



**ASSET LIABILITY MANAGEMENT AND FINANCIAL PERFORMANCE OF MICROFINANCE BANKS IN NAIROBI COUNTY**

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### ABSTRACT

*This study investigated the effect of asset liability management on the financial performance of Microfinance Banks in Nairobi County, Kenya. The study was guided by Liquidity Preference Theory. Adopting a descriptive correlational research design, the study targeted senior managers, financial analysts, credit officers, and internal audit personnel from large, medium, and small MFBs in Nairobi County. Stratified random sampling ensured representativeness across these categories, while data collection combined structured questionnaires and secondary data sheets. Analytical methods included both descriptive and inferential statistical tools, with SPSS version 29 utilized for robust data processing and hypothesis testing. The findings revealed a significant positive relationship between asset-liability management and financial performance, demonstrating the criticality of aligning assets with liabilities to mitigate risks. The study underscores the importance of tailored asset liability management for enhancing financial sustainability in the microfinance sector. The study recommended that microfinance banks strengthen asset liability using advanced tools and dynamic forecasting. Future research could investigate how incorporating machine learning and blockchain into asset management affects financial performance. Additionally, research could examine the long-term impact of macroeconomic factors (inflation, interest rates) on asset management strategies and the influence of ESG factors on these practices, considering the growing importance of sustainable finance.*

**Key Words:** Assets Management, Liability Management, Microfinance Banks

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## INTRODUCTION

Microfinance banks (MFBs) have emerged as a critical segment of the financial sector, particularly in developing economies. They play a pivotal role in providing financial services to low-income individuals and small enterprises that are often excluded from traditional banking systems (Wilson & Harris, 2022). The fundamental aim of MFBs is to promote financial inclusion and economic empowerment by offering microloans, savings accounts, insurance, and other financial products. Despite their social mission, the sustainability and growth of MFBs depend significantly on their financial performance, which in turn is influenced by the asset management strategies they employ (Smith & Brown, 2023).

Asset management in the context of MFBs involves the strategic allocation and utilization of resources to maximize returns while minimizing risks. Effective asset management strategies are essential for ensuring liquidity, profitability, and overall financial stability (Schein, 2021). These strategies include portfolio diversification, risk management, investment in high-yield assets, and efficient credit administration. Given the unique challenges MFBs face, such as high operational costs and vulnerability to market fluctuations, robust asset management practices are critical for their financial health (Li & Wang, 2022).

In India, SKS Microfinance (now Bharat Financial Inclusion Limited) employs a slightly different strategy. SKS leverages technology to streamline operations and improve efficiency. By using digital platforms for loan disbursement and collection, SKS reduces administrative costs and enhances transparency (Jones & Smith, 2023). This tech-driven approach allows SKS to scale operations rapidly, reaching millions of borrowers across rural India. Furthermore, SKS integrates financial literacy programs into its operations, ensuring clients are well-informed about managing their finances. This comprehensive strategy not only strengthens the institution's asset base but also empowers

borrowers, fostering a sustainable financial ecosystem (Smith & Taylor, 2023).

In Africa, microfinance banks face unique challenges but also present significant opportunities. In Ghana, Sinapi Aba Savings and Loans (SASL) stands out. SASL's strategy involves a combination of microloans, savings products, and capacity-building programs (Karanja & Muturi, 2021). By providing training and support to clients, SASL ensures that borrowers can effectively utilize loans for business growth. This integrated approach enhances loan performance and client success. SASL also employs a rigorous monitoring system to track loan usage and repayment, ensuring asset quality. This comprehensive asset management strategy has enabled SASL to maintain high repayment rates and foster economic development in Ghana's underserved communities (Ofori & Abor, 2022).

Equity Bank has made significant strides in integrating microfinance into its broader banking operations. Equity Bank's asset management strategy focuses on financial inclusion, offering products tailored to the needs of micro-entrepreneurs (Nyong'a & Maina, 2022). The bank employs a mobile banking platform, Equitel, to reach remote clients and facilitate easy access to financial services. This technological integration reduces transaction costs and increases efficiency (Echwa & Murigi, 2022). Additionally, Equity Bank invests in financial literacy programs, ensuring clients can make informed financial decisions. This holistic approach not only enhances asset quality but also promotes sustainable economic development (Kumar, & Reddy, 2024).

Kenya Women Microfinance Bank (KWFT) also exemplifies effective asset management strategies. KWFT focuses on women entrepreneurs, providing microloans, savings products, and business training. By targeting women, KWFT addresses gender disparities in financial access, empowering women economically. KWFT employs a group lending model to mitigate risks and promote collective responsibility among borrowers. Additionally, the

bank's rigorous monitoring and support systems ensure high repayment rates and successful business outcomes. This targeted asset management strategy has significantly contributed to economic empowerment among Kenyan women (Kabetu et al., 2021).

Assessing the bottom line of microfinance banks necessitates a comprehensive examination of various key measurements that encapsulate their operational efficiency, profitability, sustainability, and impact. One pivotal metric is profitability, often evaluated through ROA and ROE ratios (Cherono & Kavale, 2021). ROA indicates the efficiency with which assets are utilized to generate profits, while ROE reflects the profitability relative to shareholders' equity. These ratios serve as fundamental indicators of the microfinance bank's ability to generate earnings from its operations and effectively deploy invested capital (Nyabiba & Kimani, 2023).

In Kenya, especially in underprivileged rural and urban regions, microfinance institutions are essential for advancing monetary access and socioeconomic development. These institutions have emerged as key facilitators of access to finance for microentrepreneurs, smallholder farmers, and low-income households, contributing to poverty alleviation and economic empowerment (Njue, 2020). The microfinance sector in Kenya is characterized by a diverse landscape of institutions, including licensed microfinance banks, non-governmental organizations (NGOs) offering microfinance services, and commercial banks with microfinance divisions (Paul & Musiega, 2020).

### **Statement of the Problem**

In June 2023, total assets were KSh 69.9 billion, down from KSh 72.8 billion in June 2022. Mainly, loans and advances fell from 45.2 billion KSh in June 2022 to 42.6 billion KSh in June 2023, accounting for the majority of the decline. A decline in gross nonperforming loans (NPLs) from KSh 14.7 billion in June 2022 to KSh 12.7 billion in June 2023 was associated with an improvement in asset quality.

Also, from 32.5 percent in June 2022 to 29.9 percent in June 2023, the ratio of gross nonperforming loans to gross loans fell. By June 2023, customer deposits had dropped 5.6% from 48.0 billion KSh in June 2022 to 45.3 billion KSh. Adequacy of Capital - the ratio of core capital to risk weighted assets fell from 14.3 percent in June 2022 to 13.1 percent in June 2023. The ratio of total capital to total risk-weighted assets also fell, from 17.5% in June 2022 to 15.1% in June 2023. Both ratios were higher than the standards, which are 10.0 and 12.0 percent, respectively. There was a decline in profitability as the overall loss before taxes for microfinance banks increased to KSh 897.1 million in the twelve months ending in June 2023, from KSh 334.9 million in the twelve months ending in June 2022 (CBK, annual report & financial statements 2022/23).

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 fulfill 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 fulfill 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 and liability or how well they do financially. By focusing on asset liability management in Kenyan microfinance institutions (MFIs), this study hoped to close the gap in the literature that has been created by previous research.

### Research Objective

This study assessed the effect of asset liability management on financial performance of Microfinance Banks in Nairobi County. The study was guided by the following hypothesis;

- **H<sub>01</sub>:** Asset liability management has no significant effect on financial performance of Microfinance Banks in Nairobi County.

## LITERATURE REVIEW

### Theoretical Framework

#### Liquidity Preference Theory

In 1936, John Maynard Keynes introduced the liquidity preference theory, a cornerstone of modern macroeconomic thought, elucidating the interplay between interest rates and individuals' demand for money (Bhardwaj, Siddiqui & Alharbi, 2021). Within this framework, individuals possess a proclivity for liquidity, opting for more liquid assets over less liquid ones. Consequently, they require higher interest rates as compensation for holding assets with longer maturities or lower liquidity (Ahmed & Wang, 2022). This theory offers profound insights into the financial performance of MFBs, particularly concerning asset liability management (ALM).

ALM profoundly impacts the bottom line of Microfinance Banks in line with Liquidity Preference Theory. By adhering to this theory, MFBs can optimize their liquidity positions, striking a delicate balance between short-term liquidity needs and

long-term profitability (Chen, Wang & Liu, 2020). MFBs that align their asset and liability maturities effectively, thereby minimizing liquidity risk, are better positioned to weather fluctuations in market conditions. Consequently, they can maintain stable financial performance, ensuring sustained operations and fulfilling their mission of financial inclusion (Gupta & Sharma, 2021).

According to Lee and Kim (2022), liquidity Preference Theory underscores the importance of interest rate risk management within ALM practices, further influencing the bottom line of MFBs. These institutions, by comprehensively assessing and managing interest rate risk, can mitigate the adverse effects of fluctuations in interest rates on their profitability. Through prudent management of asset and liability durations, Microfinance Banks can minimize the impact of changing interest rates on their net interest income, enhancing their overall financial performance and resilience (Ahmed, Rahman & Khan, 2022).

Liquidity Preference Theory sheds light on the significance of liquidity management strategies in shaping the bottom line of Microfinance Banks. MFBs that adopt proactive liquidity management practices, guided by the principles of this theory, can optimize their liquidity buffers while simultaneously maximizing returns on their assets (Nguyen & Tran, 2023). By ensuring adequate liquidity to meet short-term obligations without sacrificing long-term profitability, these institutions can bolster their financial performance and stability (Garcia & Lopez, 2023).

Liquidity Preference Theory emphasizes the role of market sentiments and investor preferences in influencing liquidity dynamics, thereby affecting the financial performance of Microfinance Banks (Gupta & Sharma, 2021). MFBs that remain attuned to market conditions and investor behavior can adapt their ALM strategies accordingly, enhancing their ability to maintain optimal liquidity positions. By aligning their asset and liability structures with prevailing market sentiments, Microfinance Banks



can optimize their financial performance and capitalize on emerging opportunities (Kumar & Reddy, 2024).

The application of Liquidity Preference Theory offers valuable insights into the effect of asset liability management on the bottom line of MFBs. By adhering to the principles of this theory, MFBs can optimize their liquidity positions, manage interest rate risk effectively, and align their strategies with market dynamics, ultimately enhancing their overall financial performance and resilience. Thus, the use of Liquidity Preference Theory provides a sound academic foundation for understanding and improving the financial performance of Microfinance Banks through robust asset liability management practices.

### **Empirical Literature Review**

#### **Asset Liability Management and Financial Performance**

The goal of Amira (2023) research was to find out how asset-liability management affected the bottom lines of Kenya's commercial banks. The study set out to accomplish two main goals: first, to examine the relationship between asset-liability management and financial performance of Kenyan commercial banks; and second, to identify the factors that influence this relationship, specifically the impact of capital adequacy, credit risk management, liquidity risk management, asset quality, and bank size. The study was mostly based on asset-liability management theory. The study was grounded on the positivism paradigm of philosophy. In this explanatory analysis, researchers used panel data from 32 different Kenyan commercial banks covering the years 2010–2019. Research indicated that ROE and ROA were significantly inversely related to asset quality. From the data that was studied, it can be concluded that the only two areas with significant performance consequences for the Kenyan banking industry are credit management and asset quality management. According to the R-squared results, the two parts of asset liquidity management account for 17.2% of

the variation in return on equity (ROE) for Kenyan commercial banks. Additional inquiry is necessary about the inverse correlation between the components and the performance of the bank. One of the report's main recommendations is to strike a balance between risk-taking and responsible lending in one's portfolio. Another is to optimize one's investments and lending practices. Lastly, the study suggests investing in a strong credit risk assessment procedure. Last but not least, bigger banks need to work on improving their credit risk methods so they can handle their increased size effectively. Banks of varying sizes may feel the effects of these issues in different ways, calling for specialized approaches. For long-term success and steady expansion, it is crucial to regularly assess and modify these plans in light of changing market conditions.

Mweu (2022) 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.

Research by 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

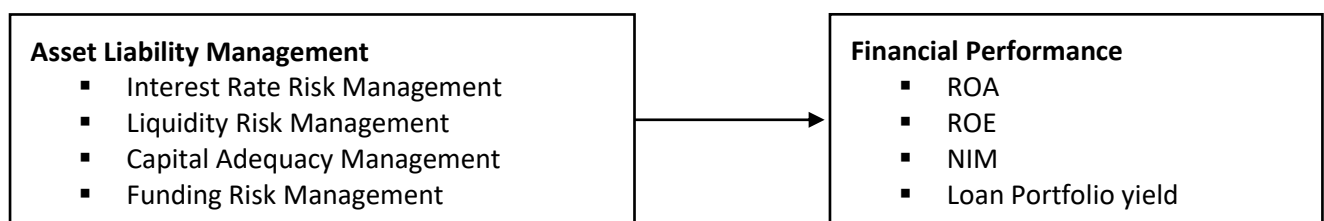
that were operational from 2009 to 2020 in order to achieve the study objectives. The study's hypotheses were tested using the panel data regression model. Poor asset and liability management is the root cause of the life insurance industry's poor financial performance, this study found. In order to 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.

Using internal financial characteristics peculiar to Indonesian banks from 2011 to 2016, Anggono (2020) looked at the parameters that determine the asset and liability management (ALM) model and how it affects overall bank performance. The three most elastic components of the ALM model are the tier one core capital (TIR1TA) ratio, the non-performing loan ratio (NPLR), and the less risky liquid assets ratio (LRLATA). Loan-to-deposit and liquidity coverage ratios are also affected by the LRLATA ratio. The NPLR ratio has a substantial

impact on LDR, while the TIR1TA ratio has a substantial impact on CAR. Since NIMTEA has the maximum elasticity, it positively correlates with bank performance as measured by ROE in the second model.

Olowokudejo and Akindipe (2022) explored how asset-liability management best practices influenced the performance of insurance companies in Nigeria from 2011 to 2021, using the distinctive aspects of the Nigerian economy as their focus. They gathered data on total business assets, shareholder equity, and post-tax profits from the annual reports and digests of the Nigerian Insurers Association (NIA) for the given period. The study found that the data remained stable across the 1%, 5%, and 10% significance levels, as confirmed by the stationarity test. The linear coefficient of determination revealed that 82.5737% of the after-tax earnings contributed to the shareholders' fund and total assets of the selected companies. Ultimately, the study established a correlation between effective asset-liability management and the profitability of Nigerian insurance companies, highlighting the importance of these practices in maintaining financial stability and growth.

### Conceptual Framework



### Dependent Variable

**Figure 1: Conceptual Framework**

### Independent Variables

### METHODOLOGY

The study adopted descriptive correlational research design. 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. Stratified sampling was the most suitable technique for this study as it allowed for the selection of a representative sample from each category of personnel within the Microfinance

Banks, ensuring that the perspectives and insights of all key roles are included in the analysis.

As part of the research, participants were given questionnaires to fill out on their own. Secondary Data was collected using financial performance-related data gathered using the secondary data collection sheet. Financial statements such as income statements, cash flow statements, balance sheets, and policy statements provided the necessary data. From 2019 through 2023, the different reports covered the accounting years.

A set of standard metrics was implemented as controls in order to ensure that the process of inputting data is accurate and consistent. The data was coded using a unique identification system before the data entering process begins. Any inconsistencies were subsequently verified. During the data analysis, version 29 of SPSS was utilized. Normality, linearity, multicollinearity and autocorrelation are some of the diagnostic tests that were investigated in the beginning stages of this study. In addition, an explanation, frequency tables, and descriptive analysis was utilized in order to put the data into perspective.

## **RESULTS AND DISCUSSIONS**

### **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.

### **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 was 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.

### **Asset Liability Management**

The descriptive statistics presented in Table 1 provided 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 1: 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

### Financial Performance

The descriptive statistics in Table 2 provided 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 2: 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

## 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.

Capital and shareholders' funds declined consistently over the period, from KSh 11,633 million in 2016 to KSh 8,752 million in 2023, representing an annual change of -5.23%. The decline reflects the impact of sustained losses, reduced retained earnings, and limited capital injections by shareholders. Erosion of capital weakens the ability of MFBs to absorb shocks and expand lending activities, which further undermines financial sustainability and growth prospects.

Profitability, as measured by profits before tax, ROA, and ROE, shows a deteriorating trend throughout the period. Profits before tax fluctuated

from positive KSh 592 million in 2016 to consistent losses, including a significant loss of KSh (2,240) million in 2021. The annual change of 35.77% in 2023 represents some improvement, but the overall trend indicates sustained profitability challenges. ROA fell from 1.0% in 2016 to -1.39% in 2023, reflecting inefficient asset utilization, while ROE dropped from 5.0% in 2016 to -11.20% in 2023, indicating poor returns to shareholders. These negative profitability trends are likely driven by high NPLs, reduced lending activities, and declining deposit volumes.

The analysis reveals a challenging financial landscape for MFBs in Nairobi County over the 2016-2023 period. Declines in total assets, loans, and deposits, coupled with rising NPLs and declining profitability, point to systemic issues in credit risk management, deposit mobilization, and overall financial sustainability. The erosion of capital and shareholders' funds further constrains the ability of MFBs to absorb shocks and grow their operations. While borrowings showed slight recovery in 2023, profitability metrics such as ROA and ROE remained negative, reflecting inefficiencies and limited returns. To address these challenges, MFBs must adopt strategies to improve loan recovery, strengthen risk management frameworks, enhance deposit mobilization, and seek capital

injection to restore profitability and long-term growth.

### Correlation Analysis

The correlation analysis in Table 3 explored the relationships between key variables—Asset Liability Management and Financial Performance within microfinance banks (MFBs) in Nairobi County. The findings, based on Pearson correlation coefficients, revealed significant positive correlations between variables. These results indicated strong interdependencies between Asset Liability with Financial Performance.

The Pearson correlation between Asset Liability Management and Financial Performance was 0.785, indicating a strong and positive relationship. This suggests that effective management of assets and liabilities contributes significantly to improving financial outcomes for MFBs. The strong correlation reflects the critical role of Asset Liability Management practices such as balancing liquidity, optimizing interest rate risk, and maintaining capital adequacy in ensuring financial stability and profitability. The significance value of 0.000 highlights the robustness of this relationship, emphasizing the need for MFBs to strengthen Asset Liability Management frameworks to achieve sustainable performance.

**Table3: Correlation Analysis**

		<b>Asset Liability Management</b>	<b>Financial Performance</b>
<b>Asset Liability Management</b>	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	168	
<b>Financial Performance</b>	Pearson Correlation	.785**	1
	Sig. (2-tailed)	.000	
	N	168	168

### Anova Test for Asset Liability Management

Table 4 presented the ANOVA results, indicating that the regression model is statistically significant. The F-statistic is 255.929 with a p-value less than 0.001, confirming that Asset Liability Management

has a significant effect on Financial Performance. This means the model reliably explains a substantial portion of the variation in financial performance among microfinance banks.



**Table 4: ANOVA (Asset Liability Management)**

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

a. Dependent Variable: Financial Performance

b. Predictors: (Constant), Asset Liability Management

### Regression Coefficients Test for Asset Liability Management

Table 5 displayed the regression coefficients, showing that Asset Liability Management has a significant positive effect on Financial Performance. The unstandardized coefficient (B = 0.749) indicates that a one-unit increase in asset liability management leads to a 0.749 unit increase in

financial performance. The relationship is statistically significant, with a t-value of 15.998 and a p-value less than 0.001. The standardized coefficient (Beta = 0.779) further confirms a strong positive influence. The constant (B = 0.689) represents the expected level of financial performance when asset liability management is held at zero.

**Table 5: Regression Coefficients (Asset Liability Management)**

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

a. Dependent Variable: Financial Performance

### Hypotheses Testing

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

The results indicated that asset liability management has a significant positive effect on financial performance. The null hypothesis that asset liability management has no significant effect on financial performance was rejected. This suggested 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.

### CONCLUSIONS AND RECOMMENDATIONS

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.

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.

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

Regulatory bodies should establish robust frameworks to enforce best practices in asset liability management and liquidity risk management. These frameworks should be periodically reviewed to incorporate emerging risks.

#### **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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