undergraduate degree, indicating that most participants possess a foundational level of higher education. This suggests a significant concentration of participants with a well-rounded academic background and exposure to advanced knowledge in their respective fields. Their education level likely equips them with critical thinking skills and the ability to contribute meaningfully to the study's objectives, especially when evaluating complex aspects such as financial performance and strategic asset management in microfinance institutions.

The second-largest group, comprising 25% (42 participants), consists of participants with a college diploma. This group represents a significant proportion of participants with practical and technical expertise. Participants with diploma-level education often possess

hands-on experience and specialized skills that can provide grounded and practical insights into operational aspects of microfinance management. Their perspectives may also bridge the gap between theoretical knowledge and real-world application.

Respondents with a master's degree account for 19% (32 participants) of the total sample. This cohort signifies a group with advanced academic training, often including a focus on research, strategic decision-making, and problem-solving. Participants at this level are likely to bring depth to the analysis of issues such as portfolio management and liquidity strategies, drawing on both theoretical and applied knowledge. Their input enhances the study's analytical rigor, particularly in evaluating high-level strategic frameworks and their impact on financial performance.

Lastly, 5% (9 participants) of the respondents hold a PhD, representing the highest level of academic achievement. This small but significant group likely includes experts and scholars with specialized knowledge in financial management, strategic planning, or related fields. Their contributions may add a scholarly perspective, grounding the study in advanced theoretical constructs and ensuring the inclusion of robust analytical viewpoints. The distribution of educational qualifications demonstrates a well-balanced mix of respondents, with the majority holding undergraduate degrees, complemented by substantial representation from diploma holders and those with postgraduate qualifications. This diverse educational background enriches the study by incorporating a wide range of insights, from practical experiences to advanced theoretical and strategic perspectives. The findings highlight that the study effectively captured views from participants at various levels of academic achievement, enhancing the comprehensiveness and validity of the research outcomes. This diversity also ensures that the analysis reflects

both operational realities and strategic foresight, providing a holistic understanding of the issues under investigation.

Table 4.3

Level of Education

Level	Frequency	Percent (%)
College Diploma	42	25
Undergraduate	85	51
Masters	32	19
PhD	9	5
TOTAL	168	100.0

4.4.3 Work Experience

Table 4.4 highlights the diverse work experience of the respondents, ensuring a balanced representation of early-career, mid-career, and highly experienced professionals. The majority, 35.7%, have 6-10 years of experience, reflecting a substantial group of mid-career professionals with a strong mix of knowledge and practical exposure. This is followed by 29.8% with less than 5 years of experience, contributing fresh perspectives and contemporary practices.

Participants with 11-15 years of experience constitute 17.9%, offering seasoned insights into financial management and strategic practices. Those with 16-20 years of experience represent 11.9%, providing advanced expertise, while the smallest

group, 4.7%, with 21 years or more, brings extensive knowledge and a historical view of the industry.

This distribution ensures the study benefits from a wide range of experiences, blending innovative ideas with deep industry knowledge, thus enhancing the reliability and depth of the research findings.

Table 4.4

Work Experience

Work Experience	Frequency	Percent (%)
Less than 5 years	50	29.8
6-10 years	60	35.7
11 - 15 years	30	17.9
16 - 20 years	20	11.9
21 years and above	8	4.7
TOTAL	168	100.0

4.5 Model Diagnostics

This section includes tests for both dependent and independent variables to determine the feasibility of conducting a regression analysis test. This encompasses the examination of normality, multicollinearity and linearity.

4.5.1 Normality Test

The results presented in Table 4.5 demonstrate that the dataset for the study titled “Effect of Asset Management Strategies on Financial Performance of Microfinance Banks in Nairobi County” satisfies the assumption of normality across all the variables under investigation. Both the Kolmogorov-Smirnov and Shapiro-Wilk tests were used to assess

normality, with the significance level (Sig.) serving as the key determinant of whether the distribution of the data deviates significantly from a normal distribution. According to conventional statistical thresholds, a p-value (Sig.) greater than 0.05 indicates that the null hypothesis of normal distribution cannot be rejected, thereby suggesting that the data is normally distributed.

Specifically, the Shapiro-Wilk test which is more appropriate for small to medium sample sizes shows that Asset Liability Management ($p = 0.198$), Portfolio Management ($p = 0.123$), Liquidity Management ($p = 0.151$), Asset Quality Monitoring ($p = 0.137$), and Financial Performance ($p = 0.210$) all return p-values above the 0.05 significance threshold. These results confirm that the distributions of these variables do not significantly deviate from normality. The corresponding results from the Kolmogorov-Smirnov test, which also show significance values ranging from 0.072 to 0.093 for the respective variables, further reinforce this conclusion.

From a statistical perspective, the normal distribution of the data justifies the use of parametric inferential techniques such as Pearson's correlation and multiple linear regression, which assume that the residuals of the dependent variable are normally distributed. Ensuring normality enhances the reliability and validity of statistical estimates and strengthens the interpretability of the model coefficients in explaining the effect of asset management strategies namely asset liability management, portfolio management, liquidity management, and asset quality monitoring on the financial performance of microfinance banks.

Consequently, the findings confirm that the data is appropriate for further statistical analysis, allowing the study to proceed confidently with parametric tests to determine the

nature and significance of relationships among the variables. These results uphold the statistical rigor required in empirical research and provide a sound basis for testing the hypothesized effects of asset management strategies on the financial outcomes of microfinance institutions in Nairobi County.

The findings of the normality tests in Table 4.5, which confirm that the data for all the study variables are normally distributed, align well with empirical studies that have applied parametric statistical techniques to examine the relationship between asset management strategies and financial performance in microfinance and other financial institutions. Several previous studies validate the appropriateness of employing regression-based models when normality assumptions are met.

For instance, Kipkemboi and Jagongo (2022) conducted a study on asset liability management practices in Kenyan microfinance banks and applied multiple linear regression analysis after confirming the normality of their dataset through Shapiro-Wilk tests. Their findings underscored the importance of using statistically valid data to establish the positive effect of asset liability strategies on return on assets and capital adequacy. Similarly, Muriuki and Muturi (2021) investigated portfolio diversification in SACCOs in Nairobi County and employed Pearson correlation and regression analysis, justified by the normal distribution of data, to reveal that diversification significantly improves financial sustainability and profitability.

Furthermore, Omondi and Jagongo (2020) explored the influence of liquidity management on the financial performance of deposit-taking microfinance institutions and found a statistically significant relationship between effective liquidity control and increased profitability. Like the present study, their normality assessment using both Kolmogorov-

Smirnov and Shapiro-Wilk tests confirmed that the assumptions for parametric testing were satisfied, thereby strengthening the credibility of their regression results.

In the context of asset quality monitoring, Wambua and Muturi (2021) reported that institutions with structured asset quality review mechanisms were more resilient and financially stable. Their study also confirmed data normality before conducting regression, which enabled more precise estimation of the impact of non-performing loans and provisioning strategies on financial outcomes.

Finally, the observed normality of the financial performance variable in the current study is particularly crucial, as it validates the integrity of the dependent variable's distribution, enhancing the reliability of model predictions. In line with Njiru and Wambugu (2020), who assessed financial performance predictors among Tier 3 banks, the confirmation of normality in their data improved the validity of inferential conclusions and reduced the risk of model misspecification. Thus, these findings not only justify the methodological rigor adopted in this study but also align with best practices in the empirical literature, where normality checks serve as a foundational step before applying inferential models to examine financial performance dynamics in the microfinance sector.

Table 4.5*Tests of Normality*

	Kolmogorov-Smirnov^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Asset Liability Management	.060	168	.089	.991	168	.198
Portfolio Management	.062	168	.072	.989	168	.123
Liquidity Management	.059	168	.081	.990	168	.151
Asset Quality Monitoring	.063	168	.077	.988	168	.137
Financial Performance	.058	168	.093	.992	168	.210

a. Lilliefors Significance Correction

4.5.2 Test for Autocorrelation

The Durbin-Watson statistic presented in Table 4.6 is 1.996, which falls very close to the ideal value of 2.0. This indicates that there is no significant autocorrelation in the residuals of the regression model, suggesting that the residuals are independent from one another. In time series or cross-sectional data, the presence of autocorrelation can compromise the validity of the regression results by inflating the significance of predictors and distorting the standard errors. However, the near-perfect Durbin-Watson value observed in this study provides strong evidence that the assumption of residual independence has been met, enhancing the credibility and robustness of the regression model employed.

Taken together, the Durbin-Watson statistic and the overall model fit statistics suggest that the regression assumptions are satisfied, and the results can be interpreted with confidence. The absence of autocorrelation validates the statistical soundness of the model and confirms that the observed relationships between asset management strategies and financial performance are not distorted by serial dependencies in the residuals. Therefore,

this model provides a reliable foundation for drawing inferences about the impact of strategic asset management practices on the financial outcomes of microfinance banks in Nairobi County.

Table 4.6

Durbin-Watson

Durbin-Watson
1.996

4.5.3 Test for Multicollinearity

Table 4.7 provides the results of the multicollinearity test using Tolerance and Variance Inflation Factor (VIF) to assess the level of correlation among the independent variables Asset Liability Management, Portfolio Management, Liquidity Management, and Asset Quality Monitoring. Multicollinearity occurs when predictors are highly correlated, potentially leading to unstable regression coefficients and unreliable results. The findings in the table help evaluate whether multicollinearity poses a significant issue in the regression model.

Tolerance values indicate the proportion of variance in an independent variable that is not explained by other predictors in the model. Low tolerance values, particularly those close to zero, suggest high multicollinearity. In this model, the tolerance values range from 0.248 to 0.360. Portfolio Management has the lowest tolerance value at 0.248, suggesting it shares a substantial degree of variance with other predictors. Asset Liability Management and Asset Quality Monitoring have tolerances of 0.277 and 0.312, respectively, indicating moderate levels of multicollinearity. Liquidity Management

shows the highest tolerance at 0.360, reflecting lower multicollinearity compared to the other predictors. Overall, while multicollinearity is present, the tolerance values remain above the critical threshold of 0.1, indicating that it is not severe.

The VIF values, which are the reciprocal of tolerance, further quantify multicollinearity. VIF values exceeding 10 typically indicate problematic multicollinearity, while lower values suggest it is manageable. In this model, VIF values range from 2.778 to 4.036, all well below the critical threshold. Portfolio Management has the highest VIF at 4.036, which aligns with its low tolerance, indicating that it is the most correlated predictor in the model. Asset Liability Management and Asset Quality Monitoring have VIF values of 3.605 and 3.203, respectively, while Liquidity Management has the lowest VIF at 2.778. These values indicate that multicollinearity exists at a moderate level but is not severe enough to undermine the reliability of the regression model.

The results suggest that while there is some correlation among the independent variables, it does not reach levels that would compromise the stability or interpretability of the regression coefficients. The tolerance and VIF values indicate that each predictor contributes uniquely to explaining Financial Performance. However, Portfolio Management, with its relatively higher VIF and lower tolerance, warrants closer attention, as it exhibits a stronger relationship with other predictors. Adjustments, such as centering variables or using techniques like ridge regression, could be considered if multicollinearity impacts the precision of the model.

In conclusion, the multicollinearity analysis confirms that the independent variables—Asset Liability Management, Portfolio Management, Liquidity Management, and Asset Quality Monitoring can be reliably included in the regression model. While moderate

multicollinearity is observed, it remains within acceptable levels, ensuring the validity of the regression analysis and the robustness of the findings regarding their impact on Financial Performance.

Table 4.7

Multicollinearity Test using Tolerance and VIF

Model		Collinearity Statistics	
		Tolerance	VIF
1	Asset Liability Management	.277	3.605
	Portfolio Management	.248	4.036
	Liquidity Management	.360	2.778
	Asset Quality Monitoring	.312	3.203

a. Dependent Variable: Financial Performance

4.5.4 Test for Heteroscedasticity

The results of the Breusch-Pagan and Koenker tests for heteroscedasticity, as presented in Table 4.8, confirm that the assumption of homoscedasticity holds in the regression model assessing the effect of asset management strategies on financial performance. The Breusch-Pagan test produced a test statistic of 2.729 with a p-value of 0.604, while the Koenker test returned a statistic of 0.673 with a p-value of 0.612. In both cases, the p-values are substantially greater than the conventional significance level of 0.05, leading to the conclusion that the null hypothesis of constant error variance cannot be rejected.

These findings imply that the variance of the residuals is consistent across all levels of the independent variables, meaning that the model does not suffer from heteroscedasticity. From a statistical standpoint, this is critical because heteroscedasticity can lead to inefficient estimates and biased standard errors, which undermine the reliability of

hypothesis testing. The absence of such a violation ensures that the standard errors of the regression coefficients are valid and that the results of the inferential tests can be interpreted with confidence. Overall, the model meets one of the essential assumptions of classical linear regression, further affirming the robustness of the findings regarding the influence of asset management strategies on the financial performance of microfinance banks in Nairobi County.

Table 4.8

Test for Heteroscedasticity

Test Type	Test Statistic (LM)	df	p-value
Breusch-Pagan	2.729	4	0.604
Koenker	0.673	4	0.612

4.6 Descriptive Results

This section presents the descriptive findings. The analysis in the study utilized percentages, mean values, and standard deviations. The results indicated the respondents' reactions to different assertions in the surveys using a scale ranging from strongly agree to strongly disagree. This section provides an overview of the descriptive findings for the dependent variable. Each statement has been analyzed based on respondents' levels of agreement, ranging from Strongly Agree (S.A.) to Strongly Disagree (S.D.), with corresponding mean values and standard deviations (S.D.) indicating the central tendency and variability of responses, respectively.

To compute the mean values for the Likert-scale responses, each qualitative response category was first assigned a numerical weight based on a standard 5-point Likert scale, where “Strongly Agree” (S.A) was coded as 5, “Agree” (A) as 4, “Undecided” (U) as 3, “Disagree” (D) as 2, and “Strongly Disagree” (S.D) as 1. The mean for each statement was then calculated by multiplying the percentage of respondents selecting each category by its corresponding weight, summing these products, and dividing the total by 100. This approach was applied consistently across all statements in the dataset to derive their respective mean scores, which reflect the overall level of agreement or disagreement among respondents. The standard deviations were also computed to measure the extent of variation or dispersion in the responses from the mean.

4.6.1 Asset Liability Management

The descriptive statistics presented in Table 4.9 provide insightful information regarding the perceptions of asset liability management practices and their effect on the financial performance of microfinance banks in Nairobi County. The statement "Interest rate fluctuations significantly impact the bank's financial performance" received mixed responses, with 47% of participants either agreeing (32.1%) or strongly agreeing (14.9%). The mean score of 3.196 suggests a moderate level of agreement with this assertion. A standard deviation of 1.22 indicates a relatively wide dispersion of views, reflecting differing experiences among respondents. This variability may arise from differences in exposure to interest rate risks or the effectiveness of interest rate management strategies across different microfinance banks.

The role of effective interest rate risk management in improving profitability was also explored. While 34.5% of respondents expressed agreement (10.7% strongly agreed and

23.8% agreed), a substantial proportion (31%) were neutral. The mean value of 3.0 signifies an overall moderate agreement, with a standard deviation of 1.158 indicating slightly less variability in responses compared to the previous statement. These findings suggest that while respondents recognize the importance of interest rate risk management, its perceived impact on profitability is not universally emphasized.

Regarding liquidity risk management, 47.6% of respondents either strongly agreed (15.5%) or agreed (32.1%) that these practices positively affect the bank's ability to meet short-term obligations. A mean score of 3.196 and a standard deviation of 1.259 suggest moderate agreement with some variability in opinions. The results highlight the importance of managing liquidity risks to ensure operational stability. Similarly, the statement "Effective liquidity risk management is crucial for maintaining the financial health of our microfinance bank" received a mean score of 3.083, with 40.5% agreeing or strongly agreeing. The standard deviation of 1.165 reflects slightly less dispersion compared to the previous statement, indicating a general consensus on the critical role of liquidity management in sustaining financial health.

The necessity of maintaining adequate capital levels for sustainability was acknowledged by 39.9% of respondents, with a mean score of 3.077 and a standard deviation of 1.174. Although a significant proportion (29.2%) disagreed with this statement, the results underline the importance of capital adequacy in ensuring long-term stability. Similarly, the direct impact of capital adequacy management on financial performance yielded a lower mean score of 2.988, with only 34.5% agreeing or strongly agreeing. The standard deviation of 1.238 indicates a moderate dispersion of views, suggesting that while

respondents recognize the theoretical importance of capital adequacy, its practical impact on financial performance may not be uniformly experienced.

The timely identification and mitigation of funding risks were perceived to contribute to financial stability, as evidenced by a mean score of 2.97. However, only 36.9% of respondents agreed or strongly agreed with this statement, and a notable 37.5% disagreed or strongly disagreed. The standard deviation of 1.211 reflects a moderate variability in responses, indicating that while some microfinance banks prioritize funding risk mitigation, others may face challenges in addressing this critical aspect of asset liability management.

These findings align with the study conducted by Mweu (2022) who examined how ALM affects the stability of commercial banks and other public financial institutions in Kenya. The study highlights that Asset Liability Management involves the CAMEL factors, which include capital adequacy, asset quality, liquidity, operational efficiency, and income diversification. These factors, alongside others, can lead to significant operational and financial challenges, such as decreased investor confidence, panic withdrawals, and operational disruptions. The research found that these management variables and the cash reserves of commercial banks are closely linked. Regression analysis revealed that CAMEL variables significantly impact the financial performance of commercial banks. While the t-values for capital adequacy, liquidity, and operational efficiency exceeded the critical threshold, indicating a greater negative impact on financial outcomes, asset quality and income diversification positively affected financial performance, with their t-values also surpassing the critical 1.96, confirming statistical significance.

In addition, Banjo and Oyetade (2022) examined how the asset-liability management strategy may boost the profitability of Nigeria's life insurance sector. This study focused on 10 life insurance firms that were operational from 2009 to 2020 in order to achieve the study objectives. The study's hypotheses were tested using the panel data regression model. Poor asset and liability management is the root cause of the life insurance industry's poor financial performance, this study found. In order to maximize profits, this study suggests that insurance company management should employ professional accountants to handle asset and liability management. Life insurance companies should reinvest premiums into more productive investments, liquidate assets that are no longer needed and give top priority to managing claims payable and other liabilities.

Table 4.9

Asset Liability Management

Statements	S.A	A	U	D	S.D	Mean	S.D
	(%)	(%)	(%)	(%)	(%)		
Interest rate fluctuations significantly impact bank's financial performance	14.9	32.1	19.6	24.4	8.9	3.196	1.22
Effective interest rate risk management improves the profitability of our microfinance bank.	10.7	23.8	31.0	23.8	10.7	3.0	1.158
Liquidity risk management practices positively affect our bank's ability to meet its short-term obligations	15.5	32.1	20.8	19.6	11.9	3.196	1.259
Effective liquidity risk management is crucial for maintaining the financial health of our microfinance bank	10.7	29.8	26.8	22.6	10.1	3.083	1.165

Ensuring adequate capital levels is essential for the sustainability of our microfinance bank	12.5	27.4	23.2	29.2	7.7	3.077	1.174
Capital adequacy management has a direct positive impact on our bank's financial performance.	13.7	20.8	29.8	22.0	13.7	2.988	1.238
Timely identification and mitigation of funding risks contribute to our bank's financial stability.	10.7	26.2	25.6	24.4	13.1	2.97	1.211

4.6.2 Portfolio Management

The statement "Diversifying our credit portfolio across different sectors reduces the risk of loan defaults" garnered moderate agreement, with 43.5% of respondents either agreeing (30.4%) or strongly agreeing (13.1%). The mean score of 3.071 suggests a slightly positive perception of credit diversification in reducing default risks. However, the standard deviation of 1.255 indicates notable variability in opinions, likely stemming from differences in sectoral focus or levels of diversification among microfinance banks. These results suggest that credit diversification is viewed as beneficial, though its practical application may vary across institutions.

The impact of sectoral credit diversification on profitability is less strongly emphasized, as evidenced by a mean score of 3.03 and a relatively high proportion of neutral responses (31.5%). With 35.1% of respondents agreeing or strongly agreeing and 33.3% disagreeing or strongly disagreeing, the standard deviation of 1.14 reflects moderate variability in opinions. These findings imply that while some banks recognize the profitability of sectoral diversification, others may be less confident in its benefits, potentially due to challenges in implementing or managing sector-specific credit portfolios.

The diversification of income streams is viewed more favorably, with 48.2% of respondents either agreeing (33.3%) or strongly agreeing (14.9%) that it stabilizes financial performance during economic downturns. The mean score of 3.22 reflects a relatively stronger agreement compared to other statements, while the standard deviation of 1.23 indicates moderate variability. These results highlight the importance of generating income from multiple sources to mitigate the impact of economic volatility, a practice that appears to resonate well with microfinance institutions in Nairobi County.

Regular assessment of income stream diversification strategies is also considered important, as evidenced by a mean score of 3.006. However, the responses are mixed, with 27.4% agreeing, 27.4% remaining neutral, and 35.1% disagreeing or strongly disagreeing. The standard deviation of 1.181 reflects moderate variability, suggesting that while many institutions recognize the importance of regular reviews, others may not prioritize or implement these practices effectively.

The statement “Diversifying our deposits portfolio improves the liquidity position of our bank” received moderate agreement, with 39.9% of respondents agreeing or strongly agreeing and 35.8% disagreeing or strongly disagreeing. The mean score of 3.101 indicates a modest consensus on the role of deposit diversification in improving liquidity, while the relatively low standard deviation of 1.135 suggests less variability in opinions. This reflects a shared understanding of the connection between deposit diversification and liquidity, though some banks may face challenges in attracting diversified deposits.

The regular review and adjustment of investment portfolios were deemed moderately important, with a mean score of 2.958. While 32.7% of respondents agreed or strongly agreed, 36.3% disagreed or strongly disagreed, resulting in a relatively higher standard

deviation of 1.211. This variability may indicate differences in the frequency or effectiveness of portfolio reviews across microfinance institutions.

Similarly, the positive impact of investment portfolio diversification on financial performance received a mean score of 3.083, with 40.5% agreeing or strongly agreeing. The standard deviation of 1.186 reflects moderate variability in perceptions, suggesting that while many respondents acknowledge the benefits of diversified investments, practical challenges or institutional limitations may hinder its full implementation.

The variability in responses, as indicated by the standard deviations, reflects differences in institutional capacities, strategies, and the effectiveness of portfolio management practices. These findings underscore the need for microfinance banks to adopt tailored and proactive portfolio management strategies that align with their specific operational contexts and market conditions. Regular reviews, staff training, and technology-driven portfolio monitoring systems could help improve the effectiveness of these diversification practices, ultimately enhancing financial performance.

The results are in agreement with the study by Smith et al. (2020) who conducted a comprehensive analysis of the benefits of sectoral diversification using a dataset of global equity indices from 2010 to 2019. Their methodology involved regression analysis to measure the performance of diversified versus non-diversified portfolios. The study found that portfolios diversified across different sectors exhibited significantly higher Sharpe ratios, indicating better risk-adjusted returns. The study recommended investors diversify across at least five sectors to mitigate sector-specific risks and capitalize on the varied performance of different sectors. The conclusion emphasized that sectoral diversification

remains crucial, especially in turbulent market conditions, as it provides a buffer against sector-specific downturns.

The findings also agree with Garcia and Brown (2021) who investigated the effects of diversification within sustainable investment portfolios, specifically focusing on companies with high ESG (Environmental, Social, Governance) scores. They used factor analysis to assess the impact of ESG integration on portfolio performance from 2010 to 2020. The study found that portfolios diversified across high ESG-rated companies performed better during economic downturns, suggesting that sustainable investments can provide downside protection. The study recommended integrating ESG factors into diversification strategies to enhance both financial performance and societal impact. The conclusion highlighted the growing importance of sustainable investments in modern portfolio management.

Table 4.10*Portfolio Management*

Statements	S.A	A	U	D	S.D	Mean	S.D
	(%)	(%)	(%)	(%)	(%)		
Diversifying our credit portfolio across different sectors reduces the risk of loan defaults	13.1	30.4	19.6	24.4	12.5	3.071	1.255
Sectoral credit diversification contributes to the overall profitability of our microfinance bank	10.7	24.4	31.5	23.8	9.5	3.03	1.14
Diversifying income streams helps stabilize our bank's financial performance during economic downturns	14.9	33.3	21.4	19.6	10.7	3.22	1.23
Regular assessment of our income streams diversification strategies is crucial for sustained growth	10.1	27.4	27.4	23.2	11.9	3.006	1.181
Diversifying our deposits portfolio improves the liquidity position of our bank	11.9	28.0	24.4	29.8	6.0	3.101	1.135
Regular review and adjustment of our investment's portfolio are key to sustaining financial growth	12.5	20.2	31.0	23.2	13.1	2.958	1.211
Investments portfolio diversification has a positive impact on the financial performance of our bank.	11.9	28.6	25.6	23.8	10.1	3.083	1.186

4.6.3 Liquidity Management

The management of core deposits and their alignment with best practices received moderate agreement, with 45.3% of respondents either agreeing (29.8%) or strongly agreeing (15.5%). The mean score of 3.143 reflects a positive perception of core deposits as a critical element of liquidity management. However, the standard deviation of 1.263 indicates notable variability in responses, suggesting that while some MFBs effectively manage core deposits, others may face challenges in meeting best practice standards. Similarly, the perception of core deposits as a reliable source of liquidity contributing to financial resilience had a slightly lower mean score of 2.988. While 33.3% of respondents agreed or strongly agreed, 34.5% disagreed or strongly disagreed, and 32.1% were neutral. This highlights a divided perspective on the reliability of core deposits, potentially due to varying levels of deposit stability and customer retention among different MFBs.

The importance of liquidity gap analysis as part of the risk management framework was strongly recognized, with 48.8% of respondents agreeing (33.9%) or strongly agreeing (14.9%). The mean score of 3.214 reflects a relatively strong consensus on the role of gap analysis in identifying and mitigating liquidity risks. A standard deviation of 1.244 indicates moderate variability, suggesting that some MFBs have more robust frameworks than others. When asked about the implementation of effective measures to identify and mitigate liquidity gaps, the mean score was slightly lower at 3.012. Only 37.5% of respondents agreed or strongly agreed, while 35.1% disagreed or strongly disagreed. The standard deviation of 1.189 suggests variability in the effectiveness of liquidity gap mitigation strategies across institutions. This indicates that while gap analysis is valued,

its implementation may not always translate into effective measures to address identified risks.

The funding strategies of MFBs, particularly their ability to balance short-term and long-term liquidity needs, received a mean score of 3.071. While 39.3% of respondents agreed or strongly agreed, a significant proportion (36.9%) disagreed or strongly disagreed. This mixed response reflects the challenges many MFBs face in maintaining an optimal balance between short-term and long-term funding. The standard deviation of 1.171 highlights moderate variability in perceptions, possibly reflecting differences in funding structures and resource allocation among institutions. Stable funding sources were perceived as moderately available, with a mean score of 3.179 and 39.9% of respondents agreeing or strongly agreeing. However, 29.7% disagreed or strongly disagreed, indicating that some MFBs struggle to secure consistent funding sources to ensure operational continuity. The standard deviation of 1.155 suggests slightly less variability compared to other areas of liquidity management.

The adequacy of liquidity buffers to meet unexpected cash flow needs received the lowest mean score of 2.887, with only 34.5% of respondents agreeing or strongly agreeing. A substantial 39.3% disagreed or strongly disagreed, reflecting a significant concern among MFBs regarding the adequacy of their liquidity reserves. The standard deviation of 1.196 indicates moderate variability, suggesting that while some institutions maintain sufficient buffers, others may face constraints in holding adequate reserves. On the other hand, regular assessments to ensure that liquidity buffers align with industry standards received a mean score of 3.179. With 42.9% of respondents agreeing or strongly agreeing, the responses highlight the importance of ongoing evaluations to maintain compliance and

preparedness. The standard deviation of 1.225 suggests moderate variability, indicating that some institutions conduct these assessments more rigorously than others.

A recent study by Rahman et al. (2022) on liquidity management practices and financial performance of microfinance institutions (MFIs) in South Asia concurs with the findings from Nairobi County. The study highlights the critical role of core deposits in ensuring liquidity adequacy, the importance of liquidity gap analysis as part of risk management, and the challenges MFIs face in maintaining adequate liquidity buffers and balancing short-term and long-term funding needs. Institutions with diversified funding sources, regular assessments of liquidity positions, and adherence to industry standards demonstrated stronger financial performance and resilience. Similar to Nairobi County, the study found variability in the implementation and effectiveness of these practices, emphasizing the need for tailored liquidity management frameworks and capacity building to address institutional challenges. This alignment underscores the global relevance of effective liquidity management for MFIs to enhance financial stability and performance.

Table 4.11*Liquidity Management*

Statements	S.A	A	U	D	S.D	Mean	S.D
	(%)	(%)	(%)	(%)	(%)		
The management of core deposits in our MFB aligns with best practices to ensure liquidity adequacy	15.5	29.8	19.6	23.8	11.3	3.143	1.263
Core deposits are a reliable source of liquidity for our MFB, contributing to financial resilience	10.7	22.6	32.1	23.8	10.7	2.988	1.153
Liquidity gap analysis is an integral part of our MFB's risk management framework.	14.9	33.9	20.2	19.6	11.3	3.214	1.244
Our MFB has implemented effective measures to identify and mitigate liquidity gaps.	10.7	26.8	27.4	23.2	11.9	3.012	1.189
The funding strategies of our MFB effectively balance short-term and long-term liquidity needs.	12.5	26.8	23.8	29.2	7.7	3.071	1.171
Stable funding sources are consistently available to our MFB, ensuring operational continuity.	14.9	25.0	30.4	22.6	7.1	3.179	1.155
The liquidity buffers held by our MFB are adequate to meet unexpected cash flow needs.	8.3	26.2	26.2	24.4	14.9	2.887	1.196
Regular assessments ensure that our MFB's liquidity buffers are aligned with industry standards.	16.1	26.8	26.2	20.8	10.1	3.179	1.225

4.6.4 Asset Quality Monitoring

The descriptive statistics presented in Table 4.12 provide an in-depth look at the role of asset quality monitoring in the financial performance of microfinance banks (MFBs) in Nairobi County. The effective monitoring of portfolio-at-risk (PAR) and its impact on financial performance received moderate agreement, with 44.7% of respondents either agreeing (31.0%) or strongly agreeing (13.7%). The mean score of 3.125 indicates that respondents recognize the importance of PAR monitoring in improving financial outcomes, though the standard deviation of 1.234 suggests notable variability in how MFBs implement this practice. Similarly, the regular review of PAR metrics to ensure optimal financial outcomes yielded a mean score of 3.042. However, with 32.1% of respondents remaining neutral and 32.7% disagreeing or strongly disagreeing, the results suggest inconsistent practices among MFBs, potentially due to differences in institutional capacity or access to monitoring tools.

The management of the write-off rate was perceived as critical to financial performance, with 48.2% of respondents agreeing (34.5%) or strongly agreeing (13.7%) that effective management enhances profitability. The mean score of 3.19, along with a standard deviation of 1.238, indicates moderate agreement with some variability. Similarly, the statement that monitoring the write-off rate is essential for financial health scored a mean of 3.167, with 44% of respondents agreeing or strongly agreeing. These findings highlight the importance of controlling write-offs to minimize losses and ensure financial stability. However, the variability in responses reflects that some MFBs may lack robust frameworks for managing write-offs.

The write-off rate's direct impact on profitability received a slightly lower mean score of 3.089, with 40.5% agreeing or strongly agreeing. However, 35.7% of respondents disagreed or strongly disagreed, indicating that while write-offs are seen as important, their impact on profitability is not universally emphasized across all MFBs. This variability may arise from differences in loan portfolio sizes, risk appetites, or write-off policies.

Effective management of restructured loans was moderately recognized for its contribution to financial performance, with a mean score of 3.107 and 38.7% of respondents agreeing or strongly agreeing. However, 31.5% of respondents were neutral, and 31.5% disagreed or strongly disagreed, indicating mixed perceptions. The management of restructured loans to minimize financial losses received an even lower mean score of 2.911, with only 35.7% agreeing or strongly agreeing. A substantial 38.7% of respondents disagreed or strongly disagreed, and the standard deviation of 1.193 highlights significant variability in responses. These results suggest that while restructured loans are recognized as important, their management practices may not be consistently effective across all MFBs.

The regular assessment of loan aging metrics was considered crucial for maintaining financial stability, with a mean score of 3.137 and 41.7% of respondents agreeing or strongly agreeing. However, 31.5% of respondents disagreed or strongly disagreed, reflecting a lack of uniformity in the application of loan aging monitoring practices. The standard deviation of 1.183 indicates moderate variability, suggesting that some MFBs prioritize this practice more than others.

The study concurs with Chen et al. (2020) who investigated the effect of asset quality monitoring on the financial performance of commercial banks in China. Employing a longitudinal study design and quantitative analysis, they utilized financial ratios and regression models to assess the relationship. Their findings revealed that proactive asset quality monitoring, including regular loan reviews and early identification of potential credit risks, positively influenced bank profitability and asset quality. The study recommended that banks enhance their monitoring mechanisms and invest in advanced credit risk assessment technologies. Overall, the conclusion emphasized the pivotal role of robust asset quality monitoring in sustaining financial performance and stability in the banking sector.

Furthermore, Gupta and Sharma (2021) focused on the Indian banking sector, examining the impact of asset quality monitoring on financial performance. The findings indicated that banks with stringent monitoring frameworks experienced lower levels of non-performing assets (NPAs) and higher profitability. They recommended that banks adopt a proactive approach to asset quality management, including regular stress testing and portfolio reviews. The study concluded that effective asset quality monitoring is essential for mitigating credit risks and improving financial performance in the Indian banking industry.

Table 4.12*Asset Quality Monitoring*

Statements	S.A	A	U	D	S.D	Mean	S.D
	(%)	(%)	(%)	(%)	(%)		
Effective monitoring of portfolio-at-risk (PAR) improves our bank's financial performance	13.7	31.0	20.2	24.4	10.7	3.125	1.234
Portfolio-at-risk metrics are regularly reviewed to ensure optimal financial outcomes	10.7	24.4	32.1	23.8	8.9	3.042	1.129
Managing the write-off rate effectively enhances our bank's financial performance	13.7	34.5	20.8	19.0	11.9	3.19	1.238
Monitoring the write-off rate is essential for the financial health of our microfinance bank.	9.5	34.5	26.8	21.4	7.7	3.167	1.109
The write-off rate significantly impacts our bank's profitability	11.3	29.2	23.8	28.6	7.1	3.089	1.147
Effective management of restructured loans contributes to our bank's financial performance.	12.5	26.2	29.8	22.6	8.9	3.107	1.158
Restructured loans are effectively managed to minimize potential financial losses.	8.3	27.4	25.6	24.4	14.3	2.911	1.193
Regular assessment of loan aging metrics is crucial for maintaining financial stability.	13.1	28.6	26.8	22.0	9.5	3.137	1.183

4.6.5 Financial Performance

The descriptive statistics in Table 4.13 provide an overview of the perceptions regarding the financial performance of microfinance banks (MFBs) in Nairobi County. The improvement of ROA over the past year received moderate agreement, with 41.1% of respondents agreeing (28.6%) or strongly agreeing (12.5%). The mean score of 3.018 suggests that respondents generally believe their ROA has improved, but the standard deviation of 1.26 indicates considerable variability, likely reflecting differences in financial performance across institutions. Similarly, the regular review of ROA for strategic decision-making scored slightly lower, with a mean of 2.952. Only 32.1% of respondents agreed or strongly agreed, while 35.7% disagreed or strongly disagreed, indicating that not all institutions prioritize ROA monitoring for decision-making.

The efficient management of shareholder equity to maximize returns received a mean score of 3.119, the highest among all statements in this table. With 45.2% of respondents agreeing or strongly agreeing, this reflects moderate confidence in equity management practices. However, the standard deviation of 1.266 suggests variability, with some institutions likely facing challenges in optimizing shareholder returns. On the other hand, the positive trend in ROE over the past three years scored a mean of 2.964, with 36.3% of respondents agreeing or strongly agreeing and 36.3% disagreeing or strongly disagreeing. This divided opinion suggests that while some MFBs have experienced growth in equity returns, others may be struggling to sustain positive performance.

The stability or improvement of net interest margins (NIM) was perceived moderately, with a mean score of 2.994 and 36.9% of respondents agreeing or strongly agreeing. However, 39.3% disagreed or strongly disagreed, indicating that NIM trends vary

significantly among MFBs. The variability is further highlighted by the standard deviation of 1.181. Similarly, the frequent assessment of NIM to enhance profitability scored a mean of 2.917, with only 32.1% agreeing or strongly agreeing and 38.1% disagreeing or strongly disagreeing. These findings suggest that while some MFBs prioritize NIM analysis to improve profitability, others may not adequately focus on this critical aspect.

Strategies to enhance loan portfolio yield received the lowest mean score of 2.863, with only 34.5% of respondents agreeing or strongly agreeing and 40.5% disagreeing or strongly disagreeing. This indicates that efforts to improve loan portfolio yield may not be effectively implemented across all MFBs. The standard deviation of 1.213 reflects moderate variability, suggesting differences in strategy adoption and execution. However, the regular review of loan portfolio performance scored slightly higher, with a mean of 3.101. A total of 40.5% of respondents agreed or strongly agreed, while 33.3% disagreed or strongly disagreed. This indicates that while portfolio reviews are moderately emphasized, not all institutions consistently ensure high yields from their loan portfolios.

A study by Quayes and Hasan (2021) on microfinance institutions (MFIs) in South Asia closely mirrors findings from Nairobi County, highlighting moderate improvements in return on assets (ROA) with significant variability across institutions, as many fail to consistently use ROA for strategic decision-making. Similarly, return on equity (ROE) management showed mixed results, with some MFIs effectively maximizing shareholder returns while others struggled to sustain positive performance. Net interest margins (NIM) also exhibited variability, with institutions maintaining diversified, low-cost funding achieving stability, while others faced challenges due to rising funding costs and competition. Loan portfolio yield emerged as the weakest area in both studies, with many

institutions failing to implement effective strategies for maximizing returns. Both studies emphasize the global need for consistent financial performance monitoring, better resource management, and adoption of best practices to enhance profitability and sustainability in MFIs.

Table 4.13

Financial Performance

Statements	S.A	A	U	D	S.D	Mean	S.D
	(%)	(%)	(%)	(%)	(%)		
The return on assets of our company has improved over the past year	12.5	28.6	20.8	24.4	13.7	3.018	1.26
Management regularly reviews ROA to make strategic decisions	10.1	22.0	32.1	24.4	11.3	2.952	1.152
Shareholder equity is efficiently managed to maximize returns	13.7	31.5	21.4	19.6	13.7	3.119	1.266
ROE has shown a positive trend over the past three years.	9.5	26.8	27.4	23.2	13.1	2.964	1.188
The net interest margins have been stable or improving recently	11.3	25.6	23.8	29.8	9.5	2.994	1.181
Management frequently assesses net interest margins to enhance profitability.	12.5	19.6	29.8	23.2	14.9	2.917	1.235
Strategies to enhance loan portfolio yield are effectively implemented	8.3	26.2	25.0	24.4	16.1	2.863	1.213
Loan portfolio performance is regularly reviewed to ensure high yield.	15.5	25.0	26.2	20.8	12.5	3.101	1.256

4.7 Secondary Data

The analysis of the secondary data highlights key financial trends and challenges faced by microfinance banks (MFBs) over the period from 2016 to 2023, covering variables such as total assets, loans, non-performing loans (NPLs), deposits, borrowings, capital and profitability indicators. The annual percentage change for each variable provides insights into their long-term trajectory and the underlying dynamics affecting financial performance.

The total assets of MFBs experienced fluctuating trends, peaking at KSh 76,353 million in 2020 before declining steadily to KSh 70,427 million in 2023. This represents an annual change of -4.78%, indicating a contraction in the asset base over the period. The decline in assets could reflect reduced lending activities, increased provisioning for non-performing loans, or a broader economic downturn affecting asset growth. The decrease in total assets aligns with other variables, such as declining deposits and loans, suggesting constrained financial operations during the period.

Net advances or loans, a core revenue driver for MFBs, also showed a declining trend, falling from KSh 45,749 million in 2016 to KSh 39,334 million in 2023, with an annual change of -1.95%. While there were slight improvements in some years, the overall downward trajectory indicates reduced lending activities or increased loan write-offs. This reduction could be linked to a combination of rising credit risk, as evidenced by high gross NPLs, and stricter credit underwriting standards by MFBs. A shrinking loan book typically has a negative impact on interest income, further affecting overall financial performance.

The gross NPLs grew significantly from KSh 4,264 million in 2016 to a peak of KSh 12,980 million in 2021 before slightly declining to KSh 12,502 million in 2023. The annual change of -3.05% in 2023 represents a modest improvement but still points to high levels of credit risk within the sector. The sustained high NPL levels over the years indicate challenges in loan recovery and heightened borrower default rates, likely exacerbated by external economic factors such as the COVID-19 pandemic. These elevated NPLs contribute to reduced profitability, increased provisioning expenses, and constrained capital growth.

Deposits, a primary funding source for MFBs, also showed volatility during the period. Total deposits fell from KSh 50,413 million in 2022 to KSh 46,492 million in 2023, marking a significant annual decline of -7.78%. Over the entire period, deposits only grew marginally from KSh 40,589 million in 2016, reflecting difficulties in deposit mobilization and retention. The decline in deposits could be attributed to declining customer confidence in the financial health of MFBs, competition from other financial institutions, or macroeconomic pressures on customers' disposable incomes.

Borrowings exhibited a different trend, growing from KSh 13,220 million in 2016 to KSh 16,435 million in 2017 before steadily declining to KSh 9,328 million in 2023. Interestingly, borrowings recorded a slight positive annual change of 2.71% in 2023, indicating renewed efforts by MFBs to leverage external funding sources to support liquidity and lending operations. However, the declining borrowings over the period may also indicate repayment of loans without corresponding replacement or reduced access to affordable credit facilities due to heightened risk perceptions by lenders.

Consistent with a yearly fluctuation of -5.23%, capital and shareholders' funds fell from KSh 11,633 million in 2016 to KSh 8,752 million in 2023. This drop is a result of minimal capital inflows from shareholders, decreased retained earnings, and ongoing losses. Capital erosion further threatens MFBs' financial sustainability and development prospects by reducing their capacity to expand lending activities and absorb shocks.

There is a downward trend in profitability over the time as indicated by earnings before tax, ROA and ROE. There was a positive profit of KSh 592 million in 2016, but there were constant losses, with the worst being a loss of KSh 2,240 million in 2021. There will be ongoing difficulties with profitability, even with the 35.77% yearly change in 2023. Decreases in ROA from 1.0% in 2016 to -1.39% in 2023 and ROE from 5.0% in 2016 to -11.20% in 2023 both point to inadequate returns for shareholders. High NPLs, decreased lending activities, and falling deposit volumes are probably the catalysts for these unfavourable profitability trends.

From 2016 to 2023, the study shows that MFBs in Nairobi County had a tough time making ends meet. There appears to be a systemic problem with the management of credit risk, the mobilization of deposits, and the overall sustainability of the financial sector as a whole, as declined total assets, loans, and deposits are accompanied by rising nonperforming loans and diminishing profitability. Capital and shareholder funds are being drained, further limiting MFBs' capacity to weather shocks and expand their business. In 2023, there was a little uptick in borrowings, but profitability measures like ROA and ROE stayed negative, indicating inefficiencies and low returns. In response to these threats, MFBs should aim to increase deposit mobilization, strengthen risk

management frameworks, improve loan recovery, and seek capital injection to get back on their feet and prosper in the long run.

4.8 Correlation Analysis

The correlation analysis in Table 4.14 explores the relationships between key variables; Asset Liability Management, Portfolio Management, Liquidity Management, Asset Quality Monitoring, and Financial Performance within microfinance banks (MFBs) in Nairobi County. The findings, based on Pearson correlation coefficients, reveal significant positive correlations between all variables, with coefficients significant at the 0.01 level (2-tailed). These results indicate strong interdependencies between the examined variables, with Financial Performance emerging as the central outcome variable.

The Pearson correlation coefficient between Asset Liability Management and Financial Performance stands at 0.785, suggesting a robust and affirmative association. This indicates that proficient administration of assets and liabilities plays a crucial role in enhancing financial results for MFBs. The robust correlation underscores the essential function of Asset Liability Management practices, including the balancing of liquidity, the optimization of interest rate risk, and the maintenance of capital adequacy, in safeguarding financial stability and profitability. The significance value of 0.000 underscores the strength of this relationship, accentuating the necessity for MFBs to enhance their Asset Liability Management frameworks in pursuit of sustainable performance.

Portfolio Management also shows a strong positive correlation with Financial Performance, with a coefficient of 0.809. This indicates that well-managed loan portfolios, diversification strategies, and regular portfolio assessments are crucial in

driving profitability and financial health. The correlation underscores the importance of mitigating risks such as loan defaults and maintaining a balanced credit portfolio to ensure steady revenue generation. The strong relationship suggests that MFBs with robust portfolio management practices are more likely to experience better financial outcomes.

Liquidity Management exhibits the strongest correlation with Financial Performance, with a Pearson coefficient of 0.888. This finding highlights the pivotal role of effective liquidity management practices in ensuring financial stability and profitability for MFBs. Adequate liquidity buffers, timely gap analysis, and stable funding sources are essential for meeting operational and financial obligations. The strength of this relationship suggests that MFBs that prioritize liquidity risk management are better positioned to maintain operational continuity, reduce financial stress, and enhance overall profitability.

Asset Quality Monitoring shows a strong positive correlation with Financial Performance, with a coefficient of 0.793. This indicates that the monitoring of portfolio-at-risk (PAR), managing non-performing loans (NPLs), and reducing loan write-offs significantly impact financial outcomes. The correlation reflects the importance of maintaining asset quality through regular reviews and effective risk mitigation strategies to avoid revenue loss and ensure financial health. This finding reinforces the need for MFBs to strengthen their asset quality monitoring frameworks to sustain long-term profitability.

The correlation analysis reveals that all four independent variables Asset Liability Management, Portfolio Management, Liquidity Management and Asset Quality Monitoring are strongly and positively associated with Financial Performance. Liquidity Management has the strongest relationship, underscoring its critical role in maintaining profitability and operational continuity. Additionally, the strong interdependencies

between the independent variables indicate that MFBs should adopt an integrated approach to managing these key areas to maximize their financial outcomes. These findings emphasize the importance of holistic management practices that align asset, liability, portfolio and liquidity strategies to achieve sustainable financial performance in Nairobi's microfinance sector.

Table 4.14

Correlation Analysis

		Asset Liability Manage ment	Portfolio Manage ment	Liquidity Managem ent	Asset Quality Monitoring	Financial Performa nce
Asset Liability Management	Pearson	1				
	Correlation					
	Sig. (2-tailed)					
	N	168				
Portfolio Management	Pearson	.830**	1			
	Correlation					
	Sig. (2-tailed)	.000				
	N	168	168			
Liquidity Management	Pearson	.713**	.732**	1		
	Correlation					
	Sig. (2-tailed)	.000	.000			
	N	168	168	168		
Asset Quality Monitoring	Pearson	.742**	.772**	.759**	1	
	Correlation					
	Sig. (2-tailed)	.000	.000	.000		
	N	168	168	168	168	
Financial Performance	Pearson	.785**	.809**	.888**	.793**	1
	Correlation					
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	168	168	168	168	168

** . Correlation is significant at the 0.01 level (2-tailed).

4.9 Bi-Variate Regression Analysis

4.9.1 Model Summary for Asset Liability Management

Table 4.15 shows that Asset Liability Management is a strong predictor of Financial Performance among microfinance banks. The R value of 0.779 indicates a strong positive correlation, while the R Square of 0.607 means that 60.7% of the variance in financial performance is explained by this variable. The Adjusted R Square of 0.604 confirms the model's stability. Additionally, the low Standard Error of 0.27045 suggests accurate predictions. Overall, the model is statistically sound and highlights the significant role of asset liability management in improving financial outcomes.

Table 4.15

Model Summary (Asset Liability Management)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.779 ^a	.607	.604	.27045

a. Predictors: (Constant), Asset Liability Management

4.9.2 Anova Test for Asset Liability Management

Table 4.16 displays the ANOVA results, demonstrating that the regression model holds statistical significance. The F-statistic stands at 255.929, accompanied by a p-value of less than 0.001, thereby affirming that Asset Liability Management exerts a significant influence on Financial Performance. This indicates that the model consistently accounts for a significant amount of the differences in financial performance observed among microfinance banks.

Table 4.16*ANOVA (Asset Liability Management)*

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18.720	1	18.720	255.929	<.001 ^b
	Residual	12.142	166	.073		
Total		30.862	167			

a. Dependent Variable: Financial Performance

b. Predictors: (Constant), Asset Liability Management

4.9.3 Regression Coefficients Test for Asset Liability Management

Table 4.17 presents the regression coefficients, indicating that Asset Liability Management exerts a significant positive influence on Financial Performance. The unstandardized coefficient ($B = 0.749$) suggests that a one-unit increase in asset liability management results in a 0.749-unit enhancement in financial performance. The relationship exhibits a statistically significant correlation, evidenced by a t-value of 15.998 and a p-value that is less than 0.001. The standardized coefficient ($Beta = 0.779$) provides additional evidence of a robust positive impact. The constant ($B = 0.689$) signifies the anticipated level of financial performance when asset liability management is maintained at a null value.

Table 4.17*Regression Coefficients (Asset Liability Management)*

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.689	.145		4.734	<.001
	Asset Liability Management	.749	.047	.779	15.998	<.001

a. Dependent Variable: Financial Performance

4.9.4 Model Summary for Portfolio Management

Table 4.18 shows that Portfolio Management is a strong predictor of Financial Performance among microfinance banks. The R value of 0.809 indicates a strong positive correlation, while the R Square of 0.654 means that 65.4% of the variance in financial performance is explained by portfolio management. The Adjusted R Square of 0.652 confirms the model's reliability. The low Standard Error of the Estimate (0.25358) suggests accurate model predictions. Overall, portfolio management significantly contributes to explaining financial performance outcomes.

Table 4.18*Model Summary (Portfolio Management)*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.809 ^a	.654	.652	.25358

a. Predictors: (Constant), Portfolio Management

4.9.5 ANOVA for Portfolio Management

Table 4.19 delineates the ANOVA results, demonstrating that the regression model employing Portfolio Management as a predictor exhibits statistical significance. The F-

statistic stands at 313.934, accompanied by a p-value of less than 0.001, indicating a substantial influence of Portfolio Management on Financial Performance. This affirms that the model elucidates a significant share of the variance in financial performance across microfinance banks.

Table 4.19

ANOVA (Portfolio Management)

		Sum of				
Model		Squares	df	Mean Square	F	Sig.
1	Regression	20.187	1	20.187	313.934	<.001 ^b
	Residual	10.674	166	.064		
	Total	30.862	167			

a. Dependent Variable: Financial Performance

b. Predictors: (Constant), Portfolio Management

4.9.6 Multiple Regression for Portfolio Management

Table 4.20 illustrates that Portfolio Management exerts a robust and statistically significant positive influence on Financial Performance. The unstandardized coefficient ($B = 0.773$) suggests that a one-unit increase in portfolio management corresponds to a 0.773 unit increase in financial performance. The standardized coefficient ($Beta = 0.809$) indicates a robust influence, complemented by a high t-value of 17.718 and a p-value below 0.001, which collectively affirm statistical significance. The constant ($B = 0.620$) signifies the anticipated financial outcome when portfolio management is at zero.

Table 4.20*Coefficients (Portfolio Management)*

		Unstandardized Coefficients		Standardized Coefficients	
Model		B	Std. Error	Beta	t
1	(Constant)	.620	.135		4.588
	Portfolio Management	.773	.044	.809	17.718

a. Dependent Variable: Financial Performance

4.9.7 Model Summary for Liquidity Management

Table 4.21 shows that Liquidity Management is a very strong predictor of Financial Performance among microfinance banks. The R value of 0.888 indicates a very strong positive correlation, while the R Square of 0.788 reveals that 78.8% of the variance in financial performance is explained by liquidity management. The Adjusted R Square of 0.786 confirms the model's robustness after adjusting for the number of predictors. The low Standard Error of the Estimate (0.19864) indicates high predictive accuracy. Overall, the model demonstrates that liquidity management plays a critical role in determining financial performance.

Table 4.21*Model Summary (Liquidity Management)*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.888 ^a	.788	.786	.19864

a. Predictors: (Constant), Liquidity Management

4.9.8 ANOVA for Liquidity Management

Table 4.22 presents the ANOVA results for the regression model with Liquidity Management as the predictor of Financial Performance. The model yields an F-statistic of 616.134 with a p-value less than 0.001, indicating that the relationship is statistically significant. This means that Liquidity Management explains a significant proportion of the variation in financial performance among microfinance banks. The large regression sum of squares (24.312 out of a total of 30.862) further confirms the model's strong explanatory power.

Table 4.22

ANOVA^a

		Sum of				
Model		Squares	df	Mean Square	F	Sig.
1	Regression	24.312	1	24.312	616.134	<.001 ^b
	Residual	6.550	166	.039		
	Total	30.862	167			

a. Dependent Variable: Financial Performance

b. Predictors: (Constant), Liquidity Management

4.9.9 Multiple Regression for Liquidity Management

Table 4.23 elucidates the regression coefficients, demonstrating that Liquidity Management exerts a robust and statistically significant positive influence on Financial Performance. The unstandardized coefficient ($B = 0.816$) indicates that a one-unit enhancement in liquidity management correlates with a 0.816-unit improvement in financial performance. The standardized coefficient ($Beta = 0.888$) indicates a remarkably potent effect of the predictor. The elevated t-value of 24.822, coupled with a p-value below 0.001, substantiates the statistical significance of this relationship. The constant ($B =$

0.474) signifies the anticipated financial performance in the absence of liquidity management.

Table 4.23

Multiple Regression (Liquidity Management)

		Unstandardized		Standardized		
		Coefficients		Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	.474	.103		4.616	<.001
	Liquidity Management	.816	.033	.888	24.822	<.001

a. Dependent Variable: Financial Performance

4.9.10 Model Summary for Asset Quality Monitoring

Table 4.24 shows that Asset Quality Monitoring is a strong predictor of Financial Performance among microfinance banks. The R value of 0.793 indicates a strong positive correlation, while the R Square of 0.629 means that 62.9% of the variation in financial performance is explained by asset quality monitoring. The Adjusted R Square of 0.626 confirms the model's stability, and the Standard Error of the Estimate (0.26280) suggests the model provides fairly accurate predictions. Overall, asset quality monitoring significantly contributes to explaining financial performance outcomes.

Table 4.24*Model Summary (Asset Quality Monitoring)*

Model	Adjusted R			Std. Error of the Estimate
	R	R Square	Square	
1	.793 ^a	.629	.626	.26280

a. Predictors: (Constant), Asset Quality Monitoring

4.9.11 ANOVA for Asset Quality Monitoring

Table 4.25 presents the ANOVA results for the regression model with Asset Quality Monitoring as the predictor of Financial Performance. The model yields an F-statistic of 280.847 with a p-value less than 0.001, indicating that the relationship is statistically significant. This means Asset Quality Monitoring explains a substantial portion of the variation in financial performance among microfinance banks. The large regression sum of squares (19.397 out of 30.862 total) further confirms the model's strong explanatory power.

Table 4.25*ANOVA (Asset Quality Monitoring)*

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	19.397	1	19.397	280.847	<.001 ^b
	Residual	11.465	166	.069		
	Total	30.862	167			

a. Dependent Variable: Financial Performance

b. Predictors: (Constant), Asset Quality Monitoring

4.9.12 Multiple Regression for Liquidity Management

Table 4.26 delineates the regression coefficients, indicating that Asset Quality Monitoring exerts a robust and statistically significant positive influence on Financial Performance. The unstandardized coefficient ($B = 0.795$) suggests that a one-unit enhancement in asset quality monitoring results in a 0.795 unit improvement in financial performance. The standardized coefficient ($Beta = 0.793$) indicates a robust influence, whereas the t-value of 16.758 and p-value below 0.001 illustrate considerable statistical significance. The constant ($B = 0.531$) signifies the anticipated level of financial performance in the absence of asset quality monitoring.

Table 4.26

Multiple Regression (Asset Quality Monitoring)

		Unstandardized		Standardized	
		Coefficients		Coefficients	
Model		B	Std. Error	Beta	t
1	(Constant)	.531	.148		3.582
	Asset Quality Monitoring	.795	.047	.793	16.758

a. Dependent Variable: Financial Performance

4.10 Overall Regression Analysis

4.10.1 Overall Model Summary

Table 4.27 presents the overall model summary for the regression analysis, which examines the relationship between the independent variables Asset Liability Management, Portfolio Management, Liquidity Management, and Asset Quality Monitoring and the dependent variable, Financial Performance. The results highlight the strength, explanatory power, and overall fit of the model.

A correlation coefficient (R) of 0.924 signifies a robust positive association between the independent variables and financial performance. This indicates that the predictors, when considered together, exert a substantial impact on financial performance, demonstrating a strong correlation. The robust correlation highlights the essential role that these financial management practices play in shaping the financial results of Microfinance Banks.

The R Square value of 0.854 reveals that 85.4% of the variability in financial performance is explained by the combined effect of the independent variables. This high value demonstrates the model's strong explanatory power, leaving only 14.6% of the variance unaccounted for by factors outside the model. It indicates that the selected predictors are highly relevant to financial performance and effectively capture the key determinants.

The Adjusted R Square value of 0.851 accounts for the complexity of the model by adjusting for the number of predictors. The minimal difference between R Square (0.854) and Adjusted R Square (0.851) reflects the robustness of the model and confirms that the independent variables contribute meaningfully to explaining financial performance without overfitting the data.

The Standard Error of the Estimate, reported as 0.16619, measures the average deviation of the observed values from the predicted values. A smaller standard error signifies a better fit of the model, and in this case, the low value indicates that the model's predictions closely align with the actual data. This precision enhances the reliability of the model in making accurate predictions about financial performance based on the predictors.

In conclusion, the findings in Table 4.12 highlight the significant influence of Asset Liability Management, Portfolio Management, Liquidity Management, and Asset Quality

Monitoring on Financial Performance. The high R and R Square values, along with the minimal difference in Adjusted R Square, demonstrate the robustness and effectiveness of the regression model. These results underscore the critical role of sound financial management practices in improving the financial outcomes of Microfinance Banks and provide a solid foundation for informed decision-making and targeted interventions in the sector.

Table 4.27

Overall Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.924 ^a	.854	.851	.16619

a. Predictors: (Constant), Asset Quality Monitoring, Asset Liability Management, Liquidity Management, Portfolio Management

b. Dependent Variable: Financial Performance

4.10.2 ANOVA

Table 4.28 presents the results of the ANOVA, which evaluates the overall significance of the regression model. The analysis assesses whether the independent variables Asset Quality Monitoring, Asset Liability Management, Liquidity Management, and Portfolio Management jointly explain a significant portion of the variance in the dependent variable, Financial Performance.

The regression model accounts for a Sum of Squares (Regression) of 26.360 over 4 degrees of freedom (df), resulting in a Mean Square of 6.590. The residual variance, represented by the Sum of Squares (Residual), is 4.502 with 163 degrees of freedom. The Total Sum of Squares, which captures the total variance in Financial Performance, is

30.862 across 167 degrees of freedom. These values indicate that the majority of the variance in Financial Performance is explained by the predictors included in the model.

The F-statistic, calculated as the ratio of the Mean Square Regression to the Mean Square Residual, is 238.613. This high F-value indicates that the variation explained by the regression model is significantly greater than the variation left unexplained (residual variance). The corresponding p-value (Sig.) is .000, which is below the conventional significance threshold of 0.05. This result confirms that the overall regression model is statistically significant and that the independent variables collectively have a substantial impact on Financial Performance.

The ANOVA results demonstrate the robustness of the model, as the significant F-statistic underscores the effectiveness of the predictors in explaining the dependent variable. The small residual variance further supports the model's adequacy in capturing the key factors influencing Financial Performance. The findings validate the importance of Asset Quality Monitoring, Asset Liability Management, Liquidity Management, and Portfolio Management in shaping financial outcomes for Microfinance Banks.

In conclusion, the ANOVA results provide strong evidence that the regression model is statistically significant and well-fitted to the data. The predictors collectively contribute to explaining a significant portion of the variance in Financial Performance, reinforcing the importance of sound financial management practices in driving the success of Microfinance Banks in Nairobi County. These results establish a solid foundation for interpreting the individual contributions of the predictors to Financial Performance in subsequent analyses.

Table 4.28

ANOVA

		Mean			
Model		Sum of Squares	df	Square	F Sig.
1	Regression	26.360	4	6.590	238.613 .000 ^b
	Residual	4.502	163	.028	
	Total	30.862	167		

a. Dependent Variable: Financial Performance

b. Predictors: (Constant), Asset Quality Monitoring, Asset Liability Management, Liquidity Management, Portfolio Management

4.10.3 Overall Regression Coefficients

The results presented in Table 4.29 provide detailed insights into the overall multiple regression analysis, focusing on the unstandardized coefficients (B) for the independent variables Asset Liability Management, Portfolio Management, Liquidity Management, and Asset Quality Monitoring and their impact on the dependent variable, Financial Performance. These coefficients indicate the magnitude and direction of the effect of each predictor on Financial Performance while holding the other variables constant.

The constant ($B = 0.071$) represents the predicted value of Financial Performance when all independent variables are held at zero. However, with a p-value of 0.475, this constant is not statistically significant, implying that the baseline level of Financial Performance without the influence of the independent variables is negligible and does not contribute meaningfully to the model.

The Asset Liability Management statistic has a standard deviation of 0.054 and an unstandardized coefficient of 0.133. Assuming all other factors stay constant, this means

that Financial Performance increases by 0.133 units for every unit increase in Asset Liability Management. At the 5% level of significance, this association is confirmed by the t-value of 2.461 and the p-value of 0.015. The results indicate that, albeit having a lesser impact than other model predictors, efficient management of assets and liabilities is crucial for enhancing Financial Performance.

When all other factors remain constant, the unstandardized coefficient for Portfolio Management is 0.188 and the standard error is 0.057. This means that for every one unit increase in Portfolio Management, there is a 0.182 unit improvement in Financial Performance. A t-value of 3.273 and a p-value of 0.001 demonstrate that this link is statistically significant at the 1% level. Better financial results can be achieved through strategically managed and diversified portfolios.

A one-unit increase in Liquidity Management leads to a 0.512-unit gain in Financial Performance, as indicated by the greatest unstandardized coefficient (0.521) and standard error (0.046) for Liquidity Management. Among the predictors, this variable has the most impact on Financial Performance, as evidenced by its highly significant t-value of 11.164 and p-value of 0.000. The importance of strong liquidity management procedures for microfinance banks' financial stability and efficiency in operations is shown by these outcomes.

Asset Quality Monitoring has an unstandardized coefficient of 0.115 with a standard error of 0.054, indicating that a unit increase in Asset Quality Monitoring leads to a 0.115-unit increase in Financial Performance. The t-value of 2.150 and p-value of 0.033 confirm the statistical significance of this relationship at the 5% level. This suggests that monitoring and maintaining the quality of assets, such as loans and investments, contributes positively

to financial performance, although its effect is relatively modest compared to Liquidity Management.

In conclusion, the unstandardized coefficients highlight the varying contributions of the independent variables to Financial Performance. Liquidity Management emerges as the most influential factor, followed by Portfolio Management, Asset Liability Management, and Asset Quality Monitoring. The significance of these predictors underscores the importance of adopting comprehensive financial management practices to drive the financial success of Microfinance Banks in Nairobi County. These findings provide actionable insights for policymakers and practitioners aiming to optimize financial performance through targeted interventions in liquidity, portfolio, asset liability, and asset quality management.

Table 4.29

Overall Multiple Regression (Coefficients)

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	.071	.099		.716	.475
	Asset Liability Management	.133	.054	.140	2.461	.015
	Portfolio Management	.188	.057	.197	3.273	.001
	Liquidity Management	.512	.046	.557	11.164	.000
	Asset Quality Monitoring	.115	.054	.115	2.150	.033

a. Dependent Variable: Financial Performance

$$Y = 0.071 + 0.133X_1 + 0.188X_2 + 0.512X_3 + 0.115X_4 + \varepsilon$$

Y – Financial Performance

‘**B**₀ – is a constant, the results when all variables X₁ to X₄ are zero.

X₁ – Asset Liability Management

X₂ – Portfolio Management

X₃ – Liquidity Management

X₄ – Asset Quality Monitoring

‘b₁ – b₄ – Regression coefficients

ε – error term

4.10.4 Hypotheses Testing

The multiple regression analysis was conducted to examine the effect of asset liability management, portfolio management, liquidity management, and asset quality monitoring on the financial performance of Microfinance Banks in Nairobi County. The dependent variable for this study was financial performance, while the independent variables included asset liability management, portfolio management, liquidity management, and asset quality monitoring. The regression results provide insights into the significance and contribution of each independent variable to the financial performance of Microfinance Banks.

The results indicate that asset liability management has a significant positive effect on financial performance. With an unstandardized coefficient (B) of 0.133, a t-value of 2.461, and a p-value of 0.015, the null hypothesis that asset liability management has no significant effect on financial performance is rejected. This suggests that effective management of assets and liabilities contributes positively to the financial outcomes of

Microfinance Banks. Similarly, portfolio management also shows a significant positive effect on financial performance, as evidenced by a coefficient of 0.188, a t-value of 3.273, and a p-value of 0.001. The null hypothesis for portfolio management is rejected, confirming that strategic and well-diversified portfolio management significantly enhances financial performance.

Liquidity management emerges as the most influential variable in the model, with a coefficient of 0.512, a t-value of 11.164, and a p-value of less than 0.001. These results indicate that liquidity management has a strong and highly significant positive effect on financial performance, making it a critical factor in the operational success of Microfinance Banks. Consequently, the null hypothesis for liquidity management is also rejected. Furthermore, asset quality monitoring shows a significant positive relationship with financial performance, with a coefficient of 0.115, a t-value of 2.150, and a p-value of 0.033. The rejection of the null hypothesis for asset quality monitoring underscores the importance of monitoring the quality of assets in driving financial success.

In conclusion, all the independent variables asset liability management, portfolio management, liquidity management, and asset quality monitoring have a statistically significant positive effect on the financial performance of Microfinance Banks in Nairobi County. Among these, liquidity management is the most impactful, highlighting its central role in achieving financial success. These findings emphasize the need for robust asset management strategies to enhance the financial performance of Microfinance Banks.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a detailed summary of the key findings, conclusions drawn from the study, and practical recommendations based on the analysis of data. Additionally, it highlights areas for further research to advance knowledge in asset management strategies and their influence on the financial performance of Microfinance Banks (MFBs). The study investigated the effects of asset liability management, portfolio management, liquidity management, and asset quality monitoring on the financial performance of MFBs in Nairobi County.

5.2 Summary

5.2.1 Effect of Asset Liability Management on Financial Performance of MFB

The study established that asset liability management significantly affects financial performance. Regression analysis revealed a positive effect, with a coefficient (B) of 0.133, t-value of 2.461, and a significant p-value of 0.015. Correlation analysis showed a weak positive relationship ($r = 0.785$), indicating that effective alignment of assets and liabilities leads to improved financial outcomes. This finding supports the hypothesis that asset liability management has a significant effect on financial performance, leading to the rejection of the null hypothesis. Strategies such as interest rate risk management, liquidity gap analysis, and funding risk mitigation enhance operational stability, enabling institutions to manage cash flow mismatches and optimize returns.

5.2.2 Effect of Portfolio Management on Financial Performance of MFB

Portfolio management emerged as a critical driver of financial performance, with a regression coefficient (B) of 0.188, t-value of 3.273, and a highly significant p-value of 0.001. Correlation analysis indicated a moderate positive relationship ($r = 0.809$), showing that diversification across asset classes improves financial resilience. The results confirm the hypothesis that portfolio management significantly affects financial performance, and the null hypothesis was rejected. Diversification mitigates risks, stabilizes income streams, and enhances returns by spreading exposure across various sectors and geographies. Strategic allocation of resources balances high-risk, high-reward investments with stable, low-risk options, positioning MFBs to capitalize on emerging opportunities.

5.2.3 Effect of Liquidity Management on Financial Performance of MFB

Liquidity management was identified as the most critical determinant of financial performance, with a regression coefficient (B) of 0.512, t-value of 11.164, and a highly significant p-value (<0.001). Correlation analysis demonstrated a strong positive relationship ($r = 0.888$), emphasizing the importance of maintaining adequate liquidity. These findings support the hypothesis that liquidity management significantly affects financial performance, resulting in the rejection of the null hypothesis. Institutions with proactive liquidity management practices leverage tools such as cash flow forecasting, liquidity buffers, and stable funding mechanisms to navigate operational challenges. Ensuring optimal liquidity levels enhances financial stability, stakeholder confidence, and long-term sustainability.

5.2.4 Effect of Asset Quality Monitoring on Financial Performance of MFB

Asset quality monitoring significantly impacts financial performance, with a regression coefficient (B) of 0.115, t-value of 2.150, and a p-value of 0.033. Correlation analysis revealed a moderate positive relationship ($r = 0.793$), underscoring the importance of regular monitoring to reduce non-performing assets and safeguard revenue streams. The hypothesis that asset quality monitoring has a significant effect on financial performance was supported, and the null hypothesis was rejected. Proactive monitoring practices, including stress testing and regular loan reviews, allow MFBs to address potential credit risks early, maintaining a healthy loan portfolio and ensuring compliance with regulatory standards.

5.3 Conclusions

5.3.1 Asset Liability Management

Effective asset liability management is vital for improving financial performance. Aligning asset and liability structures optimizes liquidity, mitigates risks, and enhances profitability. Institutions that focus on comprehensive risk management strategies, such as liquidity gap analysis and interest rate hedging, are better equipped to navigate economic uncertainties and sustain operations. A more structured approach to aligning financial and operational objectives ensures that short-term liquidity does not compromise long-term profitability.

5.3.2 Portfolio Management

Portfolio management plays a pivotal role in ensuring financial stability and resilience. Diversification strategies reduce exposure to sector-specific risks, stabilize income streams, and enhance returns. A systematic approach to resource allocation allows MFBs

to achieve financial sustainability while mitigating potential losses. Proper portfolio rebalancing and periodic reviews ensure that institutions adapt to changing market dynamics effectively.

5.3.3 Liquidity Management

Liquidity management emerged as the most influential factor in determining financial performance. Institutions that maintain optimal liquidity levels can meet operational demands, manage risks effectively, and support lending activities. Proactive liquidity management enhances stakeholder trust and equips institutions to respond to financial shocks with agility. MFBs that integrate advanced liquidity planning tools are better positioned to anticipate cash flow requirements and enhance operational efficiency.

5.3.4 Asset Quality Monitoring

Asset quality monitoring is integral to financial sustainability and profitability. Regular evaluations of asset quality reduce non-performing loans, improve recovery rates, and ensure regulatory compliance. These practices foster long-term stability and institutional credibility, enabling MFBs to achieve sustainable growth. Institutions that adopt data-driven monitoring techniques are better able to identify at-risk assets and implement corrective actions promptly.

5.4 Recommendations

Adopt comprehensive asset liability management frameworks with advanced analytical tools to enhance decision-making and ensure alignment of assets and liabilities.

Develop robust portfolio management strategies that emphasize diversification across asset classes, sectors, and geographies to minimize risks and maximize returns. Periodic portfolio reviews should be institutionalized to adapt to evolving market conditions.

Strengthen liquidity management practices by implementing dynamic cash flow forecasting models, maintaining adequate liquidity buffers, and securing access to diversified funding sources. Institutions should also consider integrating digital tools for real-time liquidity analysis.

Invest in advanced credit risk assessment tools and continuous staff training to improve asset quality monitoring, reduce non-performing loans, and enhance loan recovery rates. Establishing dedicated teams for asset quality reviews can further reinforce these efforts.

5.5 Areas for Further Research

Future research could explore the integration of advanced technologies, such as machine learning and blockchain, into asset management strategies and their impact on financial performance. Comparative studies across different financial institutions and regions could provide broader insights into best practices. Additionally, research could focus on the long-term effects of macroeconomic factors, such as inflation and interest rate fluctuations, on asset management strategies. Exploring the role of environmental, social, and governance (ESG) considerations in shaping asset management practices would also yield valuable findings, particularly given the increasing emphasis on sustainable financial practices.

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APPENDICES

Appendix I: Letter of Introduction

Dear Respondent

RE: AUTHORITY TO CONDUCT RESEARCH

Am a postgraduate student pursuing Master of Science in Finance and Investment course at Kenya Methodist University. As part of the course requirement, I am conducting a study on the **EFFECT OF ASSET MANAGEMENT STRATEGIES ON FINANCIAL PERFORMANCE OF MICROFINANCE BANKS IN NAIROBI COUNTY.**

I am pleased to inform you that you are one of the sampled respondents whose response to this questionnaire will be valuable to the study. I would wish to seek your consent in undertaking the study. If you agree, please note that this study will not offer any rewards after you complete filling in the questionnaires. However, if you feel that you do not want to participate, you will not be forced to do so. Thank you for your time

Your sincerely,

Beryl Otieno.

Appendix II: Questionnaire

The information provided will be only for academic purpose. Read carefully and give appropriate answers by ticking or filling the blank spaces. The information will be treated confident.

SECTION A: DEMOGRAPHICS

A.1 Kindly indicate the number of members in your scheme within the age groups below:

Below 25 yrs. [] 26-35 yrs. [] 36-45 yrs. [] Above 45 yrs. []

A.2 Kindly indicate your highest level of education (Tick appropriately)

Certificate [] Diploma [] Bachelor Degree [] Post graduate []

A.3 Work Experience

5 years and below [] 6- 10 years [] 11-15 years [] 16- 20 years [] 21 years and over []

SECTION B

Please indicate on the scale provided below by ticking the extent to which you agree with the following statements.

Strongly Agree=5, Agree=4, Uncertain=3, Disagree=2, Strongly Disagree=1

	Statement: ASSET LIABILITY MANAGEMENT	1	2	3	4	5
B1	Interest rate fluctuations significantly impact bank's financial performance					
B2	Effective interest rate risk management improves the profitability of our microfinance bank.					
B3	Liquidity risk management practices positively affect our bank's ability to meet its short-term obligations					
B4	Effective liquidity risk management is crucial for maintaining the financial health of our microfinance bank					
B5	Ensuring adequate capital levels is essential for the sustainability of our microfinance bank					
B6	Capital adequacy management has a direct positive impact on our bank's financial performance.					
B7	Timely identification and mitigation of funding risks contribute to our bank's financial stability.					
	Statement: PORTFOLIO MANAGEMENT	1	2	3	4	5
C1	Diversifying our credit portfolio across different sectors reduces the risk of loan defaults					
C2	Sectoral credit diversification contributes to the overall profitability of our microfinance bank					
C3	Diversifying income streams helps stabilize our bank's financial performance during economic downturns					

C4	Regular assessment of our income streams diversification strategies is crucial for sustained growth					
C5	Diversifying our deposits portfolio improves the liquidity position of our bank					
C6	Regular review and adjustment of our investment's portfolio are key to sustaining financial growth					
C7	Investments portfolio diversification has a positive impact on the financial performance of our bank.					
	Statement: LIQUIDITY MANAGEMENT	1	2	3	4	5
D1	The management of core deposits in our MFB aligns with best practices to ensure liquidity adequacy					
D2	Core deposits are a reliable source of liquidity for our MFB, contributing to financial resilience					
D3	Liquidity gap analysis is an integral part of our MFB's risk management framework.					
D4	Our MFB has implemented effective measures to identify and mitigate liquidity gaps.					
D5	The funding strategies of our MFB effectively balance short-term and long-term liquidity needs.					
D6	Stable funding sources are consistently available to our MFB, ensuring operational continuity.					
D7	The liquidity buffers held by our MFB are adequate to meet unexpected cash flow needs.					

D8	Regular assessments ensure that our MFB's liquidity buffers are aligned with industry standards.					
	Statement: ASSET QUALITY MONITORING	1	2	3	4	5
E1	Effective monitoring of portfolio-at-risk (PAR) improves our bank's financial performance					
E2	Portfolio-at-risk metrics are regularly reviewed to ensure optimal financial outcomes					
E3	Managing the write-off rate effectively enhances our bank's financial performance					
E4	Monitoring the write-off rate is essential for the financial health of our microfinance bank.					
E5	The write-off rate significantly impacts our bank's profitability					
E6	Effective management of restructured loans contributes to our bank's financial performance.					
E7	Restructured loans are effectively managed to minimize potential financial losses.					
E8	Regular assessment of loan aging metrics is crucial for maintaining financial stability.					
	Statement: FINANCIAL PERFORMANCE	1	2	3	4	5
F1	The return on assets of our company has improved over the past year					

F2	Management regularly reviews ROA to make strategic decisions					
F3	Shareholder equity is efficiently managed to maximize returns					
F4	ROE has shown a positive trend over the past three years.					
F5	The net interest margins have been stable or improving recently					
F6	Management frequently assesses net interest margins to enhance profitability.					
F7	Strategies to enhance loan portfolio yield are effectively implemented					
F8	Loan portfolio performance is regularly reviewed to ensure high yield.					

Thank you very much for your patience, cooperation and support in my research

Appendix III: Secondary Data Collection tool

VARIABLE	2016	2017	2018	2019	2020	2021	2022	2023	Annual Change (%)
Total Assets (KSh Mn)	69,465	72,510	67,597	70,754	76,353	74,879	73,964	70,427	-4.78
Net Advances/Loans (KSh Mn)	45,749	47,047	42,847	44,179	46,651	44,179	40,115	39,334	-1.95
Gross NPLs (KSh mn)	4,264	7,288	9,300	9,891	9,817	12,980	12,895	12,502	-3.05
Total Deposits (KSh Mn)	40,589	40,198	38,916	40,961	43,941	49,356	50,413	46,492	-7.78
Borrowings (KSh Mn)	13,220	16,435	13,413	14,607	14,934	11,340	9,082	9,328	2.71
Capital & Shareholders Funds (KSh Mn)	11,633	11,622	11,301	10,443	11,177	8,113	9,235	8,752	-5.23
Profits Before Tax (KSh Mn)	592	-377.0	-622.0	-1437.0	-339.0	-2240.0	(722)	(980)	35.77
ROAs (percent)	1.0	-0.5	-0.9	-5.5	-0.4	-3.8	-0.96	-1.39	-0.43*
ROEs (percent)	5.0	-3.2	-5.5	-13.8	-3.0	-36.3	-7.75	-11.20	-3.45*

Appendix IV: List of Microfinance Banks

- 1 Faulu Microfinance Bank Ltd - Large
- 2 Kenya Women Microfinance Bank Ltd - Large
- 3 Rafiki Microfinance Bank Ltd - Large
- 4 Century Microfinance Bank Ltd - Medium
- 5 SMEP Microfinance Bank Ltd - Medium
- 7 Sumac Microfinance Bank Ltd - Medium
- 6 Muungano Microfinance Bank PLC - Small
- 8 Caritas Microfinance Bank Ltd - Small
- 9 Choice Microfinance Bank Ltd - Small
- 10 Daraja Microfinance Bank Ltd - Small
- 11 KEY Microfinance Bank Ltd - Small
- 12 Maisha Microfinance Bank Ltd - Small
- 13 U & I Microfinance Bank Ltd - Small
- 14 Uwezo Microfinance Bank Ltd - Small

Appendix V: Introduction Letter from KeMU



KENYA METHODIST UNIVERSITY

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BOARD OF POSTGRADUATE STUDIES

Our Ref: KeMU/NACOSTI/BUS/47/2024

October 8, 2024

Commission Secretary
National Commission for Science, Technology and Innovations
P.O. Box 30623-00100
NAIROBI

Dear Sir/Madam,

RE: BERYL AKOTH OTIENO (REG. NO. BUS-3-1887-1/2023)

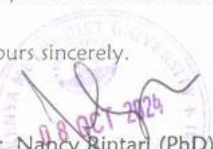
This is to confirm that the above named is a bona fide student of Kenya Methodist University, in the Department of Business Administration, undertaking a Master's Degree in Business Administration. She is conducting research on: "Effect of Asset Management Strategies on Financial Performance of Microfinance Banks in Nairobi County".

We confirm that her research proposal has been defended and approved by the University.

In this regard, we are requesting your office to issue a research license to enable her collect data.

Any assistance accorded to her will be highly appreciated.

Yours sincerely,


Dr. Nancy Rintari (PhD)
Director, Board of Postgraduate Studies

Cc: Dean, School of Business
CoD, Business Administration
Postgraduate Coordinator - BA
Supervisors

Appendix VI: NACOSTI Research Permit

 REPUBLIC OF KENYA		 NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION	
Ref No: 849295		Date of Issue: 29/October/2024	
RESEARCH LICENSE			
			
This is to Certify that Ms., BERYL AKOTH OTIENO of Kenya Methodist University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: EFFECT OF ASSET MANAGEMENT STRATEGIES ON FINANCIAL PERFORMANCE OF MICROFINANCE BANKS N NAIROBI COUNTY for the period ending : 29/October/2025.			
		License No: NACOSTI/P/24/41619	
849295			
Applicant Identification Number		Director General	
		NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION	
		Verification QR Code	
			
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